GURT '88

Synchronic and Diachronic Approaches to Linguistic Variation and Change

Thomas J. Walsh
Editor

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ON LANGUAGES AND LINGUISTICS 1988

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and Diachronic Approaches
to Linguistic Variation and Change

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WELCOMING REMARKS

James E. Alatis

*Dean, School of Languages and Linguistics
Georgetown University*

Good evening, ladies and gentlemen. It gives me great pleasure indeed to welcome you on behalf of Georgetown University and its School of Languages and Linguistics to the *Georgetown University Round Table on Languages and Linguistics (GURT) 1988*.

First of all, I would like to thank this year's conference chairman, Dr. Thomas J. Walsh, who among other things, has identified some of the best scholars in linguistics and related disciplines for this thirty-ninth annual Round Table, thus ensuring a most exciting and productive conference.

I would also like to thank Dr. Walsh's assistant, Kimberly Murphy Armstrong, whose superb organization of all the conference details has made this program a delight.

One of the prerogatives reserved to the Dean of the School of Languages and Linguistics is the honor of thanking our speakers for having responded so magnificently to the call for papers and for having agreed to come, many from very long distances, to share the results of their research with us. You do us at Georgetown University a great honor and you do a great service to our colleagues who are attending the Round Table.

The theme of this year's Round Table, as you all know, is 'Synchronic and diachronic approaches to linguistic variation and change.' This gives us the opportunity to consider, in some depth, two of the most important subdisciplines of our field, namely historical linguistics and sociolinguistics. These developments, in my opinion, hold great promise for a better understanding of language learning, and as a result, for the improvement of language teaching.

I am also pleased that the special interest sessions were superbly organized, leading to some of the most informative and stimulating discussions concerning the various aspects of language study. Among the outstanding features of this year's special interest sessions were the sections devoted to 'Dutch contributions to linguistics.' The excellent papers presented by our distinguished Dutch colleagues are major contributions to the development of our most exciting field. I am sure that programs such as this will fill the gap of knowledge that has existed between our two countries for some years. I would like to take this opportunity to thank the organizer of this program, Dr. Theo J. M. van Els, of the University of Nijmegen, and I hope that this dialogue will continue in the future.

Another feature of this year's special interest sessions which deserves our attention was the ninth annual symposium for teachers and scholars on 'Languages in the schools.' The symposium, which was arranged by Friends of International Education, was designed to address some very important questions concerning 'foreign language instruction in elementary schools,' as well as 'the pedagogy of Chinese in the high school.' I would like to thank Dr. Dorothy Goodman for her masterful organization of this symposium.

Most of you will already have noted, I am sure, the pleasant coincidence that the *Georgetown University Round Table on Languages and Linguistics 1988* occurs this year during National Foreign Language Week. In this connection, it is appropriate to mention that yesterday I attended a luncheon and chaired a session on 'Foreign languages, international education, and economic competitiveness.' The luncheon, which was held on Capitol Hill, was sponsored by the House-Senate International Education Study Group and the Joint National Committee for Languages. The program focused on the critical need to improve our nation's cross-cultural communication skills.

For your encouragement, let me add one more item in this connection. President Reagan has issued a proclamation for National Foreign Language Week wherein he emphasizes that 'as individuals and as a nation, we literally can no longer afford to lag behind the rest of the world in foreign language instruction. Such study,' the president continues, 'has deep intellectual, cultural, and commercial rewards.'

I know that you look forward, as I do, to hearing the distinguished speakers who will address the conference on the many vital aspects of this year's theme. However, I would like to emphasize that the *Georgetown University Round Table on Languages and Linguistics* is an expression of this university's efforts to heighten the public's awareness of language teaching and linguistics and their importance in this multicultural, globally interdependent world. Thus I am very pleased to welcome you once more to a conference that will indeed contribute to the humanistic goals which we all cherish and the sense of dedication which we all feel. Thank you, ladies and gentlemen.

INTRODUCTION

Thomas J. Walsh, Chairman

Georgetown University Round Table 1988

The papers in this volume, selected from among those presented at *GURT '88*, comprise a representative cross-section of some of the most exciting and innovative research on language variation and change being conducted today. Many of them treat both phenomena, something which should not surprise us inasmuch as linguistic change may be analyzed as temporal variation, while what we routinely identify as variation flows from earlier change.

Though all the papers fall within the general theme of this year's conference, the reader will be struck by the multiplicity and wealth of data described and theoretical approaches championed. Certain papers focus chiefly on phonetics and phonology; others on morphology, syntax, or semantics; while yet others examine variation and change in the lexicon. Some authors have preferred to tackle specific problems in single languages, while others challenge the validity of the very models with which historical linguists and variationists have always operated. One paper ponders the impact of technology--especially word-processing--on written language. Several contributors explore the repercussions of contact among languages and dialects, some cognate and others of diverse stocks. Some writers adduce data from languages that have scarcely been studied in the hope of casting new light on such perennial methodological problems as genetic vs. typological classification and interpretation of linguistic residue, while others test out new analytical procedures on data that have taxed linguists' ingenuity for decades or even centuries. Others focus heightened attention on functional, contextual, and pragmatic factors that may condition linguistic evolution.

In this book, the reader may expect to chance upon at least one paper embodying the distillation of over half a century of scholarly reflection and activity, alongside others by up-and-coming linguists just on the verge of concluding their graduate training. Contributors represent universities in all regions of the contiguous United States as well as Belgium, England, Finland, Germany, Japan, and the Netherlands. What distinguishes the research of all these scholars is original thought and an eagerness to try out fresh approaches to new and old problems.

The most personally satisfying of my duties as Chairman of *GURT 1988* is that of publicly expressing gratitude to Georgetown colleagues and friends who assisted in the planning and execution of the conference. I am especially

indebted to Dean James E. Alatis, whose guidance and unswerving support at all stages were truly invaluable. I am most grateful to Professors Ralph Fasold, David Harris, Nadine O'Connor, Deborah Schiffrin, Shaligram Shukla, and Roger Shuy, who generously offered to aid me in the selection of papers, and to Professors Simon Battestini and Peter Lowenberg, Chairmen of *GURT*s 1986 and 1987, respectively, who cheerfully volunteered advice--invariably correct, as it turns out--regarding all aspects of organizing a major conference. Assistant Dean Richard Cronin did a splendid job of preparing the receptions, which were thoroughly enjoyed--as I had occasion to observe--by all participants. A very special word of gratitude is due my assistant, Kimberly Murphy Armstrong, without whose astounding flair for organization *GURT* 1988 would never have proceeded so smoothly. Finally, I wish to tender my heartfelt thanks to Rev. Richard J. O'Brien, S.J., and Eleanor Waters, who transformed a tall stack of typescripts into the volume you have before you.

THE LEXICAL, DERIVATIONAL, AND INFLECTIONAL CONTINUUM IN VERB MORPHOLOGY

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Following a synchronic study of verb forms in many languages, Bybee (1985:81-110) proposes a continuum of the lexicon, derivation, and inflection as the explanation of such forms. The same continuum could admirably explain the historical development of Romance verbs. The use of the same model to explain synchronic and diachronic formation shows that synchrony recapitulates diachrony, or at least that synchrony strongly reflects diachronic developments.

Bybee (1985:11-12) gives a more complete version of this continuum starting with the greatest degree of morphological fusion: lexical--derivational--inflectional--free grammatical--syntactic. That is, the continuum goes from the most synthetic to the most analytic structures. Adapting Bybee's examples to the Romance languages to be discussed, we can illustrate lexical formation by Spanish *matar* 'to kill' from *morir* 'to die' and CAUSE. An example of derivation is *matador* 'killer' from *matar* 'to kill'. An illustration of inflection is *cantaré* 'I will sing' from *cantar* 'to sing'. A free grammatical morpheme is a clitic, particle, or auxiliary like *he* 'I have' in *he de cantar* 'I have to sing'. Finally, a syntactic construction is illustrated by the inchoative *empieza a llover* 'it is beginning to rain' from *llover* 'to rain'. These examples are summarized in the following table:

Lexical: *matar* 'to kill' from *morir* + CAUSE
 Derivational: *matador* 'killer' from *matar* 'to kill' + CAUSE
 Inflectional: *cantaré* 'I will sing' from *cantar* 'to sing' +
 FUTURE + FIRST PERSON SINGULAR
 Free grammatical: *he de cantar* 'I have to sing' from *cantar*
 + OBLIGATION
 Syntactic: *empieza a llover* 'it's beginning to rain' from
llover + INCHOATIVE

As mentioned earlier, the continuum in the preceding table can explain the history of Romance verb morphology. For instance, lexical formation describes suppletion in a conjugation drawing various forms from different verbs. Thus, the French verb *aller* 'to go' has forms from three different Latin verbs, *vadere*, *ire*, and *ambulare* (Dauzat 1968:23):

je vais 'I go' < *vado* 'I go'
j'irai 'I will go' < *ire* 'to go'
aller 'to go' < *ambulare* 'to go'

Speakers of French must learn separately the stems for the present, the future, and the infinitive. The stems fuse tense and mood with the meaning 'go':

v- present tense + indicative mood + GO
ir- future tense + indicative mood + GO
all- present tense + infinitive mood + GO

To be more precise, the *v-* stem occurs in the singular and third person plural of the present indicative. The *ir-* stem is found in the future and the conditional. Finally, the *all-* stem helps form the present indicative first and second plural, the infinitive, the present participle, and the imperfect. Such allomorph configurations occur in French verbs. In the future and conditional, the stem ends in *r*. In the present of many irregular verbs, one stem is stressed, and the other is unstressed. Thus, forms with *v-* are stressed, while the stem in *all-* is never stressed.

Sometimes, there must be a combination of both stem and ending to disambiguate both, as in the following forms:

Future: *j'irai* 'I will go'
 Conditional: *j'irais* 'I would go'
 Simple past: *j'allai* 'I went'
 Imperfect: *j'allais* 'I used to go'

Clearly, neither the forms *ir-* and *all-* nor the inflections *-ai* and *-ais* unambiguously give the tense of the verb, so that tense must be inferred from the combination of both stem and ending.

In Latin, the language of origin for Romance languages, there are also a few high-frequency verbs whose principal parts indicate a source in different words. For example, there are different stems in the verb 'to carry':

Present: *fero* 'I carry', *ferre* 'to carry'
 Perfect: *tuli* 'I have carried', 'I carried'

Clearly, *fer-* and *tul-*, are not derived from a single stem by rules.

Other Latin verbs show principal parts that are derivational in form, but inflectional in meaning. That is, the changes in form are from minor rules so that they are more easily learned by rote, but the meaning is predictable. The perfect active form of *canere* 'to sing' is a derived stem:

Present: *cano* 'I sing', *canere* 'to sing'
 Perfect: *cecini* 'I have sung', 'I sang'
 Perfect passive participle: *cantus* 'sung'

The derived stem *cecini-* has undergone both reduplication and vowel raising which differentiate the perfect from the present stem *can-*. These rules occur

elsewhere in a few Latin words. The perfect *dedi* 'I have given, I gave' is a reduplicated form of *dare* 'to give', and the root of *conficio* 'I complete' shows the raising of *a* to *i* from the simple verb *facio* 'I make'. But the two rules are not used together to form a large group of perfects, so a perfect like *cecini* must be memorized just like a derived word.

Finally, the principal parts of many verbs are so predictable in formation that they can be produced completely by rule once a model or template is known. Thus, starting with the stem of the verb *ama-* 'love', it is easy to produce the following principal parts:

Present: *amo* 'I love', *amare* 'to love'

Perfect: *amavi* 'I loved'

Perfect passive participle: *amatus* 'loved'

The stem-final vowel in *ama-* is deleted before the present indicative ending *-o* but remains before the infinitive ending *-re*, the perfect *-vi*, and the perfect passive participle *-tus*.

We have seen from the discussion of the Latin verb that, while the verb conjugation is traditionally thought of in terms of inflection, some forms resemble derivation in their unpredictability. For instance, while forms like *tuli* 'I have carried' and *cecini* 'I have sung' are predictable in meaning, their forms are so different from *fero* 'I carry' and *cano* 'I sing' that they must be learned by rote and not produced by rules.

An additional feature of inflection in the conjugation is that meaning cannot always be predicted from the form. Thus, the perfect of *nosco* 'I learn' is *novi* 'I know'. This difference between the present and the inceptive perfect is found in semantically similar verbs in French:

Present: *je sais* 'I know' *je connais* 'I am acquainted with'

Past: *j'ai su* 'I learned' *j'ai connu* 'I met'

Furthermore, some verb conjugations are defective, or lacking in many forms. The Latin grammar of Gildersleeve (1974: 121-22) shows that the quotative verbs *aio* 'I affirm', *inquam* 'I say', and *fari* 'to speak' lack many forms, and that *memini* 'I remember' and *odi* 'I hate' occur only in the perfect system with the perfect having the present meaning. French, too, has defective verbs like *il faut* 'one must' and *choir* 'to fall'. Clearly, the speaker must remember which forms to avoid, just as speakers must know which possible but nonexisting derivations cannot be used. Like derivations, defective inflections are not uniform and complete in their paradigms.

Of course, Bybee and I are not the only linguists to notice the continuum between inflection and derivation. A much more daring presentation of this idea is found in Beard (1982). Beard takes the most typical and simple example of inflection, the English plural, and shows how in some words such inflection meets the criteria of derivation. In words that he lists, 'pluralization exhibits all of the types of irregularity and semiregularity associated with lexical derivation' (Beard 1982:135). He notes formal irregularity in plurals like *deer*, *ox-en*, *women*, *live-s*, *alumn-i*, and *dat-a*. In addition, he cites semantic irregularities in such other examples as *skie-s*, *oat-s*, *rain-s*, and

scissor-s. The plural may carry no meaning in *skies* and *oats*, while it indicates a great amount in *rains* and plurality of constituent parts in *scissors*. Thus, even though the English plural is often used in linguistic classes as the example par excellence of inflection, Beard has shown that some plurals fit the criteria for lexical derivation.

A further argument for the continuum between derivation and inflection is that a suffix may change from one to the other over a long historical period. Thus, the Latin inchoative suffix *isc/esc* starts out as a derivational affix meaning 'begin to' or 'become' but later turns into a meaningless inflectional suffix in Romance languages. Bybee (1985:147) gives the following examples of Latin inchoative verbs in contrast with noninchoatives:

<i>obdormisco</i> 'I fall asleep'	<i>dormio</i> 'I sleep'
<i>amasco</i> 'I begin to love'	<i>amo</i> 'I love'

Other pairs of verbs from the *Oxford Latin Dictionary* confirm the existence of a semantically inchoative suffix:

<i>sileo</i> 'I am silent'	<i>silesco</i> 'I become silent'
<i>scio</i> 'I know'	<i>scisco</i> 'I get to know, I ascertain'

However, even in Classical Latin, some verbs have a semantically empty suffix, as shown in the following examples:

<i>obdormisco</i> 'I fall asleep'	<i>obdormio</i> 'I fall asleep'
<i>irascor</i> 'I am angry, I become angry'	

The above translations show that *obdormi(sc)o* is inchoative regardless of the suffix and that *irascor* may have either inchoative or noninchoative meaning. In modern Romance languages, the so-called inchoative suffix has lost its inceptive meaning except for verbs that retain it from the distant past. Thus, the suffix *-iss-* in French *nous finissons* 'we finish' and the *-ec-* in Spanish *acontecer* 'to happen' do not have inchoative meaning but simply identify a particular conjugation or inflection class. Yet there still remain groups of verbs like French *verdir* 'to become green' and Spanish *reverdecer* 'to grow green again' to show that vestiges of the semantically inchoative suffix survive. However, the historical change is from a derivational inchoative suffix to an inflectional marker. This change seems to have occurred over a continuum, and the exceptions to the rule mentioned in the previous sentence confirm the absence of a sharp boundary between derivation and inflection. That is, there are examples in Latin where the suffix does not carry derivational meaning, while some survivals in modern Romance languages show such meaning in inchoative verbs. Consequently, the continuum between derivation and inflection seems to exist synchronically within Latin and within Romance languages as well as diachronically.

Free grammatical elements like clitics and auxiliaries have also played a role in the history of Romance verbs. In French, for example, the different persons of the verb must be distinguished by a preposed clitic pronoun, because the verb forms themselves are often homonymous:

French: <i>je chante</i> [šât] 'I sing'	Latin: <i>canto</i>
<i>tu chantes</i> [šât] 'you sing'	<i>cantas</i>
<i>il/elle chante</i> [šât] 'he/she sings'	<i>cantat</i>

The Latin forms are distinctive enough so that such subject pronouns are not needed. When Latin uses subject pronouns like *ego* 'I', *tu* 'you' or the demonstrative *ille* 'he' or *illa* 'she', the meaning is an emphatic pronoun as in *it is I who am singing*. The Spanish construction is similar to Latin, for Spanish also has distinctive endings as in *canto*, *cantas*, *canta*.

Another example of a free grammatical element is the auxiliary which replaced the verbal ending in the formation of the perfect in French. This is evident in the contrasting conjugations of the perfect of Latin *portare* and the *passé composé* of French *porter* 'to carry':

Latin: <i>portavi</i>	French: <i>j'ai porté</i>
<i>portavisti</i>	<i>tu as porté</i>
<i>portavit</i>	<i>il/elle a porté</i>
<i>portavimus</i>	<i>nous avons porté</i>
<i>portavistis</i>	<i>vous avez porté</i>
<i>portaverunt</i>	<i>ils/elles ont porté</i>

The Latin is formed by the verb root, the perfect stem suffix, and a person/number ending peculiar to the perfect. The French consists of a pronoun indicating person/number, an auxiliary in the present tense repeating the person/number, and the verb root with the ending of the perfect participle. The following formulas represent the Latin inflected form and the French perfect with free grammatical elements:

Latin: [[[V] perfect suffix] person/number]
French: person/number pronoun + auxiliary + [[V] [perfect suffix]]

As shown above, both the Latin perfect and the French *passé composé* convey the same information about the verb root, the tense, the person, and the number of the form. The difference is that Latin expresses this information through inflections, whereas French uses primarily free grammatical morphemes. So the historical change has been a movement along the continuum in an analytic direction away from the greater degree of fusion in Latin.

Sometimes we can trace the development from one point on the continuum to another. Using ideas from Benveniste (1968), I can give what that author would consider a gross oversimplification of the changes from Latin through Vulgar Latin to French:

Latin: <i>cantavi</i> 'I sang'	<i>cantabo</i> 'I will sing'
Vulgar Latin: <i>habeo cantatum</i>	<i>cantare habeo</i>
French: <i>j'ai chanté</i>	<i>je chanterai</i>

As already seen, the perfect comes to be expressed by free grammatical morphemes. In the future, however, free grammatical morphemes in Latin have become 'welded into a unit' (Benveniste 1968:86), so that the future tense is expressed by inflection. Bybee's continuum thus helps us see more clearly the development from inflection in Latin *cantabo*, through free grammatical morphemes in Vulgar Latin *cantare habeo*, to inflection again in French *je chanterai*. An additional innovation with free grammatical morphemes occurs in the future *je vais chanter* 'I am going to sing, I will sing'.

Judging from the arguments of Benveniste, we must add many conditions to the changes that take place across the continuum. For example, there are semantic conditions on the first Latin verbs to make the periphrastic perfect. Such verbs refer to the senses or the intellect and have meanings like 'understand, discover, notice, see' (Benveniste 1968:87). In contrast, there are syntactic conditions on the shift to the Vulgar Latin periphrastic future, which originally began with *habere* in the imperfect tense with the passive infinitive in subordinate, especially relative, clauses (Benveniste 1968:89-90). The continuum provides a helpful framework to study how such changes started.

An important advantage of Bybee's continuum is that it can relate language change to language learning. As Bybee (1985:111-12) points out, speakers handle language by rote, as in the lexicon, or by combination, as with syntax. That is, speakers memorize many different words, but they calculate in syntax by adding, deleting, and changing the position of morphemes. Sometimes both processes are combined, as when a speaker memorizes the suppletive stems of a verb but combines morphemes to compute regular parts of the inflectional paradigm. Starting with the greatest degree of fusion, the continuum is listed next to the primary method of learning and language use:

Lexicon	rote
Derivation	rote, combination
Inflection	combination, rote
Pure grammatical morphemes	combination
Syntax	combination

The foregoing table is a simplification, since there are some lexical groups, such as numbers, that are formed by combination. Moreover, syntactic constructions which are idioms must be learned by rote. Yet the table proves to be a useful guide to relate language change to language learning.

To illustrate a shift from rote to combination, we observe that children learning Romance languages overregularize verbs by putting third conjugation verbs in the first conjugation in French (Clark 1986:702-3). They thus form verbs like the starred infinitives here:

**buver* from the stem *buv-* for *boire* 'to drink'

**batter* from the stem *batt-* for *battre* 'to hit'

**éteigner* from the stem *éteign-* for *éteindre* 'to turn off'

Young Spanish speakers similarly change second conjugation verbs into first conjugation forms (Clark 1986:704):

**traigar* from the stem *traig-* for *traer* 'to bring'

**pongar* from the stem *pong-* for *poner* 'to put'

Finally, Italian children move past participles into the regular first conjugation (Clark 1986:704):

**diciato* from the stem *dic-* for *detto* 'said'

**cuciato* from the stem *cuc-* for *cucito* 'sewn'

**leggiato* from the stem *legg-* for *letto* 'read'

At this stage of language learning, instead of memorizing irregular forms by rote, children have combined stems with first conjugation endings in a procedure that resembles the syncretism of conjugations and the expansion of the first conjugation in the history of Romance languages. The change has been away from greater fusion and derivation toward inflection by combining morphemes. Since this change occurs along the continuum, Bybee's theory not only describes historical change but also explains its relationship to language learning and language use.

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FROM PRINT SHOP TO DESKTOP: EVOLUTION OF THE WRITTEN WORD

Naomi S. Baron
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1. Technology and language change. Computers have outgrown their humble beginnings calculating artillery trajectories, and have made their way into everyday life. Their most widespread function is now in manipulating words: computer mediated communication (such as electronic mail and computer conferencing), word processing, and now desktop publishing.

In all of these uses, we communicate with the machine in ordinary language. Does the computer merely serve as unobtrusive court stenographer? Or does it in turn affect the way we speak and write?

1.1 The effect of technology on language: An historical sampler. Since the beginnings of recorded history, technology has influenced language. Consider the effects of writing materials on script. Cuneiforms evolved from pictograms to arbitrary wedge shapes because of the difficulty of etching overlapping curves in mud (Barber 1973:156). The evolution of Latin monumental writing to Roman script reflects the shift from chisel and stone to ink and parchment (Diringer 1968:422).

Extensive lexical changes are attributable to the writing surfaces used in medieval manuscripts. Before the introduction of paper in Western Europe, writing was done on animal skin (parchment or vellum). The expense of preparing the skins was enormous. To maximize the amount of information on a page, copyists frequently used abbreviations and contractions, such as *wch* for *which*, or *yt* for *that* (Febver and Martin 1976:87). These lexical shortcuts multiplied in the thirteenth century, as the newly founded universities created a market for inexpensive and rapidly produced copies of books (Ullman 1960:11).

Technology also motivated a major change in script during the Italian Renaissance. Late fourteenth-century Italians typically wrote in a variant of the Gothic hand. While visually pleasant, the script was hard on the eyes. Sixty-two-year-old Petrarch, writing in 1366, complained about the 'minuteness, compression, and excessive abbreviations in contemporary manuscripts.' Eyeglasses had been invented by Petrarch's time, but were neither widely used nor particularly effective. It was 'easier to change handwriting than to change glasses' (Ullman 1960:15): the new, more legible 'humanistic' script derives from these complaints.

Over the last century, the technology of telephones has changed our spoken language. Studies comparing face-to-face speech with language used over the phone (e.g., Ball 1968; Reid 1977) have noted that telephone conversations tend to : (1) be briefer, (2) be more single-minded in topic, (3) be more likely to inform or instruct (rather than deal with social pleasantries or general discussion), (4) sway opinion on the basis of argumentation rather than personal style.

Departure from conventional telephone dialogue yields additional linguistic consequences. Conference calls require new turn-taking etiquettes since both visual and auditory cues are absent. The proliferation of telephone answering machines, which demand monologue when dialogue is anticipated, has engendered a new linguistic style which many older speakers find difficult to adopt.

Finally, mechanical devices for producing written language are profoundly affecting the linguistic message. Elsewhere (Baron 1984) I have reported on the syntactic and conversational ramifications of electronic mail and computer conferencing for modern English. Here, I focus on three other technological domains: printing, word processing, and desktop publishing.

1.2 From print shop to desktop: A linguistic approach. The impact of computers is often likened to that of the printing press. Extending the comparison, pundits often juxtapose print literacy with computer literacy. In this paper, I pursue the linguistic comparison of traditional print with computer generated text. Specifically, I explore whether an understanding of the linguistic effects of the printing press on language can help us map the linguistic impact of on-line text composition.

Since our object of study is language change, we begin by looking at diachrony.

2. The linguistic context. In 1953, Walt Disney delighted America with a movie called 'The Living Desert.' Using time lapse photography, Disney actually showed us how flowers grow.

For nearly a century, linguists have debated whether language change can be observed. On one side, Saussure, likening language change to a chess game (Saussure 1959:88-89), suggests that only the result (not the process) is open to scrutiny. On the other side, linguists as diverse as Greenberg and Labov argue that contemporary language offers a prophetic window on language change. Greenberg (1969) compares language to a 'lumbering elephant' whose tracks one can follow, while Labov (1972) argues that current variation portends future change.

We study the past to understand the present and predict the future. As a new technology, computers are just beginning to alter the shape of natural language. Our examination of this moving linguistic target begins by considering changes in language structure and function engendered by the early printing press. This historical anchor provides a framework for considering the effects of computer technology upon contemporary language.

The structural changes we will consider, both then and now, concern (1) orthography, (2) vocabulary, (3) grammar, (4) discourse. The functional changes include: (1) the content of written documents, (2) the relationship

between text and illustration, (3) the boundaries between spoken and written language. Throughout our discussion, we must be mindful of the distinction between *potential* and *actual* change. In his work on universals, Greenberg (e.g. 1966) notes that while certain historical changes are more likely than others, no changes are guaranteed to occur. Just so, we must not presume that technological potential is necessarily actualized.

3. The printing press and language change.

3.1 Myths about printing. The first printed book in the West was probably the so-called 'Gutenberg Bible,' appearing in Mainz around 1455. Over the centuries, some preconceptions have evolved about early printing. We begin by confirming a few myths and dispelling others.

3.1.1 Efficiency. Take first the issue of efficiency. Common sense suggests that the printing press enabled us to speed up the copying process. By the fifteenth century, university towns had developed piecework systems for producing multiple copies of the same text. A master copy of the work was divided into sections (or *pecia*). Scholars would check out one section at a time so that several people could be copying a manuscript simultaneously. In Paris, where printing was first introduced under the auspices of the university,

the printing press simply represented a handy means of multiplying indispensable texts even more rapidly and accurately than was possible under the *pecia* system. (Febvre and Martin 1976:21)

In the same vein, William Caxton, England's first printer, learned the trade to make good on business obligations. As a merchant in the Netherlands, Caxton had promised more manuscript copies of *The Recuyell of the Histories of Troy* than he could find scribes to produce. A venture into the 'black art' was his only means of redemption.

3.1.2 Accuracy. Consider now the question of accuracy. We naturally assume that printed texts are editorially superior to manuscripts: fewer misspelled words, omitted paragraphs, repeated lines. In the late fourteenth century, Petrarch bemoaned the 'ignorance and vile sloth of these copyists who spoil everything and turn it to nonsense' (Uhlendorf 1932:186) and a century later, in 1499, Koelhoff (himself a printer) described printing as a 'laudable skill raised up by God in his ineffable wisdom to combat error and open the way of salvation to all men' (Wisbey 1971:9).

Yet many of the early printed books were less accurate. The reasons are hardly surprising. While monastic scribes and, to a lesser extent, secular stationers worked under tight control, the early entrepreneurial printers did not. Moreover, while copyists were generally literate in the languages in which they were writing, early printers in England rarely knew English, a fact reflected in their frequent errors.

3.1.3 Consistency. A third issue concerns internal linguistic consistency. We might expect that printing soon fostered regularization of spelling and language standardization. The truth is more interesting.

Spelling reform had gotten a boost around 1430, when English replaced Latin as the official language for chancery documents. Yet early English printers had neither the background nor the motivation to nurture initial orthographic reforms (Scragg 1974:64ff.). Caxton, though born in England, spent thirty years abroad before returning to set up shop in 1476. He could hardly be expected to understand developments in fifteenth-century English orthography. Moreover, Caxton employed foreign compositors, with the expected consequences. It was two hundred years before English printers used uniform spelling.

The effects of printing on language standardization were equally gradual. While Martin Luther is often described as the father of modern German, even his vast publications did not eliminate German dialects. The overwhelming popularity of Luther's writing was probably the most significant factor in subsequent standardization. Yet New High German did not emerge for another century and a half (Keller 1978).

Language standardization involves choices not only among dialects but among languages. Language groups without access to printing have generally died out (Eisenstein 1979:117; Steinberg 1961:120-26), as exemplified by the fate of the langue d'oc in southern France.

3.1.4 Acceptance. Innovations with the written word have not always met with uniform acceptance. After printing was developed in China in the late ninth century,

It required a century, at least, to overcome the opposition of the scholars who thought it sacrilegious to use such a process for printing classical texts and who seem to have feared that their trade as copyists would be threatened. (Febvre and Martin 1976:74)

When the first commercial typewriters arrived on the American scene in 1873, clerks likewise were afraid of being replaced (Jackson 1981:170). And at the height of his popularity, Martin Luther reverted from the modern humanist type font used in his early publications to the traditional Gothic hand with which his German readership identified (Febvre and Martin 1976:83).

When printing first appeared in the West, the fate of scribes hung in the balance. An articulate scribal advocate came forward in the person of Johannes Trithemius, Abbot of Sponheim. In 1492 he wrote *De laude scriptorum* (*In Praise of Scribes*) in defense of the profession against printing. Trithemius argued that: (1) not all printed books are easily accessible or inexpensive, (2) parchment will last longer than paper, (3) a scribe can choose what he wants to copy, (4) the scribe can be more accurate than the printer. On at least his second and third points, Trithemius turned out to be right in the long run.

But printing was here to stay. On a positive note, the very act of printing contributed to acceptance of English as a medium of written expression. The 'triumph of English' over Latin and French was furthered by the public's

growing perception that if so many books were being published in English, the language must be legitimate (Jones 1953:33).

3.2 Structural changes. What actual structural changes did printing foster in the linguistic fabric? We begin with orthography.

3.2.1 Orthography. We have already seen that the first generation of printers degraded rather than improved the quality of written English. Between 1500 and 1650, this condition gradually changed. Increasingly, compositors and printers of English books were themselves speakers of English. However, it was spelling reformers such as Sir Thomas Smith and John Hart, Edmund Coote and Richard Mulcaster, who were ultimately responsible for standardization.

While the reformers' arguments attracted little attention, their spelling books did. As English spelling was increasingly taught in primary schools, individuals began seeking orthographic consistency in their private writing. Printers had little interest in orthographic conventions, but wishing to attract the largest audience possible, they generally chose 'to spell in the manner which the widest cross-section of the book-purchasing public would prefer' (Scragg 1974:74).

By the late seventeenth century, printers had become guardians of orthography. Writing in 1683, Joseph Moxon declared that

the carelessness of some good Authors, and the ignorance of other Authors, has forc'd Printers to introduce a Custom, which among them is look'd upon as a task and duty incumbent on the Compositor, viz. to discern and amend the bad Spelling...of his Copy....[I]t is necessary that a Compositor be a good English Schollar at least; and that he know the present traditional Spelling of all English Words. (*Mechanick Exercises*, II, 198, cited in Simpson 1935:53)

Printers also introduced new spelling forms. Most of us know the story behind the spelling of *ye* (as in 'Ye Olde Curiosity Shoppe'). In Old English, the definite article *þe* (*the*) was spelled with the runic 'thorn'. When Caxton brought printing to England, his sets of type punches lacked the thorn. English scribes already used the Latin graphemes *th* to transcribe Greek theta, but they sometimes reverted to Old English thorn when writing English. Caxton typically used *th* to write *the*, but occasionally used the thorn's nearest typographic equivalent, *y* (Scragg 1974:2). Caxton is also responsible for introducing *h* into the word *ghost*. While Old English *gost* had been used up through the late fifteenth century, Caxton introduced the Dutch *gh* for *g*, reflecting his years in the Netherlands (Scragg 1974:66).

The most interesting effect of printing on spelling was to spread public knowledge of the alphabet. Although alphabetical order was known before the invention of printing, it remained esoteric. When the first dictionary in English (Robert Cawdrey's *A Table Alphabeticall*) appeared in 1604, its title page bore the injunction that

to profit by this Table...then thou must learne the Alphabet, to wit, the order of the letters as they stand,...as (b) neere the beginning, (n) about the middest, and (t) toward the end. (Wells 1973:17).

Learning the alphabet did not become a normal first step to literacy until the sixteenth century (Eisenstein 1979:89). The importance of the alphabet was then further reinforced by the production of book indices and catalogues which enabled readers (and potential buyers) to track the growing flood of print.

3.2.2 Vocabulary. Printing had two major effects upon English vocabulary. The first was to select among dialects, often entailing morphological as well as lexical decisions. Caxton's books exemplify the decisions printers had to make over the next two hundred years. For his translations from French and Latin, Caxton needed to select among the English dialects. Ever the businessman, his criterion was simple: what dialect would be intelligible to the greatest number of readers.

In several of his prologues, Caxton addresses the problem. His most famous discussion (appearing in 1490 in the Prologue to *Eneydos*) involves the word *eggs*:

a mercer...came into a house and asked for meat, and especially he asked after eggs; and the goodwife ansered that she could speak no French, and the merchant was angry, for he also could speak no French, but would have had eggs, and she understood him not. And then at last another said that he would have "eyren"; then the goodwife said that she understood him well. Lo, what should a man in these days now write, eggs or eyren? (cited in Starnes and Noyes 1946:6)

The more profound effect of printing upon vocabulary was to increase the English lexicon. The new reading public, especially merchants and women, had no prior knowledge of Latin (Febvre and Martin 1976:320). Since many of the newly printed books were translations of earlier Latin (or French) texts, hundreds of new words had to be borrowed into English. New borrowings or coinages were also necessitated by increases in commerce, exploration, and travel (Wells 1973:16). In the words of Ralph Lever, writing in 1573, the English language of the time suffered from there being 'moe things, then there are words to expresse things by' (*The Arte of Reason*, cited in Jones 1953:69).

3.2.3 Grammar. Did early printing affect English grammar? Largely not. According to Simpson (1935) and Price (1939), sixteenth- and seventeenth-century compositors did not interfere with authors' grammar. Occasionally, printers introduced minor grammatical alterations, changing a verb form or adding an 's to a genitive, but little else.

The motivation for ignoring grammar was wholly pragmatic. Compositors generally worked under considerable time pressure:

If the compositor had been obliged to attend to intricate matters of grammar as well as spelling and pronunciation, Heaven only knows how long his work would have taken him. (Price 1939:545)

Needless to say, copy editors did not yet exist.

3.2.4 Discourse. Students of the written word (e.g., Havelock 1963; Goody and Watt 1968; Ong 1982; Frawley 1987) argue that the very act of writing fosters logical discourse. Printing further enhances this quest for coherence. Unlike the linear process of writing a manuscript longhand, the page-wise nature of print encourages authors to reflect upon the relationship between earlier and later parts of the text.

Juxtaposing early printed books with their autograph manuscripts illustrates the point. Huffines (1974) compares the manuscript version of the diary of one Ulrich Schmidl with the edition printed in 1567. Not surprisingly, the printed edition has more consistent orthography, and Schmidl's native Middle Bavarian dialect is replaced with West Middle German. The more interesting differences between the manuscript and the edition lie in the syntax. The edition has more extensive use of subordinate clauses, more subject or object nouns (as opposed to adverbial fillers) in sentence-initial position, more synthetic rather than analytic constructions (e.g., genitive cases instead of prepositional phrases), and greater use of subjunctives. In addition, the printed version often eliminates redundancies and fills in omitted words.

Why these changes? Huffines explains:

In a manuscript of this nature, the author's mind may wander while his hand is writing, so that he may often momentarily forget what has already been written, or imagine that something has already been written when, in fact, it has not. He also thinks ahead, and words which occur later in the text often have influence even on previous ones. This time lag contrasts with the activity of a printer who sets the type of a text. (69)

Huffines goes on to suggest that:

The printer can also consider a syntactic unit as a whole, omit careless repetition, and correct obvious omissions without interrupting his thought about content as would the author. As a result, the main feature which characterizes the edition and contrasts it with the manuscript is an economy of expression. (70)

Economy of expression has developed into a critical aspect of contemporary printing, safeguarded by vigilant copy editors. As we will see a little later, composing on the computer is having profound effects upon the coherence of composition.

3.3 Functional changes. Besides structural changes in orthography, vocabulary, and discourse, early printing profoundly affected the functions of written language.

3.3.1 Content of written documents. To begin with, printing altered the kind of information appearing in a book. Given the expense of parchment, manuscript texts had typically begun in the upper left-hand corner of a page and simply kept going, not pausing for spaces between paragraphs or chapters, or for section headings (Febvre and Martin 1976:87). The introduction of printing on paper afforded room to expand without substantially increasing cost.

Paper made possible the introduction of the title page (between 1475 and 1480). The first page of a printed book used to appear on the right-hand side. Understandably, it had a tendency to get dirty. To help keep the text clean, printers added another sheet to the front of the volume and now started the text on the left hand side. This revision left the new top sheet blank on its front side. Printers soon began filling the blank space, initially offering a title for the work and eventually adding information about publisher, place of publication, and date (Febvre and Martin 1976:84).

Printing also stimulated new genres of text. Among them were calendars, maps, newspapers, and a spate of 'how to' books (Eisenstein 1979:88). But the most important new text was the dictionary.

Cawdrey's *A Table Alphabeticall* contained entries only for 'hard usuall English words, borrowed from the Hebrew, Greeke, Latine, or French &c,' and was generally intended 'for the benefit & helpe of Ladies, Gentlewomen, or any other unskillfull persons' (Cawdrey, *A Table Alphabeticall*, title page, cited in Wells 1973:17). The first dictionary to include entries for 'ordinary words' did not appear until 1623.

While dictionaries were initially handy references for readers encountering the new words introduced by printing, lexicographers were gradually to become arbiters of language. Samuel Johnson declared in a letter to Lord Chesterfield that 'one great aim' of his planned dictionary was 'to fix the English language' (cited in Wells 1973:7). And so by the middle of the eighteenth century, printing became instrumental in fostering semantic prescriptivism.

3.3.2 Relationship between text and illustration. Contemporary students of language rarely consider the relationship between text and illustration within a document, focusing exclusively upon the verbal medium. More generally, scholars assume that the fruits of academe should be essentially textual. This preoccupation with text is a product of the printing press.

The manuscript tradition had integrated text and illustration. Although some monks specialized in copying while others were illustrators, the two groups worked hand in glove. Results of the collaboration are well known from illuminated manuscripts and books of hours.

The early years of printing maintained this integration. Before the invention of printing, paper was already commonly available in the West. By the early fifteenth century, woodblock prints inexpensively carried the Church's message to the nonliterate, much as stained glass windows had done in earlier centuries. The first books printed for the masses were quarto woodcut booklets prominently displaying pictures, followed by a brief text.

But the relationship between text and illustration was to change. Printers strove to contain their costs by eliminating outside illustrators. More

importantly, humanist scholars viewed pictures with derision, dismissing illustrations as 'merely a simple way to instruct those who were too ignorant to read the text' (Febvre and Martin 1976:98). This scholarly snub has dominated academia for the last five hundred years.

3.3.3 Boundaries between spoken and written language. Finally, how has printing affected the relationship between spoken and written language? English has never developed the sharply distinguished registers for written versus spoken language that characterize linguistic communities such as China or Japan (see Tannen 1982). However, by making written texts available to growing segments of the population, printing has increased the public's consciousness of what one commits to writing, which in turn tends to generate a more formal and more logical style.

The mechanics of book production further enhance this move toward formality and cohesion. While speech is not edited, printed texts are. As published authors know, the first draft of a written document bears greater resemblance to spoken language (with its false starts, redundancies, and ramblings) than does the final printed outcome.

4. The computer and language change. What about computers?

The computer has dramatically altered our production of the printed word. Computer technology used in word processing and in desktop publishing bears little resemblance to traditional letter presses, and control of the outcome belongs wholly to the author.

What linguistic changes can we expect computers to introduce? The greatest impact is on our expectation structure. With printing, we naively assumed that editions would be technically superior to their handwritten counterparts. Only gradually were these expectations met, in part through spelling reform and language standardization, but in part because of the new errata sheets, which established that mechanical issues mattered.

The computer has also introduced heightened expectations. Because the machine can produce documents that are letter-perfect and that have been thoroughly revised, we tend to assume that any text composed on-line will necessarily be superior to handwritten or conventionally typed documents.

Are these expectations realistic?

4.1 Structural change.

4.1.1 Orthography. A major selling point of many word processing programs is that they eliminate spelling mistakes. Run your document through the spell-checker, spot check for homonyms, and there you have it.

The scenario has two flaws. To begin with, few authors use spell-checkers. For some, running the extra program is too much trouble. For others, the homonym problem is not trivial, nor is the issue of proper names or other words not listed in the on-line dictionary.

But what if the dream came true and authors all used spell-checkers? Our second problem would be creating a generation of writers who cannot spell. Much as typewriters (and now computers) have fostered the decline of

handwriting, and pocket calculators have undermined our ability to perform the simplest calculations, spell-checkers threaten yet another basic skill.

4.1.2 Vocabulary. Like spell-checkers with orthography, on-line thesauruses offer excellent sources of lexical variation. However, today's on-line author is no more likely to use this resource than to pick up a desk copy of Roget.

As of now, the major effect of on-line writing on vocabulary is negative: to lessen the author's drive to locate *le mot juste*. The potential for multiple drafts often lulls writers into assuming they will 'clean up' their language on the next version, though surprisingly few authors ever do. Moreover, the very speed of composition, coupled with the limited viewing space on a screen, make it difficult to pause mid-sentence to contemplate lexical choices.

4.1.3 Grammar. Along with on-line aids for orthography and lexicon, we have software to monitor grammar and style. After the development of Writer's Workbench for in-house use at Bell Laboratories, grammar programs began appearing for personal computers. They include Writer's Workbench, Grammatik, and HBJ Writer (formerly Wandah). Such programs are increasingly used in high school and college writing classes.

Grammar programs serve two functions: to correct standard grammatical errors (such as noun-verb agreement or confusion of *whose* with *who's*) and, more importantly, to offer stylistic analysis. The programs can tell you the length of your average sentence, how many passive verbs you have used, and even the 'readability' level of your vocabulary.

But the stylistic analysis often turns normative. You might be told that your sentences are too long, that you employ the passive voice too often, or that your language is sexist. An author is free to ignore these injunctions. But their constant presence can become coercive.

The current apotheosis of these normative programs is the Smart Expert Editor system (affectionately known as 'Max'), developed by Smart Communications, Inc. (Wallraff 1988). Max is reminiscent of Ogden and Richard's Basic English in that both contain a limited dictionary and set of grammar rules. In addition to its core lexicon, Max is uniquely tailored for each purchaser.

Technical writers use Max to produce manuals for commercial products. Should an author select a word or construction outside Max's ken, the system flags the offending item, and the author must change it. On the plus side, Max easily permits machine translation between natural languages, and cushions its purchasers against product liability suits by carefully monitoring every word in a text. But on the down side, writers who adapt to its ways risk losing their ability to create fresh prose (Baron 1984).

4.1.4 Discourse. Advocates of word processing repeatedly note how easily text can be revised on a computer. Paradoxically, the major effect of computers upon discourse seems to be to make on-line writers *less* coherent in their prose. How can this be?

Authors tend to compose more easily on a computer than at a typewriter or with pen and ink. Writers frequently report (e.g. Mendelson 1987) less

writer's block when facing a blank computer screen than when confronting a blank sheet of paper. As a result, on-line texts typically have more words overall and longer sentences, and these sentences tend to be more syntactically complex (Stoddard 1985).

Do authors change first drafts of texts generated on-line? The techniques for making revisions are quite simple. Yet while some researchers report that students revise more with computers than when composing longhand, other studies find no differences (see Hawisher 1987). Many published texts composed on-line read as if they were never edited, and indeed often times they were not. The problem is not simply laziness. As on-line authors know, editing more than a few pages on-screen can be confusing. Very few of us can track the logic of our own arguments if we can't see the entire text at once.

The obvious solution would be to print out a hard copy and use traditional red pen and cut-and-paste editing techniques. Changes could then be added onto the computer.

However, computer technology has not sufficiently developed to encourage frequent hard copies of new revisions. High quality printers are still expensive or slow. And many students and home users do not own printers, relying instead upon machines at school or at work, or at commercial copy shops. The situation is reminiscent of the days of batch processing, when users submitted their punched cards to computer operators and returned hours later to collect the results.

4.2 Functional change. Word processing on microcomputers is less than a decade old, and desktop publishing still in its infancy. Yet already we have begun to see the functional effects of computer composition on language.

4.2.1 Contents of written documents. On-line composition has not yet generated new forms of text in the way that printing gave us the title page and the dictionary. However, desktop publishing has caused the proliferation of one writing genre: the newsletter.

Newsletters are inexpensive, timely means of communicating with colleagues or potential customers. While desktop publishing technology is equally suited for producing single pages or hefty tomes, a growing number of users buy the machines to crank out brief periodic publications (David and Barry 1988). The newsletter style encourages several formatting techniques that are already common with on-line prose, such as short paragraphs and frequent use of subheadings (Meeker 1984:21).

4.2.2 Relationship between text and illustration. Desktop publishing systems also make it technically easy to incorporate graphics into written documents. As with any new technology, first generation users of desktop publishing systems often lack the background skills necessary for utilizing the system. While professional graphic designers have spent years learning typography and page layout, desktop publishing novices 'often get carried away with exotic type fonts and sizes, and their reports come out looking like ransom notes' (Lewis 1988:F12). The use of illustrations in the average newsletter is not much better.

4.2.3 Boundaries between spoken and written language. The most pronounced functional change introduced thus far by on-line composition is in the relationship between speech and writing. Writing fundamentally differs from speech in the matter of an interlocutor. The potential respondent in face-to-face spoken exchange generates predictable linguistic consequences, among which are: (1) spontaneity of discourse, (2) informality of style (and sometimes of grammaticality as well), (3) rambling sentences, (4) willingness to revise one's output to respond to an interlocutor's queries. Written language must compensate syntactically for the lack of an interlocutor.

Despite these differences, many discussions of computer-generated writing (e.g. Meeker 1984; Stoddard 1985) lead us to conclude that on-line composition linguistically resembles speech. Why?

Because the computer screen fills the role of interlocutor. The blinking cursor invokes what I have elsewhere (Baron 1988) called the 'conversational imperative,' and the writer is impelled to respond. The presence of that ersatz interlocutor permits a more casual (and often rambling) style. The potential for revision (whether actualized or not) encourages a stylistic and grammatical sloppiness that is more characteristic of spoken language than of traditional writing.

On-line composition reinforces a prior tendency in contemporary America to merge spoken and written language. Among writers, the hum of the electric typewriter already implied an interlocutor, and popular education over the past several decades has increasingly presented writing as a transcription of speech. Current programs such as IBM's 'Writing to Read' (Martin and Friedberg 1986) could end up fueling this trend.

5. Predictions. Correctly anticipating language change is about as foolproof as Washington predictions in an election year. Yet crystal-ball gazing has two advantages. You are forced to think about what the future might be like. And forecasters occasionally can have a hand in shaping change.

What changes do we foresee?

5.1.1 Orthography. On-line orthography can easily become normative, much as happened in printing by the mid 1600s. Users will be aided both by growing familiarity with spell-checkers, and by the development of natural language programs that automatically detect misspellings based upon context.

5.1.2 Vocabulary and grammar. Many authors' on-line texts will increasingly resemble Basic English. Just as publishing houses adopt in-house styles into which copy editors fit nonfiction prose, commercial software will encourage nonprofessional writers to produce increasingly homogeneous text. As the number of jobs in 'the information society' expands, individuals will lose motivation to write creatively.

5.1.3 Discourse. Prices on high-speed, professional quality printing devices will fall, and on-line writers will find it increasingly easy to edit multiple revisions of their work in hard copy. The potential exists for greater coherence in discourse, for shorter paragraphs, and for overall shorter text than is now characteristic of on-line writing. However, for these changes to

occur, writers may need to be trained to combine traditional hard copy editing techniques with modern revision and printing capabilities.

5.2 Functional change.

5.2.1 Content. The output of newsletters and perhaps of short monographs will increase, while the number of books and the length of books may decrease. Reading attention spans may shrink accordingly.

5.2.2 Text and illustration. Some authors will mesh language with graphics, either learning page design or relying upon graphics professionals. Others will continue to ignore graphics or to produce 'ransom notes.' For authors who become visually proficient, we can expect textual change as meaning is distributed across two media, much as journalism and travel writing changed once photographic illustrations regularly began to accompany text.

5.2.3 Speech and writing. Writers of on-line text will continue to blur existing differences between speech and writing. The major exceptions to this generalization will be select creative writers at one extreme and bureaucrats at the other.

Much of the excitement of being in the vanguard of change is that you do not know how things will turn out. The journalist A.J. Liebling once wrote that 'freedom of the press belongs to those who own one' (Sokolov 1980:3). Growing access to word processors and desktop publishing systems means that many of us will have the latitude that comes with owning our own presses. The question is how we will use that linguistic freedom.

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HISTORICAL DRIFT IN THREE ENGLISH GENRES

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In this paper we use a multidimensional analysis to trace the historical evolution of three genres of English prose. We first briefly present a model of register variation developed in our previous work, focusing on three dimensions of variation that are associated with differences among 'oral' and 'literate' varieties. We then show how fictional narratives, expository essays, and letters have evolved over the last three centuries with respect to these dimensions: all three genres have undergone similar but independent patterns of drift toward less elaborated styles of reference and less abstract styles of expression.

1. Introduction. Very few linguistic studies to date have analyzed the diachronic evolution of genres. Within historical linguistics, research has focused on developments at the phonological and syntactic levels, ignoring the issue of how the linguistic characteristics of text types evolve over time. On the other hand, in those arenas of linguistics that consider structure beyond the sentence level, such as sociolinguistics and discourse analysis, there has been little consideration of diachronic issues (but see Romaine 1982, Kytö and Rissanen 1983). Within the related field of stylistics, there has been considerable attention to the comparative analysis of different 'period styles' (e.g., Gordon 1966, Adolph 1968). Although much of this research is diachronic, the analyses are typically undertaken from a literary or rhetorical perspective and do not reflect much linguistic sophistication. The present paper addresses this hiatus at the intersection of historical linguistics and sociolinguistics: we use analytical techniques developed for sociolinguistic analyses of register variation to study the historical development of genres over the last three centuries.

2. Background. Linguistic cooccurrence patterns are central to sociolinguistic analyses of style. In our work, we analyze linguistic cooccurrence in terms of underlying 'dimensions' of variation. These dimensions have both linguistic and functional content. The linguistic content comprises a group of linguistic features (such as passives, nominalizations, and prepositional phrases) that cooccur with a markedly high frequency in texts. Based on the assumption that cooccurrence reflects shared function, these

patterns are interpreted functionally in terms of the situational, social, and cognitive functions most widely shared by the cooccurring features.

In our past research, we have used dimensions of linguistic variation to characterize and compare varieties of use, including spoken and written varieties (Biber 1986), British and American varieties (Biber 1987), and prestige and nonprestige varieties (Finegan and Biber 1986). More recently, we have used this approach to develop an overall model of register variation in English (Biber 1988), and we are currently developing an integrated model of social and situational variation. In the present study, we turn to the historical evolution of English genres, focusing on three dimensions of variation. The dimensions are based on the distribution of 67 functionally important linguistic features across 481 spoken and written texts of contemporary British English. Biber (1988) gives a full methodological and theoretical discussion of the dimensions: we give only a brief overview here.

The cooccurrence patterns of linguistic features underlying the dimensions are identified quantitatively by a factor analysis, a statistical procedure that identifies sets of linguistic features that cooccur frequently in texts.¹ Table 1 summarizes the important defining features for the three factors used in the present study, where each factor represents a dimension of variation.² On a given factor, the clusters of features above and below the dashed line represent groups of features that occur in a complementary pattern. That is, when the features above the line occur together frequently in a text, the features below the line are markedly infrequent, and vice versa. As with other patterns of linguistic complementarity, these complementary sets of features represent poles of a single underlying dimension of variation.

The interpretation of a factor involves an assessment of the communicative functions most widely shared by its defining features. Consider Factor A in Table 1, looking at the features below the dashed line first (viz., nouns, word length, prepositional phrases, type/token ratio, attributive adjectives, and place adverbials). High frequencies of these linguistic features reflect an informational focus and a careful integration of information in a text. The features above the dashed line on Factor A include private verbs (e.g., *think* and *hear*), deletion of *that* from complement clauses (e.g., *I think [that] I'll go*), contractions (e.g., *I'm*, *won't*), present tense verbs, and first- and second-person pronouns. Although the interpretation of these features is more complex, they have all been associated with an involved, noninformational focus, related to a primarily interactive or affective purpose. Many of these features further indicate highly constrained production circumstances. Overall, then, we interpret Factor A as a dimension reflecting degrees of informational density and exact information content (the features below the dashed line) versus affective, interactional, and generalized content (the features above the line). To characterize these functions, the interpretive label 'Involved versus Informational Production' can be proposed for this dimension of linguistic variation, and we refer to it as the Involvement Dimension for short.

Turning to Factor B, three different forms of relative clauses are grouped as the primary upper features. These features can all serve as devices for the explicit, elaborated identification of referents in a text. On the other hand, time adverbials, place adverbials, and other adverbs--the features in the lower cluster on Factor B--typically mark exophoric reference to places and times

outside the text itself; they often serve as deictics that can be understood only by reference to an external physical and temporal situation. Considering both upper and lower clusters, the dimension of linguistic variation underlying Factor B seems to distinguish between highly explicit, 'context-independent' reference and nonspecific, 'situation-dependent' reference; we use the label 'Elaborated versus Situation-Dependent Reference,' or Elaboration Dimension for short.

Table 1. Summary of three oral/literate dimensions of variation.

Factor A: Involvement.	Factor B: Elaboration.
private verbs	WH relative clauses on object
<i>that</i> deletions	positions
contractions	pied piping constructions
present tense verbs	WH relative clauses on subject
1st & 2nd person pronouns	positions
<i>do</i> as pro-verb	phrasal coordination
analytic negation	nominalizations
demonstrative pronouns	-----
general emphatics	time adverbials
pronoun <i>it</i>	place adverbials
<i>be</i> as main verb	adverbs
causative subordination	
discourse particles	
indefinite pronouns	Factor C: Abstract Style.
general hedges	conjuncts
amplifiers	agentless passives
sentence relatives	past participial adverbial
WH questions	clauses
possibility modals	<i>by</i> -passives
nonphrasal coordination	past participial WHIZ
WH clauses	deletions
final prepositions	other adverbial subordinators
adverbs	-----
-----	[No complementary features]
nouns	
word length	
prepositions	
type/token ratio	
attributive adjs.	
place adverbials	

Now consider Factor C. Four of the six features clustering on this factor are passives or past participial clauses. These forms are used to present propositions with reduced emphasis on the agent, giving prominence to the 'patient' role. The promoted element is typically a nonanimate referent and is often an abstract concept rather than a concrete referent. Discourse with very frequent passive constructions is thus typically abstract and technical in

content, and formal in style, suggesting the label 'Abstract versus Nonabstract Style' for Dimension C--the Abstract Style Dimension for short.³

Once the dimensions are identified and interpreted, they can be used to characterize the particular texts. That is, in the same way that the frequency of nouns in a text might be called the 'noun score' of that text, 'dimension scores' can be computed for each text. A dimension score is computed by summing, for each text, the number of occurrences of the features having salient loadings on that dimension. For example, the dimension score for the Abstract Style Dimension (Dimension C) is computed by adding together the frequencies of conjuncts, agentless passives, past participial adverbial clauses, *by* passives, past participial WHIZ deletions, and other adverbial subordinators for each text.⁴

A dimension score for each dimension is computed for each text; then, the mean of each dimension score for each genre is computed.⁵ Plots of these dimension scores facilitate linguistic characterization of any given genre and enable a comparison of the relations between any two genres.

To illustrate, Figure 1 plots the mean dimension scores of 23 contemporary English genres for Dimension A, the Involvement Dimension. The genres with high values, such as telephone conversations and face-to-face conversations, have high frequencies of private verbs, contractions, present-tense verbs, and the other upper features of Dimension A; together with markedly low frequencies of nouns, long words, prepositions, and the other lower features of Dimension A. Genres with low values, such as official documents, press reportage, and academic prose, have the opposite characterization: very high frequencies of nouns, long words, prepositions, and the other lower features of Factor A, as well as very low frequencies of private verbs, *that* deletions, contractions, and the other upper features of Factor A.

Dimensions A, B, and C can be considered oral/literate dimensions, where 'oral' refers to discourse produced in situations that are typical for speaking, and 'literate' refers to discourse produced in situations that are typical for writing. On all three dimensions, one pole characterizes academic exposition and the other pole characterizes conversation. These three dimensions are by no means equivalent, however. Each is defined by unique clusters of cooccurring features, and each defines a different set of relations among genres.

3. The historical study. Because the cooccurrence patterns underlying the factors are derived from a very wide range of spoken and written texts, they can be taken to represent basic functional dimensions of variation in English. As such, they can be used to compare other English varieties. In the present case, we focus on the historical development of three genres that represent quite different types of communication: fiction, essays, and personal letters. Fiction and essays are both 'literate' but differ in that fiction describes past events for entertainment purposes, while essays have an informational and sometimes argumentative purpose. Personal letters differ from both fiction and essays in being interactive and directed toward a specific individual.

Figure 1. Mean scores of Dimension A for contemporary English genres ('Involved versus Informational Production').

The major authors of the texts used in our historical study are listed in Table 2, where texts are divided into three periods: eighteenth century, nineteenth century to the year 1865, and modern (from 1865 to about 1950). We included fiction and essays from all three periods but only nineteenth-century and modern letters. Altogether we analyzed 84 texts containing approximately 90,000 words. At this stage, we do not distinguish between British and American texts in the three historical periods, although planned research will examine these traditions separately.

Table 2. Major authors of the 84 historical texts from the eighteenth-century, nineteenth-century, and modern periods.

Eighteenth century:

Essays (18 texts): Addison, Boswell, Burke, Defoe, Dryden, Johnson, Steele, Swift

Fiction (5 texts): Johnson, Swift

Nineteenth century (to 1865):

Essays (15 texts): Carlyle, Coleridge, Darwin, Dickens, Emerson, Hawthorne, Hazlitt, Macaulay, Melville, Mill, Poe, Mary Shelley, Thoreau, Whitman

Fiction (9 texts): Dickens, Hawthorne, Kingsley, Melville, Mill, Poe, Thorpe

Letters (6 texts): Dickens, Keats, Lamb, Melville

Modern (1865-1950):

Essays (14 texts): Arnold, Crane, Gosse, Hemingway, L. Huxley, Lawrence, Orwell, Twain, Woolf

Fiction (14 texts): Harte, Hemingway, Lardner, Lawrence, Lewis, Orwell, Steinbeck, Twain, Woolf

Letters (3 texts): Steinbeck, Twain

The dimension scores for the three genres in each century are given in Table 3. On the Involvement Dimension (A) there are no major patterns of difference between the periods. Fiction and essays are both relatively informational in production, from the earliest texts included in the study to the modern period. Letters, on the other hand, show some movement to greater involvement. With a dimension score of 1.5, nineteenth-century letters are relatively informational and noninvolved, while modern letters, with a dimension score of 7.7, are relatively involved.

In contrast to the relative stability of the genres along the Involvement Dimension, there have been major shifts with respect to the Elaboration and Abstract Style Dimensions (B and C). The scores for these two as given in Table 3 are plotted in Figures 2 and 3. These figures show the relations among the genres across the three centuries.

The differences between the periods on the Elaboration Dimension (Figure 2) and Abstract Style Dimension (Figure 3) are greater than those on the Involvement Dimension, and the direction of these differences is consistent across the three genres. As Figure 2 shows, there are striking differences

among the fiction texts on the Elaboration Dimension. With a dimension score of 5.5, eighteenth-century fiction is extremely explicit and elaborated in reference; at 3.7, nineteenth-century fiction is moderately so; but modern fiction (at -2.3) is markedly situation-dependent and nonelaborated in reference.

Table 3. Dimension scores for fiction, essays, and letters across three centuries.

	Fiction	Essays	Letters
Dimension A (Involvement):			
Eighteenth century	- 6.6	-7.7	...
Nineteenth century	-12.3	-8.2	1.5
Modern	- 6.2	-4.6	7.7
Dimension B (Elaboration):			
Eighteenth century	5.5	7.3	...
Nineteenth century	3.7	7.2	2.4
Modern	-2.3	2.9	-2.0
Dimension C (Abstract Style):			
Eighteenth century	3.8	3.0	...
Nineteenth century	0.8	2.2	-0.8
Modern	-1.9	-0.7	-1.9

The following passages from Swift and Lawrence illustrate these differences. With the features of the Elaboration Dimension in ALL CAPITALS, it is clear that the Swift passage has a strikingly elaborated characterization; the Lawrence passage is markedly nonelaborated in reference while making several direct references to the temporal and physical context. These passages illustrate the extreme shift in fiction norms from the eighteenth to the twentieth centuries with respect to the Elaboration Dimension--from a heavily elaborated style to a relatively situated and nonelaborated description of referents and events.

Text 1. J. Swift: *Gulliver's Travels* (eighteenth century)

Note. Major upper features of the Elaboration Dimension (B) are in ALL CAPITALS; major features of the Abstract Style Dimension (C) are underscored.

It now began to be known and talked of in the Neighbourhood, that my Master had found a strange Animal in the Fields...exactly shaped in every Part like a human Creature; WHICH it likewise imitated in all its Actions...Another Farmer WHO lived hard by, and was a particular Friend of my Master, came on a Visit on Purpose to enquire into the Truth of this Story. I was immediately produced and placed upon a table; WHERE I walked as I was commanded...This

man, WHO was old and dimsighted, put on his Spectacles to behold me better, AT WHICH I could not forbear laughing very heartily...

Text 2. D.H. Lawrence: *The Fox* (twentieth century)

Note. Major lower features of the Elaboration Dimension (B) are in ALL CAPITALS; there are no occurrences of the major features on the Abstract Style Dimension (C) in this sample.

He could not sleep. He could not keep still. He rose, QUIETLY dressed himself, and crept OUT on to the landing ONCE MORE. The women were silent. He went SOFTLY DOWNSTAIRS and OUT to the kitchen.

THEN he put on his boots and his overcoat and took the gun. He did not think to go AWAY from the farm. No, he ONLY took the gun. As SOFTLY as possible he unfastened the door and went OUT into the frosty December night...He went STEALTHILY AWAY DOWN a fence-side, looking for something to shoot.

Essays have shifted less over time with respect to the Elaboration Dimension, but the trend is in the same direction, as Figure 2 shows. Eighteenth- and nineteenth-century essays (at 7.3 and 7.2, respectively) are extremely explicit and elaborated in reference, while modern essays (at 2.9) are only moderately so. The shift in essays to a less elaborated style of reference is in the same direction as for fiction, but essays have not yet progressed as far.

In addition, the shift from nineteenth-century to modern letters is as pronounced as that for fiction, as Figure 2 shows. Nineteenth-century letters (at 2.4) are moderately elaborated in reference, while modern letters (at -2.0) are markedly situated and nonelaborated.

Overall, a single trend has influenced all three genres with respect to their characterization along the Elaboration Dimension: from extremely elaborated and explicit reference to a more situated and less elaborated style. While this trend is very marked in fiction and letters, it can be seen in essays as well.

With respect to the Abstract Style Dimension (C), Figure 3 shows that a similar shifting of styles has occurred: a dramatic shift in fiction, quite a large shift in essays, and a lesser shift in letters. With a dimension score of 3.8, eighteenth-century fiction is markedly passive and abstract in style; nineteenth-century fiction (at 0.8) is only moderately abstract in style; while modern fiction (at -1.9) is markedly nonabstract. With the major features of the Abstract Style Dimension underlined, the Swift and Lawrence passages illustrate this dramatic development. (Note, in fact, that there are no underscorings in the selection from Lawrence.)

With respect to essays, there is little difference between the eighteenth and nineteenth centuries on the Abstract Style Dimension; at 3.0 and 2.2 respectively, essays in both centuries are markedly passive, abstract, and technical in style. But there is a significant shift from the nineteenth century to the modern period, with modern essays (at -0.7) being relatively nonabstract in style.

Figure 2. Mean scores of Dimension B for fiction, essays, and letters across the three centuries ('Elaborated versus Situation-Dependent Reference').

Finally, as Figure 3 also shows, there has been relatively little change in the style of personal letters. Nineteenth century letters (at -0.8) are already relatively nonabstract in style, and modern letters (at -1.9) are even more so.

Overall we thus see a similar pattern with respect to the Elaboration Dimension (B) and the Abstract Style Dimension (C): a single direction of change on both dimensions reflected in all three genres to greater or lesser extents. On the Abstract Style Dimension, the shift is from an extremely abstract and technical style, marked by a very high use of passive and past participial forms, to a much more active and nonabstract style.

Figure 3. Mean scores of Dimension C for fiction, essays, and letters across the three centuries ('Abstract versus Nonabstract Style').

To summarize our findings to this point, we can consider the generality of these historical shifts from three perspectives:

(1) With respect to the dimensions, there have been very major shifts along Dimension B, representing 'Elaborated versus Situation-Dependent Reference,' and Dimension C, representing 'Abstract versus Nonabstract Style'; but there have been relatively small shifts along Dimension A, representing 'Involved versus Informational Production.'

(2) With respect to the genres, all three genres have undergone shifts along the Elaboration and Abstract Style Dimensions, though only letters have shifted along the Involvement Dimension.

(3) With respect to the overall patterns of evolution, all genres have been drifting to more 'oral' characterizations.

4. Discussion. We can get a feel for the processes involved in these historical shifts by examining the spread of dimension scores within each period. Figures 4 and 5 plot the spread of scores within fiction and essays for each of the three periods. As the work of Labov and others has shown, diachronic changes in the form of particular linguistic features evolve out of synchronic variation. Our findings indicate a similar strong relationship between synchronic variation and historical change in the overall evolution of

genres, as Figures 4 and 5 show. It would appear that during some periods, the range of variation becomes extended as writers experiment with new forms. Then, as a new norm is accepted, we see a shift in the central tendency of the genre and a narrowing of the range of acceptable variation. For example, during the eighteenth century, fiction norms seem to be undergoing a major shift with respect to the Elaboration Dimension (B), causing the extremely wide range of variation seen on Figure 4. We expect that the eighteenth century range of fiction is greatly expanded relative to seventeenth-century fiction. Although we have not yet examined seventeenth-century data, we would predict that the shift here is from an extremely elaborated marking of reference to a much less elaborated style. In the nineteenth century, the new norm begins to be accepted, and we find a much narrower range of variation. Modern fiction, then, shows a slight extension of this new norm, and a shifting of the central tendency to an even more situated style, as shown by asterisks, representing the mean scores.

There has been a similar shifting in fiction norms with respect to the Abstract Style Dimension (C), as Figure 5 shows. In this case, eighteenth-century fiction has a relatively focused norm allowing little variation; fiction texts during this period are consistent in being relatively passive and abstract in style. In the nineteenth century, fiction writers began to experiment with nonpassive styles, and created a greatly extended range of variation. In the modern period, we see a somewhat narrower but still relatively large range of variation within fiction, but the entire range has shifted to a less abstract, less passive norm. From the range of variation exhibited in the modern period, we assume that this shift is still underway; but since the range of variation is shrinking, a new, less abstract norm seems to be increasingly accepted for fiction.

Essays were undergoing shifts during the eighteenth and nineteenth centuries with respect to both the Elaboration and the Abstract Style Dimensions, and they have begun to reflect new, more focused norms during the modern period. In the two earlier periods, essays showed a very wide range of variation in their marking of referential elaboration (Figure 4) and abstract style (Figure 5), whereas the modern period shows considerably less variation and a shift to less elaborated and less abstract norms.

As Figures 4 and 5 also show, fiction leads essays in the shift to a new norm; writers of fiction seem to push the shift further and shift more readily than essay writers. With respect to both the Elaboration Dimension and the Abstract Style Dimension, essays show a very wide range of variation throughout the eighteenth and nineteenth centuries, before finally narrowing the range and shifting to a new norm in the modern period. During this time of transition between the eighteenth century and the modern period, some essay writers were experimenting with new forms while other honored the old norms. With respect to fiction, the process of experimentation and shift appears to be faster. Along both dimensions we see a period of extreme variation, reflecting considerable innovation on the part of fiction writers, followed immediately by a period in which most writers have shifted to a new norm.

Figure 4. Variation and shift of norms along Dimension B ('Elaborated versus Situation-Dependent Reference') for fiction and essays. ('*' marks the mean score of each genre).

Figure 5. Variation and shift of norms along Dimension C ('Abstract versus Nonabstract Style') for fiction and essays. ("*" marks the mean score of each genre)

Finally, Figures 4 and 5 also show that the historical changes along each dimension are independent of one another. With respect to the Elaboration Dimension (Figure 4), the eighteenth century was the period of experimentation and wide variation for fiction, followed by adoption of a new norm in the nineteenth century. With respect to the Abstract Style Dimension (Figure 5), fiction norms were quite stable and well defined during the eighteenth century, but they show considerable variation during the nineteenth century, and have shifted to a new norm in the modern period.

Overall these findings show that the widely recognized shift to a more colloquial or 'plain' style in English was not at all straightforward. Since genres move along each dimension independently over time, shifts in style must be considered from a multidimensional perspective.

In research currently underway, we are analyzing additional genres in order to assess the generality of these processes; we are studying older periods in order to extend the analysis further back in time; and we are examining earlier discussions of literary and linguistic usage in order to help identify the social motivations of these changes in prose style.

Notes

A preliminary version of this paper, emphasizing the methodological approach, was published as 'Drift in Three English Genres from the 18th to the 20th centuries: A Multidimensional Approach' in Kyto et al. (1988).

1. The frequency counts of all linguistic features are normalized to a text length of 1,000 words.

2. The dimensions labeled A, B, and C in the present study correspond to Dimensions 1, 3, and 5 of Biber (1988).

3. The features in the upper cluster of Factor C do not have a complementary set of features such as we saw in Factors A and B.

4. Dimension scores for Dimensions A and B are computed by summing the frequencies for the top cluster of features and then subtracting the frequencies for the bottom cluster of features.

5. In the present study, all frequencies are standardized to a mean of 0.0 and a standard deviation of 1.0 before the dimension scores are computed.

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THE CURRENT EVOLUTION OF FRENCH WORD ORDER: CLAIMS AND CAUTION

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Cyclicity is a popular concept among scholars working on language change; why this should be so is not obvious, however, and any possible explanation is unlikely to be a simple one. Is it because contemporary linguistics considers it methodologically safer to deal with neatly definable changes, which are often found to be recursive, than with diffusely working processes, which often are not? Or is it that cyclicity lends itself to the highlighting of man's allegedly fickle nature, thereby allowing linguists to strike the self-deprecating pose so cherished of intellectuals? Or could it be that cyclicity has more affinity with nurture, which, in contradiction to its alternative--and near homonym--nature, seems to bid more comfort to social scientists? That cyclical changes exist cannot be denied, of course. The danger arises only when such patterns are devised where they are not in fact taking place. Such efforts have been deployed in the area of word order.

In this paper, I shall briefly recount how the myth of the circular word-order change was spread during the last decade and a half, argue that the French data lend no support to the idea that French may be moving away from an SVO pattern, and try to show that, when word-order change is placed in the evolutionary process to which it belongs, namely the shift from head-last to head-first structures, it becomes apparent that word-order changes cannot be circular. Finally, I shall refer to a theory of language evolution, which I have presented elsewhere, to explain why circularity is normally excluded in such cases.

1. The myth of the circular word-order change. Two papers presented in Edinburgh at the First International Conference on Historical Linguistics played an important part in spreading the myth of the circular word-order change. One of them was by Li and Thompson, who argued that 'the Chinese language...has undergone the following cycle of changes during the past four or five millennia

Pre-archaic		Archaic		Modern
SOV	→	SVO	→	SOV'

(1974:208). This assumption was not confirmed, however, by an in-depth investigation of the Chinese data, and Sun and Givón, who carried out such a task, came to the conclusion that the empirical evidence 'is not consistent with a drift from SVO to SOV; if anything, it is consistent with continued and vigorous preservation of Mandarin as a rigid SVO language' (1985:348). But before the error was corrected, Li and Thompson's claim, which had been

accepted on faith, had been widely quoted (cf., e.g., Hawkins 1983:242); languages for which the historical data were wanting were concluded, on the 'strength' of the Chinese model, to have shifted from SVO to SOV (cf., e.g., Sasse 1977:110-15); and 'since Mandarin Chinese seems to be undergoing a change...from SVO to SOV,' Aitchison concluded that 'there is no [syntactic] evidence that languages are moving in any particular direction' (1981:228, 234). We know today that Chinese is not becoming SOV, and all the conclusions based on this claim are without empirical support.

The other claim about the cyclicity of word-order change was made by Vennemann. Restating a view that he had expressed in other publications, he posited the following sequence of events. 'A language with S-O morphology tends to be XV; as reductive phonological change weakens the S-O morphology, and does not develop some substitute S-O morphology, the language becomes a VX language.' This occurs in two steps: the verb 'first shifts to a position following the topic or topics (T); it may subsequently be specialized in the second clause position; and only then is the subject--which is the primary topic case--singled out as the only noun phrase that can directly precede the finite verb.' Subsequently, 'an SVX language may change into a VSX language (and perhaps back again) under conditions which I have not yet studied' (Vennemann 1974:359-60). According to Vennemann, SVO may also return to SOV, though he admits that he has 'not said any more about the change from VX to SV than that this change occurs when a language develops a dependable, conspicuous and uniform S-O morphology' (1974:370).

Vennemann concludes that 'the theory of word order change as developed so far seems to provide substance to, and reasons for, the ancient view that languages develop back and forth or cyclically...' He represents this cycle with the following diagram (1974:371), out of which I have eliminated the language-type features, which are irrelevant for the present discussion.

Though Vennemann's article contains some interesting analyses (e.g., his correct account of French negation, which shifted from preverbal *ne* to postverbal *pas*), very little of his 'theory of word-order change' has withstood the test of time. His critics presented evidence showing that languages generally shift from SOV to SVO before the loss of case markers, not after (cf. Miller 1975). Counterevidence is also provided by Modern French, where the SVO-type analytical future (*je vais chanter* 'I am going to sing') is supplanting the SOV-type synthetic future (*je chanterai* < *cantare habeo* 'I shall sing') while the latter is morphologically intact and, as such, perfectly distinctive. About the TVX phase, it was pointed out that this is a characteristic feature of the Germanic languages, not a universal transitory step between SOV and SVO (Haiman 1974:91). Moreover, in the Indo-European and Hamito-Semitic language families, whose speakers make up the overwhelming majority of the human population, and whose evolutions over five or more millennia have been either documented or carefully reconstructed, VSO originates from SOV and tends toward SVO (cf. Hebrew,

Arabic, Gaelic, Welsh, and Breton), not the other way around. Finally, there are no satisfactorily documented occurrences of a shift from SVO to SOV outside the very few isolated cases where interference from another language or by grammarians is known to have been a determining factor (cf. Behagel 1932:19-22 for the instrumental role played by grammarians, who, under Latin influence, reinforced the use of SOV in German. Cf. also Wells 1985:252-54). Akkadian SOV, instead of the VSO found in the other Semitic languages, is ascribed to Sumerian influence (cf. Poebel 1923:41, but also Brockelman's (1913:172) misgivings); yet, it should be borne in mind that, with its ergative system (cf. Diakonoff 1965:58), Hamito-Semitic must have been an SOV language, and, since the archaic features of the protolanguage are best preserved in the Semitic language spoken in Babylon, there is no certainty that Old Akkadian SOV can be explained only as a case of interference. It was perhaps the original order, and Sumerian reinforced it. Sumerian was, indeed, to the Semitic speakers of that area what Latin was to Europeans, especially during the Renaissance. Whatever the exact role of Sumerian, neither Akkadian nor German can be said to have naturally evolved (i.e., without learned or foreign influences) from, respectively, VSO and SVO to SOV.

On all counts, therefore, the counterevidence is overwhelming and Vennemann, who has come to realize it, no longer defends the theory outlined above (personal communication; cf. also Hawkins's (1983:31-50) survey of Vennemann's successive positions on word-order change). Under these circumstances, it would seem unproductive and even ungraceful to discuss this ill-fated theory; yet, in spite of all the counterevidence, the myth of the cyclical word-order change refuses to die (cf. Combettes 1987 and Kok 1987, who use Vennemann's above-quoted cycle as a postulate, and Harris, who, in an otherwise well-considered article, writes: 'nevertheless, the essential cyclicity of change in this area of language is now widely accepted' (1984:179; cf. also pp. 183-84, where this idea is repeated). However widely the theory may be accepted, it nonetheless flies in the face of all the linguistic evidence. Since Harris's own acceptance is partly based on his analysis of French sentence structure, let us assess that evidence.

2. Claims about an ongoing word-order change in French. Before discussing the modern word order, Harris adduces the structure of the French demonstratives, suggesting that their development was already inconsistent with an SVO order.

2.1 Demonstrative constructions and word order. Since in SVO languages, grammatical determiners, such as articles, demonstratives, possessives, and the like, normally precede the nouns they apply to, Harris considers the development of structures such as *ce livre-ci* 'this book' inconsistent with the shift from SOV to SVO, which is a characteristic feature of the evolution of French. This inconsistency rests on a misinterpretation of the data.

In *ce livre-ci*, Harris considers *ce* an article, and *ci* a demonstrative. (Cf. his diagrammatic representation of the history of the French articles and demonstratives and his 'contention that *ce/cette/ces* used without reinforced

particles must be regarded as "definite articles" rather than "demonstrative adjectives" (1977:256-58).

This is an attempt to make the French situation match that of, say, English, but the evolution of the French demonstratives stemmed from a different concern. French replaced the Latin trichotomous system of demonstratives (*hic, iste, ille* 'this near me, that near you, that near him/her') first with a dichotomous system (*cist, cil* 'this, that') and subsequently with a unique demonstrative, unmarked for person or distance. If a proximal/distal opposition must be made, the adverbs *ci* and *là* are tagged on to the nouns. Since these particles never display gender or number concord, and since in colloquial speech they are often replaced with *là* and *là-bas*, respectively, there can be no doubt that these particles are adverbs and, as such, should appear after the noun in an SVO language (cf. mutatis mutandis Vennemann's (1974:366-68) correct analysis of the development of the postverbal negatives in French). Moreover, the English constructions *this book here* and *this here book* present a relevant contrast. The former, like the French construction, is of the SVO type; the latter, however, is consistent with an SOV language, hence the dialectal or archaic overtone.

The French demonstrative constructions are therefore in complete harmony with the SVO nature of the French language, and the development of an unspecified form which combines with proximity and distance markers only when these are necessary is also in the line of linguistic evolution (more on this notion in 3.3).

2.2 Dislocation and word order in Modern French. Like the demonstrative constructions, dislocated sentences are indicative of the prevailing word order, and French makes an especially frequent use of such dislocations. According to Harris (1984:199), 'essentially, the position in contemporary spoken French is this. Alongside "standard"

- (1) il faut aller à la plage quand il fait chaud
 ['you must go to the beach when it is hot']
 ...

we find both

- (1a) la plage, il faut y aller quand il fait chaud

and

- (1b) il faut y aller quand il fait chaud, à la plage'

Rhetorically, sentence (1) is ambiguous: with a continuous intonation it would serve as an answer to (Q1):

- (Q1) Quand faut-il aller à la plage?
 'When must you go to the beach?'

- (1.1) Il faut aller à la plage quand il fait chaud.

but, with a break in the intonation between the two clauses, it would be an answer for (Q2):

- (Q2) Que faut-il faire quand il fait chaud?
'What must you do when it's hot?'

- (1.2) Il faut aller à la plage/quand il fait chaud.

The second question could also be answered with

- (1.3) Quand il fait chaud, il faut aller à la plage.

In terms of topic and comment, (1.1) is one long comment. In (1.2), the first clause is the comment, the second the topic, and in (1.3) the order of the two rhetorical elements has been reversed. The differential order makes it clear that in (1.2) the comment is stressed: 'you must go to the beach,' and not 'downtown,' for instance, while in (1.3) the stress is on the topic: 'when it's hot,' not 'when it's chilly.'

Utterances (1a) and (1b), on the other hand, cannot be used to answer either (Q1) or (Q2). If *plage* is given a rising intonation, (1a) could become an answer to (Q1), but in that case there would have been a question mark after it. The comma gives it a falling intonation and by so doing excludes (1a) from being a possible answer of (Q1). It must be concluded, therefore, that (1a) and (1b), which were said to be found 'alongside "standard" (1),' are not substandard or colloquial variants of (1). Though they may admittedly be less formal, they are made to meet different rhetorical needs.

Utterance (1a) would be used when the speaker finds it important to announce his topic. So, logically enough, *la plage* is the topic, and the adjacent sentence is the comment. The English equivalent would be

Let me tell you about the beach; you must go when it's hot.

The rhetoric of such an utterance would come out better when what the speaker wants to tell, i.e., the comment, has a richer content, as e.g.,

- (1a1) La plage, il faut y aller les nuits de pleine lune.
'Let me tell you about the beach; you must go at night when there is a full moon.'

One can also use (1a) to contrast one topic with another, appearing in a parallel construction.

- (1a2) La plage, il faut y aller quand il fait chaud;
les courses, on peut les faire le soir.
'You must go to the *beach* when it's hot; you can do the shopping in the evening.'

In (1b), the order of the rhetorical constituents is reversed. The speaker wishes to stress the comment and not the topic, which is assumed to have been mentioned. Such a comment could be prefaced by an admonishment, which would stress the importance the speaker attaches to what he is going to say, i.e., the comment,

Now listen to me; you go to the beach when it's hot.

The speaker may also use this structure to contrast his comment with another one to be made afterwards.

- (1b1) Il faut y aller quand il fait chaud, à la plage.
 Quand il fait froid comme aujourd'hui, on va dans
 une piscine chauffée.
 'You go to the beach when it's *hot*; when it's
 cold, like today, you go to a heated pool.'

At this point, it should be clear that (1a) and (1b) are not substandard or colloquial variants of (1), but separate forms constructed to meet specific rhetorical needs. Relying on the correct interpretation of Lambrecht (1981), Ashby has also pointed out that

Mon enfant dort.
 'My child is sleeping.'

on the one hand, and

Mon enfant, il dort.
 lit. 'My child, he is sleeping.'

and

Il dort, mon enfant.
 lit. 'He is sleeping, my child.'

do not have the same rhetorical uses (1982:37-38).

At this point one may legitimately ask, What is the relevance of these rhetorical considerations for French word order? The relevance is very real. When topic and comment are separate clauses, French syntax allows one or the other to appear first (cf. 1.2 and 1.3), depending upon what the speaker wishes to stress, the topic or the comment. But, within the sentential boundaries, French cannot topicalize the object of a verb. The subject is the topic of a sentence *sui generis*. Unlike, for instance,

Germ. Zum Strand geht man wenn es warm ist.
 Fr. *A la plage il faut aller quand il fait chaud.

is ungrammatical. One must use the more formal cleft construction

C'est à la plage qu'il fait aller quand il fait chaud.

or extrapolate the word that will be made into a topic and form next to it, either before or after, depending upon whether the speaker wishes to stress the topic (1a) or the comment (1b), a full sentence, where the extrapolated item is represented by a pronoun set in the place reserved for such words. The compulsory presence of a personal pronoun along with a break in the intonational pattern before or after the extrapolated item clearly indicates that the topic is extrasentential. Hence the term dislocation.

Although the term 'dislocation' should leave no doubt about the nature of the structure to which it is applied, some linguists (e.g., De Groot and Limburg 1986) have used the clitic feature of the French personal pronouns to argue that these are no longer anaphoras, but have become verbal markers used on the model of Swahili class-concord markers or Sumerian verbal-string particles. This seems to me another of those obsessive visions of cyclical changes. The very fact that

*Je le connais cet homme.

*I know him this man.

is ungrammatical--just as its English translation--unless the prosodic contour is broken before *cet homme*, proves beyond the shadow of a doubt that *cet homme* is the antecedent, and *le*, clitic or not, a full-fledged anaphora, and not some sort of concord particle. Moreover,

*Un touriste, il photographie tout.

lit. 'A tourist, he takes a picture of everything.'

is ungrammatical because the necessary pronominalization rules have been violated, and if it is subject to pronominalization rules, *il* must be a pronoun, and not a personal marker like the Eng. -s or the Lat. -t.

Given the anaphoric value of the French personal pronouns, utterances such as (1a) and (1b) are indeed dislocated, and French uses them to topicalize the object of a verb, because within the sentence proper the SVO order is iron-clad, and nothing is allowed to tamper with it. The examples of dislocation, therefore, prove only one thing: French is a rigid SVO language.

That French is a strict SVO language can be readily seen by comparing it with, say, Russian, in which 'the sentence "Lenin cites Marx," can be rendered as SVO (*Lenin citiruet Marksa*), SOV (*Lenin Marksa citiruet*), VSO (*Citiruet Lenin Marksa*), VOS (*Citiruet Marksa Lenin*), OSV (*Marksa Lenin citiruet*), and finally OVS (*Marksa citiruet Lenin*); yet only the order SVO is stylistically neutral, while the "recessive [i.e., marked] alternatives" are experienced by native speakers and listeners as diverse emphatic shifts' (Jakobson 1966:268-69). The contrast is clear. French cannot shift the emphasis by changing the order or laying a dynamic stress (cf. the English translations of (1a2)). It does it with cleavage or dislocation, and these processes in turn prove the rigidity of the French order.

Let us finally compare the French situation with that of another language with a rigid word order. Very interesting data are provided by Irish, which is

an imperatively VSO language. In simplex, emphatically neutral assertive sentences, VSO can be accommodated like any other word order, but, when these restrictions are transgressed, problems arise. In many languages, relative clauses are introduced by words which combine a subordination marker with a pronominal morpheme representing the antecedent (cf. e.g., Eng. *wh-o*). Such clause-initial pronouns are in direct conflict with a VSO order. Irish solves the problem by using a subordinating particle to mark the clause boundary and a regular personal pronoun, which appears in the appropriate slot. The subordinating particle--being neither V, nor S, nor O--can introduce a subordinate clause without upsetting the VSO order. Cf.

An fear a dtabharann tú an t-airgead dó.
The man wh gave you the money to him
'The man to whom you gave the money'
(Quoted from McCloskey 1979:6).

A similar strategy is used when a noun must be stressed. The noun is taken out of the sentence and placed at the head of the utterance, while the original sentence is turned into a subordinate clause, where the VSO order can be maintained. Cf.

Seán Bán aL d'inis an scéal dom.
Sean Ban wh told the story to me
'Sean Ban told me the story.'

These two examples of Irish syntax--many more could have been given--show how a language with a rigid word order can develop strategies that meet grammatical and rhetorical needs without violating the tenets governing its word order. The French dislocation process or the more formal cleft construction, which was only alluded to above, are such strategies. Their existence, together with the frequent use of dislocation in the spoken language, only proves the speakers' strict compliance with the SVO scheme.

The French speaker's spontaneous tendency to produce SVO sentences can also be observed in colloquialisms, such as

Tu fais quoi ce soir?
lit. 'You do what tonight?'

which are frequently used instead of the OSV type questions, such as

Qu'est-ce que tu fais ce soir?
lit. 'What is it that you do tonight?'
'What are you doing tonight?'

while the OVS

Que fais-tu ce soir?
'What are you doing tonight?'

sounds formal, if not stilted.

2.3 French: A rigid SVO language. The spontaneous use of SVO in colloquial questions is an important piece of evidence. In the foregoing discussion of dislocation, I have tried to show that such utterances do not herald a new word order but rather bear witness to the rigidity of the existing SVO order, a rigidity which contrasts with the situation in Russian, and echoes that of Irish, where comparable strategies have developed to circumvent the restrictions of an inflexible word order. Moreover, colloquialisms such as *Tu fais quoi ce soir?* suggest not only that French is an SVO language, but that it is becoming ever more SVO (cf. also Bichakjian 1987b for the evolution of the French future, where an SOV-type structure is supplanted by one consistent with the SVO-type).

3. Explaining the noncyclicity of word-order change. So far, I have argued that there is no evidence supporting the claims (1) that word-order changes are cyclical, and (2) that French word order is moving away from SVO. A strict empiricist would probably stop here, but a more inquisitive mind would want to know whether the apparent noncyclicity of word-order changes is simply the result of a lacuna in the empirical data or, indeed, a possible constraint determined by an underlying principle.

3.1 Revealing examples. An example of biological evolution may serve as helpful background information. It is well known that land animals have evolved out of marine organisms, and later a few species chose anew for an aquatic life-style. This is the case of the seal, whose immediate ancestor was a dog-like animal, while its faraway ancestor was a fish-like vertebrate. If one focuses on the water-land-water sequence of ecological environments and the attendant physiological features, one may justifiably speak of a cyclical set of changes; yet, an evolutionary biologist would hasten to point out that the changes affected only the adaptive features (streamlined body, paddle-like flippers, and subcutaneous fat). Like its land-dwelling ancestor, the seal is a mammal, and its choice of an aquatic life did not reverse the course of its phylogeny, changing this pup-bearing animal successively back into a reptile, an amphibian, and eventually a fish.

Let us now take a linguistic example. Commenting on the history of the future in Latin and French, one may easily argue that the once periphrastic *canta-bo* 'I shall sing', which had already become synthetic at the dawn of Latin history, was replaced with the analytic *cantare habeo* 'to sing I have'. This newly created periphrastic form became in turn amalgamated into (*je*) *chanterai* 'I shall sing', which today is being supplanted by the periphrastic *je vais chanter* 'I am going to sing'. The periodic return of analytic forms is obvious, but there is more to the evolution of the Latin and French futures than the alternation of analytic and synthetic forms. First of all, Indo-European did not have a future tense. Latin changed the ancestral trichotomous opposition between indicative, subjunctive, and optative into two dichotomous distinctions, one between the indicative and the subjunctive, another between the present and the future. For a number of morphological reasons, which are not relevant to the present discussion, a periphrastic future

was created for the first two conjugations. This analytic future was formed by combining the imperfective stem (also called the present stem) with the auxiliary 'be' (*canta-bo*). The periphrase that replaced it was already different: it combined the infinitive with the auxiliary 'have' (*cantare habeo*), indicating thereby that the aspectual distinctions, which had played an important role in the protolanguage and in the formative stage of Latin, had become obsolete. Today's periphrase also contains a novelty: unlike its Latin ancestors, *je vais chanter* is a right-branching (head-first) structure. Therefore, the circular process, whereby an analytic form becomes synthetic and is replaced with a new periphrase that is doomed to meet the same fate as its predecessor, can only explain one facet of the evolution of the Latin and French futures, and indeed a very superficial one. Beneath this alternation, one should not fail to observe two important processes: (1) the change from a system dominated by aspectual and modal distinctions to a system where tenses play the dominant role and (2) a shift from left-branching (modifier-first) to right-branching structures. Just as the aquatic environment did not reverse the evolution of the seal from mammal back to reptile, to amphibian, and to fish, so the periodic development of analytic forms did not reverse the course of these two linguistic processes. Indeed, it embodied them (cf. Bichakjian 1987b for a less cursory account of the evolution of the French future and Bichakjian forthcoming b for a discussion of the change from aspect to tense in Latin).

3.2 Shifting to head-first structures. The shift from left to right branching is important for the present discussion because the change of word order is an integral part of that process. Chomsky has posited the existence of two parameters, one in which the head precedes the modifier and another in which these items are in the reverse order (1981:8). There are, of course, many unanswered questions about Universal Grammar and about the X-Bar theory, which tries to develop criteria for defining heads and modifiers, but language typology does confirm the existence of symmetrically opposed sets of structures, and the history of languages shows that there is a steady evolution from left to right branching. The evidence is overwhelming in the Indo-European languages (Bichakjian forthcoming a), and corroborating observations could be made in the Sino-Tibetan languages (cf. Li and Thompson's (1974:208) description of pre-archaic Chinese), and in the Hamito-Semitic family, whose protolanguage was probably SOV (cf. Diakonoff 1965:58, who argues that it was ergative, and ergative languages are SOV), and whose modern branches, especially Hebrew and Arabic, first shifted to right-branching VSO and are now in the process of becoming or have already become SVO, which is also right-branching, but unmarked compared with the verb-initial type. More evidence could be found in the Finno-Ugric language family (Hakulinen 1961:318) and even in Sumerian, where the poetic language has more left-branching structures than the less literary register (Poebel 1923:100).

There are admittedly more language families on the face of the earth, but there does not seem to be any convincing counterevidence. Therefore, it seems legitimate to conclude that, since language evolution proceeds from left- to right-branching structures, the change of word order, especially the relative order of S, V, and O, cannot proceed in any arbitrary direction. A typical left-

branching word order such as SOV may either go directly to SVO, or via VSO, but under normal circumstances the reverse change does not take place because languages do not shift from right to left branching. Word order is not cyclical, therefore, because the shift from left- to right-branching structures is not cyclical.

Explaining the noncyclicity of word-order change with the noncyclicity of the shift from left to right branching is moving the problem one step further. In itself, the procedure is correct. Subsuming a given structure or process into a broader one is a perfectly acceptable type of explanation, and thus the question of the noncyclicity of word order may rightly be considered answered. But this answer in turn prompts an equally burning question: Why is the shift from left to right branching noncyclical?

Before the answer to this new and fundamental question is attempted, it should be stressed that the idea of studying word order on the basis of the head-modifier relationship is not new. It is implicit in Greenberg 1966, and, in one terminology or another, it appears in Lehmann 1971, Vennemann 1975 and 1984, and in Hawkins 1983:200. But, to my knowledge, Bichakjian 1987a is the first attempt to argue that word-order change is part of the shift from left to right branching (cf. also Bauer 1987).

It is true, of course, that 'there is no nonarbitrary and consistent definition available for the very entity which is claimed to be all-important for word order prediction, the modifier-head relation' (Hawkins 1983:50); yet, the problems that arise are caused by some of the postulates of the X-Bar theory (cf. Hawkins 1983:183-207) and by the quest for a key formula that can be automatically applied. The empirical data from language evolution, on the other hand, leave no doubt: grammatical structures are shifting from left to right branching. It may be difficult for a formal grammarian to describe what is common to, on the one hand, the Verb-Object relation and, on the other, the Number-Noun relation, but the historical data present no problems at all, and they show quite clearly that in both pairs the structural ties are the same. Likewise, a universalist may find it conflicting that an SVO language such as English should have SOV-type nominal plurals (e.g., *shirt-s*), while French, another SVO language, has an SVO-type pluralization rule (e.g., *les chemises*, where number is expressed with the changing vowel of the preposed article). That languages are neither purely right branching nor exclusively left branching is a fact, but our difficulty in fitting the structural generalization into a given type of formal grammar or our problems in setting up a sequence of implicational equations that would predict word-order changes should not distract us from observing the most important of all diachronic universals in the area of grammar, the shift from left to right branching. This is not to say, of course, that theories should not be built and perfected. Theories are indispensable; nevertheless, empirical evidence cannot be denied or discounted because a given theory lacks the technical means to accommodate it.

That the shift from left to right branching proceeds through steps and in ways that may baffle our attempts to set up a universally valid chain of events where each one would 'neatly' trigger the next should be taken as an indication of the true nature of languages. The latter are not produced on an assembly line; they evolve, proceeding in the same general direction, but at their own rhythms, along their own paths, and choosing their own priorities.

French has a left-branching conditional and a right-branching pluralization rule for nouns, while English has the opposite structures; yet, both languages have evolved out of a predominantly SOV language and have become predominantly SVO, and the process goes on.

3.3 Explaining the shift from left to right branching. Having argued that word-order change is part of a shift in the position of the head from after to before the modifier and observed that in normal circumstances the head always moves from the final to the initial position, I now try to show why such is the normal course of events.

In a comprehensive study of the general evolution of the Indo-European languages (Bichakjian forthcoming a), I have tried to show that a number of major processes characterize the development of the languages of this family. Among them are the shifts from quantitative to qualitative vowel distinctions, from a lopsided set of stops with secondary and even tertiary articulations to a set of plain obstruents more evenly divided among stops and fricatives, from bound to free grammatical morphemes, from aspect to tense, perhaps from ergative to nominative sentence structure, from infinitival and participial constructions to subordination, and, as I mentioned earlier, from left- to right-branching structures (cf. also Bichakjian 1986 and 1987a).

While many other changes also took place--some, no doubt, cyclical--the above-listed processes do outline the development of the Indo-European languages and *mutatis mutandis* give a fair indication of language evolution in general. This evolution is not simply a number of arbitrary processes changing a given linguistic feature into another; these processes are all moving in the same direction. Indeed, when each output is compared with the corresponding input, it becomes apparent that in all cases the features that were replaced are mastered late during language acquisition, while their reflexes are acquired earlier. The psycholinguistic data, which for reasons of space cannot be reviewed here, show the unity of these one-way processes and provide evidence for Sapir's insightful, but insufficiently substantiated, remark that 'linguistic drift has direction' (1949:155). With a small change in the wording--hopefully for the better--one may conclude, therefore, that language evolution has direction, and that the direction is toward ever-earlier-acquired features. This conclusion provides an explanation for the noncyclicity under consideration: since right-branching structures are on the whole acquired earlier than the corresponding left-branching ones, it is only logical that languages change from left to right branching and not the other way around.

4. For a theory of language evolution. The observation that languages move in the direction of early-acquired features is of heuristic importance, all the more since this is also the direction taken by the biological evolution of humans. It should be stressed at this time, especially for ill-intentioned critics, that humans are not infantile apes, and French and English are not Indo-European baby talk. Through a process called 'paedomorphosis' or 'neoteny,' humans have preserved and further developed some of the fetal or juvenile features of their ancestors (e.g., the plasticity of the brain), eliminating thereby the corresponding senile ones, but they have not remained in a state of simian immaturity (cf. Gould 1977). Likewise, languages have replaced, say, a set of

glottalized stops with the corresponding set of voiced consonants, which provide the same functional yield and, at the same time, the advantages of early-acquired features (cf., for the historical development, Gamkrelidze and Ivanov 1973, and, for the acquisition of glottalized stops, Straight 1976).

This indeed is where linguistics reaches its borders. The empirical data from language evolution and language acquisition show clearly that evolution proceeds in the direction of early-acquired features, but the evolutionary process and the guiding selection pressure belong to different fields of research.

Since neoteny is produced by a change in the regulation of structural genes, and since the clinical evidence leaves no doubt that language acquisition is a genetically regulated process, language evolution could be ascribed to a change in the regulation of the cellular material that makes language acquisition possible. This does not imply the acceptance of Chomsky's Universal Grammar being coded in the human DNA. There is, as I have pointed out (Bichakjian forthcoming c), very little empirical support for such a view, but there is no doubt that humans' potential for speech has biological correlates (cf. Lenneberg 1967, and Dobzhansky et al. 1977:451). Needless to say, these correlates have not been isolated and their regulation, though manifest in pathological cases, has not been directly observed and, of course, cannot be experimented with.

The selection pressure that guides the putative change in the regulation of the biological correlates of speech is even more difficult to define and evaluate. There is no doubt that certain sounds (e.g., the Indo-European laryngeals and the description of their near equivalents in Arabic in Keiler 1970:88) are more difficult to pronounce than their reflexes, and that certain strategies are more difficult both to produce and to process than those they have been replaced with. Such difficulties can only be evaluated indirectly, and language acquisition data are one source of information. If children acquire a given item late, as, for instance, one of the Arabic pharyngeals, which may be a problem for children as old as 13 (Omar 1973:56), it may safely be concluded that the neuronal controls, at least, for producing such a sound, and perhaps for processing it, are of an unusually high degree of complexity. This condition will in turn produce selection pressure for the evolution of language toward a system in which the same functional load can be carried by a less taxing alternative.

Though, of course, a considerable amount of explicit knowledge is yet to be gained, language acquisition suggests both through its biological correlates, the process whereby languages evolve, and through the relative order of the mastery of linguistic features, the selection pressure that guides the evolution of languages. Given the manifest affinity with the biological process, it seems appropriate to speak of linguistic paedomorphosis.

In addition to defining the course and the process of language evolution, the theory of linguistic paedomorphosis can also explain why certain inconsistencies can occur. Since a left-branching genitive such as *John's hat* is probably acquired not much later, or perhaps not later at all, than *le chapeau de Jean*, it is not really so odd that English, which on the whole has become a right-branching language, should have kept this older structure. Likewise, since we tend to attach moral value to greater expenditures of energy--

efficiency is an industrial and indeed a biological value, not a moral one--it is not surprising that, whenever grammarians interfere with language evolution, it is to introduce late-acquired features. This was especially the case with the humanists, who, after having gone through the hardship of learning Latin, tried to introduce vowel length in French and to reinforce and generalize the use of SOV in German. They failed in French, and in German they lost in main clauses, but scored in the subordinate ones.

From the foregoing discussion of the nature of the grammarian's intervention, one should not conclude that languages are the ropes in a tug-of-war game between child and adult, a game in which one day the child gains an extra inch on the adult, and another the adult acquires a small advantage on the child. Such pendular processes, advocated by Halle (1962) and *mutatis mutandis* by Jakobson (1931) and Martinet (1955), can only account for minor changes. In the main, languages do not volley back and forth, they evolve toward ever-earlier acquired features, and grammarians can only slow the process down or introduce isolated changes, which often do not stand the test of time. A comparison of any extant language with its protolanguage of a few millennia ago leaves no doubt that evolution pursues its course toward early-acquired features (for an example outside the languages of the Old World, cf. Solberg 1979).

5. From French word order to language evolution. Though unfounded, the claims as to the cyclical nature of word-order change and the contention that French may be moving away from the SVO structure have not been entirely sterile. They have provided an opportunity to reconsider the data and thence to conclude that, while certain features such as analyticity may be periodically reintroduced, many important processes pursue under normal circumstances a one-way course. This course is directed toward earlier-acquired items or strategies, and the motion is probably produced by a change in the regulation of the biological correlates of human speech and is guided by the pressures that can be observed in the differential chronology of the acquisition of linguistic features.

The fact that languages proceed toward earlier acquired features through not identical but alternative paths proves that speech communities are made, not of robots, but of free humans. This brings us to the nagging question of whether humans are also fickle. The perverse pleasure that is derived from stressing this attribute gives a hint of what the answer should be, and the evolutionary data make it abundantly clear. Neither has the biological evolution of humans swung back and forth between their present state of development and that of their apelike ancestor (cf. *mutatis mutandis* the phylogeny of the seal) nor do languages move back and forth between late and early-acquired sets of features. They tend toward the latter, and that is not a circular movement.

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SOUND CHANGE AND LINGUISTIC RESIDUE: THE CASE OF [f-] > [h-] > [Ø]

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Spanish aspiration and deletion of Lat. F, a unique result among Hispano-Romance dialects, would appear to constitute prototypical evidence for the regularity of the sound change as described in (1).

- (1) [f-] > {[h], [Ø]} / ____ {+ syllabic}¹
- (1a) OSp. *fablar* 'to talk' > *hablar* [aβlar]
- OSp. *fijo* 'child, son/daughter' > *hijo* [ixo]
- (1b) OSp. *fiesta* 'celebration' > *fiesta* [fjésta]
- OSp. *fuerte* 'strong' > *fuerte* [fwérte]
- OSp. *frente* 'forehead' > *frente* [frén-te]

Potential exceptions to this rule have traditionally been dismissed as instances of learned words, although this approach courts the obvious dangers of circular reasoning (cf. Wright 1982, Badía Margarit 1972): namely, that all learned words preserve [f-], while all cases of *f*-preservation confirm the presence of a learned word. This appeal to the notion of learned words, or *cultismos*, has persisted in the literature despite the fact that many words that preserve [f-] are attested in the earliest written sources for Castilian, as shown in (2).² To complicate matters further, there exist rustic or dialectal forms for many of these learned words, demonstrating that (1) did apply to them at least in certain areas and social strata.

- (2) *fama* 'fame', 10th c. (DCECH 2:846)³
- infante* 'prince', 10th c. (DCECH 3:449);
- dialectal form, *inhante* (Catalán 1968)
- febrero* 'February', 12th c.; popular form, *hebrero*
- (DCECH 2:877)
- feo* 'ugly', 12th c.; popular form, *hedo*
- (DCECH 2:932)
- feria* 'celebration', 12th c.; rustic form,
- heria* in the *Quijote* (DCECH 2:881)
- fin* 'end, goal', 10th c. (DCECH 2:900)
- figura* 'figure', 13th c. (DCECH 2:894)
- firme* 'firm', 10th c., Basq. and Nav., *irme*
- (DCECH 2:902)

fijo 'fixed', 13th c. (*DCECH* 2:894)
forma 'form', 10th c., popular doublet, *horma*
 'shoemaker's last' (*DCECH* 2:932)
fortuna 'fortune, luck; storm', 13th c. (*DCECH* 2:935)

Other unsolved questions associated with the phenomenon of [f-] > [h-] > [Ø] have been treated in piecemeal fashion, rather than as different manifestations of one and the same sound change in progress. For instance, the Spanish nativizations of Arabic loanwords with labiodental /f/ ^{◌̣}, glottal /h/ ^{◌̣}, pharyngeal /ħ/ ^{◌̣}, or velar /x/ ^{◌̣} display a surprisingly inconsistent set of results (Alarcos Llorach 1951, Izzo 1977:245): many Arabic borrowings showing word-initial labiodental /f-/ are spelled indifferently in Spanish with *f* or *h*; and the same is true for the other Arabic fricatives, /ħ/, /h/, /x/, as shown in (3). These spelling fluctuations occur despite the existence of clear phonetic equivalents in Castilian for both the Arabic labiodental and glottal fricatives.

(3) ^{◌̣}
 /f/ ^{◌̣}

fanîqa > OSp. *fanega* ~ *hanega* > *fanega* 'dry measure of cereal'

fundaq > OSp. *alfóndega* ~ *alhóndega* > *Alhóndiga* 'public granary'

/h/ ^{◌̣}

hind > OSp. *alfinde* ~ *alhinde* > *alinde* 'quicksilver for mirrors'

hury > OSp. *alfolí* ~ *alholí* > *alhorín* ~ *algorín* > *alfolí* 'granary, salt bin'

/h/ ^{◌̣}

hatta > OSp. *ata* ~ *fasta* ~ *hasta* > *hasta* 'until' (adv.)

hawz > OSp. *alfoz* ~ *alhoz* > *alhoz* 'lot of land'

/x/ ^{◌̣}

xayyât > OSp. *alfayate* > (obsolete), *alfayate* 'tailor'

xurj > OSp. *alforja* > *alforja* 'saddle-bags'

raxîs > OSp. *rafez* ~ *rahez* > *rahez* 'vile, despicable'

Second, Spanish exhibits an unusually productive series of doublets distinguished by the /f/-/h/ contrast, a sample of which is shown in (4).

(4) *faz* 'face'

filo 'edge'

fecha 'date'

fondo 'bottom, depth'

forma 'form'

fumar 'to smoke'

fundir 'to found (metal)'

haz 'visage'

hilo 'thread'

hecha 'done'

hondo 'deep, low'

horma 'shoemaker's last'

humo 'smoke'

hundir 'to submerge'

Finally, the Old Spanish spellings for an unrelated group of Latin words given in (5), and for another group of French loanwords of Germanic origin given in (6), record frequent intrusions of an inorganic *f* not found in the other Hispano-Romance dialects, such as Portuguese or Catalan.⁴

- (5) AFFLARE > OSp. *fallar* > Sp. *hallar* 'to find'
 INFLARE > OSp. *finchar* > Sp. *hinchar* 'to swell (up)'
 IMPLARE > OSp. *fenchir* > Sp. *henchir* 'to stuff, fill'
 GENUCULU > OSp. *finojo* > Sp. *hinojo* 'knee'
- (6) Fr. *hardi* > OSp. *fardido* ~ *hardido* 'bold'
 Fr. *honte* > OSp. *fonta* ~ *honta* 'offense'
 Fr. *hache* > OSp. *facha* ~ *hacha* 'torch'
 Fr. *harpe* > OSp. *ffarpa* ~ *farpa* ~ *harpa* 'harp'
 Fr. *héraut* > OSp. *faraute* ~ *haraute* 'herald'

This paper proposes a unified account for these apparently disparate types of linguistic residue, based on a reinterpretation of the philological evidence. It will be shown that the medieval graph *f* was itself ambiguous, especially in those areas dominated by speakers of Old Spanish whose vernacular from at least the eleventh century was already characterized by (1) (Catalán 1968). A written *f*, then, encountered in early medieval Spanish documents could have represented in the spoken vernacular either a labiodental [f] or a glottal [h] (and even a null realization [Ø] in certain dialects).⁵ As long as the number of speakers who shared the dialectal feature described in (1) were few or lacking in prestige, a single written *f* would have sufficed to capture the pronunciation for all Hispano-Romance dialects; the glottal or null realization of written *f* would simply represent dialectal or free variation. But as this dialect and the new phonemic split it implied (/f/ : /h/ > {[h], [Ø]})) spread so as to become the norm in most of the Iberian Peninsula, vacillations and hypercorrections would become commonplace in the written texts. I will, in fact, claim that some scribes followed the orthographic practice of *f*-doubling (i.e., *ff* = [f]), which began in the thirteenth century, in a losing effort to preserve traditional spellings and pronunciations when faced with the encroaching dialectal rule given in (1). In short, I consider all the types of linguistic residue cited above as an integral, indeed, normal part of a sound change in progress, rather than as instances of troublesome exceptions.

Were writing systems and scribal practices consistently phonetic, there would be no need for the present study; sound changes in progress would be transparent to all researchers. The use of a written *h* for aspiration [h] or zero [Ø], however, did not become standard practice until the end of the fifteenth century. Before that, *h* was traditionally considered a 'silent' (i.e., phonetically null) letter, although it served as a diacritic to indicate hiatus (e.g., *cahe* = *cae*) or vowels and semiconsonants in word-initial position (e.g., *horden* = *orden*, *huerta* [wérta] 'orchard' = *huerte* ≠ *uerte* [BÉrte] 'to see you').

From a corpus of some 8,000 tokens gathered from Leonese, Aragonese, and Spanish notarial documents from the twelfth through the fifteenth centuries, I found only 100 examples (most of them proper or place-names)

where *h* replaced *f*, all from Castilian regions, as might be expected (Blake forthcoming).⁶ Frequently, a token with *h* would appear alongside another spelled with *f* for the same word and within the same manuscript. While these examples are suggestive of a sound change in progress, as certain 'leader' words give evidence for--*haza* 'cultivable piece of land', *dehesa* 'pasture-ground', *hernan* 'Hernan', *herren* 'maslin, mixed corn for horses', *herrero* 'blacksmith'--they reveal little with respect to the actual realization of the phonemic split /f/-/h/.

Fortunately, there is another source of information from this period: hypercorrections represented by the scribal practice of *f*-doubling. Philologists, however, have largely discarded *f*-doubling as a source of phonemic information, given that the data are extremely confusing and inconsistent (cf. Blake 1988). At the same time, traditionally oriented philologists have always accepted the phonetic validity of other letter-doublings common to the same period: *nn* for the palatal nasal [ɲ] (vs. *-n-* [n]), *ss* for unvoiced sibilant [s] (vs. *-s-* [z]), and *rr* for the multiple vibrant [r] (vs. *-r-* [ɾ]). But as Hoenigswald (1960:7-8) observed, spelling inconsistencies, such as the series of doublings cited above, including *f*, 'are then in fact attempts at readapting the script to the changed state of the language.'

If the case-by-case analysis of *f*-doubling seems chaotic, the aggregate trends may be helpful in determining when the phonemic split of /f/-/h/ became the norm in literary Spanish circles. Following my interpretation of *f*-doubling as a form of hypercorrection, I would predict that Old Spanish scribes from a city like Burgos should be more sensitive to the on-going relexification process and phonetic confusions occasioned by the phonemic split /f/-/h/ than those scribes from other regions, such as Aragon, where (1) did not occur. Likewise, cities repopulated and politically dominated by Castile, such as Segovia, should exhibit a pattern of *f*-doubling similar to that of Burgos. The results of Figures 1 and 2 show just this sort of patterning.

It can be seen from Figure 1 that the late 1300s appear to represent a pivotal moment in the propagation of the sound change under examination. At that time, *f*-doubling drops off dramatically in favor of a single written *f*. Yet the identical fourteenth- and fifteenth-century spellings for words such as *fama* (> *fama* [fáma] 'fame') and *fablar* (> *hablar* [aβlár] 'to talk') belie their different treatments in vernacular speech. Why would the practice of *f*-doubling suddenly cease to be as useful as it was in the twelfth and thirteenth centuries? Why did the scribes stop worrying about it?

I propose the following explanation: If *f*-doubling were truly a question of hypercorrection and if the relexification process necessitated by the phonemic split /f/-/h/ had been completed, then single *f* could signify either phoneme, /f/ or /h/, provided that all members of the speech community agreed on the basic pronunciation of the word in question. After all, the uniform employment of a single *f*, whatever the spoken realization or underlying phonological form of the word itself, would still not hinder the basic recognition process involved in reading. Naturally, it would behoove all literary circles to reform their writing system, adjusting the alphabet to include this new distinction, /f/-/h/ > {[h], [θ]}.

Figure 1. *f*-doubling in Burgos and Segovia. **Figure 2.** *f*-doubling in Burgos and Aragon.

But this orthographic reform occurred at least a century after the split had become the norm, finally putting an end to a long-established scribal tradition dating from a time when all Hispano-Romance allophones of Latin F- could be signaled with one letter.

From Figure 2, it can be seen that the Aragonese preoccupation with *f*-doubling, as predicted, is very low. Aragonese does not experience the change described in (1) and, consequently, scribes would have little cause for worry when writing words with initial *f*-. There is, however, a considerable jump in *f*-doubling that occurs in the third quarter of the fifteenth century. The increase in tokens coincides with the historical union between Castile and Aragon, provided by Isabella and Ferdinand's marriage in 1469.⁷ I can only conjecture that the sudden intrusion of Castilian linguistic habits into the Aragonese court may have prompted Aragonese scribes to emphasize their own labiodental realization by employing the *f*-doubling strategy at this latter date.

Having outlined the orthographic details for the period in question, I would now like to return to the problems presented by the linguistic residue mentioned at the outset. What are the analytical repercussions of not waiting until a phonetically meaningful graph *h* is resurrected in the sixteenth century? My data suggest that labiodental [f] and glottal [h] were accepted as distinct phonemes in the literate speech community sometime between 1275 and 1375, at the very latest. This period corresponds to the locus of heavy *f*-doubling (i.e., Burgos and Segovia) shown in Figure 1. Before that time, a single written *f* adequately captured all allophonic or dialectal variation.

That is not to say, however, that Castilian literati were unaware of vernacular trends of earlier centuries, as the sporadic spellings of 'leader' words with *h* serve to illustrate. How striking it is, then, that a word like AFFLARE (see (5)), recorded in the tenth-century *Glosas Emilianenses* as *afflar* without intrusive *f*-, would suddenly exhibit some spellings with *f*-, *fallar* (or *h*, *hallar*, as in Berceo) in the twelfth and thirteenth centuries. The other Romance languages do not support this Spanish outcome: cf. Port. *achar*, Rum. *afla*, Sic. *asciare*, Dalma. *afflatura*, Astur. *afayarse*. I am suggesting that the words given in (5) and (6), such as *aflar*, were hypercorrected in writing sometime after the tenth century by the Castilian literati, as if they, too, were 'leader' words pronounced in the most radical and, no doubt at that time, still unacceptable zero realization [Ø] commonly found in vernacular Spanish.⁸ In the case of *aflar*, the desire to hypercorrect was carried to the extreme of creating a doublet: *hallar* with *h*- and the general meaning of 'to find' in contrast to *fallar* with *f*- and the more specific legal sense of 'to find the applicable law, to sentence', both words attested in the earliest sources.

The Arabic borrowings bring to mind a scenario only slightly different in substance. The Mozarabs, speakers of an /f/-preserving form of Romance, were responsible in the main for introducing Arabic loanwords, starting as early as the eighth century. Perhaps they and all other non-Castilian dialect speakers frequently identified the sounds of Arabic glottal, pharyngeal, and velar fricatives /h ʕ x/, with the similar and distinctively Castilian allophone, aspirated [h]. In that event, these Arabic fricatives might best be captured with *f*, a written symbol which subsumed all allophonic variation at that time. Izzo (1977:245) has called these nativizations a kind of hypercorrection: 'Speakers

of /f/-preserving dialects, accustomed to equating Castilian /h/ with their own /f/, may have done the same with Arabic words. This explanation would seem to gain at least some support from the fact that Portuguese and Catalan changed Arabic /h h x/ to /f/ in more cases than did Spanish.⁹

Likewise, I am not surprised to see the reverse situation occur: namely, Arabic words with /f-/ being treated according to rule (1), hence the rationale for the phonetic form of some of the examples given in (3). Again, Izzo (1977:245) states: '[the idea] That some Arabic /f/'s became Spanish /h/'s is easily explained by the assumption that the change either had not yet occurred or was still in progress at the time of the earliest borrowing.' My position would be to argue for the latter, that the change was still being propagated.

Written Castilian Spanish, it must be remembered, served as the koiné of the chancellery (Alarcos 1951:37); and spoken Spanish--already a kind of Basque-Romance koiné--did likewise for the other Hispano-Romance dialects, by virtue of its geographical and political situation (López García 1985).¹⁰ Within this context, then, not only is it easy to comprehend the orthographic vacillations in the standard koiné of the day for a sound that involved a new phonemic distinction, but also the numerous other cases of /f/-retention before syllabic segments, which seemingly plague the systematic application of (1). In other words, the linguistic situation of Spain in the Middle Ages was ripe for extensive dialect borrowings and the development of doublets if differentiations of meaning or function arose. Consequently, the appeal to learned words seems unnecessary for words with early attestations when Spanish is viewed as a koiné. As such, Spanish was obliged, by definition, to make accommodations in subtle ways to neighboring dialects.

In conclusion, I would assert that a variable rule such as (1) was always a feature of the language spoken by a small number of inhabitants of the Cantabrian/Basque region from at least the eighth century. As Castile gained in political importance, some form of the Castilian vernacular soon began to serve as a koiné for transacting business in the Christian world. Concessions, both in speech and writing, were made to the other /f/-preserving dialects and, in some cases, dialectal differences were exploited semantically, leaving the modern language with a rich set of doublets. Although the vernacular of speakers of Old Spanish must have had the /f/-/h/ contrast all along, this was not necessarily the case with the literary koiné that served the greater Christian community. The orthographic vacillations, hypercorrections, and *f*-doubling strategies demonstrate the confusions most literate speakers of this Castilian-based koiné suffered until the /f/-/h/ contrast was accepted as the norm. Within this framework, then, only the lack of dialect borrowings should surprise us. In essence, I am suggesting that the label 'language change' may not be the best description for the phenomenon [f-] > [h-] > [Ø]; 'language spread' is more accurate. The various sources of linguistic residue must be seen as an essential part of the superposition of Castilian Spanish onto other dialects spoken in Spain in the Middle Ages.

Notes

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1. Please notice that my use of curly brackets { } in (1) leaves open the possibility of formulating a rule where the allophones [h] and [Ø] are sociolinguistic variables.

I am also aware that the few cases excluded by the formulation in (1) must be handled separately:

- (1) *hiere* < *herir* < FERIRE 'to wound' by verbal analogy
- (2) *hierro* < FERRU 'iron', perhaps due to analogy with a series of semantically related nouns: *herrero*, *herramienta*, *herraaje*; the rustic form *fierro* is common in rural Chile, Argentina, Mexico, and elsewhere in Latin America (DCECH 3: 335).
- (3) *hiel* < FEL 'bile', perhaps to avoid homophony with FIDELIS > FIEL 'faithful' (Steiger 1923:171).
- (4) *hienda* (c. 1400) < *FEMITA, FIMU 'manure', a near doubling with *fieno* > FEMU 'manure' (DCECH 2:891).

It is interesting to note that all these examples involve [f] > [h] before the diphthong [je], a situation which seems to contradict Penny's suggestion that lip-rounding before [w] should favor aspiration while lip-spreading before [je] should disfavor it (1971:467). I consider the other sporadic but well-known cases of aspiration before nonsyllabic [w]--*jue* < *fue*, *juerza* < *fuerza*, *juera* < *fuera*--to be subsequent developments unconnected with the historical process under discussion.

2. Bustos Tovar (1974) evades the issue by employing the label 'cultismo de época temprana,' or learned words from the early period, as distinguished from true learned words which enter the language some time after a sound change has been completed. To bolster this view, Bustos Tovar, like Menéndez Pidal, argues that a vernacular Leonese Latin must have existed in a diglossic relationship to spoken Romance during this early period: '...pero sí podemos confirmar su observación [de Menéndez Pidal] de que el latín, por ser de uso general, no es únicamente una lengua de minorías sino que tiene profundas raíces en el habla popular. Ello se traduce en una enorme presión del latín sobre el romance, con el consiguiente préstamo de léxico culto' (33). (For a rebuttal of this traditional position see Wright 1982:165-72). Nevertheless, Bustos Tovar still recognizes the inherent problem as demonstrated in his comments regarding *fama* 'fame' (39): 'en el siglo XIII la conservación de *f*-inicial no puede ser indicio fonético de cultismo, aunque sí desde nuestra perspectiva actual.' Bustos Tovar also warns linguists to distinguish carefully between dialect borrowings and *cultismos*, a crucial difference for the present study.

3. *DCECH* will be used throughout this study to refer to Corominas and Pascual 1980-.

4. For a different interpretation see Malkiel (1954), who has argued--though not to my satisfaction--that the words in (5) are, in fact, semantically related to *FARCTU* > *harto* 'to stuff, fill' and developed Old Spanish forms with the inorganic *f* by analogy.

5. Alarcos Llorach (1950-54:25) states: '...*f* y *h* son variantes de un mismo fonema único...Consideramos, pues, en el español antiguo *f* y *h* como variantes no significativas de un solo fonema.'

6. The documents examined are catalogued in the National Historical Archives in Madrid (*Archivo Histórico Nacional*) under the following monastic collections: San Millán de la Cogolla, Nájera, Segovia, Avila, Sahagún, Montearagón, and Carrizo. The data prepared for Aragon were supplemented by Navarro Tomás's (1957) scrupulously accurate transcription of medieval Aragonese manuscripts.

7. The political union of the two kingdoms took place in 1479 and was symbolized by the fennel leaf pronounce din Spanish as [inózo] and in Aragonese as [finózo] < **FENUCULU* (*FENICULU*).

8. I am not the first to suggest the notion of hypercorrection as a solution for these troublesome cases of inorganic *f*- (see Meier 1971). My approach is novel, however, in trying to treat all types of residue--doublets, nativizations, inorganic *f*, and the chaotic practice of *f*-doubling--all within one framework. Corominas and Pascual (1980.3:308), however, insist that the intrusive *f*- of *fallar* < *AFFLARE* is a clear product of metathesis derived from the medial labiodental /-f-/.

9. Alarcos Llorach (1971:257) had a similar idea in mind when he stated: 'La permutación de [f] y [h] explica que la mayoría de los arabismos con sonidos laringeos o faríngeos se representaran en español por [f] o [h] indistintamente.'

10. Hock (1986:485) described koinés as 'deregionalized regional languages or dialects which because of their deregionalization become potential vehicles for supraregional communication in areas meeting the above description.'

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**UMLAUT ALTERNATION, VARIATION,
AND DIALECT CONTACT:
RECONDITIONING AND DECONDITIONING
OF UMLAUT IN THE PREHISTORY
OF THE DUTCH DIALECTS**

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*Alla cara memoria di mio nonno,
Antonio Buccini.*

0. Introduction. The development and usage of umlaut has in many respects remained one of the central problems of the historical phonology of the Germanic languages, for despite the abundant data and numerous analyses of those data, considerable scholarly disagreement remains over the basic chronological, geographical, and structural relationships among the specific cases of the phenomenon.¹ Within the broader questions of umlaut in Germanic, we find the particular problem of umlaut usage generally and *i*-umlaut specifically in what today constitutes the Dutch language area, the dialect data for which present us with a highly complex (indeed, in some instances even chaotic) situation:² not only are there significant regional differences in the extent of umlaut usage, but also within given dialects, especially those of the southwest, there are highly irregular lexical distributions of fronted and nonfronted West Germanic back vowels, with only a limited correlation to the original presence of umlaut-conditioning factors.

These data have naturally received considerable attention from Dutch and Belgian dialectologists and historical linguists, but relatively little attention outside the Low Countries. This neglect is lamentable, not only because of the high quality of some of the work done on the topic, but also because the problem itself is of broader significance, certainly to Germanic and perhaps ultimately to historical phonology in general. This is, indeed, a highly complex problem and I make no attempt to consider it fully here. Rather, I will sketch the problem in general terms and discuss briefly my approach to it. Specifically, I will take up the question of umlaut in Dutch in light of recent discussions of language contact and variation, as well as the notions of 'reconditioning' and 'deconditioning,' the theoretical presentation of which is to appear in extenso in Van Coetsem and Buccini (forthcoming).

1. Umlaut and spontaneous palatalization. The major umlaut-isoglosses in the Dutch language area run from north to south and comprise two fairly

compact bundles, dividing the area into three dialect groups, as shown in maps 1, 2, and 3 (Goossens 1962:312 ff.). In the eastern group, *i*-umlaut has affected the West Germanic short vowels, long vowels, and diphthongs, and moreover, as in the German dialects and standard language, it plays a central role in the morphological system. This area includes almost all of Belgian Limburg, Dutch Limburg, a small part of eastern North Brabant and the eastern parts of Gelderland and Overijssel in the Netherlands. In the central dialects, we also find reflexes of umlaut in both the short and long vowels and in the diphthongs, but in this area umlaut has been lexicalized and no longer serves any significant morphological function. This central area is comprised of the Dutch-speaking part of Brabant and the province of Antwerpen in Belgium, and in the Netherlands most of North Brabant and the eastern half of the province of Utrecht as well as western Gelderland and Overijssel. Moving toward the coast, we find a transitional zone, to the west of which the West Germanic long vowels and diphthongs do not reflect any umlaut-conditioned split. This western area covers French Flanders, West and East Flanders, Zeeland, North and South Holland, and the western parts of Utrecht and North Brabant. In the cases of WGmc. *ô* and *au*, nonfronted reflexes generally obtain, and of WGmc. *â* we find only isolated unumlauted forms and thus no clear evidence of the operation of umlaut.³ WGmc. *û* similarly shows no umlaut-conditioned split but in this case, rather than consistently showing the nonfronted variant, it consistently shows the fronted one. This general fronting of *û* is found not only in all the western dialect area but also in almost all of the central dialect area. In the short vowels, WGmc. *a* regularly reflects the operation of umlaut in the west. WGmc. *u* also shows a split between fronted and nonfronted reflexes and in a fair number of cases the distribution corresponds to the original distribution of umlaut-conditioning factors. There are, however, numerous cases of back vowels in words originally with umlaut factors as well as fronted vowels in words without umlaut factors. These exceptions to an umlaut-conditioned split complicate the picture considerably, especially in the southwest, that is, in the dialects of East and West Flanders and to some degree Zeeland.⁴ Here the geographical distribution of fronted and nonfronted vowels varies widely from word to word.⁵

It should be noted that these modern dialect distributions have probably not changed greatly since the time of the first major attestations of Middle Dutch in the thirteenth century. For the period corresponding to the time of Old English and Old High German, we have but fragmentary evidence of Dutch, largely consisting of onomastic citations, and we are therefore unable to follow the early developments directly. The earliest continuous text from the area, the Wachtendonck Psalm translations, can be located with certainty in the eastern dialect area and dated to the tenth century.

The traditional and received interpretation of these data is that, while in the eastern dialects umlaut operated fully, in the western Dutch dialects, and hence in the standard language, umlaut affected only the short vowels.⁶ The occurrence of fronted long vowels in the western dialects has then been attributed to various 'spontaneous palatalizations,' some of which spill over the zone of umlaut isoglosses into the central dialects.

II. Secondary umlaut of

1. — WGme. ô e.g., groen/gruun cf. Ger. grün, Eng. green
 2. ... WGme. â e.g., kaas/kees cf. Ger. käse, Eng. cheese
 3. xxx WGme. au, e.g., gelooven/geleuven 'to believe'
 4. --- WGme. a e.g., manneke/menneke cf. Ger. Mannchen 'little man'
- A. [stippled pattern] unconditioned fronting of â
- B. [horizontal lines pattern] unconditioned fronting of au
- (based on Goossens 1980)

III.

1. unconditioned fronting WGme. û e.g., huis/hoes 'house'
 2. morphological umlaut in diminutives e.g., boomke/böömke 'little tree'
 3. morphological umlaut in plural formation e.g., voet-voeten/voet-vuut cf. Eng. foot-feet
 4. morphological umbault in pres. sing. of strong verbs. e.g., vaart/veert cf. Ger. fahren-erfährt
- [stippled pattern] cases of umlaut and unrounding of WGme. u e.g., brigge/brugge 'bridge'
- (based on Frings 1944, Goossens 1970 and Taeldeman 1978)

As Goossens points out, in such areas where all reflexes of a given West Germanic vowel are fronted, it is, of course, impossible to map the limit of any former umlaut-conditioned split (1980:36). Such is the situation with WGmc. *û*, unconditionally fronted in both the western and central dialects and showing an umlaut-conditioned split only in an area roughly corresponding to the eastern dialects with morphological umlaut (Goossens 1962:319). A similar unconditioned fronting which extends across the zone of umlaut isoglosses is that of WGmc. *au* at the extreme southern end of the bundle from East Flanders into the adjacent portion of Southwest Brabant (Goossens 1980:37, Taeldeman 1985:200-1). Despite these two perturbations of the umlaut-isoglosses for WGmc. *û* and *au*, the basic geographical agreement of the other lines would tend to indicate that in both cases, there was formerly an isogloss running fully parallel to and near the others. That is, to the east of the cluster of umlaut lines, an umlaut-conditioned split obtained for all umlautable vowels. In the case of WGmc. *au* in Southwest Brabant, this is perhaps a relatively minor point. In the case of the fronting of WGmc. *û* throughout the central dialect region, however, this is an important point to which I return later. As Goossens, who indicated this possibility, acknowledges (1980:28), a former general coincidence of an umlaut-conditioned distribution of *û* with that of the other umlauted vowels cannot be proven, but nevertheless seems quite plausible and even likely.

Within the western dialect area, there appear some other regional unconditioned frontings. There are two such areas, one in North Holland and one in Zeeland and South Holland, where WGmc. *â* is consistently fronted. In the latter case, the area of unconditioned fronting extends to the isogloss for the umlaut of *â*, forming a bulge out from the isogloss bundle. Finally, particularly in West Flanders and to a lesser degree in the other western dialects, there is the highly variable fronting of WGmc. *u* (and *o*) mentioned above. According to the traditional view, these latter frontings were primarily attributable to the assumed general umlaut of short vowels, though the numerous exceptions to umlaut-conditioning must bring that analysis into doubt. The hypothesis that these frontings of WGmc. *u* were due to a so-called 'spontaneous palatalization' and not occasioned by umlaut (at least in the case of open syllable) was already advanced in 1938 by Vereecken, whose thinking seems to have found only limited acceptance.⁷

The failure of the traditional interpretation of umlaut in Dutch to account for the treatment of the short back vowels in the western dialects is not its only shortcoming. Indeed, the long presumed lack of umlaut of the long vowels in western Dutch focuses on a distinction which elsewhere in West Germanic is not significant in the operation of *i*-umlaut. Such a distinction based on vocalic length is absent from North Germanic as well, where *i*-umlaut also operated. If umlaut developed in such a particular fashion in western Dutch, some reasonable explanation for the deviation from the normal Germanic pattern needs to be found. Of course, an analysis of the Dutch facts which does not need to invoke an aberrant development of umlaut should be preferred, especially in light of the already dubious umlaut of WGmc. *u* in the west.⁸

The most dramatic advance in the discussion of Dutch umlaut has been Goossens' suggestion that the distinction between the operation of umlaut in

the western and in the central dialects does not depend on vocalic length; rather, it is based on the distinction traditionally made in German historical linguistics between 'primary' and 'secondary' umlaut (1980:22 ff.).⁹ In the German context, primary umlaut refers to the fronting *i*-umlaut of WGmc. *a* in all but certain limited environments. This umlaut is consistently reflected in orthography in all but the earliest Old High German texts, that is, from about the middle of the eighth century on, as in such forms as OHG *gast-gesti* 'guest-guests' (Braune 1975:27-28). Secondary umlaut is the *i*-umlaut that only finds graphic expression gradually and much later, starting from the late tenth century and continuing on into the Middle High German period (Penzl 1949:230-33). This umlaut affects WGmc. *u* plus long vowels and diphthongs; for example, OHG *sun-suni*, MHG *sun-süne* 'son-sons', OHG *hûs-hûsir*, MHG *hûs-hiuser* 'house-houses', OHG *hôr(j)en*, MHG *hoeren* 'to hear', OHG *lôsen* (cf. Gothic *lausjan*), MHG *loesen* 'to loosen'. It affects, moreover, WGmc. *a* in those environments where that phoneme failed to undergo primary umlaut; that is, where certain consonant clusters or an intervening syllable stood between *a* and the umlaut inducing *i* or *j*, as in OHG *gislhti*, MHG *geslächte* 'family', OHG *faterlîh*, MHG *väterlich* 'fatherly'.

Though there has been some disagreement over the precise relationship between primary and secondary umlaut, it seems clear that phonemicization of the umlauted variants occurred in different ways in the two processes. In primary umlaut, the fronting of WGmc. *a* ultimately led to the merger of the umlauted allophone with WGmc. *e*; thus, phonemicization of the umlaut split resulted from a partial phonemic merger at a time when the umlaut conditioning factors remained intact (Goossens 1980:22-23). The phonemicization of the umlauted allophones of the other West Germanic vowels came about only later, as the umlaut-conditioning factors themselves were reduced to zero or schwa. Thus, in secondary umlaut, phonemicization is the result of a 'distributional merger' of originally umlaut-inducing environments with nonumlaut-inducing environments (Goossens 1980:23). In the case of WGmc. *a*, the occurrence of secondary umlaut then indicates that in those environments where primary umlaut failed to take place, there was nevertheless an umlauted allophone, but one which did not merge with WGmc. *e*. Phonemicization of this umlauted allophone happened only later, with the loss of the conditioning factors.

To return to the Dutch situation, the occurrence of an isogloss dividing a western area lacking secondary umlaut of WGmc. *a* and an eastern area with that secondary umlaut clearly confirms Goossens' contention, especially since this line runs parallel to and near the other umlaut isoglosses dividing the western and central dialects. Given the exceptional status within Germanic of a length distinction in the operation of *i*-umlaut, the unclear correlation between umlaut and fronting of WGmc. *u* in the west, and the considerable agreement between the western umlaut isoglosses and the primary/secondary umlaut distinction, the traditional handbook view of umlaut in Dutch must once and for all be abandoned.

The apparent absence of umlaut in western Dutch therefore does not necessarily reflect a lack of the phonetic tendency to assimilate accented vowels to following high front vowels and jod that we find in all the other Germanic languages; rather, it betrays a failure to phonemicize umlauted and

nonumlauted allophones with the reduction of the umlaut-conditioning factors. This absence of secondary umlaut appears to flow from a failure of these allophones to become phonetically distinct enough to survive independently, perhaps (though not necessarily) because of early loss of the conditioning factors. However, since there is evidence, particularly in the southwest dialects, that such an early reduction did not take place (Goossens 1980:39-40), there is no obvious explanation for the apparent reluctance of the allophones to differentiate further.

Goossens (1980:40-41) offers a tentative explanation for the failure of secondary umlaut and the spontaneous frontings in the west. At the heart of it lies the idea that prior to reduction of the umlaut-conditioning factors, there must already have been a tendency in some parts of the west to front somewhat the nonumlauted allophone. Both umlauted and nonumlauted allophones thus remained fairly close. With the loss of the umlaut factors in these areas, merger resulted in a fronted vowel, while in other parts of the west merger favored the nonfronted pronunciation. Further distortion of any umlaut-conditioned distribution would come about through the process of analogical leveling in morphological paradigms. Finally, one must not overlook dialect contact between areas with different merger patterns as well as with eastern dialects where secondary umlaut operated normally. In addition, contact with coastal dialects, in which secondary umlaut also seems to have functioned, further contributed to the emergence of idiosyncratic distributions of fronted and back vowels. I will return to the topic of these coastal dialects below.

This proposal, while admitting the role of dialect contact in the spread of irregular or idiosyncratic distributional patterns, nevertheless is founded on the assumption that the dialects involved all developed along essentially direct, though differing, lines. That is, the effects of dialect contact seem limited to borrowings. (Though, to be fair, Goossens does not discuss the question in detail.) In any event, on the assumption that western developments do run along a direct line, we must charge failure of secondary umlaut to a relatively weak assimilation of the accented vowel to the umlaut factor. While such a development is by no means unimaginable, it does again set the western Dutch dialects apart from all the rest of Germanic. For Germanic dialects, left to their own devices, all develop secondary umlaut. From this perspective, the possibility that failure of secondary umlaut may be due to language contact seems worthy of pursuit, especially since (a) there is independent evidence for such contact and (b) we are quite well informed about the contacting languages.

2. Ingwæonic and Frankish. Within the West Germanic group, scholars have long recognized a cleavage between the North Sea coast and English dialects on the one hand, and those further inland on the continent, on the other. Though objections have often been raised to the name, the former group has traditionally been called 'Ingwæonic' in Dutch linguistics.¹⁰ While English and Frisian are the only surviving representatives of Ingwæonic, there are strong indications that closely related dialects were once spoken all along the coast from northern France to Denmark. The term Ingwæonic is used then in reference to a specific set of features shared by these dialects but

alien to continental West Germanic. The Frankish group of dialects, to which Dutch belongs, generally fails to show Ingwæonic features and clearly belongs to the continental variety of West Germanic.¹¹ Nevertheless, we find considerable traces of these Ingwæonic features throughout the coastal dialects. Although the thickest concentration of these features is directly along the coast in West Flanders, Zeeland, and Holland, a number of these features occur throughout the western dialect area and to a lesser extent beyond.¹² Thus, it cannot be doubted that Ingwæonic and Frankish dialects were in contact in this coastal region. What must be determined is the time and nature of that contact.

Though this is not the place for detailed study of Germanic settlement of the Low Countries, we must make the following points. Frankish incursions into Roman Gaul indicate the presence of Franks near the Rhine and Maas rivers already in the third century. These incursions culminated with the invasion and conquest of northern Gaul by the Salian Franks in the latter half of the fifth century after they had been settled in the area of Limburg and eastern Brabant.¹³ As the Salian Franks at least in part vacated their old settlement, new Frankish waves moved into the region behind them.

During this same period, Ingwæonic groups, originally located in Jutland and northwestern Germany, settled in England. Whether this invasion of England was carried out directly from their homeland or from intermediate stopping points along the Dutch, Belgian, and northern French coasts is unknown, though for a number of reasons, the latter seems likely. In particular, in the *Notitia Dignitatum* (early fifth century), the two sides of the English Channel are described as the 'Litus Saxonicum' or 'Saxon coast.' Toponymic evidence from the Pas-de-Calais, moreover, confirms the former presence of a significant Saxon colony there (Mansion 1932). A number of place-names in West Flanders also show striking parallels with English counterparts in both form and phonological development (Taeldeman 1982). For the coast north of Flanders as well as the whole north of the Netherlands, little direct evidence survives from this period. Two centuries later, however, during the Merovingian period, this northern area was controlled by the Frisians. Comparing the scant historical evidence with the later geographical distribution of Ingwæonisms in Dutch dialects, we see that there is general agreement; the Ingwæonisms are limited to the westernmost dialects, and, in so far as specifically Frisian Ingwæonisms occur, they are confined to the dialects of Zeeland and Holland.¹⁴ Since no Frisian- or English-like dialect survives in the western Dutch area, Frankish must have completely supplanted Ingwæonic, a process which no doubt commenced in the seventh and eighth centuries as the Franks expanded their political hegemony to the north at the expense of Frisians and Saxons in northern Germany.

This supplanting process, of course, represents a case of language contact. Frankish/Ingwæonic contact is generally believed to have resulted in a series of essentially unrelated relic forms and perhaps a vaguely formulated tendency toward palatalization.¹⁵ But this contact, responsible for extinction of west coast Ingwæonic dialects, was surely not limited to a simple process of borrowing. If it did in fact have a lasting phonological effect, that effect must be examined in terms of the interaction of differing linguistic systems. In short, we must regard this contact as having had a structural dimension.

To consider the nature of this contact, I will employ the distinction in transfer types proposed by Van Coetsem 1988. He distinguishes between the process of borrowing, in which a speaker acts upon his own dominant language by incorporating into it elements from some other language. In this process, the elements transferred generally belong to the least stable linguistic domains, chiefly secondary vocabulary. In contrast to the process of borrowing is that of 'imposition,' in which the speaker transfers elements from his own dominant language into another target language. In imposition, it is from the most stable linguistic domains that material tends to be transferred; that is, in speaking a foreign, target language, the speaker will tend to preserve certain stable features from his own language, such as articulatory habits. In addition to changes brought about through imposition itself, the target language will also be subject to the process of reduction (or 'simplification') as well as accelerated internally induced change. As the acquisition process continues, these contact-related effects will decrease.¹⁶ To return to the case at hand then, we can say that there must have been a period, during which Ingwæonic speakers acquired Frankish, and in doing so imposed onto their Frankish speech certain stable elements from their native Ingwæonic. In so far as the dialects of the western area are unquestionably Frankish, the acquisition process was carried out to a high degree.

3. Morphological and phonological aspects of the contact. The logical dating for this contact, as mentioned earlier, is in the seventh and eighth centuries. While we have very little direct evidence for the dialects involved during this period, we can make some reasonable hypotheses about them, based on the other, closely related and better attested West Germanic dialects. Focusing now on the southwest area, where there is indisputable evidence for settlement by groups who also populated England, we can surmise that the dialect spoken there was structurally quite similar to those spoken across the channel.¹⁷

One of the most striking features of Old English is very early and thorough operation of *i*-umlaut. Indeed, in the earliest English texts, dating from around A.D. 700, *i*-umlaut appears to have fully run its course, no longer constituting 'a productive sound change' (Toon 1983:132, cf. Brunner 1965:68ff.). In terms of our discussion of umlaut in German and eastern Dutch, secondary umlaut had already been carried out in English by the end of the seventh century at the latest, with reduction of the umlaut-conditioning factors and phonemicization of the umlauted allophones. Even allowing for a lag in graphemic representation, the much later attestation of secondary umlaut in continental West Germanic in the tenth century indicates a significant difference in the rate of development of *i*-umlaut in the two areas. It should be noted too, that the earliest Dutch text, the tenth-century Wachtendonck psalm translations from the eastern dialect area, does show the operation of secondary umlaut, but it is not consistently represented.¹⁸ Thus, umlaut in the eastern Dutch area seems to have developed at approximately the same rate as in the other Frankish and continental West Germanic dialects.

The early operation of umlaut in English seems also to have been accompanied by a stronger assimilation of the accented vowel to the

umlaut-conditioning factor. Throughout the English dialects, the umlauted back vowels began to unround and to merge with the front vowels in the course of the ninth century, though there was certainly some variation in the development of this change, both according to geographical region and to phonetic environment.¹⁹ Evidence for the same change in contemporary Frisian leads us to expect a similar development of early umlaut with a tendency to unrounding in the Ingwæonic dialect of Flanders. Traces of such a development have been well documented for the area and, though concentrated in West Flanders, they occur throughout the western dialects. In Flemish texts from the Middle Dutch period, a number of common words show both umlaut and unrounding and occasionally alternate with nonunrounded forms.

Figure 1. Examples of umlauted and unrounded WGmc. *u* in western Middle Dutch.

Middle Dutch	Old High German	Old English
stic, stuc, stucke	stucchi	stycce 'stick'
pit, pitte, put, putte	pfuzzi	pytt 'pit'
ric, rigghe, rugghe	rucki	hrycg 'ridge'
brigghe, brugghe	brucka	brycg 'bridge'
evel, ovel, oevel	ubil	yfil 'evil'

These western words that show fronting and unrounding of WGmc. *u* with one exception originally had umlaut-conditioning. Given their phonological shape and geographical distribution, they must be seen as Ingwæonic relicts.²⁰ Several of these words also show apocope of the final vowel, which, from the standpoint of Middle Flemish and, for that matter, modern Flemish dialects, is an uncharacteristic development. This apocope seems to confirm their Ingwæonic origin. We can then also reasonably consider cases of umlauted WGmc. *â* found in the west and perhaps even the handful of cases of umlauted and unrounded WGmc. *û* (Schönfeld-Van Loey 1970:32) as native Ingwæonic residue (Verstegen 1938).

Ingwæonic-Frankish contact in the seventh or eighth century involved a dialect having already undergone strong reduction of unaccented vowels and secondary umlaut (probably with incipient unrounding in certain environments) and a dialect in which reduction had not yet taken place and in which only primary umlaut had operated.²¹ Moreover, in the Ingwæonic dialect, umlaut served an important morphological function, while in the Frankish dialect, inflexional suffixes were still the primary morphological markers. In attempting to acquire Frankish, the Ingwæonic speaker was faced with a difficult task. First, he was confronted with various linguistic elements (vocabulary items, morphemes, etc.), for which there were no precise counterparts in his own language. Comparing early Frankish texts from Germany with Old English gives us some idea of the degree of difference encountered. Second, he was likely confronted with a number of unfamiliar phones as well as inconsistent phonological correspondences in shared vocabulary. In addition, depending on the degree to which Frankish had developed distinct umlauted allophones, he was perhaps faced with an

automatically conditioned phonological rule whose operation was opaque to him. Acquisition of such a rule is extremely difficult if not impossible, as shown by such sociolinguistic studies as Payne's (1980) of Philadelphia English. In addition, he had to master a morphological system in which the distinct quality of unaccented vowels had an important function. The acquisition of new distinctions in nonaccented position is also difficult, as evidenced by, for example, Neapolitan dialect speakers' pronunciation of standard Italian.²² In short, we might expect the Ingwæonic speaker to impose his reduced realization of nonaccented vowels on his Frankish speech.

In addition to indirect phonological interference with the Frankish morphological system, the clash of the two systems themselves must also be considered. The predictable result of contact between related dialects with contrasting morphology is a process of variant reduction or 'simplification' which generates greater morphophonemic regularity, as shown by Trudgill for a case of dialect contact in Norway (1986:102-6). A transparent historical case of such simplification within Germanic involves northern English dialects in contact with Old Norse. The effects of that contact, described by O'Neil (1978), offer a striking parallel to the development of Frankish in the west. In both cases, there is a drastic reduction of inflectional suffixes down to 'a rudimentary set of endings' (O'Neil 1978:263). In particular, we note the reduction of nominal markings in western Dutch and the striking spread of the specifically Ingwæonic *-s* plural marker. Indeed, absence of schwa-apocope in Flanders, a feature which superficially looks quite 'un-Ingwæonic,' can be attributed to the unaccented vowel's important role as one of those 'rudimentary endings.' In addition to a neutralization of inflexional endings, almost all traces of stem allomorphy, in many cases caused by umlaut, were also abandoned in northern English in reaction to contact with Norse (O'Neil 1978:262). And again there is a clear parallel in the western Frankish dialects, where even the alternations arising from primary umlaut were already leveled before the Middle Dutch period (Goossens 1980:42).

Whether this morphological simplification brought about or resulted in a disruption of the conditioned umlaut allophony cannot be determined, owing to lack of data from the actual time of the contact. And perhaps the distinction is irrelevant, for, comparing western Dutch dialects to those of the central and eastern areas, we discern a gradual decrease in the complexity of the phonological system that generally parallels the decrease in morphological complexity from east to west.

As a case in point, consider the dialectal treatment of the West Germanic diphthongs, which in Common Germanic had undergone an allophonic split according to either height of the following unaccented vowel or quality of the immediately following consonant (cf. note 9). The prevalence of either vocalic or consonantal conditioning varied considerably from dialect to dialect, and within individual dialects, the two kinds of conditioning could cooccur and 'cross' or overlap.²³ Focusing on the southern area, we find that in the southeastern Dutch dialects, treatment of these diphthongs by and large corresponds to that found in Old High German and in particular the Middle German (Frankish) dialects (Goossens 1974:35). In this eastern area (roughly speaking, Limburg), the West Germanic alternations [*ao* ~ *au*] and [*ae* ~ *ai*] are reflected as *o* ~ *au* and *e* ~ *ei* according to the following consonantism,

while the alternation [*eo* ~ *iu*], as elsewhere in West Germanic, seems predominantly conditioned by the following vocalism. In the central southern area (roughly Brabant), there is no reflex of the [*ao* ~ *au*] alternation whatsoever, while [*ae* ~ *ai*] is reflected as an alternation of *e* ~ *ei*, but here conditioned primarily by the following vocalism. In the far west (roughly West Flanders), both West Germanic alternations have been given up, with generalization of the monophthongal reflexes *o* and *e*. In the case of WGmc. [*eo* ~ *iu*], the southeast maintains a distinction, while in Brabant a unitary treatment prevails. Again, in the southwest the alternation has been completely lost.²⁴

Figure 2. Dialectal treatment of 'breaking' conditioned alternations.

WGmc.	Western	Central	Eastern
[<i>ao</i>] [<i>au</i>]	o	o: ~ ö:	o: ~ ö: au ~ äü
[<i>ae</i>] [<i>ai</i>]	e: (ei)	e: ei	e: ei
[<i>eo</i>] [<i>iu</i>]	i:	i: (ü:)	i: ü:

While in many instances these allophonic variants were potentially subject to paradigmatic levelling, analogy alone cannot explain the regularity of the collapse in the southwest. Again, we find an apparently parallel situation in the treatment of diphthongs in the Norwegian dialect contact described by Trudgill (1986:105), in which contact between a dialect with a system of five diphthongs and dialects with only four has resulted in a simplified threefold diphthong system. Trudgill indicates that the new 'simpler system, with fewer contrasts, has won out, again probably through incomplete accommodation and, crucially, simplification during child language acquisition' (1986:105). If we consider the possible added complication of conditioned alternations, differing in detail between the two contacting dialects, the likelihood of simplification in child acquisition seems even greater than in the Norwegian case, where such factors seem to be absent.

A further twist to this western predilection for monophthongization of the West Germanic diphthongs involves their original treatment in the coastal Ingwæonic dialect itself. The attested major Ingwæonic dialects tend toward unitary treatment of the old diphthongs, though this is not always true (e.g., Old Frisian *a/e* for WGmc. *ai*).²⁵ In Old English, the treatments of WGmc. *ai* and *au* do not reflect the conditioning factors discussed above. In addition, the split between *eo* and *iu*, originally maintained in Old English, was to some degree unstable, and already in the ninth-century charters from Kent, the two diphthongs have probably merged (see Campbell:§280, 293). In our contact situation then, a possible unitary (and monophthongal) treatment in the coastal Ingwæonic dialect may have served as a model for the (imposed) simplification process in the acquisition of Frankish by Ingwæonic speakers.

For both the vocally and consonantly conditioned alternations in the diphthongs and that of the secondary *i*-umlaut conditioned alternations, I propose that the special status of the western Dutch dialects lies not in an especially weak tendency to assimilate accented vowels to unaccented vowels or consonantal environments. Rather, it lies in the 'disruption of phonetically conditioned processes in Frankish by Ingwæonic speakers as a result of their acquisition of Frankish. Whatever the phonetic nature of the alternations in Frankish, their conditioning was opaque to the Ingwæonic speaker. Indeed, even those unaccented conditioning factors themselves were foreign to a speaker of a dialect in which reduction had already largely neutralized vocalic distinctions in final syllables. Given the failure of the conditioning, as well as phonetic and distributional discrepancies between the contacting dialects, there must have first been a period in which significant phonological variation prevailed. This variation was then subject to further developments, most especially simplification, as this 'Ingwæonified' Frankish was acquired by subsequent generations.²⁶ Thus, we might interpret the western tendency to favor the nonumlauted allophones as the result of a sharp difference between the contacting dialects' umlauted allophones; for example, an Ingwæonic *e* corresponding to a Frankish *ö*. Thus, a contrast between an Ingwæonic alternation *fōt/fēt* 'foot/feet' and Frankish *fōt/fōti*, could most easily be reconciled by generalizing the shared elements; thus, *fōt/fōta*. By means of this process, *ö* might ultimately have been lost and the unrounded variant maintained only in isolated relic words if at all.

In child language acquisition, these alternations may also have been subject to reinterpretation on phonological grounds; that is, they may have been 'reconditioned' (Van Coetsem-Buccini, forthcoming). Specifically, given the reduction or loss of the umlaut-conditioning final vowels resulting from Ingwæonic imposition, speakers of early western Frankish may have reanalyzed the alternations as being conditioned by certain consonantal environments. The confused reflexes of WGmc. *u* in Flanders, for which there are indications of consonantal conditioning, should perhaps be examined in this light. Though tendencies toward regularization through consonantal conditioning may well have arisen, the process would easily admit exceptions as well as local variation. We might compare this situation with that described by Payne for the raising of *æ* in Philadelphia English, where we find a lexical distribution of raised and nonraised highly reminiscent of the Flemish treatment of WGmc. *u*. Further contact between dialects which had reconditioned the umlaut alternation in slightly different ways would result either in the appearance of irregular lexical distributions, or, as discussed above, in a simplification of the variation through generalization of one or the other variant. This process might well account for the sundry 'spontaneous palatalizations' in the west. Moreover, in the case of the fronting of WGmc. *û*, there is evidence for consonantly conditioned extension of the fronted variant preceding the ultimate generalization, a step which we might call 'deconditioning.'²⁷

The results of these tendencies are reflected in the overall simplicity of the western vocalic system in comparison with the eastern, as seen in Goossens' reconstructions of the Middle Dutch vocalic systems.

Figure 3a. Middle Dutch short vowel systems (Goossens 1980:49).

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The relative phonological simplicity of the southwestern dialects goes hand in hand with certain rather complicated or irregular lexical distributions, while the complexity of the southeastern phonological system dovetails with generally more regular local developments.²⁸ Furthermore, this phonological simplicity is correlated with a relative morphological simplicity, as discussed above.

4. Conclusion. Our interpretation of the development of umlaut in Dutch is founded largely on the structural analysis by Goossens. The ultimate difficulty in motivating the failure of secondary umlaut in the west by purely language-internal developments, however, is evident, and at least some appeal to dialect contact must be made. Casual or superficial contact, wherein transfer through borrowing predominates, cannot account for this extraordinary failure of umlaut nor for the generally sharp contrast between the western and eastern Frankish dialects in the Dutch language area. Thus, both the linguistic and historical evidence for an originally Ingwæonic-speaking population in the west indicates the need for a serious and structurally oriented analysis of Frankish/Ingwæonic contact.

In several of his numerous studies on Ingwæonic elements in Dutch, Heeroma examined the structural aspect of the contact with Frankish. Due to the state of language contact studies at the time, however, his formulation of how linguistic elements were transferred, particularly in the phonological domain, was often vague or lacking. The imprecision of the traditional concepts of 'substrate' and, especially popular in Dutch studies, 'expansion' has long been the bane of contact-based theories of phonological developments (see Van Coetsem's 1988 introduction). Despite the undeniable occurrence of language contact and its potential for far-reaching effects on linguistic structures, the muddle of such terms as 'interference' and 'borrowing,' used with only minimal reference to the agent of the transfer and the place of the transferred element in a linguistic system, has convinced many linguists that contact-based theories are less scientific than explanations of developments

through purely language-internal structural motivations. Such caution is justified, in light of certain tenuous and even absurd theories invoking language contact that have been proposed, as well as the virtual impossibility of proving beyond all doubt that language change in the past was the result of contact and not internal structural development. All language change, including contact-induced change, is ultimately integrated into linguistic structures and, in a certain sense, must be internally motivated. Nevertheless, the limitations of past contact models should not inhibit us from applying better formulated models to those cases where there is strong external evidence for important linguistic contacts. In this regard, some of Heeroma's unappreciated ideas may yet be vindicated.

Our explanation of the development of umlaut and spontaneous fronting in Dutch is, as Goossens also says of his own explanation of these phenomena, highly conjectural. Given the paucity of data for the early period of development, any explanation must be speculative. Nevertheless, by applying some of the principles derived from the observation of other languages in contact to Frankish and Ingwæonic, genuine advances can be made in reconstructing the early history of Dutch.

Notes

I would like to thank Prof. Jay Jasanoff for offering helpful criticism and comments on a number of points in this paper. I would also like to thank my good friend, Thomas Young, who also offered valuable comments. Finally, I am indebted to Prof. Frans van Coetsem, with whom I am currently working on the development of the notions of 'reconditioning' and 'deconditioning,' the idea of which goes back to Van Coetsem 1968. It was originally through collaboration on that project that I came to reconsider the topic of umlaut in Dutch and I have benefited greatly from our exchange of ideas. Full responsibility for any shortcomings or inaccuracies in this paper, however, lies solely with the author.

1. For an overview of the various major theories on umlaut in Germanic, see Sonderegger 1959.

2. Goossens thus describes the pattern of isoglosses of fronted and nonfronted reflexes of WGmc. *u* in the western dialects (1980:34).

3. The occurrence of some words in the west with umlauted WGmc. *â* has been discussed by Versteegen 1938.

4. Important detailed studies of the reflexes of WGmc. *u* are Vereecken 1938, Vangassen 1963, and Taeldeman 1971.

5. For the variation in geographical distribution, see the maps accompanying Taeldeman 1971. Of course, while there is an important geographical aspect to this variation, the isoglosses as drawn may well mask areas within which the treatment of individual words may be variable, as Trudgill cautions in a different context (1984:95).

6. Such is the opinion expressed in the standard historical handbook, Schönfeld-Van Loey (1970:44ff.), as well as in Van Bree (1977:184-86), who sees a chronological difference between the umlaut of short and long vowels, the latter then failing to spread to the western part of the Dutch language

area. Taeldeman also takes up the short/long distinction in his study on the reflexes of WGmc. *u* (1971:168-69). See also Goossens (1980:21n.2).

7. Willemyns, in his study of the west Flemish dialect of Brugge, seems by and large to find support for Vereecken's view in his data (1971:151-55). Taeldeman (1971), on the other hand, disagrees on a number of points both with Vereecken and with Willemyns. Goossens (1980:36) clearly agrees with Vereecken, at least in so far as he feels the occurrences of fronted *u* and *o* in the southwest have not yet been adequately accounted for and in any event cannot be simply explained by umlaut (1980:38).

8. The Common Germanic raising and lowering changes (early umlaut and breaking) affected only short vowels, as well as the then probably biphonemic diphthongs (see Van Coetsem 1968 and 1970:46ff.). If we assume that the development of umlaut in Germanic was essentially continuous, as seems reasonable, there must have been a transitional period between the earlier raising/lowering umlaut (breaking) and the later fronting and backing umlaut that we find in North and West Germanic. During that time, there might well have been a period when incipient fronting and backing umlaut would have affected only the short vowels. Since we find no evidence for such a transitional stage in the Germanic dialects (unless, of course, one considers western Dutch as such), we must assume that it was at best short-lived.

9. This distinction has been taken up in Van Loon's recent handbook on the historical phonology of Dutch (1986:38ff.), though without reference to Goossens 1980. For an overview of the topic of primary and secondary umlaut, Goossens cites Kienle (1969:26-33). See also Sonderegger 1959 and Russ 1977 for discussion and references.

10. Objections to the term were raised again recently by Laur (1984), who discusses the application of the name at some length. While none of the terms for this dialect grouping is wholly satisfying, we choose the term 'Ingwæonic,' following the usage established by Wrede, Frings, and Heeroma. For an overview of the Ingwæonic question and numerous references, see Markey 1976.

11. In this regard, one could conceivably establish a hierarchical ranking of more and less specifically Ingwæonic features. For example, the palatalization of *k* and *g* before front vowels is more specifically Ingwæonic than the conflation of dative and accusative in personal pronouns or the loss of final *-z* in pronominal forms.

12. There have been numerous studies of the Dutch Ingwæonisms. A brief introduction to the topic may be found in Schönfeld 1970:xxxiii-xxxix. For the geographical distribution of some of the Ingwæonisms, see Daan-Francken 1972 and 1977. See also Taeldeman 1982 for a list of major Ingwæonisms along with references and maps.

13. The exact location of this area, 'Toxandria,' has been disputed. Here we follow Boeren 1947. It is in any event clear that their settlement was primarily in the eastern half of the Dutch language area.

14. For a discussion of Frisian and non-Frisian Ingwæonisms, see Miedema 1971.

15. An Ingwæonic tendency toward palatalization surviving and operating in the western Frankish dialects has often been claimed, as in Schönfeld-Van

Loey 1970:43. Structurally oriented analyses of Frankish/Ingwæonic contacts have been undertaken, most notably by Heeroma. See the conclusion below.

16. For a detailed discussion of the variable factors in imposition ('source language agentivity'), see Van Coetsem 1988: chap. 3.

17. Given Gysseling's (1960) evidence for Frisian, which indicates secondary umlaut and unrounding as early as the beginning of the tenth century, precocious development of umlaut in all of Ingwæonic seems probable. This has, of course, long been recognized, though it by no means follows that umlaut originated in and spread from Ingwæonic to the other Germanic dialects.

18. The original text seems to have belonged to a period when the graphemic system was just starting to reflect secondary umlaut. The effect of scribal tradition, of course, could have significantly delayed the development of new graphemes for existing umlauted phonemes. For details, see Kyes 1967 and Quak 1983.

19. See Campell 1959: §§196, 198, 288-92, 315-17. See also Toon 1983:1291-93.

20. See Verstegen 1943 for discussion and maps. See also Taeldeman 1971. The one word with this unrounding that did not have an umlaut-conditioning factor is the preposition *ip*, corresponding to standard Dutch *op*, which occurs in a large part of West Flanders. The exceptional development in this word is most likely due to its variable accentuation, a not uncommon phenomenon with prepositions and pronouns.

N.B. There also occur a few cases of umlauted and unrounded WGmc. *û*. See Taeldeman 1982:280 and below.

21. Heeroma, though accepting the traditional view of a length distinction in the operation of umlaut in the Dutch language area, came to a similar conclusion: 'Es muß eine Zeit gegeben haben--sagen wir zwischen 500 und 800--,in der ingwäonische Südwesten bereits den Umlaut der langen Vokale kannte und der fränkische Südostens den Umlaut der langen Vokale wieder verlor, ausser in einigen ingwäonischen Relikten...' (1964:21). He failed to explain how and why Frankish exercised this influence, which is not surprising given the inevitable confusion arising from an attempt to apply the length distinction in umlaut to the data.

22. Neapolitan has undergone a sweeping reduction of final vowels. Morphological categories are largely indicated through umlaut or 'metaphonic' alternations of the accented vowels. In speaking the Tuscan standard, which maintains a four-vowel system in unaccented position, Neapolitans tend to reduce all final vowels to schwa or zero.

23. For discussion of the interrelation of these Common Germanic vocalic changes, see Van Coetsem 1968. In specific application to the Dutch area, see Goossens 1974:31-35.

24. For a discussion of the treatment in the west, see Heeroma 1938. Further discussion and maps are to be found in Daan-Francken 1977.

25. The Ingwæonic tendency toward monophthongization of the WGmc. diphthongs was pointed out to me by Prof. van Coetsem.

26. The side-by-side presence of Frankish, 'Ingwæonified' Frankish, and Ingwæonic likely endured for some time in the west. The existence of a sociolectal split in the area has already been proposed by Schönfeld-Van Loey:

'Wat Vlaanderen, Zeeland, en het grootste deel van Holland betreft, kreeg...het Frankisch de boventoon, toen een Franckische bovenlaag over de Ingvaecoone onderlaag heenschoof' (1970:xxxii). This continued contact was a further source of variation within the community.

27. In a transitional zone between Brabant, where the fronting of *û* is general, and Limburg, where it is conditioned only by umlaut, the fronted variant was formerly found not only in umlaut environments but also generally before dental consonants (Goossens 1962:319).

28. A six-height vowel system is admittedly an abstraction. What this representation does show is the number of etymologically distinct lexical groups that have been maintained in the southeastern dialects.

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GENETIC CLASSIFICATION, CONTACT, AND VARIATION

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Introduction. The year 1987 saw the publication of two important contributions to the genetic classification of the world's languages: Greenberg 1987 and Ruhlen 1987. Greenberg 1987 is primarily an innovative classification of the indigenous languages of the Americas. My interest here, however, is not in the details of the classification of indigenous languages of the Americas, but rather in his essay 'The principles of genetic linguistic classification,' which forms chapter 1 of the book (1-37). Ruhlen 1987 is a classification of the world's languages according to the methodology set out by Greenberg, and is therefore especially useful as an illustration of Greenberg's methodology as applied to those parts of the world for which Greenberg has not yet published classifications. The present paper is in large measure a critical response to the principles of genetic classification that are explicit or implicit in these two works, with particular attention to the genetic classification of languages of those parts of the world in which I am myself particularly interested.

As a starting point, it will be useful to review the range of possibilities generally entertained for explaining similarities between languages, namely: chance, universal principles of language, borrowing, and genetic affiliation.

Chance can, by definition, never be excluded completely, though if the number of similarities between two languages is high there is little likelihood of this situation having arisen purely by chance. One might assume that some assessment of the expected level of chance similarity between languages could be made by comparing pairs of languages that are known to be genetically unrelated and which have not been in contact. In fact, this procedure turns out to be more complex. First, one must exclude similarities that are due to universal principles of language, and work in this area is hardly sufficiently advanced for us to be able to do this with any high degree of reliability. Second, there can never be a guarantee that any two languages are genetically unrelated, so at best one can operate with the belief that the languages are genetically unrelated; unfortunately, mere belief is unlikely to be convincing, given that the possibility of all the world's languages being genetically related is currently being given serious attention by some linguists (Ruhlen 1987:260-61).

Under 'universal principles of language,' I include not only those properties that are common to all languages but also general tendencies, for instance of the kind that are found as innovations in a range of languages independent of their genetic affiliation or areal contact. A trivial example

would be the use of a lexical item something like *ma* to mean 'mother', found for instance in Indo-European languages, in Mandarin Chinese (*mā*), and in Haruai (Papua New Guinea) (*mam*), though it is not fully universal: in Georgian, *mama* means 'father', while 'mother' is *deda*. The inclusion of universal tendencies introduces a particularly close relationship between universal principles and chance, since a universal tendency implies a certain level of similarity that is not due to chance but also allows for a certain degree of operation of chance.

The main concern of this paper, however, will be the relationship between genetic affiliation and borrowing. In the first half of the paper (section 2), I will assume a very conservative family tree model of genetic affiliation, which can be discussed in terms of the simple family tree diagram in Figure 1. In this diagram, A is the ancestral language of B and C. It is assumed that at least a sufficiently large portion of each of languages B and C can be attributed to development through time of material present in the ancestral language A, even though there may be other material that has not followed this development, for instance being borrowed from some fourth language, or even representing borrowing between B and C or into B or C directly from A (if, for instance, A remains in use as a prestige written language). Those elements that develop in real time from A down to B or C constitute evidence for the genetic affiliation. Many of the other elements represent borrowings (the remainder being spontaneous innovations). The crucial assumption is that, no matter how intensive the level of borrowings, it will always be the case that B and C remain genetic descendants of A. While this assumption is commonplace in historical linguistics, and it may even seem trivial to make it explicit here, it is an empirical assumption, one which is moreover open to question.

2. Within the family tree model. The essence of Greenberg's methodology is the comparison of the forms of lexical and grammatical morphemes across a wide range of languages. Evidence for genetic relatedness consists in finding similar forms for the same lexical or grammatical morpheme in the languages in question; degrees of similarity (more accurately: common historical development over a period of time)¹ then serve to establish the subgrouping of the languages, i.e., which languages are more closely related to one another, being descended from the same intervening node in the family tree, as in Figure 2, where G and H are more closely related genetically than they are to F, since G and H share the historical development from D to E, although all are ultimately descendants of D.

One important claim is that typological criteria are not relevant for the establishment of genetic affiliation, given the overwhelming evidence that general typological properties (such as basic word order) are readily borrowed from one language to another, often diffusing over considerable geographical areas. While this might seem so obvious and widely recognized as to merit little comment, the ghost of typological classification masquerading as genetic classification can unfortunately not yet be laid to rest. In the most extensive classification of Papuan languages produced to date, Wurm (1982:260, 68-70), while acknowledging that the lexical basis of genetic classification is problematic in New Guinea because of the high incidence of borrowing,

suggests as the alternative 'structural and typological features,' and indeed places heavy emphasis on typological features (such as similarities in phoneme systems, presence of switch-reference and other clause-chaining devices).

Figure 1. A family tree.

Figure 2. A family tree.

A second claim, and one that is sure to arouse more controversy, is Greenberg's insistence that regularity of sound correspondences (whence, the possibility of reconstructing the protolanguage) is neither a necessary nor a sufficient criterion for establishing genetic affiliation. Since I am going to be quite critical of some aspects of Greenberg's methodology below, let me emphasize that on this particular point I agree with him, though not perhaps on some of the implications he draws from this.

First, let me give an illustration where genetic affiliation seems almost certain, despite the absence of regular sound correspondences, from the Chukotko-Kamchatkan family of languages spoken in northeastern Siberia (Comrie 1981). This family is usually, and I think correctly, given as consisting of two branches. One contains the very closely related languages Chukchi and Koryak, with Kerek and Alutor sometimes recognized as separate languages rather than dialects. The other contains Kamchadal (Itelmen): at present, only Western Kamchadal survives, though vocabulary lists from the eighteenth and nineteenth centuries suggest that the other varieties of Kamchadal may have been sufficiently divergent to merit the status of distinct languages; only Western Kamchadal will be considered here. The question that arises is whether Kamchadal is really related genetically to the other Chukotko-Kamchatkan languages. While there are striking lexical similarities, they are insufficient to establish an overall set of regular sound correspondences: if the languages are genetically related and if there were originally regular sound correspondences, then the accretion of exceptions to these correspondences² and the loss of shared vocabulary has masked them. Nonetheless, if we

examine a number of bound morphemes in Koryak (representing the main mass of the language family) and Kamchadal, we find similarities that can hardly be due to chance, and are also unlikely to have been borrowed as a whole (though see section 3). For instance, both Koryak and Kamchadal have a locative in *-k*; Koryak has an absolutive in *-ne*, while Kamchadal has one in *-ŋ*; Koryak has an absolutive in *-lən*, while Kamchadal has *-ljin*, this suffix being used in both languages largely for the singular of paired objects. But the most striking similarities are in the person-number affixes on verbs, as set out in Table 1. Even some of the apparent discrepancies can be given plausible explanations, e.g., the Kamchadal third-person prefixes *n-* (indicative plural transitive) and *xăn-* (imperative) may be cognate with the Koryak inverse prefixes *ne-* and *ɬən*, used where the transitive subject is lower on the person hierarchy than the object. If one accepts this, only the first person plural indicative remains clearly unrelated, and the Koryak form might have developed by analogy to the first person plural imperative and the first person singular indicative prefixes.

Table 1. Koryak-Kamchadal pronominal affixes on verbs.

		Koryak		Kamchadal	
		Indicative	Imperative	Indicative	Imperative
Sg.	1	t-	m-	t-	m-
	2	ø-	q-	ø-	k-
	3	ø-	n-	ø-	xăn-
Pl.	1	mət-	mən-	n-	mən-/xăn-
	2	ø--tək	q--tək	ø--sx	k--sx
	3	ø-	n-	ø-(intr.) n- (tr.)	xăn-

Of course, one does not need to look so far from home for elements whose origin in development from an ancestral form is not in doubt but where the precise development defies statement in terms of regular sound change. As far as I am aware, no one has questioned that the English pronoun *she* is of indigenous origin, though its phonological relations to its antecedents remain unclear. Of the French imperfect indicative endings, e.g., third person singular *-ait* (older *-oit*, early old French *-eit*, very early Old French *-iet*, Price (1971:198-99) says: 'There can be little doubt that [they] derive from the Latin endings *-eba[t]*, etc. However, the intermediate stages are not clear: *-eba[t]*, etc., by regular phonetic change, would have given in early O[ld] Fr[ench] **-eive[t]*, etc.' He goes on to say, referring to later developments: 'For reasons that are not clear, *-iet* became *-eit* in very early O[ld] Fr[ench].'

Conversely, one frequently finds instances of regular correspondences in items that are clearly loans. Table 2 gives some Finnish lexical items that were borrowed from Old Russian. The correspondences of interest are those between Old Russian medial voiced consonants and Finnish single consonants, and those between Old Russian medial voiceless consonants and Finnish geminate consonants. (In word-initial position, both voiced and voiceless consonants of Old Russian correspond to single voiceless consonants in

Finnish.) Again, one can find such examples nearer home: The mass of English loans from Latin via French in the early centuries of this millennium show striking sets of regular correspondences.

Table 2. Finnish loans from Old Russian.

Old Russian	Finnish	
okūno	akkuna	'window'
bobŭ	papu	'bean'
gramota	raamattu	OR 'document', Fi 'Bible'
ložŭka	lusikka	'spoon'
lukŭ	luokka	'bow' (weapon)
poganŭ	pakana	'pagan'
popŭ	pappi	'priest'
svoboda	vapaa	OR 'freedom', Fi 'free'

If regular correspondences are neither necessary nor sufficient criteria for genetic affiliation, one might wonder whether they play any role at all in genetic affiliation. Greenberg's answer seems to be in the negative. However, on the basis of regular correspondences, we are able to reconstruct the common ancestor of the various correspondents, thus formulating a hypothesis of an earlier stage in the linguistic development of the languages under consideration. It sometimes turns out that this reconstructed form then shows striking similarity to the forms of yet another language (perhaps itself a reconstructed language) even though the form in this language is not strikingly similar to those in the other attested languages. Returning to Figure 2, this would mean that the form found in language F is not strikingly similar to those found in G or H, but is strikingly similar to that reconstructed for E, thus ultimately suggesting the genetic affiliation of all of F, G, and H, with the subgrouping given in Figure 2. An example of this is provided by the forms in Table 3, taken from Norman (1988:13). The first two columns give forms in two attested languages, Mandarin Chinese and Written Tibetan; the forms are certainly not strikingly similar. The third and fourth columns give the reconstructed Old Chinese and Middle Chinese forms, based on the modern varieties of Chinese and interpretations of such older documents as rhyme tables (but not on comparison with other Sino-Tibetan languages); the forms in the first and third/fourth columns are at least sufficiently similar to attract attention, and are the kind of evidence that have led to the positing of the Sino-Tibetan family.

Table 3. Chinese and Tibetan correspondences.

Mandarin	Written Tibetan	Middle Chinese	Old Chinese	
èr	gnyis	njɿd	ńǰi-	'two'
wŭ	lŋa	ngag	nguo:	'five'
rì	nyi-ma	njit	ńǰjet	'sun, day'
yú	nya	ngjag	ngjwo	'fish'

In similar fashion, Dixon (1980:195-207) shows how regular correspondences can be established between forms in a number of apparently divergent Australian languages, in particular those of northern Cape York, and the more mainstream languages of most of the rest of the continent. On learning that the Mbabaram for 'dog' is *dɔg*, one might suspect a loan from English. However, the relationship to a Proto-Australian form something like **gudaga* becomes much more plausible when one realizes that a large number of correspondences justify positing, in the history of Mbabaram (and some other Australian languages), regular changes of initial consonant loss, final vowel loss, infection of the quality of the medial vowel by the initial vowel (i.e., **a* rounded to *ɔ* under the influence of the preceding **u*), followed by loss of the initial vowel. Other examples of etymologies that are plausible because of regular correspondences, though involving great superficial dissimilarity, are Yinwum *ni-* < **yana-* 'go', Anguthimri *læ-* < **kali-* 'go walkabout', Nganyaywana *gyaya* < **wigay* 'food'.

We may summarize Greenberg's methodology by citing his answer to the question why such languages as Hittite and Tocharian have been accepted as members of the Indo-European language family, namely 'the existence of a considerable number of word-stems resembling those that are widespread in Indo-European, and a number of highly characteristic or grammatical formatives involving sound and meaning' (Greenberg 1987:19). The arbitrariness of the relation between linguistic form and linguistic meaning guarantees that, with very few exceptions, widespread similarities of this kind cannot be the result of universal principles of language. Greenberg goes on to say that 'the existence of even a few forms such as Hittite *eszi* "he is" and *asanzi* "they are" (cf. Latin *est/sunt*, Sanskrit *asti/santi*) is quite sufficient to exclude accident.' I agree that such similarities exclude accident. But as is implicit from the earlier discussion, it is not sufficient to exclude chance and universal principles of language in order to guarantee genetic affiliation: one must also exclude borrowing, and it is here that I find myself least satisfied with Greenberg's procedures. Even if we remain working within a basically family-tree approach to genetic classification of languages, it is essential to be able to distinguish between similarities that are due to common genetic origin and those that are due to borrowing, and Greenberg provides no reasonably solid criteria for doing this that I am aware of, other than the exclusion of typological properties as readily borrowable features (Greenberg 1987:30). One might, of course, believe that borrowing is so marginal a phenomenon in the case of sound-meaning correspondences that it can effectively be eliminated or reduced to a minimum. This seems to be the view of Ruhlen (1987:254), who makes the following rather surprising claim, to which I return in section 3: 'Borrowing takes place under very special circumstances, usually involving bilingualism, and affects a fairly limited area of vocabulary (chiefly nouns).' But it is already time to consider moving outside the confines of the family-tree model.

3. Contact and variation. Without wishing to commit ourselves to a statement as strong as Ruhlen's, we can nonetheless recognize, on the basis of earlier empirical work, that some parts of a language are more readily

borrowable than others. In particular, general typological traits and nonbasic vocabulary, especially vocabulary related to particular cultural phenomena, are most readily borrowed (diffused by areal contact). Basic vocabulary and bound morphemes, especially bound inflectional morphemes, are the most difficult to borrow. By saying that something is difficult to borrow, however, this does not mean that it is impossible to borrow. Even borrowing of bound inflectional morphology is well attested, though rarely. A striking example is given by Menovščikov (1968) from the varieties of Aleut spoken in the Soviet Union. The dialect of Bering Island (Ostrov Beringa) has retained the original Aleut verbal markers of tense-aspect-mood and person-number; by contrast, the dialect of Copper Island (Mednyj Ostrov) has borrowed the Russian markers wholesale, attaching them to Aleut stems, as illustrated in Table 4. Heath (1978: 68-118) provides a rich set of examples illustrating the areal diffusion of bound morphemes among the languages of Arnhem Land (Australia). Greenberg has already been cited as considering the existence of verb forms like *eszi* 'he is' and *sanzi* 'they are' in Hittite as solid evidence of the Indo-European ancestry of Hittite, given the highly specific and irregular morphological nature of these forms. Yet when faced with Modern Greek *éla*, imperative of *éreo* 'come', and Bulgarian *éla*, imperative of *dójda* 'I come', one would be in error in attributing *éla* to their common ancestor: Bulgarian *éla* is in fact a loan from Greek.

Table 4. Forms of 'to work' in Aleut dialects and in Russian.

	Bering	Copper	Russian
Present:			
Sg. 1	awa-ku-q	aba-ju	rabota-ju
2	awa-ku-xt	aba-iš	rabota-iš
3	awa-ku-x	aba-it	rabota-it
Pl. 1	awa-ku-s	aba-im	rabota-im
Past:			
Sg. 3	awa-na-x	aba-l	rabota-l
Future:			
Sg. 3	awa-ŋan ana-x	bud-et aba-t'	bud-et rabota-t'
Imperative:			
Sg. 2	awa-ŋa	aba-j	rabota-j

A more serious problem, because of the frequency with which it arises, involves the distinction between basic and nonbasic vocabulary. In illustrating the similarities among Indo-European languages on which the hypothesis of their genetic affiliation is based, the numbers often play a significant role (e.g.,

English *three*, Latin *trēs*, Russian *tri*, Sanskrit *tri*), yet in other parts of the world numbers are clearly readily borrowable as a cultural artifact: in Japanese virtually all uses of numbers above 'ten' and virtually all productive uses of numbers 'ten' and below involve loans from Chinese. And even items that are widely considered to belong to basic vocabulary are on occasion subject to borrowing, such as personal pronouns (i.e., even personal pronouns that are not subject to social factors such as politeness distinctions): English has borrowed its third person plural pronoun *they* from Scandinavian; in some dialects of the Western Desert Language (Australia), the first person singular pronoun fell under a name taboo and was replaced by English *mi* (Dixon 1980:29); in Jamaican Creole, where most pronouns are of transparent English etymology, the second person plural pronoun *unu* derives from Igbo. The conclusion from all this is that, in principle, anything can be borrowed, though some kinds of elements are much less likely to be borrowed than others. If one is looking at relatively short periods of time, the low probability of a certain item's being borrowed can be treated as imperviousness to borrowing, with little danger of an overall misclassification of the language's genetic affiliation. When, however, the time period in question is longer, the probability that an item of low borrowability has in fact been borrowed increases.

A key question to be addressed here is the rate of lexical replacement, where 'lexical replacement' can be taken in a rather general sense that also includes the replacement of bound morphemes. Evidence from many parts of the world suggests that lexical replacement can be very rapid, though of course it does not have to be. I will examine a number of test cases.

Haruai (Comrie forthcoming) is a Papuan language, i.e., a non-Austronesian language of New Guinea, spoken by about 1,000 Highlanders in the southwest of Madang Province, Papua New Guinea. Its pronoun system and verbal morphology are very close to that of a neighboring language Hagahai (in particular, the Aramo dialect of Hagahai), as shown in Tables 5 and 6, and somewhat more circumstantial evidence suggests that Hagahai is closely related to Pinai (more closely than to Haruai), the three languages together forming the Piawi family. Haruai is not, however, even remotely mutually intelligible with the other Piawi languages, or with any other language. In recent years, however, the closest contacts of the Haruai have been not with other Piawi-language communities, but rather with the Kobon, whose language is a member of the Kalam family. Haruai and Kobon have virtually no similarities in morphology or pronoun systems, suggesting that they are either unrelated or very distantly related genetically.

Calculations of percentages of apparent cognates between Haruai and Kobon, however, run around the surprisingly high figure of 35%, only slightly lower than the figures around 37% for Haruai-Aramo apparent cognates. (For Aramo-Kobon the figures are around 19%.) What is particularly indicative is that for a number of lexical concepts, Haruai has two words, one identical or virtually identical to Kobon, the other completely different. For instance, there is widespread variation between *acö* and *böp* 'father', cf. Kobon *bap*; between *nayö* and *sdö* 'sun', cf. Kobon *srdö*; between *wönö* and *kayn* 'dog', cf. Kobon *kain*. For some speakers who have closer associations with the Kobon, further items are drawn into this variation, e.g., the Kobon word *añ* 'sister' is used, in

variation with Haruai *mhöd* 'older sister' or *mölöw* 'younger sister'. This distribution has a ready explanation in terms of contact-induced variation: Haruai is genetically a member of the Piawi family. Relatively recent contact with Kobon has led to a massive influx of Kobon lexical items. The relative recency of the influence is seen in part in the virtual identity of Haruai and Kobon lexical items;³ even the distinctions apparent in the examples cited are misleading, sometimes reflecting different transcription practices, sometimes reflecting accommodation of Kobon items to Haruai phonology. The precise quantification of the recency of contact is difficult, and the folk tradition that intensive contact with the Kobon dates from only about a generation ago seems hard to reconcile with the intensity of the linguistic intrusion. One might wonder whether in some cases Kobon lexical items have completely replaced Haruai equivalents. Indeed, there are instances where Haruai has only a single lexical item known to me which is virtually identical to its Kobon translation equivalent, e.g., *ad* 'to mumu' (a traditional manner of cooking on hot stones in a pit), *röbö* (Kobon *ribö*) 'water'. That Kobon lexical items should have entered Haruai and ousted the indigenous item so quickly seems particularly unlikely. But whatever the precise period of time that Haruai has been subject to Kobon lexical influence, this influence has been sufficiently strong to mask lexically the original genetic affiliation between Haruai and Aramo by an overlay of Haruai-Kobon loan cognates. In this particular case, the morphology provides the clue to the original genetic classification.⁴

In the case of Haruai, there are social factors likely to be particularly favorable to rapid relexification. Like many South Pacific area cultures, word taboo is an important part of Haruai linguistic culture, in particular taboos on common words (usually, though not exclusively, nouns) that are the same as or similar to the names of taboo kin. If a particular word is tabooed, then a loan from another language the speaker happens to know is a ready substitute. Moreover, since words are always potentially subject to lexical tabooing of this kind, it is useful to have a stock of synonyms so that tabooed items can be readily replaced, and loans from another language provide a useful addition to such a stock of synonyms, giving rise to a period of contact-induced variation before one or other of the synonyms is discarded because of word taboo. A similar phenomenon is noted by Dixon (1980:58-65) for avoidance styles in Australian Aboriginal languages, i.e., in speech with or in the presence of taboo kin. For our present purposes, the relation between ordinary style (Guwal) and avoidance style (Jalnguy) in Dyirbal is particularly revealing. The phonology and grammar of Guwal and Jalnguy are identical, including bound and other grammatical morphemes. However, every lexical morpheme (apart from some kin terms) is different, with Guwal-Jalnguy lexical correspondences being either one-one or many-one (e.g., Jalnguy has only one lexical item covering lizards and goannas, while Guwal has specific lexical items for each species in the local taxonomy). What is especially interesting in the present context is that many Jalnguy items are clearly cognate with lexical items from other, neighboring (though often only distantly related) languages. For instance, in the Mamu dialect of Dyirbal, corresponding to Guwal *bambu* 'egg' (and also *jili* 'eye') we find Jalnguy *dinal*, which is the ordinary style word for 'egg' in the neighboring language Yidiny. Dixon notes that whereas the ordinary styles of Yidiny and the neighboring

Ngajan dialect of Dyirbal have only 29% of vocabulary in common, their avoidance styles have 50% in common. If one assumes that ordinary and avoidance styles are variants of the same language, as is strongly suggested by their identical grammars, then the rapid rates of lexical replacement through borrowing in the avoidance style play havoc with the attempt to use lexical material as the basis for determining subgroupings among the languages in question (all of which are ultimately genetically related within the Australian family).

Table 5. Haruai, Aramo, and Kobon personal pronouns.

	Haruai	Aramo	Kobon
Sg. 1	ngö	ɲgö	yad
2	nagö	naɲö	ne
3	nwg ^w ö	nöɲ ^w ö	nipe
Pl. 1	angö	aɲgö	hon
2-3	ngö	neɲö	köl

Table 6. Haruai, Aramo, and Kobon verbal subject suffixes.

	Haruai	Aramo	Kobon
Sg. 1	-Ø	-Ø	-in
2	-ö	-ö	-an
3	-Ø	-Ø	-Ø
Pl. 1	-Ø (Present)	-Ø	-un
	- (Other)	-Ø	-un
2	palatalization	palatalization	-im
3	palatalization	palatalization	-al

Recent years have seen the collection of considerable evidence (as opposed to just speculation) in favor of rapid relexification in pidgins (and perhaps also creoles).⁵ Thus Voorhoeve (1973) accounts for the much higher percentage of Portuguese-origin lexical items in Saramaccan than in Sranan (both creoles of Surinam) by claiming that both creoles have an earlier Portuguese lexical base, with subsequent relexification from English; since Saramaccan is spoken by the descendants of slaves who escaped early from English social control and English linguistic influence, the process of relexification from English was fossilized at an earlier stage. Work on the more 'archaic' creoles of Surinam, i.e., those separated at a very early stage from contact with European languages, has uncovered a surprisingly large percentage of African-language lexical items (and other linguistic features), suggesting that the low percentage of African lexical items in other Caribbean creoles may be the result of widespread lexical replacement from European languages (Alleyne 1980:109-12).

Widespread relexification, more particularly if it also includes bound morphemes, poses a major problem in principle for family-tree oriented

approaches to genetic classification. We have seen that in principle anything can be borrowed. Although some phenomena are relatively unlikely to be borrowed, given sufficient time the probability of such phenomena being borrowed increases. Let us imagine the case of a language that is undergoing significant relexification. Let us suppose that at time t its stock of morphemes is almost exclusively that appropriate to a language of family F. Let us suppose that centuries later, its stock of morphemes, as the result of continued borrowing from a language or languages of family G, is almost exclusively that appropriate to a language of family G. Has the language changed its genetic affiliation to family G? Or do we say rather that its speakers have shifted from speaking a language of family F to speaking a language of family G? And in either case, at what time does the shift take place? Or do we have an intermediate stage where the language is mixed, partaking equally of both families? All of the elements in this scenario are elements that are found across the world, yet their combination results in a situation where a stage of a language cannot be unequivocally assigned to one or another family. The fact that the notion of 'mixed language' has been misused in the past does not mean that it does not have a proper place in our discussion of the genetic classification of languages. And indeed, at the lower levels of genetic classification the existence of such mixed entities has been readily entertained: the central dialects of Russian for instance, on which the standard language is based, represent essentially a particular combination of Northern and Southern dialect features, with hardly any individual features that are specifically Central.

A possible objection to the kind of data I have been discussing in section 3 is that they are marginal, representing what happens in very specific sets of circumstances rather than the normal path of historical development. This brings me back to another of Greenberg's points. He argues, I believe correctly, that the method he advocates is essentially the method that led to the initial recognition of the unity of the Indo-European family and of the subgrouping of the Indo-European languages (e.g., Greenberg 1987:30-32). This is also the method he has applied so successfully to the classification of African languages (Greenberg 1963), producing a classification that is now almost universally accepted in its broad outline and in most of its details. The uniformitarian hypothesis would therefore suggest that, if this method is accepted as successful in these (and some other) cases, it should also be applicable to any language or group of languages. I believe that this extrapolation ignores important social factors. So long as one is dealing with large speech communities, the factors that lead to contradictions in the family tree model can indeed be viewed, following Ruhlen, as 'tak[ing] place under very special circumstances': adoption of a loanword into the language implies persuading the speech community as a whole, perhaps via its most influential subgroups, to accept the loan; large-scale relexification is even more problematic, requiring even greater persuasive powers, and it is surely significant that relexification in the major European languages, for instance, is used primarily as a means of creating secret languages, i.e., languages specially designed not to be comprehensible outside the subcultures that devised them; moreover, there are no social pressures within European society, such as word taboo by association with personal names, to lead

towards relexification; added to all of this, especially in recent times, is the normative pressure exerted by the educational system, the media, etc.⁶ The social conditions for an indigenous language of, for instance, Australia or New Guinea are quite different from these. The average number of speakers for an indigenous language of Papua New Guinea is between 4,000 and 5,000 (assuming about 750 languages and a population of about 3.4 million); the average number of speakers for an Australian Aboriginal language at the time of European contact was probably around 1,500 (assuming about 200 languages and a population of around 300,000). An innovation can rapidly spread to encompass all speakers of the language, and there are in general no social mechanisms to impede such spread; moreover, the widespread incidence of word taboo provides both a constantly available mechanism for lexical replacement and a motivation for the existence of lexical variation.

4. Conclusions. I started this paper with a reference to Greenberg's approach to genetic linguistic classification, but it should be clear that my aim was essentially to take Greenberg's position as a foil against which to outline some features of an alternative position. None of this should be taken as a rejection of the achievements of the approach adopted by Greenberg: it is the approach that gave us the usual current classification of the Indo-European languages; it is the approach that has given us Greenberg's originally revolutionary but now established classification of the languages of Africa. But I have argued that, through the neglect of the importance of such social factors as language contact and linguistic variation, it threatens to give us a distorted picture of the genetic classification of languages spoken in different social circumstances.

Notes

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1. In fact, a period of common historical development followed by a split does not always lead to greater similarity, e.g., Norwegian is much more similar to Swedish than it is to the genetically more closely related Icelandic. The crucial point in the family tree model is thus a period of common historical development followed by a split, for genetically more closely related languages, versus a split at the beginning of this period, for genetically less closely related languages.

2. I assume that no one would question that there are attested irregular sound changes, including well-established phenomena like analogy as well as more recently identified phenomena like lexical diffusion.

3. While even genetically distantly related languages might show occasional near identity in form, as in the example English *water*, Hittite *watar* cited by Greenberg, one would not expect to find languages so distantly related genetically that they have almost completely distinct morphologies but nonetheless show near identity across a substantial part of their lexicon.

4. In this connection, I would like to react to Greenberg's claim that genetic classification can often be carried out successfully with poorly recorded

data. If the poor quality is, for instance, a reflection of inadequate phonetic training, then Greenberg is surely correct. If our only sources for English and German were wordlists compiled by a phonetically untrained French traveler, then we would probably have little difficulty recognizing cognates behind such spellings as English *mène*, German *manne* 'homme', English *fèzeur*, German *fèda* 'plume'. My experience with wordlists of New Guinea languages is that the errors are often of a different, more vicious sort: cognitive misunderstandings between linguist and consultant (e.g., *me* translated by the equivalent of 'you'); items assigned to the wrong language (especially, but not exclusively, where a wordlist of language X is taken from a speaker of language Y who claims to be bilingual in X: the distinctness of languages does not seem to be a major psychological factor in the language culture of many parts of New Guinea, and perhaps elsewhere).

5. The relevance of this kind of evidence will, of course, be much stronger if the development can be established for creoles, which are native languages, rather than just for pidgins, which are nonnative languages independently known to be subject to considerable variation.

6. This is not to deny that there are also problems for the family tree theory in dealing with European languages, especially at the lower levels of genetic classification, where features more readily diffuse across the boundaries between structurally and lexically closely related speech varieties.

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THE SOUNDS OF CHANGE: ARABIC LINGUISTIC INFLUENCES IN SICILY

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Two centuries of Arab domination of medieval Sicily¹ left important linguistic traces on the island not only in the expected form of place-names, but also in a wide range of lexical categories, including legal terminology, marine and agricultural nomenclature, and in names for animals, plants, foods, and domestic items. The distribution of terms clearly reveals areas of Arab expertise: agriculture, maritime trade, military administration, and law.²

As the linguistic outcome of an extended period of contact, these results are not surprising; in fact, they are of little interest to us here, for this discussion centers not on the expected, but on the unexpected. Within an ensemble of Arabic loanwords which refer to professional titles or to classes of people, a small number of words is particularly striking inasmuch as their meaning, after passing from Arabic to Sicilian, undergoes a curious change for the worse.

Pellegrini addressed this 'degradazione semantica' in his 1972 study of *facchino* 'porter', which he traces to Ar. *al-faqih* 'lawyer', 'doctor' (in the sense of legal expert).³ He argued that the eventual 'banalizzazione' of the title can be understood by using cultural history as a mirror to reflect the diminished, even desperate circumstances of a previously distinguished merchant class, now forced to carry their goods from marketplace to marketplace. He appealed again to history in his discussion of It. *bagarino* 'profiteer, monopolist, speculator, dealer', from Ar. *baqqalin* (masc. pl.) 'greengrocer, oil merchant, fruit-seller', basing his conclusions on an argument which suggests that the same decline in fortunes which reduced wealthy merchants to lowly porters turned the local 'Mom and Pop store' into a back-alley black-market operation.⁴

The point at issue, however, is not the solutions to these two specific etymological puzzles, but rather the implications of the appeal to historical and social circumstances--that is, to external factors of language change--as the final arbiters of meaning. Using another Arabic loanword to illustrate the argument, I will argue for a modification to the historical approach. By considering elements internal to language itself, that is, patterns of phonology and morphology, I will suggest that expressivity, or phonosymbolism, though suffering somewhat from a bad press, has a valuable part to play in linguistic analysis.

The word under discussion is *mammaluccu*. Like Pellegrini's two exempla,

mammaluccu, in making the passage into Sicilian, underwent a drastic change of its semantic fortunes. In its primary meaning 'slave', *mammaluccu* faithfully reflects its Arabic etymon: *mamluk*, passive participle of the root verb *malaka* 'to possess'; lit. 'the one possessed', hence 'slave', frequently used in the sense of military slave.⁵ The question of semantic development arises when we find that the Sicilian *mammaluccu* more commonly plays the role of 'fool' or 'simpleton'; in fact, this is his primary role--even his sole identity--in other southern Italian dialects, and ultimately in the standard language (in the form *mammalucco*). Arguably, there is little semantic distance between 'slave' and 'simpleton', and I might be accused of turning the *mammaluccu* into a straw man were it not for the complicating fact that the more disparaging secondary meaning is completely absent from Arabic.⁶ Rather, the *mamluk* in Arabic has risen in status, and precisely as the result of historical circumstances. *Mamluk* is the term used to designate the powerful and prestigious Mamluk dynasties which ruled the Mediterranean from Anatolia to Egypt between 1250 and 1517. It refers to a group of former slaves turned masters. The discrepancy between the literal meaning of *mamluk* 'slave' and the actual social position of these *servi padroni* in the Arab world is well illustrated by Atil (1981) in a succinct description of the social structure of the Mamluk dynasties:

The mamluks were at first drawn exclusively from the Turkish tribes of Central Asia but later included other peoples from Western Asia. Carefully trained in all forms of warfare and horsemanship, they were employed as bodyguards of the sultans. Later, they were freed and assigned to specific offices that entitled them to have their own mamluks. Amirs or freed mamluks rose rapidly within the administration: they often surpassed the throne, attempting to establish their own dynasties. (12)

At the head of the military oligarchy was the sultan, a mamluk by origin. He was surrounded by a group of high amirs, also former mamluks...The sultan had a group of mamluks...who served as his personal bodyguards and held specific offices in the palace. When these imperial mamluks were freed and became amirs, they were given prestigious appointments in the provinces and held military commands and court offices. The amirs had their own corps of mamluks...who could be freed or passed on to imperial service...(19)⁷

Following the argument from history, and tying the word solely to its immediate cultural context, we would have expected the *mamluk*, garbed as Sic. *mammaluccu*, to have risen in turn from 'slave' to 'master', or at least to have enjoyed the advantage of some positive connotation. Rather, we find that the *mammaluccu*, like the *facchino* and the *bagarino*, continued to lose face, to the point of being the personification of the 'fool' or the 'simpleton'.

Looking further for an explanation in the social circumstances, we might attribute the negative connotation from the use of *mammaluccu* in Sicilian to refer to 'Christian slave, or born of Christians among the Egyptians'⁸. If a disparaging connotation came to be attached to *mammaluccu*, it could be argued that it was the Arabs themselves who introduced it, referring to their

Christian possessions. However, since the term *mamluk* in Arabic has not taken on the more negative connotations it developed in Sicilian, this possibility seems remote. An analogous conjecture--that the semantic degradation of the word was introduced by the Byzantines (the Arabs' political rivals on the island)--is disproved by the evidence of Byzantine sources, in which *μαμαλούκος* occurs, but without negative connotations.⁹

Finally, as telling evidence from cultural history which contradicts an entirely negative association, I would submit the Arabic inscriptions on the ceiling of the Norman Capella Palatina in Palermo, and the coronation robes of not an Arab sultan, but the Norman king of Sicily, Roger II--artifacts which attest to the prestige of Arab culture, to the presence of an Arab elite in Sicily, and to Christian-Muslim acculturation during the early medieval period.¹⁰

At least in the case of the *mammalucco*, an etymology based solely on the argument that the semantic degradation of the term clearly reflected the social reality would require considerable explanation, for the negative meanings associated with 'slave' are tempered not only by the prestige of the Mamluk dynasty but also by the prestige of the Arabic culture in Sicily. At least in the case of the *mamluk/mammaluccu*, history alone could offer no clear traces of the direction of language change.

I would argue rather that while it is true external circumstances carried the *mammalucco* to Italian shores, his fortunes in Sicily (and indeed throughout the Italian peninsula) were secured by internal causes: a basic defect in his phonetic personality. Not only his shape and sound--as he adapted himself to the phonology of the dialect--but his association as well with existing words of similar shape and sound gave the *mammalucco* no alternative but to make a fool of himself. As I illustrate below, the *mammalucco* fitted into already established patterns of the language which branded him inescapably as comic, ridiculous, even slightly pathetic.

The argument from internal evidence is based on a concept of expressivity in language. Phonosymbolism has never completely gone out of style, but because of past excesses it has lost some of its appeal.¹¹ In the context of Italian and Italian dialects, to base a semantic argument on morphology is easily justified by the productivity of evaluative suffixes which add nuances both to the referent and to the speaker's attitude or emotional involvement, e.g., *carta* 'paper', but *cartaccia* 'waste paper', *cartoncino* 'card', *cartellone* 'wall poster', etc.¹² To base a semantic argument on phonosymbolic effects, however, runs greater risks. An appeal to sound symbolism is based on the perceived appropriateness of a sound to the concept it expresses; phonosymbolism, precisely because of its intuitive nature, is a difficult argument to handle satisfactorily. Pellegrini himself, in a discussion of the difficulties of proposing etymological solutions, explicitly stated his unwillingness to make use of arguments from phonosymbolism: 'Un'osservazione preliminare: se le basi latine o greche proposte da vari studiosi risultano difficilmente accettabili, non è neanche il caso, a parer mio, di ricorrere a basi onomatopoeiche, come spesso accade di fare per le voci de etimo poco chiaro...' (1972: 2, 489).

Fortunately, not every etymologist is as hesitant. Malkiel, though readily admitting that a word study which draws on phonosymbolism 'is apt to remain

fraught with many risks and is unlikely to offer more than probabilistic solutions' (1984:25), nonetheless remains convinced enough of the rightful place of phonosymbolism in linguistic arguments to propose specific strategies for its rehabilitation, among them the recognition of a correspondence between language-specific morphological patterns and semantic coloring. For example, he describes the consonant-vowel pattern $C_1VC_2C_3o/a$ as a canonic form, in Italian and Spanish, 'to denote features either negative, or ridiculous, or both,' giving among his examples *matto*, *pazzo* 'crazy', *buffo* 'comic', *zoppo* 'lame', etc. (1982:161).

Following his lead, I would suggest that *mammalucco* contained a combination of phonosymbolic features which helped launch its successful career, albeit in the role of the buffoon, in the Italian peninsula.

Two elements work together to give *mammalucco* its humorously disparaging cast: the first half, *mamma*, is expressive of infant language,¹³ and combines to produce a number of words which carry a meaning similar to 'fool, idiot, simpleton'. I offer a sampling of expressions taken from Sicilian, supplemented by examples from Calabrese, Neapolitan, and standard Italian.

Sicilian: *mammulinu* 'child who is excessively attached to his mother' (Mortillaro 1838; Biundi 1857); *mammalucchignu*, *mamma lucchinu* 'incapable of carrying on even a simple conversation'; *mammetta*; *mammigghiu* 'confusion, disorder'; *màmmulu* 'bambino'; *mammuna* in the expression *panrari comu na vecchia mammuna* 'to stutter' (Piccitto and Tropea 1985).

Calabrese: *mammariatu* 'drowsy, bewildered, dazed'; *mammalutu*, *mammariutu*, *mammune* 'scarecrow' (also, an imaginary being invoked to scare children into behaving themselves); *mammúa*, in the expression *jiri mammúa* 'to crawl on all fours'; *mammuocciu* 'plump child, simpleton' (Rohlf, 1977); *mammulinu* 'excessively attached to one's mother' (Marzano 1928).

Neapolitan: *mammuoccio*, *mammocciolo* 'plump child', 'silly man'; *mammulia* 'to caress affectionately' (from Neap. diminutive of *mamma*: *màmmola*; D'Ascoli 1979); (cf. also the synonyms of *mammalucco* from Altamura and D'Ascoli (1970): *babbano*, *babbasone*, *babbio*, *babbione*, *babbuasso*, all with the stated disparaging meaning.

Standard Italian: *mammamia* 'slow in everything, even in speaking; timid and a little foolish' (Rigatini and Fanfani, 1834); *fare la mammamia* 'act timid and flattering', also one who uses apparently weak behavior to mask his true intentions; similarly, *pare una mammamia* 'to look innocent (but be just the reverse)'; *mammoleggiare* 'act like a child'; *mammolo* 'child'; *fare alle mammucce* 'amuse oneself, play with trifles' (Tommaseo 1861); *mammamia* 'innocent, affectionate, timid person' (Battisti and Alessio 1952).

In the face of these examples, it seems legitimate to claim that *mammalucco* was easily able to fit a pattern--established throughout the peninsula--which drew on combinations of sounds imitative of babbling and conveyed the idea of 'fool, simpleton'.

The disparaging tone is reinforced by suffix-like form of the second half of the word. The exemplification is slightly more elusive in that *-lucco* is morphologically similar but not identical to the suffixes *-ucco* and *-uccio* in Italian, which carry a derogatory meaning, and which are characterized phonetically by the presence of the back vowel /u/ preceding the geminated velar consonant /k/ or its corresponding palatal /c/.¹⁴ The phonetic proximity

of the form *mammalucco* to the shape of these evaluative suffixes seems nonetheless to make a convincing case for the reinforcement of negative meaning by reference to an established sound correspondence. Consider the change in meaning in the following pairs: *cavallo* 'horse', against *cavalluccio* 'nag'; *cappello* 'hat', but *cappelluccio* '(cheap) little hat'; *amore* 'love', but *amoruccio* 'flirtation'; *baciare* 'to kiss', but *sbaciucchiare* 'to kiss repeatedly, to slobber over'; *scrivere* 'to write', but *scrivucchiare* 'to scribble'.¹⁵

The argument for the negative semantic meaning carried by the back vowel is reinforced by other examples of Italian suffixes which have in common both the initial stressed /u/ and a negative or disparaging sense: *poeta* 'poet', *poetucolo* 'second-rate poet'; similarly, *scrittore* 'writer', but *scrittorucolo* 'hack writer'; *ladro* 'thief', *ladruncolo* 'petty thief', along with *uomo* 'man', *omuncolo* 'dwarfish man'; *casa* 'house', but *casupola* 'little hut', *avvocato* 'lawyer', but *avvocatuizzo* 'undistinguished little [petty] lawyer'; *forestieri* 'foreigners', but *forestierume* 'foreign scum'.

To sum up, two phonosymbolic elements, both of which contribute a humorous or comically disparaging tone, come together in *mammalucco*: the Lallwort *mamma* and the semantically charged grouping of vowel and consonants in the suffixal position.¹⁶

Although this paper has discussed only a very few linguistic terms which were the result of language contact and lexical influence, the method used to analyze the transactions is meant to apply to the wider context of diachronic language variation, specifically, to the nature of conjecture in historical linguistics. Arguing from the case of the *mammalucco*, I conclude that 'degradazione semantica,' to recall Pellegrini's term, may be only partially explained by appeal to the historical, social, or cultural context. Without denying the part played by external factors in transmitting language and culture, I have suggested the need to give internal factors their due; specifically, the remarkable spread of the *mammalucco* in his comic role suggests that a convincing account of language change may also rely on the strength of sound symbolism.

Notes

1. The Arab domination of Sicily may be dated from the conquest of Palermo in 861 to the Norman conquest of Palermo in 1072. The final expulsion of the Arabs from the island occurred in 1242, when Frederick II established the colony in Lucera (Vàrvaro 1981: 80-85, 125-28, 165-67).

See also the discussions of the language situation in Steiger 1963:29-48, and Di Pietro and Selim 1967.

2. For a survey of Arabic loanwords in Sicilian grouped according to lexical categories, see 'Arabismi siciliani e meridionali,' in Pellegrini 1972:1,129-36, and Ambrosini 1977:160-64.

3. "Facchino" nella storia linguistica ed economica italiana,' in Pellegrini 1972:2, 503-523. Pellegrini's Arabic glosses are drawn from Dozy (1881) and Freytag (1830-37).

4. To cite the conclusion of his article 'Bagarino,' (1972:2, 543-48): 'La sfera nozionale...della parola può lumeggiare ancora una volta, sia pure

indirettamente, la decadenza dei floridi mercati orientali e magrebini ormai disertati dagli Occidentali (a partire dai sec. XV-XVI) e la trasformazione, almeno in parte, dei ricchi commercianti arabi e levantini in modesti rivenduglioli, spesso girovaghi, inclini all'imbroglio ed al sotterfugio' (548).

5. The definition is taken from the *Encyclopedia of Islam* 1987:314.

6. For *mamluk*, Wehr (1976) gives the definition 'owned, in possession of, belonging to'; 'white slave, mameluke'; similarly, Hava (1915?) 'property, possession'; 'white slave'.

7. David Ayalon and P.M. Holt provide lengthy accounts of the development and structure of the Mamluk dynasties in two separate *Encyclopedia of Islam* entries (1987:314-21 and 321-31, respectively). The quote from Atil's 1981 Smithsonian volume was chosen deliberately for its stress on the cultural and artistic achievements of the Mamluk dynasties, that is, precisely for the meanings which differ most radically from the expected connotations of 'slave'.

8. See Mortillaro (1838) and Biundi (1857). Corroboration of the reference to Christian slaves is given by the nineteenth-century Italian Orientalist, Michele Amari (1933-39), who divides into four groups the Christians who remained in Sicily during the period of Arab domination: (1) Christians independently allied with the Byzantine Empire; (2) tribute-payers, who literally bought their independence from the Arabs; (3) vassals, and (4) slaves (1:476 ff.).

9. I owe to Prof. Renée Kahane the observation that the fourteenth- and fifteenth-century Byzantine forms cited in Moravcsik (1958) lack negative connotations. In her written comments on an earlier version of this paper she also suggested evidence of Greek dialect variants of *mammalucco* which carry the pejorative meaning 'stupid'.

10. As corroboration of Arab cultural prestige in Sicily in this period, I offer the following testimonies: Vàrvaro (1981:15) writes 'Non c'è dubbio che il periodo più splendido della storia politica e culturale della Sicilia sia quello che va dalla conquista araba alla fine della dinastia sveva...non abbiamo prima, e non ritroveremo poi, sovrani come alcuni degli emiri o il gran conte Ruggero...né ambienti di raffinata civiltà come la Palermo musulmana, metropoli tra le prime del suo tempo....

For a discussion of the ceiling paintings of the Cappella Palatina, and the cultural milieu which produced them, see Ettinghaus 1977:44-50.

11. A brief history of phonosymbolism's fall from grace is given in Malkiel 1987:373-78. Of particular interest is his account of its decline in historical linguistics, which he attributes to 'attempts, characteristic of the last third of the past century, to give, almost at any cost, a truly scientific twist to evolutionary linguistics, with the natural and exact sciences being chosen as a model worthy of emulation, and, within the spectrum of those sciences, Newtonian physics, known both for its rigor and its rigidity, beginning to function as the pattern recommended for adoption by linguists' (373).

12. Discussion and examples are taken from Lepschy 1977:167-73.

13. Phonetically, *mamma* is close to another Lallwort, *babbo* 'daddy', which Devoto (1967) describes as onomatopoeic, descriptive of stuttering. Like *mamma*, *babbo* enjoys a productive morphological life in Italy, colored by a similar disparaging tone; cf. Sicilian: *babbaccio* (glossed precisely as

mammalucco); *babbu* (dim. *babbaluceddu*), *babbazzu*, *babbalacchiiu* and *baciullu* (Mortillaro 1838; Biundi 1857); and the nicknames *Babbalacchiiu*, *Babbarutu*, *Babbusu*; *Babbazza* 'simple woman' (Rohlf 1984b). Standard Italian: *babbaccio*, *babbaleo*, *babbalucco*, *babbana*, *babbione*, *babbuasso* (PELI).

Further suggestion of the perceived phonetic similarity is offered in Sornicola's appendix to Vårvaro 1979, under the entry *babbulucu* 'snail': 'queste ultime hanno di solito altre denom. come *mammalucco*' (512).

For a discussion of the limitations of recent Italian etymological dictionaries, including Devoto (1967), see Craddock 1980:226-31.

14. Malkiel (1987:394-95) singles out both medial consonant lengthening and the presence of an intervocalic velar as characteristic phonosymbolic effects, frequently of ridicule.

15. All examples are taken from Lepschy 1977:167-73.

16. An analogous process occurs in Venetian in the form *mamaluco* 'silly, stupid' (with the added bonus of the verb form *mamalucar* 'to make stupid, to stun, to daze'). The lack of consonant gemination causes no difficulty, since the phonosymbolic cross form, is not *mamma* but *mamo* < Old Venetian 'boy'. Like *mamma*, *mamo* produces the related disparaging terms *mamao*, (*vis de*) *mamera*, *mar(a)meo*, as well as *mamada* 'silliness, foolishness' (Prati 1968). Durante and Turato (1975), who provide similar forms and meanings, define *mamo* as a Lallwort ('di formazione bambinesca').

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THEMATIZATION OF NEGATIVE POLARITY TERMS IN CATALAN, ARAGONESE AND CASTILIAN: A DIACHRONIC AND COMPARATIVE PERSPECTIVE

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From a functional viewpoint, there are two principles which guide and motivate the encoding of any linguistic experience. The first states that there exists a purposeful arrangement of linguistic units within a text, and I use the term text in its most inclusive sense: that is, any communicative message is a text. This relationship between linguistic form and linguistic function, often echoed in functional studies (Haiman 1985a, 1985b; Givón 1979, 1984), is commonly referred to as the 'iconicity imperative' of language. As Givón (1984:134) states: 'it is rather unlikely that facets of experience which are cognitively more salient and thus linguistically more elaborately coded should not also turn out to be thematically more highlighted in human communication.' The second principle which underlies any functional study states that a discrete boundary does not exist between linguistic synchrony and diachrony. The text simultaneously reflects both the linguistic system in place at the moment of enunciation and the direction of movement of the linguistic system. To paraphrase the French semiologist, Roland Barthes, in *Le Degré zéro de l'écriture* (1953), the text exists and the text exists in history.

In this paper, I hope to show that formal differences in the systems of negation in Catalan, Aragonese, and Castilian underlie deeper functional differences. To posit a common model of linguistic change in the negation systems for all three Iberian dialects is to overlook these differences. It is beyond the scope of this study to explore every mechanism of negation in these dialects. Because of this, I shall focus on one aspect--the thematization of negative polarity terms (T-NPT) within the proposition. I hope to show that we cannot posit a common transformation to generate T-NPT in these three languages, for to do so would undermine the profound differences in each of these systems, both synchronically and diachronically.

All three dialects show simple negation expressed preverbally by the adverbial negative marker (NEG) *no*. Example (1) would function smoothly in all three dialects.¹

- (1) María no va
 NP NEG (X) V (Y)
 'Maria is not going'

Catalan and certain Aragonese dialects have a postverbal emphatic element (NEG-emph) of the type:²

- (2Ca.) No ho sé pas
 NEG (X) V NEG-emph
 (2Ar.) No u sé pas (Haensch 1958-59:147)
 NEG (X) VNEG-emph
 'I don't know (+emph)'

In all three dialects, negation is clearly preverbal. Although Catalan and Aragonese dialects do possess this postverbal NEG-emph, negation remains preverbal. In certain Catalan dialects, the NEG-emph → NEG. However, unlike French, where an analogous process yields a postverbal NEG, Catalan maintains a preverbal NEG (Ruaix i Vinyet 1981:135-37):

- (3) Pas que vindré demà.
 NEG V (Y)
 'I will not come tomorrow.'

Schwegler (1983), upon analyzing the NEG-emph → NEG shift in French and Romansch, argues convincingly that this change cannot be a result of the syntactic typology of these languages. Likewise, I hope to show that the various T-NPT processes at work in the three dialects are not similar and not the result of a common syntactic typology, but rather that they are diverse and the product of discrete pragmatic strategies.

NPTs in these dialects are lexical elements which are conditioned by the existence of NEG in the sentence. Thus we have:

- (4Sp.) No sabía nada.
 NEG V NPT
 (4Ca.) No en sabía res.
 NEG (X) V NPT
 (4Ar.) No y sabía res. (Alvar 1958-9:240)
 NEG (X) V NPT
 'He didn't know anything.'
 (5Sp.) No volveré nunca.
 NEG V NPT
 (5Ca.) No hi tornaré mai.
 NEG (X) V NPT
 'I'll never return.'

Traditionally, linguists have believed that explicit negation is maintained in the preverbal position. Thus, expressions like (6Sp.) and (6Ca.) are ungrammatical.

- (6Sp.) *Sabía nada
 (6Ca.) *En sabía res

This has led linguists to claim that the presence of the preverbal NEG which activates this special class of indefinites is evidence that these NPTs lack negative value. In Castilian, however, when the NPT undergoes initialization, i.e., thematization, NEG is lost.

- (5Sp.) No volveré nunca →
 (7) Nunca volveré

On the surface, NEG → ∅ undermines the assertion that these NPTs lack negative meaning. In Catalan and Aragonese, T-NPT can occur with or without NEG.

- (5Ca.) No hi tornaré mai →
 (8a) Mai no hi tornaré
 (8b) Mai hi tornaré

However, Catalan grammarians have been reluctant to accept constructions such as (8b) and have claimed that (8a) reflects the canonical pattern for T-NPT (Fabra 1979:83; Lleó 1983:296-97). This retention of the NEG in Catalan and Aragonese can only imply that the NPTs in Catalan and Aragonese are in fact less negative than their Castilian analogues. Given the surface differences in the various systems, we can now determine whether it would be prudent to posit a common transformation for T-NPT.

Bosque 1980, a generativist-based study informed by a strong pragmatic sensibility, posits a transformation for T-NPT in Spanish (34):

(8)	X-	NEG		° [V-Y-NPT-W] °	-Z	
	1	2		3 4 5	6	7 →
(9)	1	5+2		3 4	6	7

In Spanish, this must go one step further since NEG → ∅:

(10)	1	5		3 4	6	7

Structures such as (7) 'apoyan la transformación que mueve el TPN(NPT) adverbial o pronominal hacia la posición inicial, creando un nudo por adjunción chomskyana y elidiéndose posteriormente el NO (NEG)' (Bosque 1980:30). Bosque bases the validity of (9) on data from the medieval language:³

- (11) Nadie no me quiere (Celestina, Llorens 1929:120)
 'Nobody loves me'
 (12) Ninguno non puede conocer al Fijo sino por el Padre (Siete partidas, Wagenaar 1930:26)
 'Nobody can know the son but through the Father'
 (13) ...Tampoco no es eterna (Jorge Manrique, Llorens 1929:84)
 '...Neither is it eternal'

Examples (11), (12), and (13) are analogous to canonical thematization in Catalan and Aragonese. Therefore, we must examine why T-NPT in these dialects reflects (9) while modern Castilian clearly shows (10). I intend to prove (a) that T-NPT as seen in (9) is different from T-NPT as manifested in (10) and the result of a negative system motivated by different pragmatic strategies; and (b) that positing (9) as an intermediate stop to (10) is to gloss over differences in both types of systems.

I have already intimated that NPTs in Catalan are perhaps less negative than their Castilian counterparts. Lleó, in a study of these 'supposedly' negative terms (1983), claims that the Catalan NPTs cannot be perceived as negative. Even a traditional grammarian such as Badia Margarit (1975:2:236) warns against attributing negative meaning to these words. The fact that these words do occur in negative sentences, both with and without *no*, has contributed to the popular belief that these NPTs are indeed negative, even though grammarians frown upon the use of NPTs without NEG in thematic position.

Unlike Castilian, however, there exists in Catalan an ambiguous semantic relationship between the NPTs and their affirmative counterparts under certain syntactic and semantic conditions.⁴ In all of these conditions, Castilian would require the use of an affirmative indefinite:⁵

- (14Ca.) Hi ha res de nou?
- (14Sp.) *Hay nada de nuevo?
- (15Ca.) Hi ha alguna cosa de nou?
- (15Sp.) Hay algo de nuevo?
- 'Is anything new?'
- (16Ca.) Nega que hagi arribat ningú.
- (16Sp.) *Niega que haya llegado nadie.
- (17Ca.) Nega que hagi arribat algú.
- (17Sp.) Niega que haya llegado alguien.
- 'He denies that anyone has arrived.'
- (18Ca.) Si hagués arribat ningú, t'hauria dit.
- (18Sp.) *Si hubiera llegado nadie, te habría dicho.
- (19Ca.) Si hagués arribat algú, t'hauria dit.
- (19Sp.) Si hubiera llegado alguien, te habría dicho.
- 'If anyone had arrived, I would have told you.'

According to some, the Catalan examples in which a NPT occurs (14Ca., 16Ca., 18Ca.) convey a different meaning from those propositions in which an affirmative indefinite occurs. Those propositions in which a NPT occurs are perceived by the speaker to be false or at least to have the potential to be false.⁶ This pragmatic conditioning, nonexistent in Castilian, yields a more complex system of negation. Therefore, we can see the necessity of the retention of the *no* during T-NPT to avoid the inherent ambiguity in propositions such as (20).

- (20Ca.) Nega que ningú hagi arribat.
- 'He denies that (anyone/?nobody) has arrived.'
- (21Ca.) Nega que ningú no hagi arribat.

- (21Sp.) Niega que ninguno haya llegado.
'He denies that nobody has arrived.'

Even *tampoc* 'not...either', which can only be triggered by a previous negative proposition, occurs with *no* in both Catalan and Aragonese:

- (22Ar.) Yo tampók nó u sé (Haensch 1958-59:148)
(22Ca.) Jo tampoc no ho sé.
'I don't know either.'

Given the lack of ambiguity in the Castilian system in the above conditions, we can state with some certainty that NPTs in Castilian are more consistently negative than their Catalan counterparts.⁷ And we can now decide whether it is necessary to posit an intermediate step (9) as Bosque does.

Bosque justifies the inclusion of NEG in an intermediate step in T-NPT by its existence in medieval Spanish and by comparing it to other Romance languages, among them Catalan, in which the NEG does occur during T-NPT.⁸ We have already seen that there is strong motivation for NEG in T-NPT in Catalan--a motivation alien to Castilian. It is necessary now to determine whether NPT + NEG + V in medieval Spanish was motivated by reasons similar to those observed in Catalan, which would necessitate its inclusion in the transformation process. I will limit my discussion to legal documents, since by necessity the meaning is clear and free of the negative troping found in more literary texts. Negative troping is often the result of pressures exerted by a metrical or rhetorical scheme rather than a clear reflection of the linguistic system. Also, the logical structure of these legal documents, with an implied hypothesis, fulfills one of the conditions for a NPT used affirmatively as in (18Ca.) and (19Ca.).

Some of the earliest Castilian documents show a clear distinction between affirmative and negative indefinites. In the *Fuero de Palenzuela* (1074) (Serrano 1906:17), while affirmative sentences show either implied or explicit affirmative indefinites, NPTs appear to be motivated by NEG or a NEG-activator. Implicit affirmatives such as *homo* '(any) man':

- (23) Homo de Palençiola qui fecerit omicidium
'Should (any) man from Palenzuela commit murder'

exist side by side with the more explicit affirmative indefinites *quemcumque* and *unusquisque* 'any':

- (24) Quemcumque latronem ceperint homines de Palentiola cum furto
'Should men from Palenzuela catch any crook in the act'
- (25) Unusquisque vestrum sive infançon sive villano qui voltam habuerit
'Should any of you, either noble or burgher, who has a confrontation'

One proposition in which NPTs do occur is so encoded for negation with both NEG (*non*) and NEG-activator (*noluerit*) that we have to assume that it is syntactically triggered:

- (26) Nullus homo de Palenciola sit celariero neque aerero neque portero...si ipse noluerit et non det anumpda nec fonsadera...
'Should any man from Palenciola, be he cellarer or mule driver or gatekeeper...refuse and not give homage and tribute...'

The NPT *nullus* 'not any' refers to *ipse* of which it is the clear referent and *neque* in turn is triggered by *non*: *nullus...portero* must be considered part of the *si* clause. When the negative exists outside of the clause boundary, we have, as expected, an affirmative:

- (27) Et si homo de Palenciola voltam fecerit in mercado, non sit captus ni despeiado...
'And should (any) man from Palenciola cause a stir in the market, let him not be captured nor despised...'

In the *Fuero juzgo* (1260) (Menéndez Pidal 1971:262-65), we see the NPT *ninguno* functioning as a full negative triggered by *non*:

- (28) El dia domingo nengun homne non deue seer xamado enpleyto...
'On Sunday, no man should be called to trial...'
(29) Onde nenguno non ose tomar el Regno por forcia...
'Hence let no one dare take the kingdom by force..'

In contrast, as we move eastward in the Iberian peninsula, we begin to see this clear system becoming clouded. In a Navarro-Aragonese document, *Las disposiciones de los fueros de la Novenera* (c.1240) (Tilander 1951), we have both affirmative and negative indefinites used as affirmative indefinites:

- (30) Nuill pastor que cate oueillas del seynnor... (Tilander 1951:54)
'Should any shepherd take sheep from his lord...'
(31) Todo ombre que seynnal camie d'oueilla ninguna a furto, (Tilander 1951:78)
'Should any man underhandedly alter the brand on any sheep,'

In both (30) and (31) there are no syntactic or semantic stimuli for NPT as in (28) and (29).⁹ In the Aragonese *Estatutos de buen gobierno de la ciudad de Jaca* (Gifford and Hodcroft 1966:182-83), we observe:

- (32) Esi per abentura los iuratz de negun uezin o abitador de Iacca de aço cels ni sospeita ni nenguna sabidoria aurian...
'And if by chance they have any suspicion or knowledge about the oaths of any neighbor or inhabitant of Jaca...'

In the *Fueros de Aragón* (Tilander 1937:152), we have this affirmative *nenguna*:

- (33) ...todas las otras cosas que pueden ser nomnadas en nenguna manera en casa e fuera de casa
 '...all things that can be designated in any way both in the house and outside the house'

In the *Usatges de Barcelona* (c. 1280-1320) (Rovira i Ermengol 1933:59-61), we have this same alternation between *negú* and *alcuns*:

- (34) Si negú ferrà altre en la fatz,
 'Should anyone injure another in the face,'
 (35) Si alcuns, dedignant de qualque colp, ferrà alcun en cors,
 'Should anyone, by way of any blow, injure someone his body,'

Posner (1984:14), exploring the issue of negative polarity and double negation, acknowledges the central-east split in the Iberian peninsula regarding T-NPT: 'In Spain I have found little evidence of use of *non* with perverbal INDEF-NEG, though it is recorded as normal in Aragonese and Navarrese.'¹⁰ We can add Catalan to those dialects where it is normal. An exploration of Posner's conclusions regarding T-NPT would serve us well. She states (1984:19):

We conclude that although the omission of *non* after INDEF-NEG presents a problem to the semantic or syntactic theoretician, it is explicable in sociohistorical terms as the generalization of a pattern that survived in certain areas, perhaps owing to Latinizing influence. The main-line development in early Romance appears to require the placing of the principal negator *non* before the verb. When *non* is immediately preceded by another negative item it appears 'pleonastic' to those familiar with Latin.

The evidence I have presented here, although hardly exhaustive, calls into question Posner's conclusions. We have seen evidence which hints that there were perhaps two different pragmatic strategies at work regarding NPTs in the Iberian peninsula: (1) a central system of NPTs, exemplified by Spanish, in which a clear polarity emerged relatively early between these NPTs and their affirmative counterparts; (2) an eastern system, typified by Navarro-Aragonese and Catalan, in which under certain syntactic and pragmatic conditions there exists a rather ambiguous relationship between these NPTs and their affirmative counterparts. While the appearance of NEG in (9) is logical given the historical evidence for its presence (in fact, Spanish NPT+NEG survived well into the sixteenth century), it may be misleading.

- (8) X-NEG ° [V-Y-NPT-W] ° -Z
 1 2 3 4 5 6 7 →
 (9) 1 5+2 3 4 6 7

In the eastern Iberian dialects in which NPT + NEG + V does still occur, it does so under a pragmatic conditioning absent from Castilian. At best, the inclusion of NEG in (9) should be considered a historical resonance and should not be justified by comparisons to dialects in which a different system prevails. The Spanish system's motivation to eliminate NEG may well have been the result of economizing a semantic redundancy rather than a Latinizing tendency. In Aragonese and Catalan, there is no semantic redundancy under these circumstances since NPT + NEG is necessary to avoid ambiguous constructions such as (20Ca).¹¹ There is a tighter form-function bind between NPT and NEG in Catalan and Aragonese than in Castilian.¹² As Posner and Bosque fail to mention, not all negative polarity terms are created equal.

Notes

1. The letters after the example number refer to the language: Catalan (Ca.), Aragonese (Ar.), Spanish (Sp.).

2. The modern Aragonese examples are taken from Haensch (1958-59) and come from the Ribagorza (see Appendix 1), one of the last surviving enclaves where Aragonese can still be heard.

3. The *no*-deletion in T-NPT in Castilian was firmly in place by the sixteenth century.

4. In Catalan, NPTs can occur in questions, in *if*-clauses, and in sentences where a word has the semantic property of being a NEG-activator (16Ca.). See Lleó (1983) and Solà (1973).

5. Posner (1984:4) writes: 'Even though INDEF-NEG items can be semantically negative in certain contexts, in most Romance languages they can also occur in nonnegative contexts--in interrogatives, comparisons, conditionals and the like.' She then gives a somewhat controversial example in Castilian:

¿Ha visto Ud jamás nada que iguale a esto?
'Have you ever seen anything like it?'

In an impromptu survey, all native speakers rejected this example in favor of:

¿Ha visto Ud alguna vez algo que iguale a esto?
'Have you ever seen anything like it?'

The problem is with *jamás* 'never', which has a peculiar intermediate semantic range between negative and affirmative polarity. There is no doubt that we would have to reject the following despite its superficial similarity:

*Ha visto Ud nunca nada que iguale a esto?

6. There is a subtle difference between the Catalan constructions with a NPT and those with a corresponding affirmative. Lleó (1983:323-24) puts forth these hypotheses for the strategy at work in these constructions: '(1) Un mot negatiu pot aparèixer opcionalment en una frase F, si el parlant es compromet: (a) a la falsedat de F o, (b) a la possibilitat que F sigui falsa o, (c)

a l'expectativa o desig que F sigui falsa. (2) Un mot negatiu (en comptes del positiu corresponent) és obligatori en una frase F si: (a) hi pot aparèixer segons (1) i, (b) és comandat per la negació.'

7. Castilian can use an affirmative indefinite as a NPT in certain conditions. We may infer that constructions of this type are syntactically bound rather than pragmatically motivated:

- (a) No tengo ningún libro.
- (b) *No tengo algún libro.
- (c) No tengo libro alguno.
'I don't have any books.'

The postposited *alguno* 'any' in (c) can only occur in negative sentences. See Bosque 1980:30.

8. Bosque (1980:38-39) argues on some unstable premises. For example, he writes: 'En francés no se considera correcto escribir **Personne arriva pas* por *Personne n'arrive pas* pero puede decirse que en el habla coloquial al menos, el adverbio ha desaparecido fonéticamente.' Following Schwegler's (1983) argument, we can argue that the locus of negation in the French examples is not *ne* but rather *pas* and that the loss of *ne* is the result of this shift rather than the result of phonetic decay.

9. In the *Fuero de Madrid* (c. 1170-1200) (Ayuntamiento de Madrid 1932), the formula used consistently to express this indefinite agent is *todo* + NOUN. We have *todo omne* 'any man,' *todo carnizero* 'any butcher,' *todo moro* 'any moor' etc. *Ninguno* or a reflex of *nullus* (cf. Arag. *nuill*) 'none, not any' are only used in explicitly marked negative sentences.

10. Llorens (1929:60-61), in discussing *nunca* 'never', states that *nunca* usually occurred before the verb without *no*: 'El uso de "nunca" delante del verbo sin "no" es lo general.' He then gives ten parallel examples from the two manuscripts of the *Libro de Alixandre*, a thirteenth-century Castilian text. MS. O has a strong western (Leonese) linguistic adstratum and MS. P shows strong Aragonese features. As expected, seven of the ten examples with preverbal *nunca* in MS. P show *no* while *no* has been deleted in the corresponding verses in MS. O. Llorens offers no explanation.

11. Again, Posner (1984:20) appears to have misinterpreted the different pressures exerted on the Catalan system of negation. She writes: 'Catalan standard usage (NPT+NEG+V) was established partly as a counterattack on Castilian influence and thus rejected, in this case, a learned usage as a Castilianism.' There are strong internal pressures to warrant retention of NEG in NPT+NEG in Catalan. The invocation of this supposed anti-Castilian strain in the Catalan normativization process is an all too common and all too ingenuous topos.

12. As Haiman (1985b) claims, the movement toward linguistic economy is movement away from iconic representation. The Catalan and Aragonese negative systems, in which we observe a more elaborately coded thematization process, cover a larger semantic range than the Spanish system.

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FACTORS WHICH INFLUENCE THE EXPLICIT/IMPLICIT MANIFESTATION OF SUBJECTS

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In Japanese, any understood NPs can be expressed with $\emptyset$ anaphora. In a discourse, the grammatical subject of a sentence, because of its topicality and centrality, is more likely to be expressed implicitly than are other adjuncts in a sentence. What factors, besides contextual information, allow the implicit manifestation of subjects? Also, to what extent is it true, as some Japanese grammarians argue, that grammatical subjects are more explicitly expressed in modern Japanese due to the influence of Western languages?

With these questions in mind, this study examines different versions of *Genji Monogatari* 'Tale of Genji'. Starting with the original text, written in the eleventh century, these versions are translations of the original into colloquial language styles as appropriate to the period of translation. Having significant control over contextual variations, we can identify changes in (1) honorific systems, (2) switch-reference function of conjunctive particles, and (3) length of sentences resulting in more explicit manifestation of grammatical subjects in versions written in the twentieth century. The study shows that (1) versions composed at the beginning of the twentieth century show the highest degree of explicit subjects and (2) that this is due to internal changes in the language as well as to the writer's effort to adopt a modern writing style when influences from Western languages were strong.

1. Introduction. The behavior of $\emptyset$ anaphora in Japanese is quite similar both to $\emptyset$ anaphora and to pronouns in English; hence, in a Japanese discourse implicit subjects are frequently observed.¹ In Japanese, an already introduced and easily understood referent is usually left unstated in the discourse. Often, implicit referents are closely related to discourse theme or paragraph theme (Shibamoto 1983). Besides thematic information, however, are there any other discourse factors that affect the implicit representation of subjects?

Relating to this discourse phenomenon of grammatical subjects, some scholars in the area of language contact argue that due to the influence of Western languages, grammatical subjects in Japanese came to be more explicitly expressed (Umegaki 1963, Inui 1974, Shibauchi and Takai 1967, Sonoda 1975, and Miura 1979). The context in which this claim was advanced is the following.

Japan has had intensive contact with the West during the past 150 years. When the Meiji government was established (1868), after more than 250 years of control by the Tokugawa Shogunate, the new government made a concerted effort to absorb Western civilization in order to modernize Japan. Reform was considered in many components of society: social, political, educational, etc. Language reform was also deemed necessary, particularly on account of the ever-widening gap between spoken and written language. Foreign grammatical features and a considerable number of foreign words were assimilated into Japanese from German, French, and English. With respect to grammatical influence, a sentence style called *oobun-chokuyaku-tai* 'the style of direct translation from Western languages' is considered to have played an important role in bringing features of Western languages into Japanese (Shibauchi and Takai 1967). This sentence style was established and widely used by scholars who had studied Western languages. *Chokuyaku-tai* 'the style of direct translation' is, as the name indicates, a style created through a word-for-word translation method in which all words from original sentences are translated into Japanese and then realigned to conform to Japanese word order. Through this method of translation, a new Japanese sentence style was created. This style became popular and is felt to have influenced language and ways of thinking among young Japanese in the Meiji period (1868-1912) and later.

However, to what extent the external influence of Western languages fostered the tendency toward more explicit manifestation of subjects has never been fully investigated. Furthermore, explicit/implicit manifestation of grammatical subjects is influenced by various contextual and discourse factors. Therefore, if we observe any changes in manifestation of subjects, we should also consider changes in discourse factors which affect manifestation of subjects.

This study analyzes eight versions of *Genji Monogatari* 'The Tale of Genji' with respect to explicit/implicit manifestation of subjects in order to examine the following: (1) Can we observe more explicit manifestation of subjects in more recent Genji texts? (2) What kind of discourse factors influence the explicit/implicit manifestation of subjects? (3) If there is a change in the manifestation of subjects, can we explain it from the viewpoint of external influence alone? These versions are translations from the original eleventh century text, written in the colloquial language style appropriate to the period of each translation. In this study, I will examine the first 400 clauses of chapter *Kiritsubo* 'The Paulownia court', the first chapter, in the following eight versions:

- (1) *Genji monogatari* (eleventh century), by Murasaki Shikibu
- (2) *Shibun ama no saezuri*, by Hanshichi Taga (1723)
- (3) *Nise-murasaki inaka genji*, by Tanehiko Ryuutei (1830)
- (4) *Shinyaku genji monogatari*, by Yosano Akiko (1914)
- (5) *Shin-shin-yaku genji monogatari*, by Yosano Akiko (1936)
- (6) *Genji monogatari*, by Junichiro Tanizaki (1959)
- (7) *Genji monogatari*, by Fumiko Enchi (1972)
- (8) *Genji monogatari*, by Tadayoshi Imaizumi (1978)²

The examined part of the eight versions is referred to as *Genji* 1, 2, 3, 4, 5, 6, 7, and 8. *Genjis* 1, 2, 5, and 7 are closely analyzed with respect to (1) the use of honorifics, (2) switch reference function of conjunctive particles, and (3) the length of sentences (in order to determine whether these factors affect the explicit/implicit manifestation of subjects).

Selection of the *Genji* texts gives us significant control over thematic information and helps us to see what kinds of other discourse factors affect the way subjects are expressed.

2. Implicit subjects in *Genji* texts. Table 1 shows the ratio of explicit as opposed to implicit subjects in each *Genji*.

Table 1. Explicit/implicit manifestation of grammatical subjects.

Genji	Explicit	Implicit
1	30.75	69.25
2	31.0	66.0
3	42.0	57.0
4	57.4	41.2
5	52.0	46.75
6	31.5	68.5
7	35.7	64.3
8	42.1	58.0

When Table 1 is translated into a graph, the result is Figure 1.

Figure 1. Percentage of increase/decrease in explicit subjects.

As Figure 1 shows, we do not observe any gradual steady increase in the explicit manifestation of grammatical subjects. *Genji* 4 shows sudden increase in explicit subjects, and the degree to which subjects are explicitly manifested is also high in *Genji* 5. Interestingly, we see a sudden drop in the percentage of explicit subjects in *Genji* 6. *Genjis* 7 and 8 show a similar pattern. Thus, subjects are more explicitly stated in versions written between 1910 and 1940. This period coincides with the time when the influence of Western languages was strongly felt in many phases of the language. However, there is a dramatic difference in style between *Genji* 4 or 5 and *Genji* 6. *Genjis* 4 and 5 sound vivid, brisk, plain, and manly. By contrast, *Genji* 6 appears as a recreation of the Heian world--very classical. The difference in their style suggests that the

manipulation of various discourse factors affects the way subjects are expressed.

3. Subjectless sentences. First, let us consider when subjects become implicit. Subjectless sentences can be divided into two types: sentences whose subject is implicit and recoverable from the context, and sentences in which implicitness of the subject is not so conditioned by context.

The latter type of sentence includes those that convey time, weather, situational reference (i.e., the subject is something like the situation), and general perspective (i.e., the subject is *we*, *they*, *one*, *people*, and the like). (For example, *hutte kimashita ne* '(lit.) () came falling, didn't it? It started raining, didn't it?' *'Go-ji desu* 'It's five o'clock'.) These references seem to have been regularly realized by $\emptyset$ in the history of the language. In English, the dummy subject 'it' is often used in such situations.

4. The influence of thematic information. Some implicit subjects are more context-conditioned. Information available from the preceding discourse could help in topic identification, establishing specific probabilities as to the topic identification within a particular clause and a particular role. In example (1) from *Genji* 1, thematic information tells whom Myoobu is visiting and, therefore, who is the person leading a widow's life. From the preceding discourse, the reader already knows that the emperor sent Myoobu to check on the condition of Kiritsubo's mother and the prince. In the examples used in this paper, I transliterate Japanese texts according to the Hepburn System of romanization. The texts are written in *kana* syllabary and *kanji* (Chinese characters).

- (1) Myoobu kashiko ni makadetsuki-te kado hikiiruru
Myoobu over-there LOC (HUM) arrive-and gate the-time-when-she-
pulled-a-car-in

yori kehahi ahare-nari. Yamome-zumi nare-do
from appearance pitiful-ASS widow-life ASS-though

hito hitori no ohon-kasizuki ni tokaku
person one(person) ASSOC RES-care for in-various-ways

tsukurohidate-te
take-care-of-and

'Myoobu arrived there and as soon as she entered the gate, [she noticed that] the scene/atmosphere looked pitiful. Although (Kiritsubo's mother) was living alone, being a widow, in order to bring up her only daughter respectably, (she) has taken care of (the house) and...'

Kashiko 'over there' indicates the place where Kiritsubo's mother lives, because we know, from prior contexts, that that is where Myoobu is supposed to visit. Consequently, *kashiko* 'over there' evokes the existence of Kiritsubo's

mother. Thus, the reader can easily identify who is the person living alone, and who has been taking care of the house.

4.1 Implicit subjects and the importance of participants. Discourse and thematic information establishes some ranking of the importance of the various topics/participants, and affects how they are manifested. The phenomenon of the main character's having a stronger hold than others on the status of old information is widely observed in the discourse of various languages (Chafe 1976). Having established a particular character as the hero, the speaker, by continued use of inexplicit reference forms, can signal that this character is still functioning as the hero of the story (Clancy 1979:178-79).

In *Genji* texts, main characters who appear often in the story, and who are centers of attention, are more likely to be coded implicitly than are participants who play minor roles. Table 2 indicates how major characters are coded in *Genji* 1. The emperor, who appears most frequently in the story, has the highest degree of implicitness in the subject position. In the following sections, I show that this is possible not only because of thematic information, but because of other discourse factors as well.

Table 2. The degree of implicitness in *Genji* 1.

Participant	No. of mentions		% of Implicitness
	Explicit	Implicit	
Kiritsubu	4	27	87.0
Emperor	1	95	99.0
Kiritsubo's mother	5	28	84.8
The Prince (<i>Genji</i>)	5	8	61.5
Lady Kookiden	3	6	75.0
Myoobu	2	11	84.6

5. Other factors which influence the manifestation of subjects.

5.1 The use of honorifics. Givón notes (1983) that the availability of so-called 'redundant' semantic information within a clause may play an important role in facilitating topic identification. This information comes primarily from the predicate of the clause, less so from verb-phrase adverbials, and even less so from other topics/participants of the clause.

One important indicator of the subject in the predicate is honorific verbal auxiliaries. On a sentence level, it has been argued that the use of particular types of honorifics (respect forms) is triggered by the status of a referent in the subject position of a sentence; these honorifics can be used as tools to identify the subject of a sentence (Shibatani 1977). However, the power of honorifics in the identification of referent in a discourse has never been fully discussed.

Japanese has an elaborate system of honorifics. They are used in accordance with the various kinds of relationships that may exist among humans: social status, age, sex, intimacy, and so on. There are three kinds of honorific forms, each with different functions: (1) *teinei-go* 'forms of politeness'; (2) *sonkei-go* 'forms of respect'; and (3) *kenjoogo* 'forms of

humbleness'. Forms of politeness are used to show the speaker's respect to the hearer irrespective of the content of the speech. *Haberu* (in classical Japanese) and *masu* (in colloquial Japanese) belong to this category:

- (2) ...matsu no omohan koto dani hazukashuu
pine-tree SUBJ think thing even ashamed

omohi-tamahe-*habere*-ba (Genji 1)
think-HUM-POL-since

'since I am ashamed even before the Takasago pines (thinking how they would think of me)'

- (3) yonaka sugiru koro ni iki o
night pass around TIME breath OBJ

o-hikitori-ninari-*mashi*-ta (Genji 4)
RES-breathe-one's-last-POL-PAST

'(Kiritsubo) breathed her last around midnight.'

The second category, forms of respect, is used to express respect to the actor of actions or the patient of states (in intransitive clauses).

- (4) ...kakarū hito koso yo ni *ohashimashi*-kere (Genji 1)
this-kind-of person EMP world LOC (RES)-be-PAST

'(some marveled that) such a paragon had been born into this world.'

- (5) kono-yoona *o-kata* mo kono yo ni
like-this RES-(RES) person EMP this world LOC

umarete-*irassharu* mono ka to iki o nomi
come-to-be-born-RES EM QUES Q breath OBJ swallow (Genji 7)

'(people who were understanding) were thrilled that such a person had been born into this world.'

The italicized words in (4) and (5) convey respect to the subject, *kakarū hito* 'this kind of person' and *konoyoona okata* 'this kind of person', respectively.

Humble forms are those that upgrade the person to whom an action is directed.³ In (6), *sooshite* '(HUM) say' upgrades the recipient of the action, the emperor. In colloquial Japanese, *mooshiageru* '(HUM) say' is used instead, as can be observed in (7).

- (6) hahagimi nakunaku *sooshi-te*... (Genji 1)
mother-RES with-tears (HUM)-say-and

'(Kiritsubo's) mother asked (the emperor) with tears...'

- (7) sokode hahagimi kara nakunaku o-negai-mooshiage-te
then mother-RES from with-tears HUM-ask-and

(*Genji* 7)

'then, (Kiritsubo's) mother asked (the emperor) with tears.'

Since the use of honorific forms is so closely related to the social system and culture in which the language is used, we can expect that, over time, changes in society and culture influence evolution in the use of honorifics as well as change in their forms and meanings.

In classical Japanese broadly defined, which includes the written language until the end of the Edo period (1867), honorific usages were more elaborate than in present-day Japanese. There were more lexical varieties of honorific expression, and verbs and auxiliaries that would convey humility were richer. With the modernization of the language, the use of honorifics became simpler (Neustupny 1974), and this highlights the end of the class society in the Edo period (1603-1868). The *Genji* texts also reflect changes in honorifics.

5.1.1 The use of honorifics in *Genji* 1. In *Genji* 1, honorific usage alone can suggest the status hierarchy among the characters, as indicated in (8). Differences in honorifics divide the characters into five status groups: the most elaborate honorific system is used for group 1 (the emperor), and the use of honorifics is simplest for characters in group 4. For characters in group 5, honorifics are not used at all. For the characters in groups 3 and 4, e.g., Kiritsubo, Kiritsubo's mother, and so on, respect forms are not consistently used, and especially in subordinate or subcoordinate clauses they are often absent. The use of humble forms differentiates these two groups. The difference among the various groups is clear when two characters with different status interact, and hence the comparative use of honorifics is demonstrated in a paragraph.

(8) <i>Genji</i> 1	1. Emperor
	2. Lady Kookiden, princes
With	3. Kiritsubo, other court ladies
honorifics	4. Kiritsubo's mother, some court ladies

-
Without	5. Myoobu, young ladies who serve Kiritsubo,
honorifics	the emperor's messenger, people at
	Kiritsubo's house, people in the world

Although the emperor, Lady Kookiden, and princes are referred to with strong respect forms, the emperor is differentiated from all other characters in the use of honorifics. This is accomplished by use of special lexical items, and by the highest respect form: the combination of two verbal morphemes that convey respect. This highest respect form has the form of *su/sasu* + verb/auxiliary of respect as in *se-tamafu*, *sase-ohashimasu* (*se* in *se-tamafu* is a conjugated form of *su*, an auxiliary indicating respect; and *tamafu* is a secondary verb expressing respect. *Se-tamafu* has no particular meaning in

itself, but indicates that the actor is a highly respected person. *Sase*, a conjugated form of *sasu*, is also an auxiliary that conveys respect; and *ohasu* is a verb that expresses respect ('RES-be') in contrast with neutral *ari* 'be'.⁴ In Classical Japanese, the highest respect form was used only for people of extremely high status, such as the emperor or empress (Nakata 1971:172, Shirako 1965:5). In *Genji* 1 this form is used only for the emperor. Example (9) illustrates how the emperor and Kiritsubo are differentiated in terms of honorifics.

- (9) *ito atsushiku nariyuki mono-kokoro-bosogeni*
very serious became-and helplessly

satogachi naru o iyoiyo akazu aharenaru mono
tend-to-be-back-home ASS OBJ more-than-ever-dear person

ni omohoshi-te hito no soshiri o mo
as (RES)-think-and people ASSOC criticism OBJ even

e-habakara-se-tamaha-zu
POT-take-into-consideration-RES-RES-NEG

'(Kiritsubo) fell seriously ill and came to spend more time at home than at court. (The emperor's) pity and affection quite passed bounds, and (he) could not take others' criticism into consideration.'

The fact that different honorifics are used depending on the status of the characters makes honorific forms strong identifiers of a referent when combined with thematic information. This makes it possible to have long clause chains in which interacting characters are implicitly suggested.

Since the highest respect form is used only for the emperor and no one else, it serves to identify him uniquely. Especially when the semantic argument of the VP and the context leave some ambiguity as to who the actor is, the significance of the highest respect form surfaces. In (10), given the prior context, there is ambiguity concerning who the person is who passes by other ladies' apartments -- is it Kiritsubo, or the emperor? However, the existence of the highest respect form, *sasetamahi*, disambiguates the referent and indicates that the actor is the emperor. Moreover, *on-maewatari* 'in RES-passing' also signals that it is not Kiritsubo's action, since the verb *wataru* 'pass' means to pass somewhere in going to a place which belongs to a person of the same status or lower. If Kiritsubo were going from her place to the emperor's, the humble form, *mainu*, would have to be used (Shirako 1965:190).

- (10) *Mitsubone ha Kiritsubo nari Amatano ohon-katagata*
RES-apartment TOP Kiritsubo ASS many RES-(RES)- people

o sugi-sase-tamahi-tsutsu himanaki on-maewatari ni
OBJ pass-RES-RES while constant RES-passing toward

'(her) apartment is Kiritsubo (Paulownia Court). (The emperor) visited her constantly, passing by other ladies' apartments...'

Both the highest respect forms, and specific lexical items which can indicate the presence of the emperor, make the emperor implicit 99% of the time in *Genji* 1.

5.1.2 The use of honorifics in *Genji* 2. *Genji* 2 shows an equally elaborate use of honorifics, but humble forms do not occur as frequently as in *Genji* 1. Also, the emperor is no longer uniquely differentiated with honorifics. Example (11) indicates how honorific usage differentiates characters of the story.

(11) <i>Genji</i> 2	1. Emperor, Lady Kookiden, princes
With honorifics	2. Kiritsubo, other court-ladies
	3. Kiritsubo's mother
	4. Myoobu, young ladies who serve Kiritsubo
Without honorifics	5. the emperor's messenger, people in the world

Unlike in *Genji* 1, in *Genji* 2 the actions of Myoobu and young ladies who serve Kiritsubo are denoted with respect forms in the predicate. The highest respect forms are used not only for the emperor (as in *Genji* 1) but also for Lady Kookiden, the princes, and Kiritsubo. This elevation of their status seems to derive from a difference in the writer-reader relationship, the writer-character relationship, and changes in the society in which the stories were written and read between the time of *Genji* 1 and *Genji* 2.

Both the writer and the reader in the days of *Genji* 1 were familiar with court life, human relationships there, the hierarchy of status among court people, various customs, and so on. For them, the status difference among the emperor, Lady Kookiden, and the princes were clear. On the other hand, the context in which *Genji* 2 was written (1723) is completely different. It was written by a nonnoble person, for people of lower socioeconomic status, in a society where class distinctions were rigid. Nobles, belonging to a completely different category, were high up in the social scale, far above the writer and the reader. Moreover, neither the writer nor the reader had any firsthand knowledge of court life. In this context, it is natural that status differences among the emperor, his wife, and children were not perceived, and that they are all treated as people equally worthy of respect. The illustration in (12) indicates the viewpoints of the writer and reader in *Genji*s 1 and 2.

Because the highest respect forms appear in describing not only the emperor's but also others' actions or situations in *Genji* 2, the power of honorifics to identify the chief protagonist, the emperor, is weakened in *Genji* 2. Such weakening is accompanied by a more explicit mention of the emperor. In *Genji* 1, the emperor is mentioned only once in a quotation and once in an embedded clause; but in *Genji* 2 the emperor's explicit identification increases to 14.4%. Example (13) illustrates that a high level of honorifics is observed for both the emperor and Kiritsubo.

- (13) miko o ba kinchuu ni sono-mama todomeoki-tatematsuri
 prince OBJ EMP inside-of-court LOC the-way-it-is-keep-HUM
 amari medata-nu yooni shi-te *o-shitakuse-sase tamau*.
 not-very-much noticeable-NEG in-the manner-and RES-prepare-
 RES-RES

Mikado wa iroioto *oboshi-megura-sase-tamahe-domo*
 emperor TOP variously (RES)-wonder-RES-RES-although

o-kokorozoe mo kagiri are-ba sanomi
 RES-affection EMP limit there-is-therefore like that

mo *e-todome-sase-tamawa-zu*.
 EMP POT-keep-RES-RES-NEG

'As for the prince, (Kiritsubo) leaves (him) at court and prepares (for her departure) privately. The emperor wonders about various things. However, since there is a limit to his support and affection, he cannot keep (her) so forcefully.'

This is a scene in which Kiritsubo is leaving court because her sickness has become very serious. Considering her situation, the emperor had to let her go, although he did not want to do so. The verb phrases of the first sentence convey Kiritsubo's actions. Notice the form, *o-shitakuse-sase-tamau* 'RES prepare-RES-RES'. The highest respect form, *sase-tamau*, is found here. The same honorific auxiliaries are attached to the verb denoting the emperor's action, *oboshi-megura-sase-tamahe* '(RES)-wonder-RES-RES'. If the subject, *mikado*, 'the emperor' is left out of the sentence, there may be some difficulty in immediately identifying the actor.

5.1.3 The use of honorifics in *Genji* 5. *Genji* 5 reflects various aspects of the modernization of the language. Neustupny (1974) and Tobita (1982) point out that one of the characteristics of the modernization of the language at the turn of the century was the simplification of honorific usages. *Genji* 5, which was written in 1936, reflects this aspect of modernization: the use of honorifics is greatly simplified. Respectful forms of a verb, and auxiliaries of respect, occur only to narrate actions of the emperor and princes. Example 14

indicates the way in which *Genji* 5 indicates status differences among the characters.

- (14) *Genji* 5
With
honorifics 1. Emperor, princes
-

Without
honorifics 2. Kiritsubo, Kiritsubo's mother, Lady Kookiden,
other court ladies, Myoobu, people in the world.

Examples (15) and (16) are from *Genji* 5. Observe the use of honorifics.

- (15) ikutsuka no nyoogo ya kooi-tachi rooka
several ASSOC court-lady or court-lady-PL ASSOC hallway

o kayoi-michi ni shi-te mikado ga shibashiba soko e
OBJ pass-way-make emperor SUBJ often there

o-ide-ninari tonoi o suru kooi ga
RES-go stay (overnight) court-lady SUBJ

agari-sagari-shitei-ku Kiritsubo de-atta kara
go-up-and-down Kiritsubo ASS-PAST since

'Because it was to Kiritsubo (=name of the residence) that the emperor frequently went, passing several ladies' apartments and from Kiritsubo the lady who stays overnight at emperor's goes and...'

- (16) Miyasudokoro wa chottoshita byooki ninat-te
emperor's lover TOP a-little sickness become-PAST

sagaroo to-shita ga
return try-PAST but

'The emperor's lover (=Kiritsubo) became sick and tried to go home but...'

There are no highest respect forms, and very few humble forms. In fact, the highest respect forms and many of the humble forms observed in *Genji*s 1 and 2 are no longer in use in modern Japanese. As will be shown later, the simplification of honorific usages correlates with a tendency toward more explicit mention of the characters. In *Genji* 5, honorifics do not play as significant a role as in earlier *Genji*s.

5.1.4 The use of honorifics in *Genji* 7. In contrast to *Genji* 5, *Genji* 7 shows more conservative use of honorifics. It reflects the author's intent to

indicate status differences in the characters as an aid to understanding what is going on in the story. In this version, honorifics divide the characters into four different status groups, as indicates in (17).

(17)	<i>Genji</i> 7	1. Emperor
	With	2. Lady Kookiden, princes
	honorifics	3. Kiritsubo, Kiritsubo's mother
-
	Without	4. Other court ladies, Myoobu,
	honorifics	people in the world

Although this version tries to convey status differences with honorifics, it cannot do so as effectively as *Genji* 1, since some distinctive honorific forms (including the highest respect forms, various humble forms, and honorific lexical items) are no longer in use in colloquial Japanese. This makes it more difficult to reflect highly stratified human relationships by manipulating honorific usage. Yet *Genji* 7 uses additional devices with which honorific forms can suggest the identity of the emperor. For example, when there are lexical choices available, the respect form of a verb is always used. Thus we find such words as *oboshimesu* '(RES) think' (vs. neutral *omou* 'think'), *oosu* '(RES) say' (vs. neutral *yuu* 'say'), and *asobasu* '(RES) do' (vs. neutral *suru* 'do'). Also, the auxiliary of respect, *tamau*, is used only for the emperor's actions. (This morpheme is no longer commonly used in colloquial Japanese.) The honorific affixes, *o-...- ninaru*, are used to describe the emperor's action in preference to verb forms with the respect morpheme *rare*. Thus, *o-iki-ninaru* 'RES-go' appears if the actor is the emperor, but *ikareru* 'go-RES' is commonly used if the actor is Lady Kookiden or princes. Example (18) shows some instances of respect forms used for the emperor.

- (18) *sukoshi mo o-nemuri-nin-are-zu ichi-ya o*
not at all RES-sleep-POT-NEG one night OBJ

akashikane-tamoo-ta.
cannot pass-RES-PAST

'(The emperor) could not sleep a bit, and the night was long.
(lit. it was hard for him to pass the night)'

VPs that describe Kiritsubo's actions, on the other hand, do not always contain respect morphemes. In example (19), the emperor's actions contrast with respect to honorifics.

- (19) *nioikoboreruyooni adeyakana hito ga sukkari omoyase-te*
fragrantly gorgeous person SUBJ completely worn-out

shimijimito monoomoi ni shizumiiri-nagara kotobani-shite
seriously thought in be-sunk-while in-words

kore to wa kuchi-ni-dasazu shootai mo nai arisama
this Q say-NEG existence even there-is-not condition

de kieiru-yooni natteiru no o *go-ran-ninaru*
MANNER as-if-disappearing NOMINALIZER OBJ RES-see

to kako mo mirai mo isshunni tobisat-teshimau-yoode
when also past future in-a-moment as-if-fly-away-seem-and

tada aru-kagiri no kotoba ni chikai o kome-te nakunaku
simply available ASSOC words in vow OBJ put-in weepingly

mimimoto ni o-hanashikake-ninaru-keredomo o-kotae mo
ear ni LOC RES-tell-although RES-reply even

manzokuni wa mooshiage-rare-nai
satisfactorily TOP (HUM)-say-POT-NEG

'When (the emperor) saw that the person with gorgeous beauty was completely worn out and was sunk in serious thought and yet could not say it in words and she was as if disappearing, (he) felt that (he) was losing the past and future. (He) talked to her and wept and promised various things. However, (Kiritsubo) cannot even reply satisfactorily.'

Here use/nonuse of honorifics distinguishes which actions are Kiritsubo's and which are the emperor's. Kiritsubo's actions are not expressed with respect forms; the emperor's actions are. When Kiritsubo is the actor and the emperor is the recipient of the action, humble forms such as *mooshiageru* '(HUM) say' are used.

5.2 Correlation between the use of honorifics and the degree to which subjects are explicit/implicit. Now let us consider how the differences in the use of honorifics we have just observed relate to the degree to which subjects are explicitly/implicitly mentioned. Examples (8), (11), (14), and (17) give us a rough idea concerning the power of honorifics in the identification of referents. In order to examine the correlation between the elaboration of honorifics and the degree to which subjects become implicit, I will translate the number of groups in (8), (11), (14), and (17) into a graph. In doing so, I will express by numbers how many groups of characters are differentiated by the use of honorifics. This means that *Genji* 1 is given the number 5; *Genji* 2, 5; *Genji* 5, 2; and *Genji* 7, 4. Since *Genji* 1 uniquely distinguishes the emperor, I will add 0.5 to the number of *Genji* 1 and 0.25 to *Genji* 7, since honorifics rather weakly differentiate the emperor from other characters. So finally, *Genji* 1 gets 5.5 and *Genji* 7, 4.25. This very rough way of converting (8), (11), (14), and (17) into figures provides a quantitative idea of the relation between the power of honorifics to identify a referent and the degree of implicitness in subjects.

Compare Figures 2 and 3, which show an exactly opposite pattern. This suggests that the elaboration of honorific forms and explicitness in subjects has a negative correlation. In other words, the more powerful honorific forms are as indicators of a referent, the more subjects tend to be expressed implicitly. Thus, this study demonstrates that the semantic information that honorific forms give significantly influences the way in which subjects are manifested.

6. The length of the sentence and cohesion. A sentence is a meaningful cohesive unit. In a study of spoken discourse, Chafe (1980) states that the unit of a sentence represents the existence of some sort of cognitive entity. In written discourse, too, a sentence marks a cognitive and linguistic boundary. Several studies suggest that this boundary can influence referential choice (e.g., Clancy 1980, Givón 1983, Chafe 1980). Clancy notes that in both English and Japanese the occurrence of a sentence boundary elicits a higher frequency of noun phrases, and sentential boundaries are often accompanied by a switch from the inexplicit mention of a referent to a nominal reference (1980:143).

Figure 2. The degree to which subjects are expressed explicitly.

Figure 3. The degree to which honorifics can differentiate the characters.

From the above observations I hypothesize that a text containing sentences with long clause chains is likely to have more implicit subjects than a text that employs shorter sentences.

Some sentences, such as those in (20) and (21), suggest that when a particular piece of information is conveyed in several sentences, subjects may become more explicit than when the same information is packaged into a single sentence. This is due to the fact that cohesion is broken by sentence boundaries. Compare (20) and (21). Describing the same scene, *Genji 5* uses

three sentences, as in (20), while *Genji* 7 packs all the information into one sentence, as in (21). Notice that the sentence in (21) makes the event a more closely related and cohesive unit in which the topic, Kiritsubo, is continuously and implicitly referred to.

- (20) haha no miboojin wa nakunaku ohimao negat-te
 mother ASSOC widow TOP weeping leave-OBJ asked-and
 kitaku-saseru koto-ni-shita.
 go-home-CAU decided

Konna baai ni wa mata donna juso ga
 this-kind-of occasion in TOP also what-kind-of prayer SUBJ

okonaw-areru-kamoshirenai. Ooji ni made wazawai o
 carry-on-PASS-may prince to even misfortune OBJ

oyoboshite wa to no kokoro-zukai kara ooji dake o
 bring TOP Q ASSOC consideration from prince only OBJ

kyuuchuu ni todomete medatanu-yooni miyasudokoro
 inside-of-palace LOC keep-and quietly emperor's-lover

dake ga taishutsusuru-nodeat-ta. (*Genji* 5)
 only SUBJ leave-ASS-PAST

'Kiritsubo's mother, the widow, tearfully pleaded with (the emperor) and was allowed to let (Kiritsubo) go home. In this kind of occasion, it is not known what kind of prayer is going to succeed. Thinking of avoiding bringing misfortune on the prince, Kiritsubo, leaving the prince inside the palace, only the emperor's lover (= Kiritsubo) quietly left.'

- (21) Sokode hahagimi kara nakunaku onegai-mooshiage-te sato
 therefore mother-RES from weeping plead-HUM-and home

e tsurekaeru koto-ni-shita ga kooshita ori ni mo
 to take-home decided but this-kind-of occasion TIME also

omo-mo-kakenu haji nado atae-rareru koto ga
 unexpected shame and-so-on give-PASS that SUBJ

atte-wa-naranu to yoojinshi-te miko wa gosho ni
 must-not-exist COMP be-cautious and prince TOP palace LOC

o-todome-mooshiteoki shinobide taishutsusuru-kotoninatta
 HUM-keep secretly was-decided-to-leave *Genji* 7

'Therefore, weeping mother pleaded with (the emperor) and was allowed to let (Kiritsubo) go home, however even in this kind of occasion, (Kiritsubo) was concerned that any unexpected shame should not be given to the prince, and hence (she) was going to leave quietly.'

Although Kiritsubo is mentioned explicitly in the last sentence of (20), she is indicated implicitly throughout (21).

Is the above observation borne out by a quantitative correlation between the length of sentences and explicitness/implicitness in subjects? Table 3 expresses the number of sentences in the first 400 clauses in *Genjis* 1, 2, 5, and 7. *Genjis* 1 and 7 show a similar number; *Genji* 2 has the smallest number of sentences, and *Genji* 5 the greatest. In *Genji* 2 many sentences have long clause chains, whereas in *Genji* 5 the sentences are shorter, giving it a brisker atmosphere.

Table 3. The number of sentences.

Genji	1	2	5	7
Number	158	104	182	156

Figures 2 and 4 compare the number of sentences in the texts and explicitness/implicitness of subject. These two figures do not show a perfect correlation; the number of sentences is much smaller in *Genji* 2 than in *Genji* 1, although *Genji* 2 has a slightly higher degree of explicitness in subjects. Still, in *Genjis* 1, 5, and 7, the number of sentences and the percentage of explicit subjects show a similar pattern, suggesting that the length of sentences is potentially a strong influential factor.

Figure 4. Increase in the number of sentences.

7. **Switch reference.** Some *Genji* texts, particularly *Genjis* 1, 2, 6, and 7, contain sentences with long clause chains. In these long sentences, both background and foreground information are often packaged together. In *Genjis* 1 and 2, some sentences are so long that they are equivalent to paragraphs. Long sentences, describing a single event, may center around one particular character or may involve a shift of focus from one character to another, often accompanied by a shift from one event to another. In the latter

case, there are instances where subjects referring to different characters are rather freely switched with 0 anaphora. This frequent shift of subject with 0 anaphora must cause readers some difficulty in identifying referents. However, Akiba (1977) claims that in Classical Japanese conjunctive particles have different forms to mark whether or not the two clauses in a complex sentence have a coreferential NP having the same function in each. This is referred to as 'switch-reference' marking. Based on the study of *Taketori monogatari* 'Tale of a Bamboo Collector' (the oldest work of prose in this language, written in the beginning of the tenth century) and *Genji monogatari* 'Tale of Genji' (eleventh century), Akiba argues that although traditional Japanese grammarians classified conjunctive particles such as *te*, *ba*, *wo*, and *ni*, in terms of their semantic differences, there are many cases in which the semantic classification does not match or explain the occurrence of these particles. According to her, they are better characterized in terms of switch-reference function, with the conjunctive particle, *te*, signaling retention of the subject; and *ba*, *wo*, and *ni*, switch of the subject.

Although the 'switch-reference' function has been recognized and investigated in various languages, such as American Indian languages, languages of Australia, and Papuan languages (Winter 1976, Dixon 1980, Olson 1978, Haiman and Munro 1983), it has not been discussed with respect to Japanese except in Akiba (1977). Interestingly, however, in studying *Genji monogatari*, traditional Japanese grammarians have intuitively felt that subjects often change after a conjunctive particle (Nakata 1971:386).

Sections 7.1 and 7.2 examine how conjunctive particles relate to the switch/retention of subjects in *Genji*s 1, 2, 5, and 7.

7.1 Switch reference of conjunctive particles in *Genji* 1. In a compound sentence, the verb occurs in nonfinal form in all clauses but the last, and clauses are conjoined either with or without a conjunctive particle⁵. In *Genji* 1, the major conjunctive particles observed are *te*, *ni*, *wo*, *ba*, *do*, *tsutsu*, and 0. How these particles occur with various nonfinal forms of a verb is shown in (22). Adjectives and auxiliaries also follow the same pattern.

(22) Form:	Conjunctive particles:
A: negative nonpast, tentative	<i>ba</i> (in the sense of 'if')
B: +verbal auxiliary	0, <i>te</i> , <i>tsutsu</i>
C: sentence-final	in sentence-final position
D: noun-modifying	<i>ni</i> , <i>wo</i>
E: perfect	<i>ba</i> (in the sense of 'since'), <i>do</i>

A forms, indicating that the action or the event expressed by the verb has not been realized, typically occur before a negative or future tense morpheme. *B* forms are followed by an auxiliary, such as an honorific or an auxiliary of tense and aspect. *C* forms are sentence-ending forms. *D* forms are used when a NP follows, and therefore occur in relative clauses. *E* forms indicate that the action or event expressed by the verb has been realized.

The generally agreed upon meaning of these particles is summarized in (23).

(23)	<i>te</i>
<i>tsutsu</i>	often expresses sequentiality of two events
1. expresses a paratactic relationship, 'while...'
2. expresses repeated actions
3. expresses continuation of an event or state; 'X is ...ing...'
	<i>ba</i>	1. expresses conditional meaning; 'if...'
2. expresses cause-effect relationship; 'since...'
3. expresses condition and result relationship; 'when...then...'
	<i>ni</i>	in 'X <i>ni</i> Y', X gives background information for Y. 'X and therefore Y', 'X but Y', 'X and then Y' and so on.
	<i>wo</i>	Since <i>wo</i> has a very similar derivational history to <i>ni</i> (developing from case particles), both of them have a similar meaning as conjunctions. <i>Wo</i> often indicates 'although X, ...', 'in spite of X, ...', but can also mean 'because X, ...'
	<i>do</i>	'X do Y' emphasizes on adversative cause-result relationship such as 'although...' and 'despite...'

A look at *Genji* 1 seems to support Akiba's claim that *wo*, *ni*, and *ba* indicate switch of subject; and *te*, retention of subject. For example, observe the long clause chains in (24).

- (24a) *anagachini omae-sarazu*
by-force without-leaving- (the emperor)

motenas-ase-tamahi-shi hodo-ni
serve-CAU-RES-EMP (it-went-on) since

'(the emperor) forced (Kiritsubo) to serve (him) all the time and therefore...'
- (24b) *onozukara karoki-kata ni mo mieshi-wo*
naturally person-(RES)-or lower-status as even looked but

'naturally (Kiritsubo) looked as if (she) was a person of lower status, but...'
- (24c) *kono miko umarete nochi ha ito kokoro kotoni*
this prince be-born after CONTRAST very mind differently

omohoshi-okite-tare-ba
(RES)-treat-PERF-therefore

- 'after this child was born, (*the emperor*) treated (Kiritsubo) differently and therefore...'
- (24d) (1) boo ni mo yoosezu-*ba*
Tooguuboo (=crown prince) to EMP if-things-don't go-well
'For the crown prince, if (things) don't go well,'
(2) kono miko no i-tamafu-beki-nameri
this (RES)-child SUBJ stay-RES-CONJ-seem
'*this child* may become'.
(3) to ichi no miko no nyoo go ha oboshi-utagaheri
Q child ASSOC child (RES) ASSOC lady CONT/TOP RES-
worry
'the mother of the first child worried.'

Notice that in (24) the subject of the succeeding clause changes after *wo*, *ni*, and *ba*. Also, example (25) shows that the subject of the succeeding clause is the same after *te*.

- (25a) itsushika to kokoro motonagara-se-tamahi-*te*
when Q looks-forward-to-RES-RES-and

'(The emperor) looks forward to (seeing the baby), thinking,
"when it will be?" and...'
- (25b) isogi-mair-ase-*te*
in-a-hurry-come-CAU-and

'(*the emperor*) makes (Kiritsubo and the baby) come right away,
and...'
- (25c) go-ranzuro-*ni*
RES-see and then

'(the emperor) sees (the baby), and then...'
- (25d) mezuraka-naru chigo no on-katachi-nari.
rare-ASS baby ASSOC RES-appearance-ASS

'(the baby's appearance) is the appearance of a unusually
beautiful baby.'

A quantitative analysis of switch reference function of the particles, *te*, *tsutsu*, *ni*, *wo*, *ba*, *do*, and of the $\emptyset$ particle, however, reveals that their switch-reference function is not as strong as Akiba (1977) claims; it is a matter, rather, of a tendency. The statistics in Table 4 indicate the percentage of the switch/retention of the subject in *Genji* 1. The particle *ba* shows a strong tendency to switch the subject, but *wo*, *ni*, *do*, a weaker tendency. *Te*, *tsutsu*, and $\emptyset$ indicate a tendency to retain the subject.

Cases in which conjunctive particles do not follow the tendency of either switching or retaining subject seem to require discourse semantic explanation:

that two clauses indicating a cause-effect relationship, or in which the first clause conveys background information for the second, tend to have different subjects, while sequential events are more likely to be perceived if the actions involved are by the same actor. In this sense, the status of conjunctive particles is not as clear-cut as Akiba claims. However, considering (1) that there is historical evidence that conjunctive particles *wo* and *ni* developed from case particles and hence naturally connect two clauses with different subjects, and (2) that some Japanese scholars have intuitively felt that subjects tend to switch after conjunctive particles, I conclude that the conjunctive particles can be considered reliable indicators of switch/retention of subjects.

Table 4. Switch reference function of conjunctive particles in *Genji* 1.

Particles	Number of occurrences	Retention of subject		Switch of subject	
		Number	%	Number	%
∅	37	23	62.2	14	37.8
te	62	44	71.0	18	29.0
tsutsu	11	8	72.7	3	27.3
ni	23	5	21.7	18	78.3
wo	24	3	12.5	21	87.5
ba	35	2	5.7	33	94.3
do	14	4	28.6	10	71.4

7.2 Switch reference function of conjunctive particles in *Genjis* 2, 5, and 7. Conjunctive particles or conjunction words that appear in *Genji* 2 are also basically the same, and they show a tendency very similar to that of particles in *Genji* 1 with respect to their switch reference function.

Table 5. Switch reference function of conjunctive particles in *Genji* 2.

Particles	Number of occurrences	Retention of subject		Switch of subject	
		Number	%	Number	%
ba	54	9	16.7	45	83.3
te	78	63	80.8	15	19.2
ni	43	15	34.9	28	65.1
∅	31	27	87.1	4	12.9
tsutsu	13	12	92.3	1	7.7
do	10	3	30.0	7	70.0
domo	10	3	30.0	7	70.0
o	8	0	0	8	100.0
nagara	8	4	50.0	4	50.0

There are differences between *Genjis* 1 and 2, however, in the use of particles. In *Genji* 2, *o* does not appear as often as *wo* in *Genji* 1 (*wo* underwent a phonological change and had become *o* by the time of *Genji* 2). On the other hand, *ba* and *ni* are more frequently observed in *Genji* 2. One of the differences that may particularly concern us here is that in *Genji* 2 particles such as *nagara* and *domo*, which seldom appear in *Genji* 1, are used more often and do not show a strong tendency to switch/retain the subject. This fact weakens the overall effect of the switch reference function of conjunctive particles in *Genji* 2.

Table 6. Switch reference function of conjunctive particles in *Genji* 5.

Particles	Number of occurrences	Retention of subject		Switch of subject	
		Number	%	Number	%
<i>te</i>	71	58	81.7	13	18.3
<i>ga</i>	33	5	15.2	28	84.8
<i>kara</i>	17	1	5.9	16	94.1
$\emptyset$	12	5	41.7	7	58.3

Compared with *Genjis* 1 and 2, conjunctive particles in *Genji* 5 show a much weaker function of signaling, whether or not the subject in the succeeding clause is the same. In *Genji* 5, more varieties of conjunctive particles are observed: The major ones are: $\emptyset$, *te*, *to*, *tomo*, *ga*, *kara*, *ni*, *temo*, *tara*, *node*, *nagara*, and *ba*. Among these particles, the ones that occur more than ten times each are: $\emptyset$, *te*, *ga*, and *kara*. The meanings of these particles approximately correspond to English 'and', 'and', 'but', and 'because', respectively. Table 6 shows how they behave in terms of the switch reference function. Although *ga* and *kara* indicate a rather strong tendency to switch the subject, the degree to which $\emptyset$ and *te* signal the retention of the subject is not so strong. Furthermore, considering the fact that the use of conjunctive particles in *Genji* 5 is less concentrated than in *Genjis* 1 and 2, and that some particles of minor occurrence are not at all predictable in terms of the switch reference function, it seems reasonable to conclude that conjunctive particles in general in *Genji* 5 are not as reliable as in *Genjis* 1 or 2 for identifying implicit subjects.

In *Genji* 7 also, we observe a variety of conjunctive particles, particles that appear more than ten times; their switch reference tendencies are shown in Table 7. Compared with *Genji* 5, these particles, except for *temo*, show a stronger tendency either to switch or to retain the subject. Clauses that are conjoined with *te* and $\emptyset$ are likely to have the same subject, and those connected with *ga* 'but', *to* 'when, and then' and *node* 'since' tend to have different subjects. This is also consistent with the semantic generalization I mentioned earlier: Clause pairs that have a sequential relationship are more likely to have the same subject, and those in which the first clause describes background information for the second tend to have different subjects.

As in *Genji* 5, however, *Genji* 7 has several other clause connectors, such as *shi* 'and also', *ba* 'if', and *monono* 'although', that appear rather infrequently and do not show very strong tendencies one way or the other in the switch reference function. Although each of these particles occurs rather infrequently, since there are several of them, their impact cannot be ignored when we consider the switch reference function of conjunctive particles. For this reason, it seems to me that the overall effectiveness of conjunctive particles as switch reference indicators is not as strong in colloquial Japanese as in classical Japanese.

Table 7. Switch reference function of conjunctive particles in *Genji* 7.

Particles	Number of occurrences	Retention of subject		Switch of subject	
		Number	%	Number	%
te	60	51	85.0	9	15.0
ga	20	3	15.0	17	85.0
node	16	2	12.5	14	87.5
o	14	11	78.6	3	21.4
temo	13	8	61.5	5	38.5
to	10	2	20.0	8	80.0

4.5 Summary. I have demonstrated, through a quantitative analysis, that subjects are more often explicit in *Genjis* 4 and 5 than in other *Genjis*. These *Genjis* were written during a period when contact with Western languages was most intense and consequently influential on the Japanese language. *Genji* 4 was written in the transition period (1914) and *Genji* 5 was written right after it (1936). *Genjis* that were written in the 1970s show a more completely digested phenomenon, in which traditional rhetorical style and modern Westernized style are appropriately mixed.

The higher degree of subject explicitness in *Genjis* 4 and 5 cannot be explained by external influence alone. It was demonstrated that not only thematic and contextual information, but also other discourse factors such as the use of honorifics, the length of sentences and switch reference function of conjunctive particles, play an important role as indicators of referent when combined with thematic information. The interplay of different discourse factors is expected to complicate the conditioning of implicit subjects. In *Genji* 1, all the discourse factors examined tended to encourage implicit manifestation of subjects. In contrast, in *Genji* 5, the use of honorifics, the length of sentences, and the switch reference function of particles, led to a more explicit mention of subjects than in *Genji* 1. In *Genji* 7, subjects are more often implicit than in *Genji* 5, and this can be related to the fact that honorifics are more elaborate and sentences longer in *Genji* 7. In *Genji* 2, cohesiveness in long sentences may compensate for the lesser effectiveness of honorifics in signaling the identity of different characters and the slightly

weaker capacity of conjunctive particles to switch reference than in *Genji* 1. This enables *Genji* 2 to have a higher frequency of implicit subjects.

Internal changes in honorific systems, switch reference of conjunctive particles, and concept of sentences, affect changes in the manifestation of subjects along with external influence from Western languages. This study shows synchronically how various discourse factors influence the manifestation of subjects, and how diachronic change affects discourse structure in its synchronic stage.

Notes

Grammatical abbreviations:

ASS	=	Auxiliary of assertion
ASSOC	=	Associative
CAU	=	Causative
COM	=	Complementizer
CONJ	=	Conjecture
EMP	=	Emphasis
HUM	=	Humble
(HUM)	=	Lexical item itself conveys humbleness
NEG	=	Negative
OBJ	=	Object
PASS	=	Passive
PERF	=	Perfect
POL	=	Polite
POT	=	Potential
Q	=	Quotation
QUES	=	Question
RES	=	Respect
(RES)	=	Lexical item itself conveys respect
SUBJ	=	Subject
TOP	=	Topic

1. Examining spoken discourse in Japanese and English, Clancy notes that the distribution of English pronouns and Japanese ellipses is quite similar. The majority of English pronouns and Japanese ellipses occur within the same clause or the clause immediately following the last mention of a referent, although Japanese speakers tend to use ellipsis more frequently within a single sentence than English speakers use pronouns (1980:139-40).

2. The following provides further details about the texts:

- (1) *Genji monogatari* 'The Tale of Genji': original work by Murasaki Shikibu in the eleventh century. The text is from the *Nihon Koten Bungaku Taikei* series, the uniform edition of the Japanese classics published by Iwanami Shoten. The *Genji* in this series is based on the manuscript copy, *Sanetaka aobyoooshi shoohon*, from the fourteenth century. *Aobyoooshi* or the 'blue book' line of texts derive

ultimately from the work of Fujiwara Teika, the great poet and a scholar of the twelfth and early thirteenth centuries.

- (2) *Shibun ama no saizuri*: a translation of *The Tale of Genji* by Hanshichi Taga, published in 1723. *Shibun* means a work by Murasaki Shikibu, and *ama no saezuri* is taken from a scene in chapter 'Akashi' of the original *Genji* (Choosuishi 1975:334). This translation is incomplete since only the first few chapters are translated. The text used here is taken from *chinsho kankoo kai gyoosho* (1) 'rare books publishing association', published by Rekishi-sha in 1975.
- (3) *Nise-murasaki inaka genji: nise murasaki* 'lit. fake Murasaki' indicates that the author is not Murasaki Shikibu but rather an imposter, and *inaka* lit. 'rural' expresses lack of sophistication (Satoo 1976:7). As the title suggests, this is not a translation of the *Tale of Genji*. However, the author, Tanehiko Ryuutei, created this work as a popular and commercial book based on *The Tale of Genji*; based on the same participants' names and settings.

Although this is not a translation of *Genji* in a strict sense, it is examined here since there is no translation of *The Tale of Genji* produced around the same time. The first and second chapters were published in 1830, and the text used here is from Iwanami Bunko, published in 1952.

- (4) *Shinyaku genji monogatari* 'New translation of The Tale of Genji': a translation by Akiko Yosano after the unification of speech and writing, published in 1914. This is the first complete translation of *The Tale of Genji* into a contemporary colloquial language. The text used here was published by Kanao Bunendoo in 1914.
- (5) *Shin-shin-yaku genji monogatari* 'New new translation of The Tale of Genji': Another translation by Akiko Yosano in 1936. Dissatisfied with the hasty translation and consequent lack of sophistication of her first translation, she attempted another translation of the tale. The text used here is taken from Nihon koten bunko 4, which was published by Kawadeshoboo-shinsa in 1976.
- (6) *Genji monogatari*: a translation by Junichiroo Tanazaki. The text used here is his newest translation and was published by Chuuo Kooronsha in 1959.
- (7) *Genji monogatari*: translated by Fumiko Enchi, published by Shinchoosha in 1972.
- (8) *Genji monogatari*: translated by Tadayoshi Imaizumi, published by Koodansha in 1978.

3. There is another interpretation of *kenjoogo* 'humble words'. That is, humble forms are primarily those used to downgrade the actor rather than to upgrade the person to whom an action is directed, and this is a popular interpretation of *kenjoogo*, especially in colloquial Japanese. However, Nakata (1971) claims that in understanding classical Japanese, the latter interpretation is not suitable, because humble forms are used even for the emperor's action to show respect to the person toward whom the action is directed. The emperor is the absolute and highest being and thus humble forms used in describing his actions are not to lower him.

4. *Su* and *sasu* are used according to the inflectional type of the verb that precedes. *Su* follows a nonfinite form of *yo-dan*, *ra-hen*, and *na-hen* in the Japanese classification of verbs in Classical Japanese. *Sasu* is attached to other inflectional types of verbs.

By 'secondary verb', I mean verbs that do not appear independently but always occur with another verb.

5. The use of the term 'particle' can be subject to controversy since there will be disagreement about whether all of the markers I am discussing here would be called particles. However, I am calling them particles following the tradition in Japanese grammar and of many linguists such as Akiba (1977, 1978), although in the discussion of more recent *Genjis* I am including what Akiba calls 'conjunctive words' in my discussion of switch reference function of conjunctive particles. Akiba distinguishes between conjunctive particles such as *te*, *ba*, *do(mo)*, *ni*, and *wo* and conjunctive words which developed in later periods such as *nara(ba)* and *keredo(mo)*. According to Akiba, conjunctive particles did not convey any particular meaning and the interpretation of Old Japanese conjunctions was left for the speaker's pragmatic inference, whereas conjunctive words express relational concepts (1978:143). However, the question of whether or not the meaning of conjunctive particles was totally left for the speaker's pragmatic inference requires further investigation since the choice of particles cannot be explained by switch reference function alone.

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INTERPRETING SAMPLE VARIATION IN INTELLIGIBILITY TESTS

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The distinction between languages and dialects is one baseline we have for thinking about diversity. In many ways it is like the biologists' distinction between species and genera: if two critters can interbreed, they belong to the same species even if one is yellow and the other is purple, and if they can't, they don't.

For us, if two people can talk to each other reasonably well by stretching their ability to speak their native languages a bit, without one of them having to go through the special learning experience we associate with picking up a second language, we say they speak the same language, and if they can't, they don't (Diebold 1964).¹ There are hedges and qualifications we must build around this dividing line, there are cases that are hard to decide, and there are well-known problems that come from the fact that in most people's minds *language* carries overtones of cultural and political salience while *dialect* connotes something off the beaten track and often a form of speech to be chuckled at. Nevertheless, the concept of lack of intelligibility provides a useful sense of proportion for understanding a number of things.²

In 1951 Voegelin and Harris proposed a plan for testing intelligibility that has proved generally useful. Voegelin's students (Hickerson, Turner, and Hickerson 1954; Pierce 1952 and 1954; Biggs 1954) and others tried it out on several North American languages. It was criticized cogently by Wolff (1964) and refined, especially by Casad (1974) and the group he worked with (Bradley 1964, Kirk 1970, Stoltzfus 1974, Eglad 1978). Still other strategies with the same end have been experimented with by Gillian Sankoff (1980) and Gary Simons (1979).

The idea of the Voegelin-Harris type of test is to sample the speech of Language Community A in the form of an audio recording, then play that recording to a sample of people from Language Community B and find out how well they understand it. Implicit in the early use of the test, especially by Pierce, was a notion of 'dialect distance'--the hope that intelligibility might be an index to genetic grouping, in addition to being an index of communication in its own right.³ Wolff, however, correctly pointed out that genetic grouping is complex enough in its own way that it does not correlate well with intelligibility (though he overlooked the one correlation that does hold: great genetic distance always goes with low inherent intelligibility).

As intelligibility tests came to be seen as measure of communication potential, however, various kinds of variation in the sample had to be controlled or at least calibrated. Casad (1974) discusses variability in the sample of speech and the questions asked about it, and also in the matter of size of the sample of test subjects in each location where tests are made, based on field experience in Mexico.

I suggested that intelligibility testing fits within the broad framework of the kind of optimizing theory that is used in analyzing communication networks. This makes it possible to characterize any social or geographic area of interest as organized around centers of communication, each with its network of outlying language communities that can interact with the center at a specified threshold of intelligibility (1974).⁴ This type of analysis provides feasible solutions to dialect chain phenomena as well as more prosaic groupings.

Two improvements in the test were brought up in Casad's discussion but not explored in the field at that time. Both have become standard procedure, for good reasons.

The first has to do with reducing experimental noise in the test questions by admitting only questions that a panel of subjects who speak the same dialect as is being sampled can answer perfectly.⁵ Once variability due to the presence of incomprehensible test questions is brought as low as it can be, the stage is set for the second suggestion, that variation in the responses be made part of the interpretation. There are two parts to doing this, and they form the core of this paper:

- (1) Variation in the responses of a sample of intelligibility test subjects reflects variation in the total population they represent, and therefore needs to be taken account of in the network analysis in the form of establishing that the test results either do or do not represent a single population statistically.
- (2) Wide variation, recognizable when the standard deviation of test scores goes over 15%, is a signal not of inherent intelligibility but of bilingualism.

Figure 1 is a typical presentation of intelligibility test results. Across the top are listed communities, in this case in the Mazatec-speaking area of southern Mexico on which Kirk reported (1970), where many intelligibility tests were made.⁶ These are referred to as 'Test points.' Down the side are listed the communities where speech samples were obtained; they are 'Reference points.' The numbers are mean intelligibility percentages, the average for the people in the sample identified at the top when tested on the speech of the reference point identified at the left.

For example, when subjects from a place named San Lorenzo were tested on speech from their own community, they scored 94% on the average. (This was before controls on the quality of questions had been perfected; now we would work on the questions until they could score 100%.) When the same people were tested on the speech of San Jerónimo, their average was only

87%, and so on. Figure 1 fails to report variation, in common with most of the literature on intelligibility.

Figure 1. Mazatec intelligibility tests calculated from Casad 1974:33 (100 = Total intelligibility).

Reference points:	Test points:		
	S. Lorenzo	Mazatzongo	S. Mateo
S. Lorenzo	94	88	39
S. Jerónimo	87	86	89
Huautla	82	78	90
Mazatlán	52	...	...
Jalapa	29	...	...

In order to give a visual idea of the variation found in the intelligibility data, permit me to employ the representation known as a 'Boxplot,' which might not be familiar to everyone. Figure 2 shows this convenient way of displaying observations, which is one of the tools of exploratory data analysis (Velleman and Hoaglin 1981). The median of the spread out data is shown by a vertical line. The middle half of the data, one quarter above and one quarter below the median, is contained inside the box, whose limits are called the 'Hinges' or half-median points. Other data points that lie within one and a half times the length of the box in either direction, lie along the 'Whiskers'; any that are still farther out are 'Outliers'. An ordinary confidence interval, say at the 95% level, can be laid against the box. Such a representation allows easy visualization even when the data are not distributed according to the classic normal curve.

Figure 3 shows how the San Lorenzo test scores from the leftmost column of Figure 1 are spread out. Notice first the medians, indicated by the vertical bars. Those for San Jerónimo and Huautla are almost the same, indicating a bunching of the Huautla scores toward the high end of the box.

The 95% confidence intervals in this figure are indicated underneath the boxes. For the top three tests taken by subjects in San Lorenzo they overlap to a degree that is the basis for a statistical argument: the variation in responses of subjects from San Lorenzo to speech samples from San Jerónimo and Huautla indicates that those three dialects cannot be treated as different in intelligibility as far as San Lorenzo people are concerned. They understand each one equally well.

Mazatlán and Jalapa, on the other hand, differ significantly from the top three and from each other; this is shown graphically in that their confidence intervals do not overlap. They also fall well within the zone of poor intelligibility, indicated by the minus sign to the left of the shaded zone of dubious intelligibility between 70% and 85%. The medians of the three upper samples, on the other hand, are in the zone of good intelligibility, indicated by the plus sign to the right of the shaded zone.

Figure 2. A Boxplot. **Figure 3.** Mazatec intelligibility tests: San Lorenzo Test scores Boxplots.

This is not the whole story on Figure 3. The length of the three lower boxes indicates considerable variability in the responses to each sample: for each of them the standard deviation is greater than 15%, a ball-park figure

that recurs empirically in the comparison of places where dialect bilingualism is known to be present with places where it is known not to be a factor.

Huautla especially illustrates a point Wolff made in 1964 that few except Sankoff have picked up on: What appears to be intelligibility may actually be a form of bilingualism in a closely related speech variety. This is not the extension of one's native competence that characterizes true inherent intelligibility; instead it is the result of motivation to learn the other form of speech, and the opportunity to do so, that is only rarely uniform in a population. Those who need to use the other form of speech learn as much as suits their purpose; those who don't need it don't learn it.

It is this differential development of proficiency in another form of speech that characterizes a bilingual situation. The first tipoff is the long box, or the high standard deviation, however the variability in the test scores is characterized. When we look at the raw data we see that three of the ten subjects tested are on the lower whisker while the other seven are clustered at the top of the box, giving a bimodal distribution. When we reflect that Huautla is a market center that some of the San Lorenzo people visit regularly, it begins to appear likely that the inherent intelligibility level for those who do not frequent the market—who are also the hardest people to find as test subjects—is probably down in the zone of inadequate intelligibility around the lower hinge at the left end of the box.

It would be more useful if intelligibility reports at least included information on the standard deviation and sample size, as shown in Figure 4.

Figure 4. Mazatec intelligibility tests, calculated from Casad 1974:33 (100 = Total intelligibility): Test score means, standard deviation, and sample size.

Reference points:	Test points:		
	San Lorenzo	Mazatzongo	S. Mateo
S. Lorenzo	94 (7,10)	88 (8,10)	39 (18,10)
S. Jerónimo	87 (14, 10)	86 (13,10)	89 (12,10)
Huautla	82 (19,10)	78 (26,10)	90 (10,10)
Mazatlán	52 (18, 10)	...	...
Jalapa	29 (17, 10)	...	...

That way, it would be possible to recognize places where further work on bilingualism needs to be carried out, rather than simply assuming that all the figures represent inherent intelligibility because they appear on an intelligibility chart. (There is, incidentally, a variation on the Foreign Service Institute test of bilingual proficiency that is being worked out jointly with the Summer Institute of Linguistics, that allows it to be administered even to illiterates; once such a test is validated, it could become a vehicle for exploring such bilingual situations, even though the population samples needed for it are

formidable.) At the very least, having the mean, standard deviation, and sample size allows common statistical tests like the *t* test to be used in order to decide when two speech samples can be treated as discriminable, given the distribution of test results.

It would be even more realistic to have the scores for each individual in each test location on each reference point. That would allow nonparametric tests like Mann-Whitney to be used, tests that are more appropriate in the kind of field situations where random selection of subjects is hardly ever possible. It would also permit the individual test subjects to be clustered by any of a number of means in order to see whether the clustering of subjects relative to their responses to different samples coincides with their residence pattern, or goes beyond it, or even clashes with it.⁷

Figure 5 illustrates the same points on another set of data. The data come from a survey of Dravidian dialects in central India that is still in progress; I identify them here merely as A to G, since presumably other relationships will be filled in before the report is complete.⁸

Figure 5. Dravidian intelligibility tests: Dialect F test scores, Boxplots.

Here the questions on the speech sample taken in location F are under good control: almost perfect in F itself, and perfect (though not significantly better in the statistical sense) in E. People in F understand G well on the whole; but their comprehension of C is not good and their handling of B is out of the question.

But the marginality of C goes with a stubby box that reflects a standard deviation of only 12%. That is within the range where dialect bilingualism probably does not need to be looked into as an explanation of the spread; it appears that C is simply not very intelligible inherently to people from F.

The sample from B shows wide variation among test subjects from F. But since none of them understand it well, their variation need not be attributed to the kind of bilingualism that results from meager exposure,⁹ but simply to the general floundering that is characteristic of poor intelligibility.

Finally, Figure 6 shows the mean plus standard deviation plus sample size form of report that allows us to take varying responses into account in finding

optimal networks. The F column of this figure is the one that corresponds to Figure 5.

Figure 6. Dravidian intelligibility tests (100 = Total intelligibility): Test score means, standard deviation, sample size.

Reference points	Test points:						
	A	B	C	D	E	F	G
A	99 (3,10)	85 (4,10)	63 (8,10)	...	...	...	...
B	...	98 (4,10)	90 (8,10)	...	...	49 (18,9)	...
C	...	98 (6,10)	94 (8,9)	...	...	71 (12,10)	...
D	...	...	...	99 (3,10)	100 (0,10)	...	...
E	...	...	...	98 (4,10)	100 (0,19)	100 (0,10)	98 (7,9)
F	...	...	...	...	100 (0,10)	98 (4,17)	99 (3,9)
G	...	...	...	57 (13,10)	65 (13,10)	92 (11,10)	94 (8,48)

In summary: network analysis of intelligibility test data now assigns outlying dialects to one center rather than another not on the basis of average test scores alone, but as a result of demonstrating that the differences in the entire spread of both sets of test scores are sufficient to reject a hypothesis that the two sets are nothing but samples drawn from the same population. At the same time, excessive variation in test scores is a danger signal that warns that the higher end of the range of scores may reflect second-language learning on the part of some individuals, while the actual ability of the rest of the people in those communities to comprehend inherently is reflected better by the subjects at the low end.

Notes

1. Agard (1978, 1984) has been working to establish structural criteria for distinguishing languages from dialects. He observes that certain types of sound change obliterate environments by which distinctions made in one form of speech can be equated directly with distinctions made in another. Margaret Milliken (in press) is comparing structural boundaries of this type with boundaries based on intelligibility.

2. Intelligibility distinctions, where they can be determined, are the framework for the worldwide Cornell-SIL Language Archive and the *Ethnologue* (B. Grimes in press) which is published from it every four years or so.

3. Pierce treated the inherent asymmetry of intelligibility measures as noise by averaging the figures in one direction with those in the other. Fortunately, he preserved the original data.

4. Simons (1979) corrected a minor glitch in my algorithm. Since the algorithm itself, a variation on the standard transport algorithm, is known to occasionally miss the optimal configuration for a set of data, in critical cases it should be supplemented by the so-called Metropolis variation (Kirkpatrick et al. 1982), which treats the optimization as analogous to finding molecular distributions in a cooling mass by randomly bounding dialects out of networks into which they seem to be settling, then working them back in if they really belong there, using a Monte Carlo process to guarantee a more consistent approximation to the optimal than the bare algorithm can be counted on to produce in all cases.

5. Noise can be reintroduced at this point by bad translation of questions into the speech of test subjects. If an analysis of individual answers shows that the proportion of correct answers for a particular question is markedly below that of most questions, that question is thrown out of the analysis as probably poorly translated, and therefore as compounding the difficulty of answering correctly.

6. Figure 1 zooms in on a small part of the area surveyed: that part for which the individual subject scores are still accessible (Casad 1974:33).

7. One means of clustering subjects with reference to their patterns of response to different samples of speech is Gauch's COMPCLUS, used by ecologists.

8. For these illustrative data I am indebted to Calvin Rensch, with whom I have not had opportunity to discuss the way I have treated them.

9. Something like Diebold's 'incipient bilingualism.'

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FOUR MODELS OF LINGUISTIC CHANGE

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Addiction to metaphor is held to be illicit, on the principle that whereof one can speak only metaphorically, thereof one ought not to speak at all. Yet the nature of the offence is unclear...

--Max Black, *Models and metaphors*

An important pattern has been emerging from recent research on metaphor and cognition, one which suggests that discourse regarding the abstract and intangible is regularly parasitic upon discourse about the concrete and tangible. Evidence comes from the development not only of lexicon (Black 1962, Cooper 1986, Dirven 1985, Lakoff and Johnson 1980), but also of such grammatical structures as verb tense systems (Traugott 1985), and from the essentially analogical nature of the comprehension process (Kittay 1987; Mac Cormac 1985: 127-57). The recognition of metaphor as 'a critical feature of the growth of language and thought' dates at least to Giambattista Vico (1668-1744) (Leatherdale 1974:125). The metalinguistic terminology of our field is by no means exempt from these features.¹ Andersen (1986:2), for example, has found in writings about sandhi alternations 'manners of speaking which involve metaphors that are deeply alien to the nature of language.'²

When we recall that until the work of William Labov linguists considered language change to be an 'unobservable' process (see Lass 1980:94-96), it is easy to see why concrete, visible models for the process were able to exert such power. A tree with its trunk, limbs, branches, and stems (Schleicher); waves on a pond (Schmidt); natural laws (the Neogrammarians); a game of chess (Saussure); drift (Sapir); human behavior (Bloomfield); the presence or absence of a mark (Jakobson); a financial transaction (Martinet); targets (Haiman 1972); erosion (Haiman 1985); transparency and opacity (Lightfoot 1979); in every instance, a material, visual model.

Functionally, these metaphorical models do for language change what writing does for language: make visible an inherently nonvisual entity. With this in mind, we can add to the list of models our graphic formulae for denoting change--arrows, brackets, asterisks--which are equally metaphorical. It is paradoxical that linguists have spent two centuries putting forth visual models for language change, while at the same time pushing written language to the periphery of their concerns, calling it derivative and secondary, with an underlying implication that it is somehow pernicious (see Derrida 1976).³ Recognizing the visual nature of these models provides further evidence that

writing, broadly conceived, has been a less marginal process for linguistics than most linguists claim. It also helps explain the models' rather short lifespan: the sensual discrepancy means that they are necessarily imperfect, and any imperfect system should change over time, as those using it exhaust its explanatory capacity and turn up more of its shortcomings.

This tendency toward visual models may be a manifestation of the general 'graphicentric' orientation of Western culture, to which linguistics is opposed in principle (see Joseph 1987a); certainly, it cannot be divorced from the impoverishment of the lexicon of acoustic phenomena relative to that of visual phenomena. *Audible* is marked relative to *visible*, whose dictionary meaning includes 'manifest, apparent' in addition to 'perceptible to the eye'. If we try to purge our metalanguage of terms like *observable*, *transparent*, *delete*, *disappear* (e.g., 'final consonants disappear /are deleted/ in the development of Italian'), we are hard put to find economical alternatives. *Are lost*, *cease to be heard*, *cease to exist*--none of these paraphrases precisely captures the concept. No language seems to be sufficient for expressing the basic facts of its own existence over time.

As with explanation of any sort, the success of a model of language change has been a combined function of its structural simplicity and its explanatory adequacy, with a great many extraneous political factors swaying the balance. I shall examine four of the figurative models named above--how they arose, developed, and in some cases faded from prominence. None has disappeared completely: all continue to shape our discourse and our thought about language change, to greater or lesser degrees (see Traugott 1985:23 on 'the parameter of conceptualization'). Hence the importance of trying to come to grips with them. Historical linguists are as prone as anyone else to becoming the dupes of our own metaphors.

I begin with what we may circumscribe in a general way as the 'biological' model, which evolved (applying the metaphor to itself) through most of the nineteenth century. Use of the term *Organismus* with reference to language occurs as early as Wilhelm von Humboldt (1767-1835), who connected it in part with the National Spirit. Franz Bopp (1791-1867) took up the term, though his concern was more with language structure and less with metaphysics, and he suggested implicit bonds between language study and the life sciences:

I intend in this book a comparative, comprehensive description of the Organism of the languages named in the title and an investigation of their physical and mechanical laws and of the origin of the forms designating the grammatical relationships. (Bopp 1833:1; trans. from Maher 1983:xxix)

Humboldt, Bopp, and Jakob Grimm (1785-1863) all employed the term *Lautgesetz* 'sound law' (see Jankowsky 1972:50), which is a simple extension of the metaphor: If language is like an organism, it will obey natural laws just as organisms do (see Christy 1980:252).

The metaphor is not aprioristically shaping thought in the first third of the nineteenth century. It is at a stage where we may characterize it as a 'clarifying' metaphor,⁴ serving to ease comprehension of the highly unobvious, even paradoxical assertion behind the new 'scientific linguistics': that language

is a developmentally and ontologically autonomous entity, not subject to the control of human consciousness.

We see use of the metaphor increase with time. 'Grimm used the term "law" (*Gesetz*) rather sparingly, Bopp more freely, but for [August Friedrich] Pott [1802-87] "Lautgesetz" was a household word and was obviously considered as such by his contemporaries too...' (Jankowsky 1972:84). With August Schleicher (1821-68), the biological metaphor ceases to be merely clarifying, and becomes 'controlling' to a greater degree than it had been for his older contemporaries.⁵

Languages are organisms of nature; they have never been directed by the will of man; they rose, and developed themselves according to definite laws; they grew old, and died out. (Schleicher 1863/1869:20-21).

After a century of misunderstanding and two decades of rehabilitation starting with Maher 1966 and Lehmann 1967, Schleicher is now seen as laying the groundwork for the Neogrammarians--Karl Brugmann (1848-1919), Berthold Delbrück (1842-1922), August Leskien (1840-1916), Hermann Osthoff (1847-1909), and their followers⁶--who had an exaggerated sense of the disparity between his position and their own (see Koerner 1982; and cf. Saussure 1916:19). It is true that they rejected what they perceived as the overt aspects of the biological model, and especially Schleicher's late (1863) attempts to prove Darwinian theory with linguistic data. Yet it is actually with the Neogrammarians that the biological model moves from metaphor to a 'quasi-metaphysical' existence.⁷ Their rejection of the outward manifestations of the model was actually the first part of this process, because it is what permitted the model's internal structure to shape and direct thought below the threshold of conscious awareness.

The rejective aspect involved distorting the model beyond even the strongest form in which it was positively maintained, by discarding key limitations and qualifications placed upon the model by their predecessors. Schleicher's writings contain disclaimers indicating that he did not take the biological model completely literally:

Of course no more than the *principles* of Darwinism could be applied to the languages. The realm of speech is too widely different from both the animal and vegetable kingdoms to make the science of language a test of all Darwin's inductions and their details. (Schleicher 1863/1869:65-66)

By ignoring such statements, the Neogrammarians could claim that the model had been accorded quasi-metaphysical status, ridicule it, and dismiss it. Both Bopp and Schleicher had died toward the end of the 1860s, giving their successors free rein to misinterpret their stance in following decades.

But the Neogrammarians held on to two important offshoots of the biological metaphor: the sound law, and the *Stammbaum* 'family tree' model of linguistic relations. The latter, Schleicher's primary contribution to the biological model, incorporated his long-standing concern with evolutionary theory, both pre- and post-Darwinian (see Maher 1983, Tort 1980). As for the sound law, the Neogrammarians elevated it to absolute, 'exceptionless' status.

Deprived of its original metaphorical context, it assumed a truly metaphysical force: for where was one to locate its operation? It retained enough of the features of its model, 'natural' law, to resist ascription to the human mind or behavior, which in any case were the domain of analogy, the force counteracting the regular operation of sound laws.

In this extreme form the model could not stand long. Any absolute claim fails completely upon each exception found to it, unless given an escape hatch like analogy, which renders the claim virtually unfalsifiable and thus of limited value. The metaphysical force of the biological model, already attacked by Hugo Schuchardt (1842-1927) and others, was finally undone with the post-Saussurean shift of interest to synchrony, though its traces remain in the terminology of diachronic linguistics (e.g., 'dead language,' 'linguistic evolution'), largely formulated during the period in which the model was dominant.⁸ They survive, that is, as dead metaphors reverted to the clarifying state.

With the work of Ferdinand de Saussure (1857-1913) comes a new conception of the 'laws' that underlie linguistic history: They are no longer modeled on the laws of nature, but on the juridical 'laws' of human societies, which compared to the former are arbitrary, mutable human creations. The idea of language as a social institution already figures in the thought of the Neogrammarians and their American student William Dwight Whitney (1827-94); and while it is true that language has both a social and an institutional character, they are of a critically different kind from the prototypical social institutions--art, mechanics, mathematics (Whitney 1875:279)--none of which is a universal and defining capacity of human beings.

The use of algebraic symbols in Saussure 1879 suggests the specific presence of mathematics as a clarifying metaphor (see Hjelmslev 1963/1970:123-28). It is figurative because it suggests that a linguistic system has at any given point in time perfect internal coherence, like a mathematical system; when in fact the linguistic system so conceived is an idealization that never actually exists. In Saussure's later teaching, as reflected in the *Cours de linguistique générale* (Saussure 1916), the internally consistent social institution rises from secondary, clarifying status to become a strong controlling metaphor, the sort that is often mistaken for literal truth.

Moreover, the social institution model occurs in the *Cours* not in its eighteenth-century form, but in a new and more complex guise: its existence is 'psychological.' The paradox of a language system existing within the 'collective mind' ('*langue*') yet also in the mind of each individual, where its potential is realized as actual speech ('*parole*'), is left unresolved in the *Cours*, one of many gaps which the editors could not breach with the materials at their disposal.

The problem in the *Cours* is an embarrassment of metaphorical models, each very partial and irreconcilable with the others; this is the inevitable product of the book's fragmentary composition. To render the institutional model eminently visual, Saussure gives perhaps his most famous parallel:

But of all comparisons that might be imagined, the most fruitful is the one that might be drawn between the functioning of language and a game of chess...First, a state of the set of chessmen corresponds closely to a state

of language. The respective value of the pieces depends on their position on the chessboard just as each linguistic term derives its value from its opposition to all the other terms...the move has a repercussion on the whole system...(Saussure 1916/1959:88-89)

Saussure specifies that in this model the chess player must be 'unconscious or unintelligent,' for language change is 'a blind force' (89):

At only one point is the comparison weak: the chessplayer *intends* to bring about a shift and thereby to exert an action on the system, whereas language premeditates nothing. The pieces of language are shifted--or rather modified--spontaneously and fortuitously. (89)

The model has no way of capturing Saussure's further dictum that changes begin as facts of 'parole' before affecting 'langue'. The unconscious chess player actually represents a whole speech community, which simply defies incorporation into the model. From what we can reconstruct, it appears to be a reasonable hypothesis that in Saussure's thought over several years the social institution model evolved much as had the biological model over three preceding generations: from clarifying to controlling metaphor, to quasi-metaphysical force, to collapse and relic survival as a clarifying metaphor.

But perhaps the very multifacetedness and irreconcilability of the models in the *Cours* contributed to its seminality: for a number of them would give rise to important further models. The system of values represented by the chess pieces would be reformulated by André Martinet (b. 1908) as an 'economic' model. The 'blindness' of the moves would spawn, in reaction, the 'teleological' model of Roman Jakobson (1896-1982). The mathematical aspects would be taken up by Louis Hjelmslev (1899-1965). The social aspect--refined by the ideas of Emile Durkheim (1858-1917) and others--would be developed by Antoine Meillet (1866-1936) into a 'sociological' model, and would eventually give rise to a separate subfield (see Koerner 1986). As shown in Joseph 1987b, Leonard Bloomfield (1887-1949) was even able to read the *Cours* as giving support to his 'behavioral' model of language. I would like to consider in brief the history of the teleological and economic models, which happen to be the most visually oriented of the lot.

Prague structuralism begins precisely with Jakobson's rejection of fortuitous, blind, involuntary sound changes (1928a/1962:2; 1928b/1962:5; see Joseph forthcoming). Instead, he suggests a model of objects moving toward a goal.

And just as in a chess game the loss of one piece often provokes a whole series of displacements on the part of the threatened player, with a view toward reestablishing the equilibrium, likewise in a language a whole series of phonetic innovations is needed, aimed at restabilizing the phonological system.⁹

The conceptual problem posed by our collective chess player remains the same despite his having regained consciousness. Jakobson declares that the problem of 'the social character of sound changes (why a speech community accepts

and sanctions individual slips)...finds its solution once it is posed teleologically' (1928a/1962:1), but he fails to elaborate. The goal model is clearly clarifying for Jakobson, and he feels no need to support it with evidence as though it were a major theoretical point.

An additional elaboration was necessary before the model would rise in status. In a letter of 31 July 1930 (Jakobson 1975:161-64), Nikolaj Sergeevich Trubetzkoy (1890-1938) suggested to Jakobson that phonemes existing in correlative series (what Trubetzkoy would later term 'privative oppositions') share a similar value relationship regardless of their phonetic substance: Each pair in the series consists of one member which behaves as though it possessed a 'mark' of which the other was deprived. Jakobson would then develop this notion into a general model with application beyond correlative pairs, phonology, and synchronic analysis, finally arriving at a hierarchy both of structural values and of intrinsic substance (see Joseph 1987c).

The 'mark' is as 'graphic' a metaphor as one could devise. It rose quickly to controlling status in Jakobson's work of the 1930s, and interacted with his teleological model of language change insofar as marked elements could be shown to be historically derived from, and less stable than, their unmarked counterparts. This is the most general principle of diachronic goals that can be found in Jakobson's work.

The mark was revived in Greenberg 1963 as an important controlling model in his research on universals. Within a few more years, it would attain quasi-metaphysical force in such work as Jakobson 1966 and chapter 9 of Chomsky and Halle 1968. The overly powerful nature of Chomsky and Halle's 'theory of markedness' was recognized virtually from the outset; in generative work of the current decade, the metaphor has reverted to clarifying (sometimes controlling) status in the form of the 'core and periphery' model. Offshoots of Jakobson's later work continue; in what is surely the most extreme, the mark is proclaimed to be 'the universal semiotic principle underlying the organization of linguistic structure' (Shapiro 1983:18).

The fourth and final model to be considered here, the 'economic,' has direct ties to the idea of systemic 'value' in the *Cours*, and received its initial formulation in early Prague School attempts to establish a more concrete basis for the teleological view. It was to become most closely associated with Martinet, the Prague linguists' premier French ally. In the economic model, value is realized in its most tangible and familiar form: 'capital' (ability to resist merger) acquired through work performed; in short, a monetary exchange. All other things being equal, asks Martinet,

won't an opposition which serves to keep hundreds of words distinct, including some of the most frequent and most useful, put up a more effective resistance to elimination than one which renders service only in a very small number of cases?¹⁰

Lass (1980:91) points out that the answer is 'yes' only under 'the rather dubious assumption that language is solely or merely a maximally efficient tool for communication' (we may change 'tool' to 'economic system,' to avoid mixing metaphors). He notes further that 'Martinet did not formalize his theory or attempt to derive test implications from it' (92n). This is tantamount

to saying that for Martinet the model remains primarily at the clarifying level. The accretion of further visual attributes--'push-chains' and 'drag-chains' creating and filling 'holes' in 'patterns'--indicates a vague labor-related 'mode' rather than a model as such. Unlike Jakobson, who took his model to the controlling and eventually even the quasi-metaphysical levels before he was through, Martinet has essentially kept the metaphor under control and constructed a general 'functionalism' around it without succumbing to the lure of a 'vision.'

It was in America that the model rose briefly to controlling status: King 1967 and Meyerstein 1970 attempted to formalize the notion of functional load in a way that Martinet never did. While both are forthright about its weaknesses, the fact that they were ready to treat it as a formal theory, able to be proven or disproven (in isolation, with little consideration of the intrinsic phonetic content of the sounds whose functional load and diachronic durability were being compared) speaks volumes about its waning metaphorical status at the time.¹¹

Reacting to the collapse of both the teleological and the economic models in the 1970s, some linguists attempted to assemble a new model, called 'Natural,' largely by collating the remnants of the other two (see, e.g., Dinnsen, ed., 1979 on Natural and Natural Generative Phonology, Haiman 1985 on Natural Syntax, Mayerthaler 1981 on Natural Morphology). The mixing of metaphors is sometimes dramatically apparent: 'Economy in languages, no less than in other diagrams, is opposed to iconicity, and contributes to its erosion' (Haiman 1985:157). It is intriguing, and perhaps unfortunate, that they have chosen to label the enterprise 'Natural,' recalling nothing so much as the biological model of the previous century.

The biological, institutional, teleological, and economic models examined in this paper suggest a number of conclusions from the parallels and divergences in their development:

(1) Linguists have been strongly drawn to visual models of language change, against the grain of their dogmatic phonocentrism.

(2) These models have undergone a regular progression from clarifying to controlling metaphor, and in some cases to quasi-metaphysical force (upward progression), followed by a collapse and reversion to the clarifying state (downward progression).

(3) The upward progression can be ascribed in part to the need for perception of 'progress,' measured as greater formalization, in an enterprise claiming to be 'scientific' (see Jankowsky 1972:114).

(4) The downward progression is the inevitable result of ascribing controlling power to a model that is only partial, since its lacunae are thereafter bound to attract attention.

(5) Visual models of language and language change are inherently partial; and we would be well advised to treat with caution any model which exhibits an intense visual appeal (for example, the current use of 'tiers' in the analysis of phonology and case). Such models may be useful, but tend to promote a confusion of visualization with understanding, and are historically prone to collapse.

(6) As a future research direction: There is some evidence that the evolution of these models may correlate with a change in focus among the

psychological domain, the social domain, and the language itself as the central determining force in language change (cf. Lass 1987:152-55). A metaphorical model that is adequate under one of these orientations is likely to become inadequate if the orientation shifts. Over the period of existence of the biological model, we find a steady shift of attention away from the social ideal of National Spirit and onto the language itself. Similarly, the rise to quasi-metaphysical status of the mark followed closely upon the shift of attention to the psychological domain effectuated by Chomsky.

(7) The upward progression tends to occur across generations; linguists of Generation $n + 1$ fail to hear all of the conditions and provisos placed upon the model by the formulators of Generation n . This is strikingly similar to the mechanism which generates linguistic innovations: The 'creative construction' of an internal grammar by children learning language, each of whom analyzes anew the input data, with the result that features distinctive in the adult grammar generating the input are perceived as nondistinctive, and vice versa. In this regard, the evolution of diachronic linguistics has recapitulated that of language, its own object of study.

Notes

1. In light of Black's warning about the common but fallacious assumption 'that metaphor is incompatible with serious thought' (1962:25; see also Leatherdale 1974), I should point out that the present article is purely descriptive, with no intent to belittle any linguist, dead or living, whose metaphors may be discussed. My own work, including the present article, is chock full of metaphors.

2. Andersen calls this a reflection of 'the positivist heritage' of early twentieth-century linguistics, 'which was rejected by many European structuralists, first and foremost the linguists associated with the Prague School,' but 'continued unchecked through Bloomfield...into modern American linguistics' (2). In general, however, metaphorical terminology is quite as characteristic of the Prague School as of any other linguists, as I shall show further on.

3. As is well known, Derrida has deconstructed the speech/writing dichotomy in the work of Saussure and other linguists by showing that the significant traits of the latter are all present in the former, leading him to posit an 'arche-writing' that encompasses all language. We must still recognize the historical derivation of visual from spoken language, and whatever ontological hierarchy that implies; the danger inheres in unduly marginalizing the lower ranked forms.

4. Clarifying metaphors correspond roughly to 'translatory' metaphors (Cassirer 1946) and 'diaphors' (Black 1962, Mac Cormac 1985).

5. Controlling metaphors correspond, again roughly, to 'radical' metaphors (Cassirer) and 'epiphors' (Black, Mac Cormac).

6. Most prominently, Wilhelm Braune (1850-1926), Friedrich Kluge (1856-1926), Hermann Paul (1846-1921), and Eduard Sievers (1850-1922). While the original group (those named in the main text) were Indo-Europeanists, those listed in this note were Germanists.

7. A metaphor that becomes quasi-metaphysical is what Cassirer calls a 'myth.' Mac Cormac would say that it has passed into ordinary language.

8. Saussure credits it to the Neogrammarians that 'language is no longer looked upon as an organism that develops independently but as a product of the collective mind of linguistic groups...The new school, using a more realistic approach than had its predecessor, fought the...illogical metaphors that it used. One no longer dared say, "Language does this or that," or "life of language," etc. since language is not an entity and exists only within speakers' (1916/1959:5). Nevertheless, he conceded that 'Certain metaphors are indispensable'; and indeed, on the facing page we find a reference to 'the life of languages'! For such reasons the ghost of the biological model leaves the impression of being rather more durable than those to which it has subsequently ceded prominence.

9. My translation. Original: 'Et tout comme au jeu d'échecs la perte d'une pièce provoque souvent toute une série de déplacements de la part du joueur menacé, en vue de rétablir l'équilibre, de même dans une langue donnée, on a besoin de toute une série d'innovations phonétiques visant à restabiliser le système phonologique' (Jakobson 1928b/1962:5).

10. My translation. Original: 'une opposition...qui sert à maintenir distincts des centaines de mots parmi les plus fréquents et les plus utiles n'opposera-t-elle une résistance plus efficace à l'élimination que celle qui ne rend de service que dans un très petit nombre de cas?' (Martinet 1955:54).

11. It is only in this sense that I can comprehend Lass's remark (1980:35) about the 'deification' of functional load in King 1969. King's results, after all, reveal the model as invalid for predicting language change.

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SYNCHRONY AND DIACHRONY IN ETYMOLOGICAL ANALYSIS

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Etymology in its various aspects offers a splendid commentary on the two key terms of this Georgetown University Round Table on Languages and Linguistics. The first approach to etymology, the origin of words, was truly synchronic. Early speculation is documented in Plato's *Kratylos*, the dialogue 'On the Correctness of Names.' Everything, *Kratylos* muses (383a), receives its appropriate designation not by convention, *théseis*, but in keeping with its nature, its essence, *phýseis*. For Plato, etymology served, first of all, to elucidate the relation of the word to the thing. To the Stoics, who adopted Plato's doctrine, etymology had not only to demonstrate the appropriateness of a word for the thing so designated, i.e., to corroborate its natural 'origin,' but also to reveal the 'truth' which the creator of the word had built into it. With this perception the Stoics established a doctrine that served as the foundation of etymological speculation through antiquity and the Middle Ages up to the dawn of modern linguistics. .

As practiced in the ancient world, etymology was in the hands of and divided between grammarians and philosophers. The dividing line between their etymological *Weltanschauung* reflected a synchronic classification according to two categories of words. The grammarians dealt with words of the 'descriptive' type, the philosophers with those of the 'denominative' type. 'Descriptive' referred to words which contained a living, meaningful root morpheme; 'denominative' to words devoid (for various reasons) of an associable root morpheme. To exemplify a grammarian's descriptive etymology: Varro, the first-century-B.C. Roman grammarian, was satisfied when he could derive *equitatus* 'cavalry' via *equites* 'horsemen' from *equus* 'horse'. For the grammarian, a derivative like *equitatus* had one primary function: by clarifying the link between related words it guided him in his search for the base form. The philosopher, on the other hand, used the given form of a word to recover its original meaning and thereby the essence of the 'thing' so named. And a philosopher's story exemplifies a denominative etymology: St. Augustine (*Confessiones*, IX, 12) tells us that, depressed about the death of his mother, he took a bath, a *balneum*, because its Greek equivalent, *balaneion*, derived, as he intimates, from *bállein anían* 'to drive away grief'. Augustine's etymology substantiates the belief in the religious, moral, metaphysical truths hidden behind a word. This interpretation of the etymon represents early steps in the search for a semantic 'deep structure' of

words. St. Augustine, sensing the dependence of such lexical associations upon an individual's imagination, *verborum origo pro cuiusque ingenio*, likened etymology to the *interpretatio somnionum*, the interpretation of dreams (*De dialectica* VI; Ruef 1981:119), an insight not by chance reminding us of Freud.

No work illustrates better the world view embodied in synchronic etymology than the encyclopedia authored by Isidore of Seville and entitled *Etymologiae* or *Originer*. It was a book of enormous influence, intensely studied through many centuries. Curtius (1948:487) called it the *Grundbuch*, the fundamental book, of the entire Middle Ages. Isidore wrote between 600 and 636, the year of his death. The period is known as the 'Dark Ages,' the transition from antiquity to the Middle Ages; the cultural climate is that of the classical heritage surviving into a new world dominated by Christianity and the Germanic kingdoms. The uniqueness of the *Etymologiae* rests in the link, consistently stated, between a concept and its original designation, the etymon. To Isidore, the word is the key to man's grasp of the world around him, and the etymology is the key to the word. He says it explicitly (I, 29:2): 'For as soon as you see where a word comes from, you understand its meaning more readily.' With this perception of etymology he stands patently in the ancient tradition. The Greeks called a word's origin, *etymologia* 'true meaning', which Cicero (*Topica*, 35) Latinized as *veriloquium*. Isidore identifies the original form of a word as a *nota rerum* 'an abridged sign standing for the thing'; Aristotle (Isidore adds) used for that base-form the term *symbolon* (I, 29:1).

And Isidore's thoroughly synchronic *Etymologiae*, intended to show that the root of a word reveals the essence of the 'thing' behind it, turn, in their totality, into an exegesis of the contemporary scene. A few examples throw light on Isidore's attitude toward the three dominant movements of the time, Christianity, Germanic ascendancy, and the Classical heritage.

Lat. *humus* 'earth' is posited (I, 29:3 and XI, 1:4) as the etymon of *homo* 'man'. This derivation attests to Isidore's classical scholarship by being borrowed from the first-century Roman rhetorician Quintilian (*Institutiones* I, 6:34); and as an echo of Gen. 3, 19: 'dust thou art, and unto dust shalt thou return,' it expresses his perception of man in a religious frame of reference. Christian dedication looms behind Isidore's explanation of *feriae* 'weekdays' (V, 30:12): for him, the term is related to *fari* 'to speak', 'for every day is the time [he comments] in which we are to speak in the service of God and man.' And Isidore, living in a world of declining Latinity and Gothic supremacy, proudly contrasts the superiority of Latin, 'his' language, with the 'barbarism' of the others: '*Barbarism* is so called [he says] after the diction of the *barbaric* tribes, when they were ignorant of the purism of Latin speech' (I, 32:1). And their mores (he adds) are like their language. He verifies this image of the Germanic tribes with the etymologies of their sundry names. Thus, 'the *Saxons* are so named because they are a hard and quite strong kind of men' (Isidore was, apparently, thinking of *saxum* 'rock'). (IX, 2:100)--'The *Franks*, according to some, are called after the *feritas*, the wildness, of their manners; their customs are, indeed, rough and their character is of a natural wildness' (IX, 2:101).

The entire world, physical, technical, social, and humanistic, is Isidore's etymological hunting ground, and he steers, where he can, to the moral implications of his words. Thus, in his roster of buildings, Isidore discusses

gymnasium (XV, 2:30): 'It is a Greek word [he says], referring to the site of physical exercise; but to the Athenians the term named the place where they learned philosophy and the beginning of wisdom. For to the Greeks "exercise" meant meditation.'

Many of Isidore's lexemic associations border on the linguistic subfield known as 'folk etymology,' a common pattern of synchronic etymology. Two basic categories of folk etymology can be distinguished. Either a word is adapted to another word with a similar phonological structure and in the process changes its meaning: Lat. *villanus* 'country dweller' was associated with *vilis* 'worth little', and *villain* survives as a pejorative. Or a word is adapted to another word with a similar meaning, and it changes its form: Span. *vagabundo* 'the vagabond' changes under influence of *mundo* 'world' to *vagamundo*. The motivation of such changes is, in the formulation of Ullmann (1967:102), 'a reaction against the arbitrariness of the sign,' or as Pisani (1975:155) stresses, the attempt to transform denominativa into descriptiva. There is, however, a difference between the two genres: Isidore's etymologies, whether copied or his own, were scholarly suggestions which we may view as fantasies, whereas what we call 'folk etymologies' are words produced by unknown speakers and are linguistic realities. The closeness, on the other hand, of the Isidorian etymology to folk etymology is significant in the present context of synchrony vs. diachrony. Stempel (1941:514) details the dichotomy of folk etymology and scholarly etymology in our twentieth century: Saussure speaks of subjective and objective analysis; Gilliéron, of folk etymology and learned etymology; Coseriu, of original and scientific cognition; G. Lepschy, of the user and the linguist; Stempel, of the participant and the observer. And Saussure, explicitly, identifies the 'objective' etymology as historical. Baldinger (1986), in a study on folk etymology, selects from the abundant literature a set of (essentially synonymous) titles which, taken together, summarize the essence of the phenomenon: associative etymology, static etymology, spiritual etymology, metaphysical etymology, lexical analogy, lexical attraction, homonymous attraction, secondary motivation, and, of course, synchronic etymology.

Plato, in whom we saw the wellspring of synchronic etymology, was, as Pisani (1975:23) states in his stimulating essay on etymology, 'devoid of any flair for history.' To him, language was *érgon*, something stable and stationary. The discovery of language as *enérgēia*, as a continuing creative activity, was, essentially, the achievement of Wilhelm von Humboldt. With the growing insight during the nineteenth century into language as evolution and as an ever-changing expression of ever-changing culture, the diachronic interpretation of the word developed by leaps and bounds.

Diachronic etymology, once '*étymologie-origine*,' has turned into '*étymologie-histoire du mot*' (Pfister 1980:72). It tracks the transformation of a root morpheme, step by step (Kahane 1975). The many aspects of a word history involve many techniques of analysis. To exemplify, there is the ever-fundamental role of 'phonological change,' once the unfaltering creed of the Neogrammarians, shaken, since Schuchardt, by the belief in the exception; there is 'linguistic stratigraphy,' also called 'linguistic geology,' referring to the succession of languages in a given area, layer upon layer; 'linguistic geography,' with its area rules stressing the innovative center as against the conservative

margins; the 'linguistic field,' centering on the assumption that words sharing meaning influence each other; the 'Wörter-und-Sachen' method, now labelled 'onomasiology,' which is based on the supposed interdependence of the word and its referent; there is the impact of the dialect, regional or social; there are the many patterns of 'borrowing' resulting from some form of bilingualism and, in particular, diglossia: substratum, superstratum, with loanwords, foreignisms and calques; and finally there is the ongoing process of 'semantic change,' particularly evident in the so-called 'keywords' of social and intellectual movements, which shows the impact of the environment on the word and thereby converts the word into a weighty tool for the historian (Kahane 1984).

I have tried to correlate the two members of our binomial, synchrony and diachrony, with the two main phases of the linguistic subfield of etymology. 'Etymological method,' as Klinck (1970:8) says, 'changes with the prevailing linguistic theory.' In antiquity and its medieval 'postlude,' philosophers and grammarians concentrated on the word as a living force and aimed at discovering its true meaning. Philo of Alexandria, the first-century Judeo-Hellenistic philosopher, formulated the doctrine concisely: 'Let us not be led astray by the words, but let us examine the meaning which underlies them' (III, 108 Cohn and Wendland). From Humboldt into our century, etymology, under the impact of historicism, nationalism and biology, emphasized history, heritage, and evolution. With the now fast-developing field of sociology, etymology pays increasing attention to the contemporary functions and mutations of the word. Thus, Walter von Wartburg, being both a historian and a descriptivist, linked in every section of his monumental and trailblazing *Französisches Etymologisches Wörterbuch* the synchronic to the diachronic analysis of the headword.

One brief case history will, in conclusion, substantiate the quite different ways and objectives of diachrony and synchrony: the etymology of Fr. *travail* 'work' and its cognate, Eng. *travel*. Diachronically seen, a Byzantine tool of torture, the rack, consisting of three stakes, was called *tripássalon*.¹ This Grecism was literally transposed, within the Christian terminology of martyrdom, into Late Lat. *trepalium*, which ultimately led to the OFr. noun *travail* 'torment, ordeal, fatigue' and 'journey'. The Old French lexeme, through various avenues of borrowing, turned into Eng. *travail* and *travel*. On the one hand, this diachronic view is a typical example of a multifaceted cultural word history: from Byzantium and Christian martyrdom into medieval Latin and, with a change from concrete to abstract, into Romance. The synchronic search for the underlying meaning of our Fr. *travail* and Eng. *travel* is, on the other hand, a shortcut to insight and truth: for as we all know, 'work' and 'travel' are both, simply, 'torture'.

Note

1. In Greek, *tripássalon* is attested twice: in the fourth century, in the autobiographical (or pseudo-autobiographical) report by S. Ephraem Syrus, entitled *Narratio ad monachos de sua conversione* (Kahane 1962:138-39); and, apparently, in the sixth century, in the Greek translation of a Latin text, the

Epistola presbyterorum et diaconorum Achaiae, where it renders Lat. *eculeus* (Lampe 1961, s.v. *tripásson*, with inaccurate meaning; concerning the Greek text, see Beck 1959:402, with further bibliography).

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CAN OR MAY? CHOICE OF THE VARIANT FORM IN EARLY MODERN ENGLISH, BRITISH AND AMERICAN

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The system of English modal auxiliaries offers an attractive topic to the student of diachronic variation.¹ The pairs of variant forms, *can* vs. *may*, *shall* vs. *will* etc., are linked by a common denominator, i.e., the syntactico-semantic function shared by the members of the pairs. The modals present a case of a notional (as opposed to relational) paradigm.² Previous studies point to the period of early Modern English as a stage of major changes. Differences in the present-day use of modals in British and American English make the study of the transitional period of seventeenth-century American English of particular interest.³

To elucidate the problem of actuation, the basic aim of the study of variation, the method of analysis adopted should be able to deal with such questions as why and how a certain change takes place in a particular linguistic community at a certain point of time but not necessarily in another in similar circumstances.⁴ With these considerations in mind, I shall concentrate on the variation and development of the verbs *can* and *may*, used to express mainly the notion of 'possibility' in English.⁵ After briefly introducing my material and the principles of analysis, I shall conclude by viewing the results obtained.

Texts selected to represent different modes and levels of spoken and written expression from earlier periods offer empirical evidence on the role of the linguistic and extralinguistic factors influencing the process of change. The British English texts sampled for this study derive from the working files of the 'Helsinki Corpus of English Texts: Diachronic and Dialectal,' a two-million-word computer corpus under compilation at the University of Helsinki (see Table 1).⁶

The over 200,000 words of early Modern British English included in the present study represent text types of relatively consistent historical continuity: history writing, travel stories, fiction, correspondence, sermons, etc. In order to offer a solid and systematic basis for comparisons through time, three subperiods of seventy years each are covered from the 1500s on.

The roots of American English lie in the new geographical variety of English that emerged in the seventeenth century as a result of migration, isolation and new sociodemographic contacts. To focus on the rise of the new variety, I have collected a 900,000-word corpus of texts representative of the New England idiom over a century from the 1620s on.⁷

Table 1. The British English texts studies; BrA = 1500-1570, BrB = 1570-1640, BrC = 1640-1710.

Text	Type	Period	Author/Text	Words
HISTORY	BrA		Sir Thomas More; Robert Fabyan	14.000
	BrB		John Stow; Sir John Hayward	10.100
	BrC		Guilbert Burnet; John Milton	11.700
	TOTAL			35.800
TRAVEL	BrA		John Leland; Richard Torkington	14.300
	BrB		John Taylor; Robert Coverte	14.900
	BrC		Celia Fiennes; John Fryer	10.500
	TOTAL			39.700
FICTION	BrA		<i>The 100 Merry Tales</i> ; Thomas Harman	11.700
	BrB		Robert Armin; Thomas Deloney	12.500
	BrC		<i>Penny Merriments</i> ; Mrs. Behn	8.700
	TOTAL			32.900
PRIVATE LETTERS	BrA		Various writers	6.000
	BrB		<i>idem</i>	6.000
	BrC		<i>idem</i>	6.000
	TOTAL			18.000
OFFICIAL LETTERS	BrA		Various writers	3.000
	BrB		<i>idem</i>	3.000
	BrC		<i>idem</i>	3.000
	TOTAL			9.000
TOTAL	NON-SPEECH-BASED			135.400
SERMONS	BrA		John Fisher; Hugh Latimer	9.900
	BrB		Richard Hooker; Henry Smith	10.400
	BrC		John Tillotson; Jeremy Taylor	12.800
	TOTAL			33.100
TRIALS	BrA		Sir Edward Throckmorton	12.500
	BrB		Earl of Essex; Sir Walter Raleigh	14.800
	BrC		Titus Oates; Lady Alice Lisle	13.800
	TOTAL			41.100
TOTAL	SPEECH-BASED			74.200
TOTAL	NON-SPEECH-BASED AND SPEECH-BASED			209.600

The study of the early Modern British English texts is aimed at widening the temporal and geographical scope of the results obtained with the early American English material (see Table 2).

The texts left by early New Englanders offer unique instances of records of spoken language taken down in church meetings, scribblings of uneducated or self-taught common folk, etc. However, the harsh conditions of settlement meant that the corpus of texts collected necessarily remains limited in quantity and restricted in coverage, when compared with certain types of texts amply available in contemporary British English records. Again, owing to the history of settlement and the contemporary social developments that took place in the mother country, there are minor discrepancies in the subperiods distinguished in the two corpora.

The two periods of fifty years in the early American English corpus can be seen to relate to the two final subperiods distinguished by the British English corpus from the 1570s on. The time gaps must, of course, be kept in mind when interpreting the figures obtained. Owing to the differences in the structures of the British and American English corpora, I prefer to deal with the figures covering the whole of the material in each corpus, and give (when need be) the breakdown figures for the more balanced and symmetrical British English corpus only.

During their evolution the English modal auxiliaries went through the apparently universal processes of morphological erosion and desemanticization toward further grammaticalization.⁸ By the sixteenth century both *can* and *may* had already lost their 'full verb' status in everyday use; no instances of the 'full verb' use were recorded in the two corpora.⁹ As regards semantic categories, traditional descriptive studies recognize a number of uses, referred to with a variety of terms such as 'ability,' 'permission,' 'contingency,' etc. The criteria adopted to distinguish these categories are of primary importance, as the directions of development seem to be patterned by the very existence of these categories. My criteria of classification take into account the inherently polysemic and indeterminate nature of modal meaning (see examples (1a), (1b), and (1c)). I make the main distinction between the notions of 'possibility' and 'necessity,' on the one hand, and 'epistemic' and 'root' modality on the other.

(1a) 'epistemic possibility':

I *may* be a few minutes late but don't know ('it is possible that I am'; Survey of English Usage, S.7.3E.6, in Coates 1983:132)¹⁰

(1b) 'root possibility':

I am afraid this is the bank's final word. I tell you this so that you *may* make arrangements elsewhere if you are able to ('it is possible for you to make'; Survey, W.7.9.37, idem)

Table 2. The American English texts studies; AmB = 1620-1670, AmC = 1670-1720.

Text	Type	Period	Author/Text	Words
HISTORY	AmB		William Bradford	48,300
TRAVEL	AmC		Sarah Kemble Knight	9,700
DIARIES	AmC		Samuel Sewall	190,200
WILLS	AmB		Robert Keayne	47,200
NARRATIVES	AmC		Mary Rowlandson; Increase Mather; Cotton Mather	94,000
ESSAYS	AmC		Cotton Mather	46,900
APPEALS & ANSWERS	AmC		Various writers (educated and uneducated)	37,900
PRIVATE LETTERS	AmB		Various writers	35,300
	AmC		<i>idem</i>	42,200
TOTAL				77,500
OFFICIAL LETTERS	AmB		Various writers	101,300
	AmC		<i>idem</i>	93,700
TOTAL				195,000
TOTAL	NON-SPEECH-BASED			746,700
SERMONS	AmB		John Cotton	22,400
DEPOSITIONS	AmB		<i>Witchcraft Annals</i>	13,400
			<i>Colonial Connecticut</i>	7,800
	AmC		<i>Suffolk Records</i>	9,000
			<i>Salem Trials</i>	23,500
TOTAL				53,700
MEETING RECORDS	AmB		Boston First Church Meetings	27,400
	AmC		<i>Salem Trials</i>	18,400
TOTAL				45,900
TOWN RECORDS	AmB		<i>New Haven</i>	57,400
TOTAL	SPEECH-BASED			179,300
TOTAL	NON-SPEECH-BASED AND SPEECH-BASED			926,000

(1c) 'indeterminate possibility':

The quality of the final product must be influenced by the quality of the raw material of the industry, and the methods of processing *may* influence its nutritional quality. ('it is possible that the methods of processing influence' / 'it is possible for the methods of processing to influence'; Lancaster Corpus, 6-987, idem, p. 145)

I will return to the notional subcategories distinguished (for 'epistemic necessity', see discussion and example (3) below). Further, the criteria taken into consideration in the present study include time reference ('nonpast'/'past'), negation ('affirmative'/'negative'), sentence function (only declarative sentences will be looked into), sentence and clause type, voice ('active'/'passive'), and subject ('animate'/'inanimate'). Defining the linguistic features relevant to the choice of the verb and working through the occurrences attested in these contexts against varying textual backgrounds should reveal the factors promoting and reducing the choice of a variant.

The overall picture of the distribution of the examples in the main categories distinguished is given in Table 3.¹¹

In terms of frequency, the categories of 'indeterminate possibility' and 'epistemic necessity' are insignificant and will be omitted in the discussion to follow (for corpus examples, see (2) and (3)).¹²

Table 3. The meanings of the modals in early Modern British and American English.

EModE				BrE		AmE	
P	'Root'	'Non-past'	CAN	409	49.8	1328	34.7
O			MAY	344	41.8	1897	49.6
S							
S	'Indet.'	'Non-past'	MAY	9	1.1	116	3.0
I							
B		'Non-past'	MAY	59	7.2	458	12.0
I	'Epist.'						
L.		'Past'	MAY HAVE	-	-	12	0.3
N		'Non-past'	CAN	1	0.1	15	0.4
E	'Epist.'						
C.		'Past'	CAN HAVE	-	-	-	-
TOTAL				822	100.0	3826	100.0

(2) 'indeterminate possibility':

It is true Cook may be made a witness by your Majesties pardon, but when he is pardoned, it will in a great measure depend upon his own ingenuity and sincerity, whether he will speak the truth without reserve; and he is such an odd fellow, that one *may* have reason to fear both his folly and knavery. (BrC, Official Correspondence)

(3) 'epistemic necessity':

But my Lord Antrim has cut of his hear, and got one of y^e new fassioned perewks, w^{ch} have so much hear in them y^t a good one *cant* cost les then 60 pound, and y^t monstros bignes wth his lettle face did not look so well. (BrC, Private Correspondence)

The major categories established are those of 'nonpast epistemic possibility', expressed by *may*, and 'nonpast root (or nonepistemic) possibility' expressed by *can* and *may*. From Old to Present-day English, the broad lines of development of these uses show two main tendencies: the rise of 'epistemic' *may* and the rise of 'root' *can*.

As Table 4a shows, there are no major changes in the overall figures obtained for the 'epistemic' and 'root' use of *may* in the two corpora.

Table 4a. 'Epistemic' and 'root' MAY in early Modern English.

MAY			

	Epist.	Root	Total

EModE			100.0

BrE	59	344	403
1500-1710	14.6	85.4	

AmE	470	1897	2367
1620-1720	19.9	80.1	

The breakdown figures obtained for the British English subcorpora given in Table 4b point, however, to the post-1640s as a clear onset period for the increase of 'epistemic' *may*. From the 1500s to the 1640s the use of 'epistemic' *may* is restricted by way of frequency and diversity. The main verb, as was the case in Old and Middle English,¹³ is often stative (see examples (4a) and (4b)).

- (4a) Perhaps your Excellency *may* think it unnecessary to trouble you with an answer to yours of ye 14th instant because I have since (viz ye 19th) communicated it to his Ma^{tie} in ye presence of his Royall Hignesse (BrC, Official Correspondence).

Of the eighteen examples attested in the first subperiod ten are cases of the polite filler phrase *it may please*, and three its counterparts *it may like*.

Table 4b. 'Epistemic' and 'root' MAY in early Modern British English.

MAY			
EModE	Epist.	Root	Total
BrA	18	148	166
1500-1570	10.8	89.2	
BrB	12	119	131
1570-1640	9.2	90.8	
BrC	29	77	106
1640-1710	27.4	72.6	
Total	59	344	403

(4b) *Whetston*. I praye you, my Lordes, be good vnto vs, and lette vs not bee molested for dischargyng our Consciencs truelye; we bee poore Marchant-men, and ue great Chardge vpon our hands, and our Lyuynges doe depende vppon our Trauailles; therefore *it maye* please you to appoynte vs a certaine Daye for our Appearance, bycause perhappes else some of vs *maye* bee in forreigne Partes aboute our Businesse. (BrA, Trials)

The phrase *it may be*, later found in the adverb *maybe*, similarly accounts for eight examples of the twelve attested in the second subperiod (see example (4c)).

(4c) *L. C. J.* Well then, let me ask you a Question; and be sure you tell me the Truth, for it *may* be I know it already; did he offer you a Letter to be deliver'd to your Lady? (BrC, Trials)

The rise of 'epistemic' *may* has been powerful: both *may* and *might* appear in primarily epistemic uses in Present-day spoken and written English.¹⁴

As pointed out above, the category displaying the rivalry of *can* and *may* is that of 'nonpast root possibility' (for corpus examples, see (5a) and (5b)).

(5a) 'root possibility':

I have eate none [= oysters] but once since I were with you and those were sent a Friend of mine for a present; but you *may* be confident of me as soon as posible I *can* procure them. (BrC, Private Correspondence)

(5b) You *may* trust to my Wife, that She will imploy her utmost to accommodate John, or any other of yours what we *can*. (AmC, Private Correspondence)¹⁵

The overall figures provide evidence for the more general phenomenon of colonial lag common to many developments in extraterritorial varieties¹⁶ by suggesting that the rise of *can* in early Modern English anticipates that attested in American English: the prestige of the old mother-country usage is high in the new colonial offshoot areas even at the cost of hypercorrection (see Tables 5a and 5b).

Table 5a. 'Root' CAN vs. MAY in early Modern English.

Root	CAN	MAY	Total
BrE	409	344	753
1500-1710	54.3	45.7	
AmE	1328	1897	3225
1620-1720	41.2	58.8	

Table 5b. 'Root' CAN vs. MAY in early Modern British English.

Root	CAN	MAY	Total
BrA	99	148	247
1500-1570	40.1	59.9	
BrB	117	119	236
1570-1640	49.6	50.4	
BrC	193	77	270
1640-1710	71.5	28.5	
Total	409	344	753

The breakdown figures obtained for British English point to a gradual rise of *can* marking, again, the post-1640s period as a major onset period for the rise of the form. Further, evidence was found for the rise of *can* in colloquial registers and speech-based contexts (see Table 6a).

Table 6a. 'Root' CAN vs. MAY in early American English correspondence and speech-based texts.

Root	CAN	MAY	Total
EAmE 1620-1720			100.0
Private Letters	330	265	595
	55.5	44.5	
Official Letters	360	638	998
	36.1	63.9	
Trials	32	6	38
	84.2	15.8	
Depositions	28	8	36
	77.8	22.2	

Table 6b. 'Root' CAN vs MAY in early Modern British English correspondence and speech-based texts.

Root		CAN		MAY		Total
BrE 1500-1710						100.0
Private Letters	BrA	43	55.8	34	44.2	77
	BrB	33	58.9	23	41.1	56
	BrC	49	69.0	22	31.0	71
Total						204
Official Letters	BrA	5	20.0	19	80.0	24
	BrB	11	39.3	17	60.7	28
	BrC	19	65.5	10	34.5	29
Total						81
Sermons	BrA	18	39.1	28	60.9	46
	BrB	24	40.7	35	59.3	59
	BrC	54	66.7	27	33.3	81
Total						186
Trials	BrA	18	33.3	36	66.7	54
	BrB	19	51.4	18	48.6	37
	BrC	53	91.4	5	8.6	58
Total						149

Only a few instances were recorded in British English history writing, travel stories, and fiction; the time reference in these text types is mainly past and the forms used, accordingly, *could* and *might*. Nevertheless, the data drawn from British English texts show that the third subperiod from the 1640s

on stands out, again, as an onset period for change. Notice, however, that *can* was already relatively common in the private letters from the 1500s on (see Table 6b). Significantly, no evidence on the rise of *can* attested in British English official letters from the 1640s on could be found in the early American English corpus. The colonists, again, retained what was regarded as the correct form in formal registers, the variant form *may*.

Of the syntactic criteria referred to above, negation clearly favors the use of *can* (see Table 7a).

Table 7a. 'Root' CAN vs. MAY in affirmative and negative sentences in early Modern English.

Root	CAN	MAY	Total
BrE 1500-1710			
Affirmative	180 35.8	323 64.2	503
Negative	229 91.6	21 8.4	250
EAmE 1620-1720			
Affirmative	614 25.5	1798 74.5	2412
Negative	714 87.8	99 12.2	813

Table 7b. 'Root' CAN vs. MAY in affirmative and negative sentences in early Modern British English.

Root	Affirmative			Negative		
	CAN	MAY	Total	CAN	MAY	Total
BrE 1500-1710			100.0			100.0
BrA 1500-1570	44 23.9	140 76.1	184	55 87.3	8 12.7	63
BrB 1570-1640	49 30.8	110 69.2	159	68 88.3	9 11.7	77
BrC 1640-1710	87 54.4	73 45.6	160	106 96.4	4 3.6	110
Total	180	323	503	229	21	250

British English, again, leads the way. The breakdown figures obtained for the subperiods of British English show, further, that while *can* prevails in negative

contexts from the 1500s on, in affirmative contexts the breakthrough of the form takes place only in the 1640s (see Table 7b).

As to clause types, *may* is the form found in final clauses and clauses of volition in British and American English (see examples (6a) and (6b)). The British English data were too scarce for conclusions on the status of comparative and conditional clauses, the ground for the use of *can* in early American English.¹⁷

(6a) *may* + final clause, clause of volition:

Therefore for the loue of God, appoynte teachers and s[c]hole-maisters, you that haue charge of youth, and giue the teachers stipendes worthy their paynes, that they *maye* brynge them vp in grammer, in Logike, in rethorike, in Philosophie, in the ciuile lawe, and in that whiche I can not leaue vnspoken of, the word of God. (BrA, Sermons)

(6b) I send home the Bachelor, and desire your helpe for her disposing. I must of necessity have her returne heere for I may shortly have much vse of here: but I desire they *may* goe for shares and victuall them selves, which John Wood, and his company are willing to doe. (AmB, Private Correspondence)

I shall turn to the major notional subcategories distinguished.¹⁸ Clear core examples of 'ability' and 'permission' are relatively easy to find. Examples with 'external circumstances' blurring the core quality of 'ability' or 'permission' will be included in the category referred to as 'neutral possibility' (see example (7)).

(7) 'permission'/'external circumstances':

But assuming that the distinction is maintained one *may* ask which is to be analytically prior /.../ (Lancaster Corpus, 6-1443; Coates 1983:143)

In the category of 'permission' (see example (8a)), *may* is the only form in British English (fifty-one examples attested). In American English two cases of permissive *can* (out of 106 attested) were found (see example (8b)).

(8a) *may* + 'permission':

My *Text* expressly bids Christians to *try the Spirits*, which to any man's sense does imply that they may judge of these matters: But the Church of *Rome* says they *may not*; because if this liberty were permitted, God had not ordered things wisely, and for the best, for the peace and unity of his Church. (BrC, Sermons)

(8b) *can* + 'permission':

& when he cometh, theres no opposition, when she might have cryed out & cald her master, but he *can* come a first, a second, a third time, & she is willing to it __ (AmB, Town Records)

In Present-day English the notion of 'ability' is expressed by *can*. In Middle English, on the contrary, *may* was still currently used to denote the notion of 'ability' (cf. Old English *magan* 'to have power', 'to be (physically) able to'). Traces of this use could be seen in early Modern British English up to the 1640s (see Table 8 and example (9a)). *Can*, the more common form, is given in example (9b).

Table 8. CAN vs. MAY expressing 'ability' in early Modern British English.

Ability	CAN	MAY	Total
BrA	46	5	51
1500-1570	90.2	9.8	
BrB	38	1	39
1570-1640	97.4	2.6	
BrC	85	-	85
1640-1710	100.0	-	
Total			175

(9a)*may* + 'ability':

yet rather then the memory of so rare an Enterprise, and so accomlisht a profit to the Common-wealth shall bee raked and smothered in the dust of obliuion, I will giue a little touch at the description of it, although I amongst Writers, am like he that worst *may* hold the candle. (BrB, Travels, John Taylor's *Pennyles Pilgrimage*, p. 132).

(9b)*can* + 'ability'

but hauing rested two houres and refreshed myselfe, the Gentleman and I walked to see the City and the Castle, which as my poore vnable and vnworthy pen *can*, I will truly describe. (idem, p. 129)

The main interest in the rivalry of *can* against *may* is seen in the category of 'neutral possibility.' The overall figures point, as expected, to a more advanced stage of development in British English (see Table 9a). The breakdown figures point to a gradual rise in the use of *can* (see Table 9b).

It should be pointed out, as well, that with *may* all the cases except for one are affirmative. While *may not* could refer to 'neutral possibility' quite commonly in Middle English (see example (10a) from the Helsinki Corpus), only one instance of this use was found in a text from the first subperiod of British English (see example (10b)). No cases of *may not* in this meaning were attested in the early American English corpus.

(10a) Also in þat contree & in oþere also men fynden longe Apples to selle in hire cesoun & men clepen hem Apples of Paradys - - But þei wil roten within .viij. dayes And for þat cause men *may not* carye of þo apples to no fer contrees (Middle English, 1420-1500, *Mandeville's Travels*, p. 31)

Table 9a. CAN vs. MAY expressing 'neutral possibility' in early Modern English.

Neutral poss.	CAN	MAY	Total
BrE	210	173	383
1500-1710	54.8	45.2	
AmE	250	670	920
1620-1720	27.2	72.8	

Table 9b. CAN vs. MAY expressing 'neutral possibility' in early Modern British English.

Neutral poss.	CAN	MAY	Total
BrA	47	22	129
1500-1570	36.4	63.6	
BrB	68	57	125
1570-1640	54.4	45.6	
BrC	95	34	129
1640-1710	73.6	26.4	
Total	210	173	383

- (10b) *Stanforde. Maister Throckmorton, you and I may not agree this Day in the understanding of the Lawe, for I am for the Queene, and you speake for yourself: the Judges must determine the matter. (BrA, Trials)*

Finally, a clear correlation was observed in early American English between the use of *can* and the animate subject in the category of 'neutral possibility' (see Table 10). No such tendency could be seen in the British English data. A closer look at the examples reveals that the British English texts, all in all, tend to deal with a more abstract and formal type of subject matter, thus promoting the frequent use of abstract inanimate subjects (notably in sermons).

Table 10. CAN vs. MAY and (in)animate subject in early Modern English.

Neutral possibility		Subject				
EModE		+ Animate		-Animate		Total
BrE 1500-1710	CAN	181	86.2	29	13.8	210
	MAY	141	81.5	32	18.5	173
AmE 1620-1720	CAN	232	92.8	18	7.2	250
	MAY	462	69.0	208	31.0	670

By way of summary, the study of the two corpora sampled to represent early Modern British and American English yielded evidence accounting for some aspects of the diachrony and variation of the modals *can* and *may*. The main trends of development attested were the rise of 'epistemic' *may* and that of 'root' *can*, promoted by a number of linguistic and extralinguistic factors. The post-1640s period emerged in British English as a critical period of accelerated change, and American English was found to lag behind in the overall rate of change. Though no one-to-one correspondence should be expected from the results based on the corpora of varying size and structure, the figures obtained point to consistent and unidirectional paths of development in the two varieties.

Notes

1. For principles of studying diachronic variation, see Weinreich, Labov, and Herzog (1968), Rydén (1979), Romaine (1982), and Rissanen (1987).
2. Rydén and Brorström (1987:12).
3. For further discussion, see Kytö (1988).
4. The problem of actuation, introduced by Weinreich, Labov, and Herzog (1968:102), is further elucidated in Milroy and Milroy (1985:339-84), who make a distinction between speaker innovation ('the act of a speaker or speakers') and linguistic change ('the reflex of a successful innovation in the language system').
5. For the relatively rare cases of negated 'epistemic necessity' expressing logical entailment, as in 'Paul can't be in Liverpool' =/ 'Paul must be in Liverpool' (Coates 1983:18-20), see Tottie (1985).
6. For the size and structure of the diachronic part of the Helsinki Corpus, see Kytö and Rissanen (forthcoming); the early Modern British

English texts included in the corpus were selected mainly by Terttu Nevalainen and Helena Raumolin-Brunberg.

7. For the principles of compilation, see Kytö and Rissanen (1983).

8. For discussion on developments in English, see, e.g., Plank 1984, Goossens 1987, and Traugott (forthcoming); for illustrations drawn from other languages, see Ramat 1987.

9. While *may* only seldom occurs as a 'full verb' in Old English, *can* continues to be used in this function down to the Middle English period (Kytö 1987:210-13).

10. The prosodic notation has been removed from the examples quoted from the Survey of English Usage.

11. The figures given for early American English are based on Kytö (1987).

12. The figures do not contain, either, clear knock-out cases of *may* in the quasi-subjunctive use as in the example "Well," quoth this pitifull parson, "away from my house, either lye in some of my out houses vntyll the morning, and holde, here is a couple of pence for thee." "A god rewarde you," quoth this roge; "and in heauen may you finde it" (BrA, Fiction).

13. Kytö (1987:214-16).

14. For British English, see Coates (1983:131ff.); for written American English, see Kytö (1986:135-37).

15. The examples of early American English are quoted from Kytö (1987).

16. Cf. the arrest of development phenomenon (Baugh 1963:417-19).

17. Cf. Kytö (1987:153).

18. For definitions of the notional subgroups, see Coates (1983). Cases of final clause or clause of volition will be removed from the figures; similarly, as examples with 'passive voice' are hard to deal with in terms of agentive notions such as 'ability,' only instances of 'active voice' will be included in the figures (cf. Kytö 1987).

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'HE WAS SOME MAN HIM': EMPHATIC PRONOUNS IN SCOTTISH ENGLISH

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In a 1984 paper summing up the achievements of sociolinguistic investigation, Hymes claims:

The abilities of individuals and the composite abilities of communities cannot be understood except by making 'verbal repertoire,' not 'language,' the central scientific notion. (Hymes 1984:44)

By 'language' here, I assume that Hymes is referring to some notion such as Saussure's 'langue' (Saussure 1922:38) or Chomsky's 'internalized language' (I-language) (Chomsky 1986:22). By 'verbal repertoire,' I assume that Hymes has in mind the set of options available in the sphere which Saussure called 'parole' (Saussure 1922:37) and Chomsky 'externalized language' (E-language) (Chomsky 1986:20). Hymes goes on to suggest that the approach he advocates would require

a mode of description in linguistics which can address the organization of linguistic features in styles, that is, in ways which cut across the standard levels of linguistic structure. And it requires a mode of social description which can connect features of role, status, activity, setting, and the like with relevant features of voice and discourse. (Hymes 1984:44)

Sociolinguists, however, have not generally seen this as the goal, since much of their work has focused on a single level of linguistic structure, usually phonology or morphology. In fact, it is paradoxical that so much of the speech collected in sociolinguistic surveys has remained unanalyzed. On the other hand, in the field of discourse analysis, where increasing attention has been paid to the wider linguistic context, there has generally been less concern with the social context from which the samples are taken.

In this paper I wish to report on a microsociolinguistic study of the dialect of Ayr, a town of approximately 50,000 inhabitants in southwest Scotland, with a charter going back to the thirteenth century. The sample consists of interviews with twelve speakers recorded in 1978 and 1979. These interviews come from an aborted comparative study of urban speech in Scotland that I was unable to complete. Six of the speakers are middle class and six lower class. The interviews vary in length and quality, ranging from just over 4,000

words to 21,000 words, some containing no narrative and others having numerous narratives that make up a substantial portion of the interview. The interviews clearly do not equally represent the everyday language of the speakers but by treating this variation as problematic it is possible to chart the dynamics of each interview, showing the effect of such factors as topic, genre, and the interview situation on the language recorded. Rather than assuming that the interviews are equivalent, the procedure provides a way to examine the significance of individual differences. Moreover, since the sample of speakers is socially diverse and there is considerable variation in the use of certain phonological, morphological, syntactic, and discourse features, it is possible to show which features are sensitive to social variation. The aim is to show the value of an approach that focuses on variables in the context of the individual interviews as a total set.

The complete analysis (Macaulay, in preparation) deals with the interaction of various linguistic features and shows that variation among speakers cannot be accounted for along a single dimension. The major extralinguistic variable is social class but there is a danger of oversimplification in any dichotomy, as Hymes has pointed out:

The primitive state of our knowledge of discourse is reflected in the general prevalence of dichotomies. If 'elaborated' vs. 'restricted' is controversial because of applications it has received, so should be 'oral' vs. 'written' and 'formal' vs. 'informal' and 'standard' vs. 'vernacular'. Such dichotomies do us the service of naming diversity. They do us the disservice of reducing diversity to polar opposites. (Hymes 1986:50)

The Ayr study confirms this view, since certain features that have been found to be distinctive along the oral/written and formal/informal dimensions in other studies (cf. Biber 1986) show up as social class differences. Social class, however, can be equally problematic. There are certain features that are relatively 'robust' as indicators of social class membership (e.g., phonological and morphological features) but there are many others (e.g., use of subordinate clauses) which are 'fragile' in the sense that the difference between the two social class groups may be principally dependent upon genre or different discourse strategies. The aspect I wish to consider here is one where explanation of the difference is more complex, namely, the use of pronouns.

As Brown and Yule (1983:215) observe, most of the work on pronouns has concentrated on interpretation rather than production. Moreover, most accounts of pronouns deal with anaphoric use. Anaphoric pronouns are associated with 'old' information, assigned low pitch and weak stress, except when they are used contrastively. However, it has been clear for some time (e.g., Benveniste 1966, Bolinger 1977, Bosch 1983, Fox 1987, Werth 1984) that anaphora is a complex notion and does not account for all uses of pronouns. Recently, there has been an interest in the discourse function of pronouns (e.g., Carden 1982, Duranti 1984, Fox 1987).

In the Ayr study, there is a clear difference between the two social class groups in their use of pronouns. The lower-class speakers not only use pronouns more frequently than middle-class speakers, they use them in

different ways. Although there are also interesting social class differences in the use of indefinite pronouns and demonstrative pronouns, the analysis in this paper deals only with the personal pronouns. The figures for the two social class groups are shown in Table 1.

Table 1. Social class distribution of pronouns.

	Middle class		Lower class	
	#	Freq.	#	Freq.
1st person	3471	68.2	3621	51.9
2d person	833	16.4	1711	24.5
3d person	2354	46.2	4913	70.4
Totals	6658	130.8	10245	146.8
Freq. = per thousand words.				

These figures do not include the use of *you* and *I* in the discourse markers *you know*, *you see*, and *I mean*, because such items are independent of the syntactic structure and governed by different rules. (Since such discourse markers are more frequent in the lower-class interviews than in the middle-class ones, their inclusion would generally increase the difference between the two social class groups.) It can be seen from Table 1 that personal pronouns in general are more common in the lower-class interviews, but first-person pronouns are more frequent in the middle-class interviews, accounting for almost half of the pronouns compared with one-third of the personal pronouns in the lower-class interviews. Conversely, the lower-class speakers make much more frequent use of second- and third-person pronouns. In Biber's (1986) factor analysis of the differences between spoken and written English, the use of first- and second-person pronouns is one of the features of the 'dimension which characterizes texts produced under conditions of high personal involvement' (1986:394), whereas third-person are part of the factor that 'distinguishes texts with a primary narrative emphasis' (1986:396). Since a greater proportion (29%) of the lower-class interviews consists of narrative (compared with 22% in the middle-class interviews), this may account for the higher frequency of third-person pronouns in the lower-class interviews. (Biber, however, treats the third-person inanimate pronoun *it* separately from the other third-person pronouns and it appears as part of the first dimension of high personal involvement; such a distinction would not greatly change the social class differences in Ayr.)

It is the ways in which pronouns are used in the interviews, however, that most clearly distinguishes lower- from middle-class speakers. In particular, lower-class speakers use pronouns in a way that places them in a more salient position in the discourse, as can be seen in several different constructions. The first is illustrated in (1).

(1a)	WL 579	so that was <i>me</i> on the rope-splicing
(1b)	WL 791	and this was <i>him</i> landed with a broken leg
(1c)	WL 1474	that was <i>him</i> idle
(1d)	EL 394	and that was <i>you</i> shut in the house for a week
(1e)	EL 3251	so that was <i>us</i>
(1f)	AS 2248	and that was <i>it</i> you see
(1g)	HG 583	and that was <i>you</i> maybe slaving until eight or
nine at night

In this construction, which I refer to as Demonstrative Focusing, a demonstrative pronoun is followed by some form of the verb *be* and the object form of a pronoun, usually followed by a complement which can be a present participle (1g), a past participle (1b,d), an adjective (1c), or an adverbial phrase (1a). Although examples of Demonstrative Focusing are not frequent (twenty-three in the lower-class interviews as a whole), all lower-class speakers have at least one example, and there are no examples in the middle-class interviews. This construction is one of several where pronouns are given a prominent focus and it occurs either at the climax or the conclusion of a narrative or a reminiscence. The demonstrative itself refers to what Labov (1972:363) calls the resolution of the complicating action of a narrative.

Demonstrative Focusing is not totally unlike *it*-clefting where *it* occurs as a dummy subject with a form of the verb *be* followed by a noun phrase and a relative clause. There are sixty-eight examples of *it*-clefts in the Ayr interviews, fifty-seven (84%) in the lower-class interviews, and eleven (16%) in the middle-class interviews. In the middle-class interviews the focused NP is always a lexical NP but in the lower-class interviews it can be a pronoun, as shown in (2).

(2a)	WL 1411	it was <i>her</i> that got them
(2b)	EL 660	no it's <i>me</i> that's het (i.e., 'it' in a game)
(2c)	EL 3118	it was <i>him</i> that led the band
(2d)	MR 639	it's <i>them</i> that's running it

Again, such examples are not frequent even in the lower-class interviews but they are quite salient and they have the effect of bringing pronouns into prominence without using emphatic stress.

Another construction in which pronouns are given greater prominence is NP-fronting, similar to Y-movement. There are forty examples of NP-fronting in the Ayr interviews, ten (25%) in the middle-class interviews and thirty (75%) in the lower-class interviews. However, it is only in the lower-class interviews that NP-fronting has the effect of leaving the object pronoun in clause-final position, as in the examples in (3).

(3a)	WL 1875	Davie Drummond you called <i>him</i>
(3b)	EL 1435	Wee Maggie Rose we called <i>her</i>
(3c)	AS 2612	the Army and Navy Club they called <i>it</i>

Although the pronoun is not stressed in final position, its relative isolation gives it slightly more prominence than it would have had in the unmarked

word order. The explanation for this usage probably lies in the development of relative clause markers in Scottish English. As Romaine 1982 has shown, WH forms (e.g., *who*, *which*, etc.) are an innovation in Scottish English and such forms are very rare among the lower-class speakers in the Ayr sample. Moreover, the possessive WH form *whose* is totally lacking from the Ayr interviews, so that the construction *whose name was...* does not appear to be a possible alternative. One speaker uses a prepositional phrase instead, as shown in (4).

- (4) EL 1170 and a wee woman with the *name of old Maggie Jamieson* took me to this machine

Although the middle-class speakers do not use *whose* either, a construction with a nonrestrictive relative clause and passive voice provides an alternative, as shown in (5).

- (5) IM 079 and I went to Prestwick High School *which it was called* then

It is not the use of the passive here that is improbable for the lower-class speakers but the nonrestrictive relative clause. The lower-class speakers rarely use nonrestrictive clauses which account for less than 5% of the relative clauses in the lower-class interviews, compared with 20% in the middle-class interviews. The avoidance of WH forms in the lower-class interviews can be seen in (6).

- (6a) AS 2990 *him that's* now head of the union thing
 (6b) MR 089 *them that* had wee families

Such personal pronoun antecedents are never found in the middle-class interviews where the alternative would be an indefinite pronoun, as in (7).

- (7) JM 819 *the ones* who had been working

Once again, the lower-class speakers use personal pronouns in a prominent position that is avoided by the middle-class speakers.

The final example is the use of Right Dislocation where a noun phrase occurring in clause-final position is co-referential with a pronoun earlier in the same clause. The coreferential pronoun can be either a subject or an object, as shown in (8).

- (8a) WL 1373 in fact *he* offered me a job *Mr. Cunningham*
 (8b) WR 786 *she* was a very quiet woman *my mother*
 (8c) EL 3786 and we'll play a trick on her *old Mrs. McNaught*
 (8d) HG 772 I was asking John if he ever heard of *it Cabbies Kirk*

When the rightmost NP is itself a pronoun, the coreferential pronoun must be the subject as in (9).

- (9a) WL 1315 *he* was some man *him*
 (9b) HG 859 but *she* was a harer *her*
 (9c) HG 1348 oh *it* was a loss *it*
 (9d) WL 2728 oh *he* was some dog *him*

The effect of repeating the pronoun in clause-final position is made more emphatic by the fact that the final pronoun is in the stronger object form.

In four different constructions, Demonstrative Focusing, *it*-clefts, NP Preposing, and Right Dislocation, the lower-class speakers bring personal pronouns into prominence in a way that is not found in the middle-class interviews. This seems to be part of a general strategy for highlighting or expressing intensity, which Labov says is the linguistic feature 'at the heart of social and emotional expression' (1984:43). The strategy is the use of movement rules, which is overwhelmingly more common in the lower-class interviews, as can be seen in Table 2. In other words, movement rules of this kind are approximately five times more frequent in the lower-class interviews than in the middle-class ones. Does this mean that the middle-class speakers

Table 2. Highlighting movement rules.

	Middle class	Lower class
Left dislocation	7	56
Right dislocation	1	37
NP-fronting	10	30
<i>it</i> -clefts	11	57
Demonstrative focusing	0	23
Totals	29	203

do not express intensity as frequently? To some extent, that is the case, but it is also true that the middle-class speakers express intensity differently, through the use of adverbs, as illustrated in (10).

- (10a) IM 107 I found it *extraordinarily* boring
 (10b) IM 292 I got *absolutely* sick of doing nothing
 (10c) NM 1381 oh well Jock it's *awfully* tasty
 (10d) DN 152 a *terribly* crippled bent old woman

The lower-class speakers rarely use adverbs in this function. In fact, adverbs as specific emphatics and intensifiers, specific hedges and down-toners, attitudinal disjuncts, and style disjuncts (see Biber 1986:411 for examples) are at least three times more frequent in the middle-class interviews.

Is there any connection between this difference in the use of adverbs and the use of pronouns? Why do the lower-class speakers highlight personal pronouns in intensification contexts? Haiman (1985:166), following Saussure (1922:183), suggests that languages with a more restricted vocabulary are likely to make greater use of 'grammatical' constructions. Although the language of the lower-class speakers is by no means impoverished, it is less varied than that in the middle-class interviews, and it is striking that the lower-class use

of syntactic structures to indicate intensity should be almost in complementary distribution with the use of intensifying adverbs in the middle-class interviews. It certainly suggests that the two groups have different discourse strategies.

Whatever the reason, it seems that pronouns have a different privilege of occurrence for the lower-class speakers in comparison with the middle-class speakers. There is an implicational hierarchy of freedom of occurrence shown in Table 3, where the order of listing from top to bottom corresponds to a ranking from the least constrained to the most constrained (cf. Givón 1983).

Table 3. Pronoun hierarchy of occurrence.

Proper nouns
Full lexical NPs
Stressed pronouns
Unstressed pronouns
Clitics
Zero anaphora

In the lower-class interviews, stressed pronouns (including demonstrative pronouns) appear to be closer to full lexical NPs in their freedom of occurrence than in the middle-class interviews. This can also be seen in the use of third-person anaphoric pronouns with no antecedent in the immediately preceding linguistic context. Sometimes the examples fall into the category that Prince (1981:236) calls 'inferred entities,' as in (11).

- (11) HG 1469 at breakfast the taxi was waiting
 1470 streets werenae too busy
 1471 but when *he* came to lights
 1472 that were against *him*
 1473 *he* was up a side street and away

Although there is no antecedent, it is clear that *he* refers to the driver of the taxi, which has been mentioned. Du Bois states this relationship as a general principle.

To make a definite reference to an object, it is not necessary for there to be in the previous discourse a reference to that object; it is only necessary for the idea of the object to have been evoked in some way. (Du Bois 1980:215)

The lower-class speakers apparently have a different sense of the frame that can help identify the referent of an anaphoric pronoun. The most extreme example comes in an interview with a former coal miner. Willie Lang had explained to me how there were no washing facilities at the pit head and his mother was always concerned that Willie and his father should get themselves washed as soon as they came home:

- (12) WL 1458 that was always the cry of my mother
 1459 'Get yourself washed

- 1460 before you fall asleep'
 1461 and *he* was a great man
 1462 the bus come at twenty-five minutes to six in the
 morning
 1463 and he started at seven o'clock
 1464 twenty-five to six
 1465 now see if he didnae get that bus
 1466 that was him
 1467 he wasnae oot
 1468 he needed
 1469 to get the first one in the morning
 1470 going doon the pit
 1471 or that's him slept in

The referent of *he* in line 1461 is Lang's father and he goes on to tell me a story illustrating that he was 'a great man,' but the last explicit reference to his father was 1300 lines earlier, approximately half an hour previous to this mention.¹ There is no explicit reference to his father for about another hundred lines, although the correct identification of the pronoun in line 1461 is essential if the story is to be understood. This is the most extreme example of implicit reference but there are several others in the lower-class interviews. This is the kind of implicit reference that Bernstein 1971 found characteristic of a 'restricted code.' Like many of Bernstein's observations, it is probably a half-truth. In many ways the lower-class speakers are more explicit than the middle-class speakers (e.g., in their use of highlighting movement rules) but they expect their listeners to be paying attention, and among the things that require careful attention are pronouns. By their use of highlighting devices, they remind the listener that pronouns are not just anemic copies of other noun phrases but full-blooded linguistic items capable of referring to people and things in the real world.

Notes

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1. Coppieters has pointed out to me that the reference to Lang's mother in line 1458 helps in the identification of the pronoun *he* as Lang's father, through what Sacks (1972:332) calls 'a membership categorization device'; Duranti also suggested that it is an example of what Sacks and Schegloff (1979:16) call 'minimization' in reference to persons. It is still an unusual way to introduce a discourse entity that is the topic of an extended narrative.

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FRENCH IN FLUX: TYPOLOGICAL SHIFT AND SOCIOLINGUISTIC VARIATION

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1. French in flux. Striking differences in grammatical structure are evident between varieties and registers of French. Several studies have discerned a diachronic dimension in this variation; but the directionality of change remains controversial. The observed changes may be argued to stem from the grammaticalization of both subject and object clitics as verbal agreement prefixes, representing a major step toward head-marking grammar in the sense of Nichols 1986. Several expected correlates of head-marked morphology are evident in current spoken French: in general, the new object agreement system licenses a greatly increased freedom of word order; in particular, it is associated with the rise of 'topic-prominent' characteristics and of verb-initial structures, fueling speculation as to a drift toward VSO word order.

Although the phenomena at issue have been described from various standpoints--syntactic, typological, and discourse-pragmatic--studies have yet to provide an integrated picture of the process in its social and functional context. Not only do the phenomena call for such an integrated perspective: the changes apparently under way in spoken French offer a paradigm case of the origins of syntactic change in synchronic variation, itself driven by discourse-pragmatic functions.

Data informing this study come from three sources: as a principal focus of discussion, a variety of French where the putative changes are particularly far advanced, namely, that spoken in the provincial town of Mende (Lozère: southern Massif Central); for further exemplification and discourse-level analysis, recorded conversations with French students studying in the United States; and for comparison, the data of Lambrecht (1981: Suisse Romande), Ashby (1982: Touraine), and Barnes (1985: assistants at U.S. universities).

1.1 Universals as constraints on change. The relationship between grammatical theory and the study of language change has been a matter for considerable debate. Strong claims have been advanced for the explanatory power of both generative (Lightfoot 1979) and typological formulations of language universals (Lehmann 1974; Harris 1978). Critical review of these ground-breaking works has tended to deny or downplay their explanatory value (Lass 1980; Comrie 1981). In particular, it is argued that consistency with some universal principle(s) is not itself a motivation for change. Thus

Hawkins (1983) doubts that word order change occurs in response to pressure for consistency, since languages must be assumed to be subject to universal constraints at all stages of their development.

These responses may give some grounds for pessimism--expressed most forcefully by Lass (1980)--with respect to the explanation of change. At the same time, however, they point the way toward a more realistic view of the role of universals in the study of change. Rather than sources of explanation in themselves, they represent constraints on what changes are possible and--if we allow statistical correlations into the repertoire--likely. As such, generative or typological principles have a natural and fundamental place in the study of language change: They are the 'Constraints' of the blueprint for change formulated by Weinreich et al. (1968). Sociolinguistic approaches to change have concentrated on the actuation and implementation stages of this program (Labov 1972; Chen and Wang 1976). Universal grammar provides the input to these processes and thus has a crucial role in an overall account of change. Specifically, I claim that it is only in terms of transition of syntactic typology that one can make sense of synchronic patterns of variation.

The notion of head-marked grammar introduced by Nichols (1986) rests on the basic distinction between the marking of grammatical relations on the head versus the dependent constituent of a phrase. Thus at the clause level, the verb (or its inflection, as in current Chomskyan theory) is the head of the phrase and its NP arguments dependents; the relation between head and dependent may be marked on the nouns (by case: dependent-marking) or on the verb (by agreement: head-marking). Both mechanisms are illustrated in a Hungarian transitive clause:

- (1) Olvasom azt a könyvet
 Read-I-Obj. that-Acc. the book-Acc.
 'I'm reading that book'

The 'clitic-doubling' structures of French appear to instantiate the development of a verbal agreement system, and hence of head-marking grammar at the clause-level. Thus in the French version of (1), clitics mark both subject and object on the verb:

- (1') Je le lis ce livre
 I-Obj.-read that book

Nichols proposes as a universal that if a language has major head-marking patterns anywhere, it has them at the clause level. In this crucial sense, French is becoming a head-marking language; and we will see that other developments may be related to this typological change. It should be emphasized, however, that we do not see Nichols's typology as a holistic binary parameter: like all realistic proposals, it is a partial typology, in the sense of Comrie 1987.

The challenge to the role of typological universal grammar in the study of change is especially relevant to the explanatory and predictive claims of the present study. By following the process of two related changes--grammaticalization of object agreement and of verb-initial structures--across

all five aspects of change as established by Weinreich et al., we propose to give a comprehensive account with some claim to explanation in the first, and prediction in the second case. But it should be clear that we are not laying the whole blame for change with typological principles. Rather, these tell us what changes may occur, and what form they may take. The 'why and wherefore' of change is seen as lying elsewhere: in particular, at the 'evaluation' level, in terms of the communicative functions performed by dislocation structures throughout the process. The rise of topic and verb-initial structures, in turn, is a question of 'embedding,' or interdependence between levels of grammar, namely, the overt marking of grammatical relations and pragmatically driven word order variation. The mechanisms of 'transition' are taken up in Section 4 in terms of sociofunctional stratification and code-switching.

2. Variation and change in spoken French syntax. The variation we are faced with concerns fundamentals of basic sentence structure. Compare some typical forms of declarative and interrogative sentences in formal and informal registers:

(2) Paul a assez des
études
'Paul has enough of
of studies'	(2') Il en a marre Paul
des études
He Gen.-has enough
of studies
(3) Où est mon livre?
'Where is my book?'	(3') Il est où mon bouquin?
It is where my book?

The gulf between such extreme cases has led to an artificial division between 'standard' and 'non-standard' French, as used in the titles of Barnes (1985) and Lambrecht (1981), respectively. These concepts entail an idealization to homogeneity which seems ill-suited to their discourse-pragmatic approaches, and which precludes recognition of a diachronic dimension for the familiar reasons set out by Weinreich et al. (1968). Barnes further suggests that the pragmatic conditioning of left-detachment may be most clearly evident in 'standard' French, where it is less frequent. Quite apart from the curious logic of this argument, it is not clear what the locus of 'standardization' is intended to be. Several studies indicate that all speakers use the innovative structures in some contexts; these thus enter into 'use' rather than 'user' variation. I argue, accordingly, that variation between social groups has a derivative status, along the lines suggested by Finegan and Biber (1988).

2.1 Grammaticalization of subject and object agreement. It has long been acknowledged that French subject pronouns have been moving, via cliticization, toward agreement prefixes (cf. Ashby 1977 for 'un peu d'histoire'). This process represents the renewal of subject agreement to replace suffixes lost by phonetic erosion: in a typical paradigm all the verb forms themselves are homophonous, with the exception of the 2d person polite/plural form which retains its distinct suffix as a marker of respect/formality. It is thus no surprise to find the subject clitics functioning as agreement markers rather

than referential pronouns, in which capacity the formerly emphatic pronouns take over:

Moi je parle
 Toi tu parles
 Lui il parle
 Nous on parle (replacing nous parlons)
 Vous (vous) parlez
 Eux ils parlent

Evidence abounds that the clitic pronouns are bound affixes in informal Mendois: they can no longer undergo subject/verb inversion in questions, and are even losing gender distinctions:

- (4) OÙ ils sont les filles?
 Where 3pl('Masc.')->are the girls
 'Where are the girls?'

Semantically, clitic pronouns cannot be used deictically, which requires a superficially redundant doubling:

- (5) [pointing to colleague] Elle, elle est française

Moreover, Barnes (1985) notes that the most commonly 'detached' item of all is the first person pronoun *moi*; this may follow from its status as the prototypical deictic expression:

- (6) Moi j'enseigne le français ici
 I 1sg-teach (the) French here

Subject agreement, however, is not structurally new to the language: the shift from suffixed to prefixed marking represents a change in serial order typology rather than in the categorial inventory of the language. What is crucial to the ongoing typological shift is the parallel grammaticalization of 'object' clitics as agreement markers:

- (7) Je le connais cet homme
 I-Obj.-know that man
 'I know that guy'

Ashby (1977) briefly notes a rise in the use of object clitics and predicts their grammaticalization as agreement markers. Lambrecht (1981) claims that agreement is limited to cases where the referent is pragmatically 'given,' or old information. In a typological perspective, however, such a constraint is by no means unusual: object agreement, in head-marking languages, is often restricted to definite referents: thus the very constraint observed in French, whether it be considered semantic or pragmatic in nature, is grammaticalized, as in Hungarian:

- (8) Könyv-et olvas
Book-Acc. reads
'S/he's reading [a book]
- (9) A könyve-t olvas-sa
The book-Acc. reads-Obj.
'S/he's reading the book'

French shows a similar contrast in at least some structures: where the initial nominal is generic, for example, object agreement is missing:

- (10) Cette musique je la connais
'This music I-Obj.-know'
- (11) La musique je connais moins, disons
'Music I know less, let's say [than literature]'

In interrogatives too, agreement with definite objects can be said to be obligatory:

- (12) Tu l'as lu ce bouquin?
'You OBJ.-have read this book?'
- (12') *? Tu as lu ce bouquin?
'You have read this book?'

Just as sound change is now known to proceed item by lexical item, we should expect grammaticalization to proceed gradually, occurring in one syntactic environment at a time. Thus the 'givenness' effect may be evidence for ongoing grammaticalization rather than a discourse-pragmatic constraint on the generality of the change.

The grammaticalization of object agreement extends to oblique objects too, involving all those pronouns previously capable of undergoing cliticization; the ex-clitics *y* and *en* are of particular interest in allowing head-marking of dative and genitive case relations:

- (13) (A) Montpellier, j'y vais souvent
(to) Montpellier, I-THERE-go often

Note that at present, the preposition doubling the agreement prefix is optional. As Nichols suggests, such 'double-marked' constructions are often transitional in a shift from dependent- to head-marking; we may thus expect to see the preposition disappear, as it already has done in the case of *en*:

- (14) (*De) mon frere j'en ai honte
(*Of) my brother I-Gen.-have shame
'I'm ashamed of my brother'

2.2 The diachrony of dislocation. The diachronic claims of this paper hinge on the synchronic structural and functional analysis of two structures, already illustrated in introducing the morphemes involved, traditionally termed Left- and Right- Dislocation:

L-D: Cet homme, je le connais
That man, I him know

R-D: Il est connu, cet homme
He is well known, that man

Pretheoretically, what most strikes the visitor to France is the sheer frequency of both types. Phonologically, one will note--despite the conventional comma of the above examples--the lack of an intonation break on the fault line of the 'dislocation.'

The structural and functional analysis of French 'dislocated' structures has proved controversial. By taking a simultaneously synchronic and diachronic view of variation, we can allow the possibility that different analyses will be appropriate for different varieties and discourse contexts. Barnes's (1985) neglect of the diachronic and register dimensions forces her to find a discourse-pragmatic account even when the original functional motivation has been lost. Crucial to our overall picture is the observation that 'left-dislocation' structures are gradually undergoing pragmatic unmarking, and that the process is complete in some varieties (though see section 3 for the resulting 'topic-prominent' syntax: Barnes mistakenly takes the view of left-detachment as grammaticalized to entail that it will have no pragmatic motivation). While they are most typically used for contextually or antecedently given referents, they may occur in Mendois introducing new, definite referents as (discourse-initial) sentence topics:

(15) Ta famille tu leur écris de temps en temps?
Your family you-Dat.pl.-write from time to time?

(16) Tu sais, le président il va falloir le contrôler
You know, the president it will be necessary O3sg.-to watch

It is well known that left-dislocation recurs in many languages with similar pragmatic functions. These are nicely illustrated by Duranti and Ochs (1979) for conversational Italian. The dislocated nominal typically reintroduces a referent which is 'given' in the discourse or its context, but has not appeared in the immediately preceding utterances. The limitation of the structure to conversational registers is shown to have a strong functional motivation insofar as it enables speakers to 'take the floor' by reintroducing a topic in initial, 'dislocated' position. While the authors note similarities between subject and object agreement (coreferential clitics are obligatory when an object nominal occurs to its left), they too stop short of taking on the diachronic implications of this 'ongoing grammaticalization process.'

3. Head-marking, topic prominence and word order variation. One of Nichols's corollaries of head-marked morphology, and of verbal agreement in particular, states that in such a language word order is freed for the grammaticalization of discourse prominence and cohesion. This correlate is dramatically illustrated in French, where many have discerned a drift toward 'topic-prominent' syntax, in the sense of Li and Thompson 1976. It is true that the pragmatic properties of topic structures derive diachronically from their source in left-dislocation; synchronically, however, the topic-initial structure is licensed by the presence of agreement prefixes which allow nominals with several different case roles to stand as sentence topics:

- (17) Subject: Pierre il vient pas
Peter 3sg-comes not

- (18) Object: Pierre je l'ai vu ce matin
Peter I-Obj.-have seen this morning

(Both (17) and (18) might answer the question 'Where's Peter?')

- (19) Genitive: La salade j'en veux pas, merci
The salad I-Gen. want not, thanks
(In answer to an offer at table)

- (20) Goal: Lyon j'aime pas y aller
Lyon I-like not LOC-go
(In answer to the question 'Do you know Lyon?')

The extreme case, familiar from Chinese and Japanese topic structures, is where the initial nominal is not an argument of the predicate at all, but stands in an adjunct or 'aboutness' relation to the proposition:

- (21) Les Cévennes, $\emptyset$ faut pas sous-estimer le temps
The Cevennes (mountains), must not underestimate the weather

- (22) Lui c'est la linguistique appliquée
He it's applied linguistics (that he's interested in)

It is this flexibility which has led Lambrecht and others to see a move toward 'topic-prominent' syntax: The notion of 'sentence subject' seems less applicable than that of 'sentential topic' when so many sentences have a nonsubject argument in initial position. We may add that the development instantiates the correlation Nichols predicts between head-marking morphology and the grammaticalization of discourse prominence and cohesion; and that the loss of expletive subject pronouns, as seen in (21), accords with the movement from subject- to topic- prominence.

One well-known constraint on grammaticalized topic structures is that topics have to have definite reference. It is this constraint which accounts for Lambrecht's and Barnes's observation that left-detachment requires a pragmatically 'given' nominal; it also accounts for the rise of what Barnes

appropriately terms the 'presentational *ya*-cleft,' which occurs precisely when the desired sentence topic is not semantically definite or pragmatically given:

- (23) Y'a des bruits qui courent
 THERE-are some rumors which are running
 'Rumors are circulating'

Further, the definiteness constraint prohibits existentially quantified nominals as topics, requiring *ya*-insertion:

- (24) Y'en a qui travaillent, y'en a qui travaillent pas
 THERE-PART-are who work, THERE-PART-are who work not
 'Some [people] work, some don't.'

These constraints are strongly reminiscent of Chinese, where subjects/topics must be definite and indefinite nominals must be introduced with the existential/presentational marker *you* 'there is/are'. However these 'topic-prominent' characteristics are analyzed, it seems clear that French is acquiring them in concert.

3.1 Verb-initial structures and the syntax of affect. Several researchers have noted a rise in verb-initial order in spoken French, assuming, of course, that subject clitics are analyzed as agreement affixes rather than subjects. Harris (1978) sees this rise as the inevitable concomitant of the switch to prefixed morphology : VSO basic word order represents still greater consistency as a Head-Modifier language within the word order typology which his study challengingly, if at times teleologically, applies to the evolution of French syntax. His claim that French is 'on its way to becoming a VSO language' has, however, been hotly disputed. Ashby (1982) finds only 17% of declarative sentences in his corpus to be verb-initial, and neither age nor class differences show any gradient indicating their increase. What, then, are the verb-initial structures doing? The answer can be glimpsed through a closer look at the examples cited by Harris and others, or indeed at almost any sample of colloquial conversation. The structures all appear to be pragmatically marked, either for illocutionary force or, more specifically, for affect.

3.1.1 Interrogative: Verb-initial order with a final rise in intonation is now the most common form for interrogatives in informal speech:

- (25) Où il va l'anglais?
 Where 3sg.-go the English
 'Where's the English guy going?'
 (26) Tu l'as trouvé cet article sur le violon?
 You Obj.-PAST-found that article on the violin?
 'Did you find that article on the violin?'

The evolution of interrogative structures would require a study of its own; we should note here, however, that the incipient loss of surface WH-movement seems further indicative of a drift toward topic-prominent typology.

3.1.2 Affective: Utterances expressing any affective evaluation of a proposition are very frequently verb-initial:

- (27) Je l'aime moi Marie
I Obj.-love me Mary
(Harris' example: the affective predicate par excellence)
'I LOVE Mary'
- (28) Ils sont marrants ces anglais
They are funny those English (Humorous)
'Those English are funny'
- (29) Il est fameux ce petit
3sg.-is great this little
(Appreciative: refers to foreign student's learning local dialect)
'This kid's great'
- (30) Il est joli ce coin
3sg.-is pretty this corner
(Evaluative: refers to mountain scenery)
'This area's lovely'
- (31) C'est ridicule cette histoire d'assistants à temps
partiel
(Disapproval/Frustration)
'It's ridiculous this idea of part-time assistants...'
- (32) Je m'en fiche moi de ce boulot
I-ME-Gen.-don't care me of this job
(Frustration: refers to long hours)
'I don't give a damn about this job'
- (33) Mais c'est pas normal cette décision
(Disagreement)
'But it's not normal this decision'
- (34) J'sais pas moi
1sg-know not I
(Annoyance)
'How should I know?'

Such structures have by no means passed without comment. Lambrecht (1981) focuses on the postposed nominal which he terms, rather idiosyncratically, an 'Anti-Topic.' But few have concentrated on the status of the preposed verb and thus noticed the affective value of the structure. A rare

exception is Bossong (1981), who cautiously hypothesizes that the rheme-theme structure has 'une valeur émotive.' An objective check on this--as on many other such interpretive claims--is provided by the characteristic intonation contour of the verb-initial structure, with stress on the verb/predicate and neutral intonation for the 'antitopic.' Lambrecht notes, correctly, that 'The most striking formal correlate of the pragmatic status of antitopics is their complete lack of stress' (1981:85). Lambrecht's account here suffers from an all too frequent neglect of the principle of markedness. An unmarked form or structure typically has no significance at all on the parameter for which it is unmarked. Thus the characteristic intonation contour of the verb-initial structure says nothing at all about the status of the 'antitopic,' and much more about that of the preposed, stressed predicate. And indeed, Lambrecht's examples prove to be pragmatically marked for either affect or illocutionary force:

- (35) Pardon monsieur, il est où, l'hôpital?
(Interrogative)
Excuse me sir, 3sg.-is where, the hospital?
- (36) El-est belle, cette photo
(Appreciative)
3sg.Fem.-is nice, this photo
- (37) Ça-en-fait du bruit, un Portugais. C'est sale...
IT-Gen.-makes noise, a Portuguese. It's dirty...
- Ça-n-doit-pas-être un beau pays, le Portugal.
(Racial hatred)
IT-Neg.-cannot be a nice country, Portugal.

Lambrecht still searches for a discourse-level explanation, in terms of 'givenness' of the 'antitopic.' Thus he claims that (35) is felicitous only if the speaker knows the hospital to be in the area, and (36) only if s/he thinks the addressee has seen the picture. But (36) might equally well be an invitation to look at the picture: indeed, such exclamations are frequently preceded by the interjection *tiens*, meaning 'look here':

- (38) Tiens, il est marrant, ce bouquin
Look, 3sg.-is funny, this book

Note that *tiens* also functions as an 'affect key,' in the sense of Ochs and Schieffelin (1988, after Gumperz): in addition to claiming an addressee's attention, it 'keys' a (positive) affective evaluation of the proposition.

These affectively marked verb-initial structures represent inversion of the general theme-rheme ordering. That the phenomenon is not peculiar to French is already clear from its instantiation, if much less frequently, in English:

- (31') It's ridiculous, this idea...

A universal principle for the theme/rheme inversion is hinted at by Bily (1982). Reviewing a recent Praguian work on Functional Sentence Perspective, he notes that this tradition of study has yet to deal with the distinction between what he calls 'objective' (theme-rheme) and 'subjective' (rheme-theme) word order: When the predicate is of overriding communicative importance to the speaker, it comes out before its subject or topic has been identified. The speaker-oriented affective evaluations have this in common with speech act types such as questions and directives which also typically involve inversion or preposing of the verb: thus the class of verb-initial structures may have a unified source at the macropragmatic level.

Harris's conclusion that French is developing basic VSO order thus seems premature, both because he overlooks the affectively marked value of his own examples and because Ashby's quantitative study shows no sign of such a change in progress. However, we may recall that the development of object agreement has proceeded precisely by the unmarking of a pragmatically marked variant; such unmarking is clearly one instance of the 'bleaching' of semantic content diagnostic of grammaticalization. It is entirely possible that the verb-initial structures will undergo the same fate. Indeed, typological considerations--the 'universal constraints' aspect of the Weinreich et al. blueprint for change--make this development seem highly likely. Nichols shows that head-marking of morphology strongly favors the--otherwise 'dispreferred'--verb-initial order. This correlation has a clear processing motivation in that grammatical relations marked on the verb--especially as prefixes--are then established at the very beginning of the sentence. This preference appears to be a morphological instantiation of Hawkins's (1986/88) principle of Early Immediate Constituents, whereby rules or structures allowing the earliest possible parsing of constituent structure are predicted to be universally preferred. Thus considerations of typological consistency, with a clear processing motivation, lead us to predict the generalization of VSO order (though the order of S and O may be relatively free: cf. Baillard 1981).

Statistical confirmation of the correlation between verbal agreement and initial placement of the verb can be found in Ashby's corpus. V-initial order is most frequent (47%; but only seventeen tokens) when both object clitic and coreferential NP are present, and least frequent (10%, of 621 tokens) with an object NP but no agreement. It is equally likely (22-23%) with an object clitic but no coreferential NP and with intransitive predicates. The overall frequency of (only) 17% verb-initial utterances is discussed below in the context of age stratification.

To summarize: verb-initial structures in spoken French appear to result from a conspiracy between a pragmatic universal--preposing of affective predicates--and a grammatical universal, the cognitively motivated correlation of verb-initial order with head-marked morphology. Predicting major change is fraught with hazards, but the example of the grammaticalization of object agreement and topic structures through the unmarking of Left- Dislocation allows us to see how this conspiracy could eventually bring about the much-heralded shift to VSO canonical order.

4. Coexistence and code-switching: the locus of variation. The current state of synchronic variation, and still more obviously the projected Future French with generalized VSO order, entail the coexistence of structurally divergent varieties:

Written/formal: SVO, no coreferential clitics

Spoken/informal: VSO/Free, prefixed Subject and Object Agreement

Such a state seems, *a priori*, somewhat implausible. But it is strikingly reminiscent of Latin:

Literary/formal: SOV, 5 cases

Spoken/plebeian/informal: SVO, Prepositions/Oblique Case-Marking

It could even be that such a synchronic contrast is a prerequisite for a major typological shift. To see how it arises, we need to ask what is, or will be, the locus of variation between the two (extreme) varieties of French. There are several parameters: geographical, social, generational, and situational, which I consider in turn.

The geographical stratification of the ongoing changes has not to our knowledge been described in any detail. However, the data from different parts of France treated in the literature show a remarkable homogeneity. They certainly point to a uniform directionality, and presumably also order of developments. The only gradient I can discern is that the southern half of France from which our data come seems to be rather more advanced than the North ('change from below?'). Thus the Mendois dialect contrasts in degree, if not in kind, with Ashby's Tours data, where the frequency of sentences without subject agreement is still high (almost equal to that of structures with agreement, in the case of pragmatically 'given' third person subjects). These structures are strongly marked for formality in Mendois, and hence appear highly anomalous in an informal, e.g., domestic context:

- (40) # Mon mari [il] travaille en ville
My husband [Sub3sg.] works in town

Nor does Ashby's pragmatic constraint that the subject must be a 'given' referent in order to trigger agreement apply in Mendois: example (40) with subject agreement could easily be the first mention of the husband, his occurrence as a sentence-initial topic being sufficient to license subject agreement.

The apparent North/South gradient raises some interesting possibilities. A Frenchman would immediately point to the historic and cultural divide between the North and the 'Midi.' A possible contributory factor is that the conservative influence of literary and pedagogical language has always emanated from Paris, having less of a constraining effect in the more distant 'provinces.' Ashby (1981) notes that Tours is traditionally regarded as harboring the 'best' French; in a country which takes such pride in its language

and letters, this may safely be glossed as 'conservative,' which would account for the above contrasts with Mendois. We should also note that the neighboring languages of southern French, Spanish, and (especially Northern) Italian are undergoing closely parallel movement toward grammaticalization of verb agreement: this distribution seems suggestive either of areal diffusion, or of a remarkably uniform typological drift.

Social stratification would seem a priori a likely locus of variation, given the example of sound change (Labov 1972). Clearly, the change is not toward a prestige variety, but represents Labov's 'change from below' in the sociolinguistic as well as the geographical sense. Ashby's study, moreover, shows significantly greater use of 'topic' and 'antitopic' sentences among the lower than the upper social classes. This is naturally attributable to: (1) differential degrees of education, and hence pedagogical, literary, and conservative influence; (2) occupation, and hence regular situational use of varieties. A clear case of the latter effect is seen in the only examples Ashby can give of 'subject' sentences, i.e., structures without subject agreement. These are taken from discussions of the informants' (bureaucratic) jobs, which naturally trigger reversion to the associated register:

- (41) Dans ces sociétés la municipalité reste majoritaire
In these societies the municipality remains (in the) majority
- (42) Ces mutations sont intervenues surtout vers les années 60
These changes (are) occurred especially around the 1960s

The switch to the prestige register, despite the conversational setting, is clear from the bureaucratic jargon (*mutations* for *changements*, *intervenir* for *arriver*). Similarly, the interview corpus shows such forms only in the most technical academic contexts, where written norms take over:

- (43) Les domaines qu'il aborde sont difficiles à aborder
scientifiquement
'The fields which he is addressing are difficult to address
scientifically'
- (44) Le structuralisme me suit
(the) Structuralism me pursues

As with most reported cases of sound change, neither statistics nor observation suggests that any speakers consistently avoid agreement or verb-initial order. Rather, they are more or less likely to use such structures, perhaps drawing the situational dividing line at a different level of formality. Indeed, these examples point to situational code-switching as the major locus of synchronic variation. This is strikingly demonstrated in the speech of Mende's many schoolteachers: obliged to uphold the standards of 'Classical' French in the context of the classroom, they happily revert to topic structures with agreement when talking amongst themselves. Such a pattern seems widespread in cases of radically different coexisting varieties: in Vienna, university professors lecture in High German, or at least its Austrian-inflected

equivalent, but themselves converse in a local or regional dialect which many Germans would have difficulty in understanding.

The strongest proof of change in progress comes from 'change in apparent time' (Labov 1972) as reflected in age stratification. Ashby documents a striking difference between the two extreme age groups, 14-21 and 51-64: The younger group used 'topic' structures in 60% of d person clauses with a 'given' subject, the older group only in 32% of these. It is of course possible, given this data alone, that exuberant use of 'topic' structures is simply a feature of teenage speech, along with a whole range of vocabulary items and idioms; but unlike the latter, it by no means disappears in the speech of young adult Mendois. We may thus accept Ashby's interpretation of these data as a case of change in apparent time.

The second major typological change we have discerned, the rise of verb-initial order, does not find this crucial form of confirmation in Ashby's data. Indeed, not only is the frequency of verb-initial structures virtually level across age-groups: the youngest group of 14-21-year-olds shows a much lower incidence than the others (10% against an average of 20%). If replicated, this finding would normally suggest incipient loss of the structure. However, it conflicts very strongly with my own experience of conversing with adolescents, which would suggest they are leading in the grammaticalization of both topic and verb-initial structures. There may well be independent explanations for Ashby's finding. First, we should note that all but two of his young informants are students or clerical workers, suggesting a strong influence of written norms. A second plausible factor is their reticence in talking spontaneously to an American professor with a microphone, and hence of expressing emotions or asking questions which we have seen to be the major loci of verb-initial order. Expression of affect presupposes a degree of intimacy hardly attainable in a single interview, and we may suspect that this factor plays a role in limiting the representation of verb-initial structures in Ashby's corpus. Thus although his methodology is otherwise exemplary, I cannot accept his conclusion that 'data from the Tours corpus have shown that the verb-initial structure is a minor one in Modern French.'

We should pause here to consider whether a change in serial order typology can be expected to show up in apparent time across generations in the incontrovertible way that sound changes, and minor syntactic changes such as the loss of negative *ne* reported in Ashby (1981) do. All documented changes in basic word order have been very gradual affairs, entailing a long period of coexistence between old and new variants, presumably differentiated functionally by some pragmatic criteria. Some languages may 'stick' indefinitely with a given alternation, as has German with verb-second main and verb-final subordinate clauses. Without departing from the history of French, we may recall that Latin was both SOV and SVO for the whole of its long recorded history: even the preclassical comedies of Plautus and Terence show only around 50% of sentences to be verb-final; while the letters of Cicero, beside his legal speeches, show code-switching toward a preference for SVO order and therewith paradoxically provide valuable pointers to 'Vulgar Latin' syntax.

4.1 Grammatical prescriptivism: The 'Académie' to the rescue? The morphology and syntax of literary French have remained essentially frozen

since their codification in the seventeenth century. This golden age of French culture saw the founding of the 'Académie Française', a major function of which has been to legislate in matters of 'le bon usage,' as one authoritative grammar is entitled (Grevisse 1964: its examples are drawn from Classical French literature of the seventeenth and eighteenth centuries). The French have been termed a 'nation of grammarians' (Rickard 1974) on account of their interest in details of 'correct' usage of vocabulary, complementation and other grammatical questions. In the present context, it is pertinent to ask what effect these widespread prescriptive attitudes might have on the current and future evolution of French syntax.

Although linguists from Saussure onwards have made a point of ignoring prescriptive attitudes toward grammar, interest has recently revived in their restraining influence on change. Kroch and Small (1979) discuss its effects on speech and the evaluation of variants. Their claim that 'grammatical ideology' attributes superior logic to prestige speech norms is particularly apposite in the French case, where precisely this claim is made by the seventeenth-century grammarians in codifying usage. Thus the Port Royal grammar of 1666, cited by Chomsky (1965), claims:

L'ordre des mots réfléchit l'ordre naturel de nos pensées...
'The order of words reflects the natural order of our thoughts'

In modern times, logic is appealed to in condemning redundantly double-marked structures. Multiple negation, as Kroch and Small note, is a classic case, and seems to recur as a stigmatized feature in many nonstandard varieties (Cockney English, Viennese German). The same stricture is found in many grammars with respect to 'clitic doubling' in French. We may cite at random Judge and Healey (1983:72): 'The pronouns *il* or *elle* should not be used in formal written French where another noun is already the subject...similarly, repetition of the object is considered poor style...'

What then are the effects of grammatical ideology on the speech of the average Frenchman? Clearly, it is a major factor in situational code-switching: the more formal the environment, the stronger the pull of the pedagogical and literary norm. Even linguists, when asked, will claim to prefer SVO structures without clitic doubling. But it is a characteristic of 'change from below' that developments proceed unconsciously; and one of the most intriguing aspects of code-switching, which seems to place it firmly within the realm of linguistic competence, is precisely its subconscious operation. In a nation where legislation has been passed to protect the mother tongue from degenerating to 'Franglais' we can perhaps conceive of a 'crise de la syntaxe'; but public consciousness of the threat to SVO French as we know it is not, at least as yet, in evidence. Language, as Elinor Ochs has said, has a heart; and it was Pascal, in France's Golden Age, who observed that 'the heart has its reasons of which reason knows nothing.' The French heart, in collusion with the processing mind, may indeed be pulling the verb forward faster than the conscience can retrieve it.

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PRAGMATICALLY CONDITIONED VARIATION IN TOK PISIN

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It is commonly accepted that what pidgins lack in grammatical sophistication, they more than make up for in communicative efficiency. Pidgins are, after all, created by speakers who only want to talk to one another, to exchange information in the simplest, least ambiguous way possible (and who say no more and no less than is needed to get their point across). In the earliest stages in the formation of a pidgin, then, when only the referential function of language is served (cf. Halliday 1976, Muhlhausler 1980), we would expect pragmatic forces to exert an enormous pressure on the language, thus determining in great part both its structure and its variability. Even as a pidgin elaborates and creolizes, functional and contextual factors continue to constrain language development; it is often said, for example, that grammatical categories like tense, number or definiteness are marked only when they are not inferable from the context. In order to account for the rampant variation found in pidgin and creole languages, then, it appears that we should look primarily not to syntactic or semantic factors, but to pragmatic constraints.

The question I am concerned with here is: to what extent are discourse constraints responsible for the variation among referring expressions used to track entities in narrative discourse in an elaborated pidgin now undergoing creolization--New Guinea Tok Pisin? Specifically, I compare the ways in which several different kinds of factors--pragmatic, as well as syntactic and semantic--influence the choice speakers make between full nouns, pronouns, and zero forms. That this choice is constrained primarily by pragmatic factors has been established for several nonpidgin/noncreole languages (Clark and Marshall 1981, Chafe 1976, Prince 1981, Bolinger 1979, Li and Thompson 1979, Givón 1983, *inter alia*).¹ According both to pragmatic theory and empirical findings, speakers choose between a zero, pronoun, or full noun to refer to some entity, depending upon that entity's assumed familiarity to listeners, as well as its 'topicality' (Givón 1983, etc.) or 'salience' (Chafe 1976) within the discourse. In the terms given by Prince (1981), referents which are 'brand-new' to the hearer must be expressed by a full noun, whereas those which have been already 'evoked' may be referred to using any type of anaphoric expression: a definite NP, a pronoun or--if allowed by the language--a zero ($\emptyset$). What determines the choice for an old entity is

prominence, or salience--whether the speaker has reason to believe that her hearer is thinking of that entity at the moment.

Given that in fully grammaticalized languages, the choice of referring expression is clearly conditioned by pragmatic factors, we would expect that the same alternation in Tok Pisin--a language seemingly especially vulnerable to discourse pressures--would be even more heavily determined by such constraints. Qualitatively, it is clear that zeroes, pronouns, and full nouns function in Tok Pisin similarly to referring expressions in other languages. Examples are given in sentences (1)-(3):

- (1) Wanpela taim, long wanpela ples gat wanpela kwin.
 one time PREP one village exist one queen
 'Once upon a time, in a village, there lived a queen.'
 (LD-1)
- (2) Em_i pulim lewa_i bilon en, kam autsait nau,
 He_i pulled liver PREP him_i come outside now
 'He_i pulled out his_i liver_i.'
 (LD-58)
- (3) Ø_i karim Ø_i go long kwin.
 Ø carry Ø go PREP queen
 '(He_i) carried (it) to (the) queen.'
 (LD-59)

Sentence (1) is the first line in a young girl's retelling of Snow White; here she introduces both the village and the queen, using full nouns, modified by the determiner *wanpela*.² Later on in the same story, the speaker introduces a hunter who, because he cannot bring himself to kill Snow White, pulls out his own liver instead. In sentence (2), the speaker uses a third-person pronoun (unmarked for gender) to refer to this hunter, now a familiar entity; but in the very next line of the narrative--sentence (3)--the same hunter and liver are both expressed by zeroes. (Note that in Tok Pisin--as in several other creoles--zero pronominal elements are permitted both in subject and direct object position.) The queen in (3), however, is referred to using a full noun, since even though she is as familiar as the hunter and his liver, she is not as salient, having not been mentioned in the discourse for some time.

These examples suggest that, when deciding which referring expression to use, speakers of Tok Pisin--like speakers of other languages--are influenced by the two broad discourse factors loosely termed here 'addressee familiarity' and 'salience'. But to discover the weight of these different factors, and their interaction with syntactic and semantic constraints, such as the animacy of the referent and the syntactic function of the NP involved, it was necessary to perform a quantitative analysis of the variation.

To do this, I examined the distribution of full nouns, pronouns, and zeroes in the speech of twelve speakers of Tok Pisin. Speech samples were taken from Tok Pisin narratives recorded in 1971 by Gillian Sankoff and from texts found in Laycock, transcribed in the 1920s. The 1971 corpus includes samples from five pidgin-speaking adults and five child creole speakers, ranging in age

from eight to seventeen years, and the 1920 data come from two adult pidgin speakers. Two hundred tokens were collected for each of the adults and children and 250 tokens were taken from each of the two 1920s speakers. Data from two different time periods were included in order to discover whether the constraints governing the alternation among referring expressions have changed over real time, as we might expect, given the grammatical elaboration of Tok Pisin in the last fifty years; the comparison between pidgin-speaking adults and creole-speaking children was made to determine whether creolization, since it appears to be accompanied by increased fluency (Labov 1970, Sankoff and Laberge 1973) and redundancy (Muhlhausler 1980), has any effect on this alternation. In both cases it is reasonable to suspect that, with increasing grammaticalization, discourse constraints on the choice of referring expression would become less important, and syntactic constraints more so.

Every referential, 3rd person NP in the corpus³--whether full, pronominal, or zero--was coded for a number of discourse factors which have been found to affect the choice of referring expression in several languages: (1) the information status of the referent (here Prince's 1981 taxonomy was used), (2) the salience of the referent, as measured by the number of clauses between the present mention of the referent and the last mention ('lookback,' in Givón's 1983 terms), (3) the number of other animate referents mentioned in the immediately preceding three clauses ('interference,' again from Givón; see also Clancy 1980 and Chen 1984), and (4) the form of the last mention. The syntactic function of the NP was also taken into account. However, only subjects and direct objects were included in the final analysis, because in Tok Pisin none of the other positions shows three-way variation: zero anaphora cannot be used for objects of prepositions (which includes genitive constructions), dislocated or topicalized elements (and pronouns are also extremely rare in all three environments).⁴ Finally, the semantic factor of animacy was included, both because the distinction between animate and inanimate NPs has been found to condition other variables in Tok Pisin (Muhlhausler 1980, Sankoff and Mazzie 1987), and also because the animacy of a referent has been shown to affect the realization of NPs in several other languages (cf. Chen 1984, Tarallo 1983 and the papers in Givón, 1983). The coded tokens were analyzed using the multivariate program TVARB 1.1 (which is the trinominal version of the variable rule program).

Table 1 gives the distribution of forms for all speakers combined in terms of the information status of the NP.

Here, if we compare the two broad categories of 'not previously mentioned' entities and 'previously mentioned' items, we see that there is very little variation in the expression of referents which have not been already introduced into the discourse. Not surprisingly, all of the Tok Pisin speakers here--child creole and adult pidgin speakers alike--obey the pragmatic convention which constrains them to take their addressee's knowledge store into account, and to use full nouns in referring to entities that either they assume their addressee is not familiar with (brand-new and inferable), or entities that, while familiar to the addressee, have not been introduced into the current discourse (unused and situationally evoked). Apart from the ambiguous and nonspecific tokens, which I will not discuss here, it is clear that

the overall variation in the corpus is restricted almost entirely to the set of entities which have been previously mentioned (the 'textually evoked' category): here we see that the form most frequently used by these Tok Pisin speakers to refer to 'old' entities is a pronoun; at the same time, zeroes and full nouns are used for similarly old items almost as often. These figures indicate that the simple equation of full nouns with 'new' information and pronouns and zeroes with 'old' is inaccurate, and cannot begin to account for the variation among referring expressions found here.

Table 1. Frequency of full nouns, pronouns, and zeroes, according to information status.

Information type	Full	Pronoun	Zero	N
(1) Not previously mentioned:				
(total)	93% (636)	5% (33)	2% (12)	681
Brand-new	99% (250)	1% (2)	...	252
Unused	94% (125)	3% (4)	3% (4)	133
Inferable	89% (225)	9% (22)	2% (5) ⁵	252
Situationally evoked	82% (36)	11% (5)	7% (3)	44
(2) Previously mentioned:				
Textually evoked	30% (602)	41% (830)	29% (588)	2020
(3) Other:				
Ambiguous	23% (14)	43% (26)	33% (20)	60
Nonspecific	86% (98)	14% (16) ⁶	2% (2)	114

Clearly, within the category of 'old' information, one of the things which must be responsible for the variation between pronouns, zeroes and full nouns is salience: that is, whether the entity being referred to is prominent at that point in the discourse. What precisely makes an entity prominent is not easy to isolate. Chafe (1979), for example, considers salient entities to be those which the speaker assumes are uppermost in the hearer's consciousness. Kuno (1975), taking a less cognitive approach, talks about the mention of an entity being 'predictable,' given the immediately preceding discourse. In his work on what he terms 'topic continuity,' Givón (1979, 1983) has operationalized this notion of prominence by creating three separate measures of 'topicality,' only two of which were used in the present analysis. The first, called 'lookback,' is simply the distance in clauses between the referent's present mention and its last most recent mention. Thus, the further back in a discourse an entity is mentioned, the less 'continuous' it is and the more likely it is to be encoded using a full noun. Conversely, the more recently an item has been referred to, the more 'continuous,' hence the more likely it will be expressed using the most reduced forms available.⁷ (See results of this measure applied to several different languages in Givón 1983; also Clancy 1980 and Parkinson 1987.) As an example, consider again the sentence given in (3); in this case, both the subject and direct object have a 'lookback' score of 1, since both entities were mentioned in the immediately preceding clause; the score for the third NP (had objects of prepositions been included), would have been 14, since the queen had last been mentioned that many clauses back.

Figure 1. Percentage of full nouns, pronouns, and zeroes according to distance from last mention.

Number of clauses back to last mention ('lookback')

Figure 1 shows the percentage of full nouns, pronouns, and zeroes according to the lookback score of the NP. From this we can see that, generally, salience does appear to influence Tok Pisin speakers' choice of referring expression. The farther back an entity is mentioned, (hence the less salient it is), the more often it is expressed by a full noun: almost three-quarters of the entities last mentioned six clauses back are full nouns. Correspondingly, the more recently an entity is mentioned, the more likely it will be expressed using a pronoun or zero. Notice that the decline in salience affects pronouns and zeroes similarly, but that the percentage of pronouns remains higher throughout. From this pattern, it is impossible to determine what is responsible for the alternation between zeroes and pronouns. If it is true, as Givón proposes, that zeroes are used for the most salient entities, we would expect a higher percentage of zeroes than pronouns for those items mentioned in the immediately previous clause. However, here we see that tokens with a lookback of one clause are more often expressed by a pronoun, not by zero. And although I do not present the results here, the effect of the

presence of other referents in the immediately preceding discourse ('interference') has a similar effect: as the number of other entities increases, the percentage of zeroes and pronouns decreases and the proportion of full nouns increases.

Thus far, we have been able to account for the variation in referring expressions in the speech of Tok Pisin speakers by appealing to purely pragmatic constraints: the information status of the NP (i.e., whether or not the referent had been mentioned previously in the discourse) and the salience of the entity (how recently it had been mentioned). So up to this point, we have found that variation among referring expressions in Tok Pisin is constrained by discourse factors, at least as much as in other languages. But once an entity has been introduced, and is salient in the discourse, it remains unclear what compels a speaker, in referring to that entity, to choose a pronoun or a zero.

One possibility is that pronouns and zeroes do not serve exactly the same pragmatic function in Tok Pisin. Perhaps zeroes are reserved for the most salient entities, and pronouns are used to refer to items that are somewhat less salient. Certainly, one of the things that would make this account plausible is the fact that pronouns convey some minimal amount of information more than zeroes.⁸ This difference between pronouns and zeroes is precisely what Givón and his colleagues find for several typologically diverse languages (see papers in Givón, 1983), where it appears that tonic pronouns and zeroes lie on the same scale of anaphoricity, with zeroes at the extreme end, being used for only the most salient entities (or 'continuous,' in his terms) and with tonic pronouns being used for less salient items. Givón expresses this regularity as a principle of iconicity governing discourse organization: 'The more disruptive, surprising, discontinuous or hard to process a topic is, the more coding material must be assigned to it' (1983:19; see also Givón 1985). However, the results presented in Figure 1 suggest that this principle does not hold for speakers of Tok Pisin.

On the other hand, it might be the case that zeroes and pronouns are used for equally salient entities, and that their different distribution is caused by other factors, such as whether the referent is animate or inanimate (cf. Tarallo 1983). The question is, do the factors that constrain appearance of pronouns constrain the occurrence of zeroes in the same direction, and to the same extent? Perhaps in Tok Pisin, pronouns and zeroes are the reflexes of two separate anaphoric strategies, units functioning in separate pragmatic subsystems. On the one hand, it seems unreasonable to posit that a language so syntactically unelaborate could have such an embellished system of anaphora; on the other hand, if Tok Pisin is becoming increasingly more grammaticalized, it is very possible that syntactic and semantic systems of the language are beginning to constrain which forms speakers may use where.

In order to pinpoint the factors influencing the choice between pronouns and zeroes, we must turn to the results of the multivariate analysis. In particular, we must consider semantic and syntactic constraints--specifically, the syntactic function of the NP and the animacy of the referent.

In interpreting the VARBRUL results below, it should be remembered that the variable rule program was designed to control for colinearity between factor groups (unless it is extreme). Thus, the probabilities generated for each

factor reflect the effect of that factor on its own, regardless of its correlation with any other factor. This is important to remember here, since animacy and syntactic function are highly correlated: Subjects tend to be animate, and direct objects tend to be inanimate. First of all, we will examine the effect of animacy on the choice of referring expression for familiar NPs. Table 2 shows clearly the difference between animate and inanimate NPs: Familiar animate entities are much more likely to be expressed by a pronoun than by a zero; and inanimates are much less likely to be referred to with a pronoun. This result is consistent with the findings for several other languages (e.g., Chinese, Chen 1984; Brazilian Portuguese, Tarallo 1983--but in terms of human vs. nonhuman; and Cooreman 1983 for Chamorro, *inter alia*). As in these other, nonpidgin languages, variation which is primarily determined by

Table 2. Choice of referring expression in terms of animacy of the referent (textually evoked tokens only).⁹

	Full noun	Pronoun	Zero	N
Animate	.21	.52	.27	1549
Inanimate	.46	.18	.35	296

(p < .05)

pragmatic factors is, in Tok Pisin, constrained by a semantic distinction as well. What's more, this pattern is evinced by all three groups of speakers.

Perhaps more surprising is the strong effect of syntactic function of the NP, as shown in Table 3:

Table 3. The effect of syntactic function on the choice of referring expression.

Function	Full noun	Pronoun	Zero	N
Subject of intrans.	.40	.42	.18	798
Subject of trans.	.30	.43	.27	565
Direct Object	.25	.16	.59	395

(p < .05)

The pattern is very clear: subjects favor the choice of a pronoun, while direct objects favor zero.¹⁰ Although not unprecedented (see Tarallo 1983 for a similar result for Brazilian Portuguese; also Sankoff and Brown 1976, who found more subject resumptive pronouns than direct object resumptive pronouns in Tok Pisin relative clauses), this result is somewhat surprising for a number of reasons. First, it seems to indicate that, instead of being constrained solely by pragmatic factors, variation among referring expressions in Tok Pisin is also strongly conditioned by the grammatical structure of the language. Furthermore, we might expect that zeroes would be more likely to occur as subjects since, according to Givón (1979, 1984; see also Halliday 1967, Kuno 1976, DuBois 1987)--among others--the subject position tends to be reserved for the most 'continuous' or 'topical' argument in the clause:

...the subject case tends to code the most important, recurrent, continuous topic. We may call it the *primary clausal topic*. The direct-object case codes the topic next in importance, recurrence or continuity. We may call it the *secondary clausal topic*. (1984:138)

Yet in Tok Pisin, zero--the form which should be used to express the most salient entity--is reserved for the syntactically less prominent argument--the direct object. Conversely, the more prominent argument--the subject--is encoded by the form generally associated with less salience--a pronoun.

One possible explanation for this difference might involve the transitivity suffix, *-im*, historically derived from the third person singular pronoun 'him' (e.g., *pulim* 'pull', *paitim* 'hit'). Almost all transitive verbs in Tok Pisin bear this suffix; but the few which do not are among the most common verbs in the language (e.g., *kaikai* 'eat', *gat* 'have/possess'). If speakers still interpret this suffix as pronominal, we would expect pronouns to be less likely to occur in direct object position after verbs bearing this suffix (and zeroes more likely), than transitive verbs without it. However, a comparison of the results for suffixed and unsuffixed transitive verbs rules out this explanation. As shown in Table 4, suffixed verbs are *more* likely to be followed by a pronoun than unsuffixed verbs.

Table 4. The effect of verb type on the choice of referring expression in Direct Object position.

Verb type	Full noun	Pronoun	Zero	N
V + suffix	.44	.30	.26	316
V no suffix	.44	.22	.35	30
Ditransitive	.17	.49	.34	45
				(p < .05)

It seems clear that this case of variation in Tok Pisin is not as straightforward as it first appeared. In fact, to make sense of these results, I hypothesize that there exist two separate subsystems of anaphora in Tok Pisin. One operates in subject position, and involves the variation between pronouns (for more salient items) and full nouns; the other operates in direct object position, where zeroes and full nouns alternate.

Evidence for the existence of separate subsystems is shown in Figure 2, which illustrates, for animate entities only, the percentage of each referring expression according to the measure of salience used here--i.e. 'lookback' (the number of clauses between the current mention of an entity and last most recent mention). Here the pattern is clear: For subjects, the most salient items are expressed more than half the time by pronouns; and as the distance between the current and last mention increases, the percentage of full noun increases.¹¹ Conversely, for direct objects, zeroes are the most frequent form for the most salient entities; and as prominence declines, the frequency of full nouns increases.

Figure 2. Percentage of full nouns, pronouns, and zeroes, according to distance from last mention (Subjects vs. Direct Objects).

Another piece of evidence emerges when VARBRUL analyses are performed separately for each syntactic function (see Appendix). Comparing the results of the two runs, we find that several of the constraints which condition the variation between pronouns, full nouns, and zeroes in subject position have no significant effect on the alternation of direct objects.¹² Although animacy and the form of the last mention have the same effect on NPs in both syntactic positions,¹³ the two pragmatic factors that condition the form of subjects do not influence the choice of direct objects: while the probabilities associated with 'lookback' and 'interference' (the number of other referents in the preceding three clauses) are significant for subjects, this is not the case for direct objects.¹⁴ What this means is that the occurrence of anaphoric forms in direct object position is not primarily determined by the salience of the referent, but is conditioned instead by animacy and the form and function of the last mention. Thus these different patterns of variation support the hypothesis that subjects and direct objects in Tok Pisin constitute two separate systems of anaphora.

Finally, when we turn to consider the three types of speakers--current adult pidgin speakers, child creole speakers, and adult pidgin speakers from the 1920s--we find a difference in the distribution of full nouns, pronouns, and zeroes, but, again, only for subjects. Table 5 gives the probabilities associated with each speaker group.

Table 5. The effect of speaker group on the choice of referring expression in Subject position.

Speaker group	Full noun	Pronoun	Zero	N
Adults, 1920s	.29	.36	.35	237
Adults	.32	.26	.42	506
Children	.38	.38	.24	593
(p < .05)				

Children are less likely to use a zero form for subjects than are either group of adult pidgin speakers, and are more likely to use pronominal subjects than the current group of adults.¹⁵ We cannot in good conscience interpret these differences as a loss of subject prodrop in the language, since the adults from the 1920s are less likely to use zero than the current adult pidgin speakers. Nevertheless, we should ask why the creole speakers should prefer pronouns to zeroes. One explanation is suggested by Byrne's Theta-Marking Condition (1987), which predicts that in the 'deepest' creoles, arguments bearing a thematic role will be expressed by overt phonological material,¹⁶ and arguments lacking thematic roles will not be overtly expressed. This theory would predict that the first generation of Tok Pisin creole speakers would use fewer zeroes than pidgin speakers do; and this is, in fact, the pattern we find.¹⁷ However, the Theta-Marking Condition cannot explain why only subjects, and not direct objects, are affected by creolization.

To explain this difference, we must recall that these two positions participate in separate anaphoric subsystems: As we have seen, subjects show variation primarily between full nouns and pronouns, and direct objects alternate between full nouns and zeroes. Thus it would appear that by

preferring pronouns to zeroes in subject position even more than the pidgin speakers do, child creole speakers are attempting to reinforce this division and seem to be further grammaticalizing the difference between these two subsystems of anaphoric variation.

I began by asking whether pragmatic forces do, in fact, exert an enormous pressure on a creolizing pidgin like Tok Pisin. The answer to this question is a qualified 'yes.' The variation between full nouns, pronouns and zeroes in Tok Pisin was found to be strongly conditioned by discourse factors--specifically information status (previously mentioned vs. not previously mentioned) and salience (recently mentioned vs. not recently mentioned). However, pragmatic factors could not account for the variation within the category of 'salient' NPs. For all speakers, what is primarily responsible for the variation within this group are semantic and syntactic constraints. In fact, with regard to the choice of referring expression, we saw that subjects and direct objects appear to belong to separate systems. Moreover, it appears that this division between anaphoric systems is being further grammaticalized by child creole speakers.

These findings suggest that it is wrong to assume that the variation which runs rampant in pidgin and creole languages can be attributed entirely to discourse factors. In this instance we have seen that, when faced with the task of referring to entities which are similarly old, and similarly salient--thus pragmatically 'equal'--speakers of Tok Pisin are not free to use just any referring expression. Their choice between a pronoun and zero is determined, in large part, by the syntax and semantics of the language.¹⁸ And this is, after all, what grammaticalization means: More and more often, variation is resolved not by the context of the discourse, but by the dictates of the grammar.

Appendix

TVARB results

Subjects (textually evoked, only); N = 1341

1. Verb Type ($p < .05$).

	Full noun	Pronoun	Zero	N
Transitive	.28 (14%)	.33 (52%)	.40 (34%)	543
Intransitive	.40 (24%)	.33 (52%)	.28 (24%)	798

2. Lookback--number of clauses back to most recent mention ($p < .05$).

	Full noun	Pronoun	Zero	N
1 clause	.07 (11%)	.23 (54%)	.70 (36%)	956
2 clauses	.33 (33%)	.33 (55%)	.34 (12%)	147
3 clauses	.46 (38%)	.32 (53%)	.22 (7%)	72
4 clauses	.61 (38%)	.26 (54%)	.12 (8%)	24

3. Syntactic function of last mention, one clause back (ns).

	Full noun	Pronoun	Zero	N
Subject conjoined	.27 (7%)	.33 (51%)	.40 (42%)	236
Subject not conjoined	.34 (10%)	.33 (55%)	.33 (35%)	550
Nonsubject	.40 (19%)	.33 (51%)	.27 (30%)	137

4. Form of last mention ($p < .05$).

	Full noun	Pronoun	Zero	N
Full Noun	.41 (34%)	.27 (40%)	.32 (25%)	309
Pronoun	.25 (15%)	.43 (63%)	.32 (22%)	618
Zero	.16 (38%)	.25 (39%)	.60 (50%)	282
1st/2d pro.	.55 (38%)	.25 (51%)	.14 (11%)	79

5. Animacy ($p < .05$).

	Full noun	Pronoun	Zero	N
Animate	.24 (18%)	.46 (54%)	.29 (28%)	1262
Inanimate	.43 (47%)	.22 (23%)	.35 (30%)	77

6. Interference--number of other animate referents in preceding 3 clauses, only animate NPs coded ($p < .05$).

	Full noun	Pronoun	Zero	N
0 referents	.09 (4%)	.41 (62%)	.51 (35%)	314
1 referent	.29 (18%)	.33 (54%)	.38 (28%)	549
2 referents	.37 (27%)	.28 (48%)	.34 (26%)	261
3 referents	.55 (42%)	.30 (47%)	.15 (10%)	59
4+ referents	.51 (27%)	.23 (53%)	.26 (20%)	15

7. Speaker group ($p < .05$).

	Full noun	Pronoun	Zero	N
Adults	.32 (22%)	.26 (42%)	.42 (37%)	506
Children	.38 (19%)	.38 (61%)	.24 (21%)	593
1920 adults	.29 (18%)	.36 (53%)	.35 (29%)	237

Direct Objects (textually evoked only; $n = 395$).

1. Verb type ($p < .05$).

	Full noun	Pronoun	Zero	N
v + -im	.44 (36%)	.30 (16%)	.26 (47%)	316
V + O	.44 (30%)	.22 (7%)	.35 (63%)	30
Ditransitive	.17 (13%)	.49 (27%)	.34 (60%)	45

2. Lookback--number of clauses back to most recent mention (ns).

	Full noun	Pronoun	Zero	N
1 clause	.08 (16%)	.32 (19%)	.60 (65%)	226
2 clauses	.41 (46%)	.17 (12%)	.43 (41%)	56
3 clauses	.43 (50%)	.26 (16%)	.31 (34%)	38

4 clauses	.48 (59%)	.45 (16%)	.08 (18%)	17
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3. Syntactic function of last mention, one clause back
($p < .05$).

	Full noun	Pronoun	Zero	N
D.O. conjoined	.18 (4%)	.32 (8%)	.50 (88%)	219
D.O. not conjoined	.39 (20%)	.33 (14%)	.28 (66%)	95
Non-D.O.	.47 (18%)	.30 (30%)	.23 (51%)	76

4. Form of last mention ($p < .05$).

	Full noun	Pronoun	Zero	N
Full noun	.45 (46%)	.32 (9%)	.24 (45%)	176
Pronoun	.18 (17%)	.55 (40%)	.26 (42%)	92
Zero	.33 (24%)	.25 (7%)	.42 (68%)	94
1st/2d pro.	.38 (22%)	.23 (22%)	.39 (56%)	9

5. Animacy ($p < .05$).

	Full noun	Pronoun	Zero	N
Animate	.21 (25%)	.57 (33%)	.21 (42%)	175
Inanimate	.42 (41%)	.16 (4%)	.42 (56%)	219

6. Interference--number of other animate referents in preceding 3 clauses, only animate NPs coded (ns).

	Full noun	Pronoun	Zero	N
1 referent	.29 (22%)	.39 (34%)	.32 (44%)	80
2 referents	.28 (24%)	.38 (36%)	.33 (40%)	50
3 referents	.43 (40%)	.24 (27%)	.33 (33%)	15

7. Speaker group (ns).

	Full noun	Pronoun	Zero	N
Adults	.38 (36%)	.32 (15%)	.31 (49%)	158
Children	.36 (34%)	.37 (20%)	.28 (46%)	166
1920 adults	.27 (27%)	.30 (13%)	.42 (61%)	71

Notes

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1. Li and Thompson (1979:312) go so far as to argue that the identification of the referents of zero pronouns in Chinese is guided solely by pragmatic factors:

...there are no structural properties predicting the interpretation of the referent for zero pronouns but ...the interpretation of the referent of the unrealized pronoun is inferred on the basis of pragmatic knowledge.

Similarly, Bolinger (1979) shows that many syntactic constraints on pronoun occurrence in English can be overridden by functional considerations.

2. Note that the phrase *wanpela taim* used in this example is an idiom, analogous to *once upon a time*. With regard to *wanpela*, it was found in an earlier study (Sankoff and Mazzie, 1987), that brand-new entities, although (almost) always expressed by a full noun, are accompanied by *wanpela* only 16% of the time.

3. First and second pronouns/zeros were excluded from this analysis mainly because they do not really alternate with full nouns, and also because they hold a peculiar pragmatic status within the discourse (since they involve the discourse participants, they are both situationally evoked and textually evoked at the same time). Interestingly, Parkinson (1987) found for Egyptian Arabic that first- and second-person referents were more often pronominal, and less often zero, than third-person referents. In addition, 3d person NPs which represented the relativized position in relative clauses were also excluded. Although these NPs would be expected to reflect the anaphoric pattern of NPs in main clauses, we cannot assume that this is the case (cf. Tarallo 1983).

4. All tokens were also coded for a kind of switch reference, i.e., whether the last mention occupied the same or a different syntactic position as the token.

5. Li and Thompson (1979) also find that, in Chinese, zero pronouns may be used to refer to 'something not explicitly mentioned in the discourse itself but only inferable from it.'

6. Like English, Tok Pisin permits impersonal, nonspecific subjects:

Em, *ol* i stori olsem.

FOCUS they PRED narrate thus.

'They (impersonal) tell (it) like this/ It goes like this.' (DN-26)

7. Li and Thompson (1979), however, maintain that the interpretation of zero pronouns in Chinese is not affected by the distance between the zero and the last mention of the referent.

8. Although Tok Pisin personal pronouns do not have separate forms to signal differences in gender, a three-way distinction is made in number, between singular (*em*), plural (*ol*), and dual (*tupela*). Impressionistically, it seems that the difference between plural and dual is exploited, allowing the use of pronouns in contexts that otherwise would be ambiguous.

9. The results of a trinomial analysis must be interpreted using .33 as the baseline for determining the favorability of a factor.

10. The difference between subjects of transitives and intransitives might be attributed to something like DuBois' 'Preferred Argument Structure' (1987), which states that the most common--thus most preferred--clause type contains only one lexical (i.e., full noun) argument, and further, that lexical arguments are dispreferred as subjects of transitive clauses. However, whereas DuBois argues that this constraint is tied to another constraint--one against new information being expressed by an NP functioning as the subject of a

transitive verb--here we see that, when information status is kept constant--with all the arguments being equally familiar (but not equally salient), transitive subjects occur most frequently in pronominal (nonlexical) form. From the present results, it would seem that DuBois' PAS is more syntactically than pragmatically determined. 11. The fact that almost one-third of the most salient subjects are zeroes is a reflection of the tendency for subjects with last-mentions in the immediately preceding clause, also occupying subject position, to be zeroes; such a pattern might be called a 'topic chain' (cf. Li and Thompson 1979).

12. In a previous study comparing spoken and written texts in Tok Pisin (Mazzie 1986), I found that the modality difference affected the realization of subjects, but not direct objects: In speech, zeroes in subject position were more frequent and pronouns less frequent than in writing.

13. For both subjects and direct objects, animates are more likely to be pronouns, and inanimates are more likely to be full nouns and zeroes. In the case of the form of the last mention, a priming effect emerges (cf. Weiner and Labov 1983; Estival 1983): If the last mention is a full noun, the current mention is more likely to be a full noun; if it is a pronoun, the current mention will tend to be a pronoun; and if it is zero, the more likely the current mention will be zero.

14. The lack of significance for the effect of 'lookback' on direct objects raises the question of what is responsible for the sharp difference in frequencies shown in Figure 2; the cause cannot be traced to the correlation between syntactic function and animacy, since Figure 2 includes only animate NPs. One reason for the lack of significance might be the relatively small number of direct object tokens (395), as compared with the number of subject tokens (1363).

15. This result is at odds with the findings of Sankoff and Laberge (1973); there, the increased fluency of the child creole speakers led to a higher rate of phonological reduction in the future marker *bai* (*baimbai* → *bai* → *bə*). Here we find less reduction (albeit of a somewhat different kind) for the children than for the adults. Perhaps this should be interpreted as increased redundancy instead (cf. Muhlhausler 1980).

16. Slobin (1985) proposes a similar principle to account for young children's preference for a one-to-one mapping between form and meaning and their reluctance to use contracted forms. The child Tok Pisin speakers here, however, are too old to be affected by this principle as a developmental constraint.

17. To the extent that child creole speakers do appear to be following this constraint, Tok Pisin must be considered a fairly 'deep' creole, contra Bickerton (1984).

18. Parkinson (1987) comes to somewhat the same conclusion for Egyptian Arabic, where in addition to pragmatic factors like Givón's 'lookback' structural factors such as predicate and clause type condition the variation between zeroes and pronouns in subject position.

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THE EMERGENCE OF THE FLORENTINE > ITALIAN LANGUAGE

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Confronted with a difficult problem (Italian dialects, what are they?), Vittore Pisani (1970:54-55) stated that there is no isogloss common to all contemporary Italian dialects. A quasi-common isogloss is in his opinion the one defined by outcomes of the clusters /pl/, /bl/, /fl/, /kl/, /gl/. Seven centuries ago the same criterion obviously did not work and Italianists were compelled to postulate a second Italo-Romance language, i.e. Upper Italian. In doing so, they ignored the fact that 'exceptions' concerning the mentioned clusters are also to be found in Abruzzi.

If we define Italian dialects as 'native idioms of speakers employing the Italian standard language in public life,' we find ourselves in a vicious circle which is at once too narrow (Corsicans, who are they?) and too broad (Are not Sardinian, Raeto-Romance, and Friulian 'autonomous' languages?).

It is notoriously easier to define and describe a standard language (or, as Heinz Kloss prefers, an *ausbau* language (*langue par élaboration*), cf. Kloss 1967, 1978, 1987) than a diasystem enjoying language status (an *abstand* language (*langue par distanciation*)). A fascinating parallelism can be found elsewhere. Modern physics realized that it was exceedingly difficult to define matter. The solution seemed to be to reverse the problem: Instead of taking matter as prime, why not take energy itself as prime and define matter on the basis of its forms of existence? This change in perspective led to the discovery of new scientific objects (electrons, protons, neutrons, etc.). These are not positive entities in the old sense, but products of a field of force. Structural linguistics created similar objects. Like an electron, a phoneme is a node in a network of relations and like an electron it does not exist independently of these relations (cf. Culler 1976:126). The analogy is in my opinion still stronger. Like phonemes, dialects do not exist independently but as components of a field of force whose core and motor is always an *ausbau* language, a Klossian term which does not in any case denote a modern full-fledged standard language. It embraces all types of common languages, i.e., medieval koinai, 'adjustment languages' (Germ. *Ausgleichssprachen*) in colonized territories (cf. the medieval situation in Upper Saxony or Sicily), the Renaissance literary languages (Germ. *Schriftsprachen*), and the modern standard languages (which can be incipient, or partially or fully developed; cf. Muljačić 1985b).

Referring to my research of the last decade, Kloss entitled a paragraph of a posthumous article *Das werdende Muljačić-Modell* ('The Muljačić Model in the Making') and described its status in October 1985 (Kloss 1987:307). This model is now finished and well rounded after a series of applications in the Romance field (cf. Muljačić 1986a, 1986b, 1986c, 1988, 1989). It goes without saying that my model owes much to my critical analysis of certain classical works of the comparative 'standardology' (Germ. *Ausbaukomparatistik*, a term coined by Harald Haarmann; cf. Haarmann 1979). I have pressed some of their metaphors, thoughts, and conclusions to their extreme consequences.

Unfortunately, in this context I can only mention in passing some particularly important items, for example:

- (1) the 'roof' metaphor ('roofless dialects,' 'covered dialects,' 'roofing languages,' 'overarching languages') and specifically the Carolingian Latin 'roof' (Muljačić 1986b), the Greek 'roof' (Fanciullo 1985), the Arabic 'roof,' etc.,
- (2) the 'planetary' metaphor (cf. Goossens 1985 and my critical observations, Muljačić 1989);
- (3) the leopard pelt metaphor (Värvaro 1982), whose dynamic dimension was elucidated by the present author (Muljačić 1986b, 1986c);
- (4) the *ausbau* paradox (cf. Muljačić 1986a);
- (5) the opposition 'structural dialects' versus 'functional dialects' (Montes Giraldo 1984, 1986).

The last three findings integrate the metaphors (1) and (2) into a new one, the 'nuclear' relativist metaphor. The discrepancy between the static 'roof' and the dynamic 'sun' has been thereby eliminated (cf. Muljačić 1989).

Let me outline some theoretical acquisitions and their practical applications, based on the quoted cues:

(1) One idiom can simultaneously be a language and a *dialecto por subordinación* (I prefer to this long term of Montes Giraldo a graphic expedient: the term 'dialect' in quotation marks: 'dialect') of a 'foreign' *ausbau* language if numerous speakers of it perform *volentes nolentes* a substantial percentage of their speech acts more or less badly in the respective hegemonic language. An example: Venetian, once a 'brother' language of Florentine > Italian has become first a 'dialect' of this *ausbau* language and eventually a dialect of the Italian *abstand* language (Muljačić 1985a, 1988). Languages with dialects covered by different 'roofing languages' are also possible (e.g., Basque).

(2) An entire subposed idiom can simultaneously be covered by more than one 'roofing language' (i.e., by a 'composite heterogeneous roof'). Cf. seventeenth-century Piedmontese under the impact of 'milanese illustre' and the Florentine > Italian (Clivio 1976:94-96). The same state of affairs can *mutatis mutandis* be observed in the triad: Italian/Venetian/Friulian. The superposed idioms thwarted any tendency that may have existed toward the establishment or consolidation of the dialects' own standard form.

(3) In a word, an *ausbau* language 'creates' its dialectal 'landscape' and not vice versa (cf. the title of Muljačić 1986c). Saussure saw it as he wrote: 'L'unité linguistique peut être détruite quand un idiome naturel subit l'influence d'une langue littéraire' (Saussure [1916] 1955:267).¹ The continuity whose unity was destroyed after 'hour zero' belonged to West Continental Romance and not to the known series of traditional Romance languages. The polynomy (i.e., the plurality of *ausbau* languages) of Italy began to end with the first Italian monomy in the Baroque.² Despite traditional opinions, Old Florentine was not a dialect of (still nonexistent) Italian but a language which superseded Latin in almost all its functions and ousted the rival vernacular languages of Italy ('i volgari d'Italia')³ little by little in their territories from different spheres of written and oral communication, in literary and in nonliterary texts. At the very beginning it was only one of many 'competitors' and, what is more important, it was not at the outset the most powerful one, even in Tuscany (cf. Schiaffini 1954:xxxviiff.). During its implementation and further elaboration (for these terms cf. Haugen 1983), Florentine created and acquired many new elements and these enrichments altered it by comparison to its primeval form. For the results of similar processes H. Kloss coined a new term: *reshapedness* (Kloss 1967:29). Many of these elements came from languages with which Florentine has come into contact in Florence, Tuscany, and the rest of Italy. It is advisable to use different prepositions for different phases of its expansion and regional differentiation: *il fiorentino/l'italiano nel Veneto* versus *del Veneto*. I fully support the Saussurean description of these events (Saussure 1955:268) but cannot agree with his use of the term 'dialect'.⁴

(4) The view hinted at above denies the uniqueness of the so-called 'Questione della lingua.' Every 'volgare d'Italia' can vaunt its own 'Questione della lingua,' particularly in the phase characterized by the struggle against Latin (and/or another 'foreign' 'roofing language'). For these now forgotten battles, cf. Stussi 1982:29-60.

(5) As Krefeld (1988) recently stressed, the making of Italian was, so to speak, a functional concretion of many diasystems.⁵

Let me summarize some general conclusions. Fusion is more important than fission (Pisani 1952, 1959; Sanga 1985). Even fission is conditioned by an 'intralinguistic' or an 'interlinguistic' fusion, the separation being only a reverse of the unification.⁶

Though the ideas discussed here have to date met with no appreciable response (the only exceptions are Blasco Ferrer, who partially misunderstood me (1986:15ff.),⁷ and Kloss (1987), who was not acquainted with my most recent articles), I am hoping that the young generation of Romance linguists will utilize them. The case is therefore strong for a new nontraditional vision of the emergence of Romance languages, not only of Italian. The only caveat is: Whereas only some atoms are radioactive, almost all 'healthy' languages are 'glottoactive,' every one in its specific and unique manner. A watertight 'rule' for their study does not exist.

Notes

1. In giving examples, Saussure failed to see that Francien and Tuscan were languages which subordinated other languages and 'dialectalized' or 'near-dialectalized' them.

2. It is not a mere coincidence that the first documentary evidence of the adjective *italiano* in the meaning 'belonging to the language of Italy' is relatively late (in a text of Leonardo da Vinci). Cf. GDLI 8, INI-LIBB (1973:626).

3. F. Bruni (1984:23-24) writes without 'ifs' or 'buts': 'Non esiste nel '200 una lingua italiana, ma tanti volgari quanti sono i centri culturali più importanti, che elaborano una tradizione scrittoria (letteraria e documentaria) che non può non risentire, accanto all'influsso del latino, dell'idioma locale. Questi volgari così differenziati nel periodo delle origini non si possono valutare come dialettali, perché il dialetto si definisce in rapporto e in contrasto con la lingua e una lingua comune prevarrà solo nel Cinquecento, quando pure si potrà distinguere una letteratura dialettale.'

4. Saussure (1955:268) emphasizes the nonidentity of the 'same' idiom before and after its 'promotion': 'Une fois promu au rang de langue officielle et commune, le dialecte privilégié reste rarement tel qu'il était auparavant. Il s'y mêle des éléments dialectaux d'autres régions; il devient de plus en plus composite, sans cependant perdre tout à fait son caractère originel: ainsi dans le français littéraire on reconnaît bien le dialecte de l'Ile-de-France et le toscan dans l'italien commun.' In my opinion, one must not forget that the different 'names' (for example, Castilian versus Spanish) are not fortuitous. I recommend their correct use in linguistic works with due respect for the emotions in former overseas and European 'colonies,' responsible for the preference accorded to the former term in juridical documents, constitutions, and similar texts.

5. I wish to thank my young colleague at the University of Mayence for having put at my disposal his forthcoming text, in which he remarks: '...Wir wollen...ausdrücklich kein genetisch begründetes, ganz Italien umfassendes italaromanisches Diasystem implizieren (cf. Pellegrini 1973:45). Die Annahme eines einzigen intern gerechtfertigten Diasystems beinhaltet auch eine *petitio principii*: gerade die Überdachung, d.h. die Unterordnung unter eine mit grösserem politischem Prestige ausgestattete Kultursprache ist ein wesentliches Kriterium, um verwandte Mundarten gegebenenfalls voneinander abzusetzen und verschiedenen Diasystemen zuzuordnen (cf. Kramer 1987). In diesem Sinn lässt sich die italienische Sprachgeschichte gewissermassen als das funktionelle Zusammenwachsen mehrerer Diasysteme verstehen. Entsprechend ist die Umverteilung der kommunikativen Aufgaben zwischen *vernacoli* und der alten bzw. neuen Dachsprache geeignet, in der historisch kontinuierlichen Herausbildung der heutigen Sprachsituation Italiens Epochen deutlich werden zu lassen...' (provisional columns 114-114a).

6. Every divergence is by definition motivated by a convergence but not every divergence ends with the constitution of a new language. It can have as consequence the shrinking of an already existing language and the augmentation of a 'homofamiliar' (sometimes, when there is enough time, of

a 'heterofamiliar') language. The relativist model has as constitutional components not only a field of force but also the categories of time and space.

7. Cf. my review of his book in *Italianisch* 10:19 (May 1988).

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VARIATION IN SPANISH CLITIC CLIMBING

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0. Introduction. Variation and grammaticalization. Grammaticalization, the diachronic process through which independent lexical items develop into grammatical morphemes, has been receiving increasing attention from linguists recently. Research such as Givón 1971, Traugott 1972, Heine and Reh 1984, and Bybee and Pagliuca 1987 has shown that there are consistent patterns in the relationship between grammatical morphemes and the lexical items from which they historically develop. For example, we now know that future markers commonly develop from verbs of desire and motion, as in English where the auxiliary *will* was previously a verb meaning *want* and the verb *go* is frequently used with future meaning. Similarly, verbs marking root modality commonly turn into more grammaticalized markers of epistemic modality, as with English *must* (Traugott 1972).

These studies determining the beginning and endpoints of grammaticalization have been invaluable to our understanding of this process, and it is now clear that grammaticalization proceeds along fairly well-defined paths from lexical form and meaning to grammatical form and meaning. A reasonable direction for research to take from here is toward describing in detail the nature of these paths. Grammaticalization processes clearly do not take place overnight. Rather, the originally lexical meaning undergoes a series of abstractions which finally results in a grammaticalized meaning, at the same time as a series of syntactic and later morphological processes operate, so as to turn what was once a word into a grammatical morpheme. In order to understand how this happens, it is necessary to do detailed synchronic studies of grammaticalization processes in progress, at a stage when the same morpheme may appear both as a full lexical item and in a more grammaticalized form.

In the past twenty-five years, linguists have developed quantitative techniques which make it possible to describe synchronic variation with some precision (Sankoff and Labov 1979, Sankoff 1980). These techniques have for the most part been applied to the study of sociolinguistic and phonological phenomena; however, they can also be applied to the study of grammaticalization in order to provide a precise synchronic description of a given stage in this process (as in Kroch, Myhill, and Pintzuk 1982).

In the present paper I use quantitative techniques to examine in detail a synchronic grammaticalization process in Spanish. A productive syntactic process in this language brings about an alternation between phonologically

identical forms so that they are syntactically verbs in some situations and syntactically auxiliaries in others. Auxiliarization is not obligatory for any verb and so none of the verbs/auxiliaries in question is entirely grammaticalized; there is similarly no phonological reduction of the auxiliary, which would be another sign of an advanced stage in a diachronic grammaticalization process. Different Spanish verbs/auxiliaries show varying degrees of grammaticalization. For some, auxiliarization is relatively rare, and the auxiliary forms are used only in specific contexts. Nevertheless, the semantic abstractions associated with the auxiliarization of these verbs are the first stages in the development of grammaticalized meaning (although it is not necessarily the case that this development will go through to completion). For other verbs, auxiliarization occurs 75% of the time or more and the meaning associated with the auxiliary use is one which is typically expressed grammatically in the languages of the world (e.g., future tense or progressive aspect). For these verbs, main verb usage survives only in a few conservative environments.

The alternation is exemplified in (1) and (2).

- (1) Voy a verLO.
 I-go to see-him
 'I'm going to see him.'
- (2) LO voy a ver.
 him I-go to see
 'I'm going to see him.'

Constructions showing this alternation have the following characteristics: there must be a finite verb (here *voy*) with a nonfinite verbal complement (here *ver*) and the nonfinite verb must have a clitic pronoun as a direct or indirect object (here *lo*; in examples in this paper I put clitic pronouns in capitals whenever their position is important to a point I am making). In this case, the clitic may attach either after the nonfinite verb (as in (1)) or before the finite verb (as in (2)). The construction exemplified in (2) has been referred to as 'Clitic Climbing' (hereafter CC) (Napoli 1981).

Clitic pronouns normally occur before finite verbs in Spanish; this is illustrated in (3) and (4).

- (3) LO veo.
 him I-see
 'I see him.'
- (4) *VéoLO.

Aissen and Perlmutter 1976 use this and other facts to demonstrate that the derivation of sentences like (2) involves a clause reduction process; the finite verb is turned into an auxiliary, the nonfinite verb becomes the main verb of the higher (and now only) clause, and the clitic is accordingly placed before this complex.¹ Technically, then, there is no clitic movement at all, since at no point in the derivation of sentences like (2) does the clitic follow the nonfinite verb; however, because the term Clitic Climbing has traditionally

been used in reference to this construction, and for the sake of expository convenience, I continue to use the term CC in referring to such constructions.

Because the finite verb is a main verb in constructions like (1) and an auxiliary in constructions like (2), there is some meaning difference between these two constructions, and the main purpose of this paper is to describe what that difference is. This is important to the study of grammaticalization because it will give us some idea of how meaning is associated with synchronic grammaticalization. My analysis is based on a data-base of 851 tokens taken from modern Spanish prose where CC could have taken place (a list of the data sources used is given in the appendix).² Section 1 describes in detail the semantic properties of the verbs involved which affect whether or not CC occurs in a given instance.³ I show that there are clear statistical trends relating certain meanings of the finite verb to CC constructions and other meanings of the finite verb to non-CC constructions. However, these trends are not categorical. This is because there is another factor which strongly influences whether or not CC is used, namely, the pragmatic characteristics of the subject and the clitic; section 2 discusses the effect of this factor. In each environment where CC can be used, the semantic properties of the verb and the pragmatic properties of the subject and clitic interact to determine which form is used. There is therefore no perfect correlation between any single objectively definable meaning and the use or nonuse of the CC construction.

The difference in meaning between CC constructions and non-CC constructions is quite difficult to state in concrete terms, because it rarely if ever involves a change in truth conditions. In some cases, the meaning difference is fairly clear, or is at least fairly clear to some speakers, so that speakers may report that in a certain environment CC cannot be used while in another CC must be used. In other cases (I believe the great majority), the meaning distinction is much more subtle and speakers report that either may be used. It is my contention that even in cases where native speakers may report that either form may be used, there is a distinction in meaning, although not one which is necessarily directly accessible to the intuitions of all speakers. The evidence for this distinction is that (as I will demonstrate) there is a quantitative correlation between the use of each form and a certain objectively definable meaning; if the forms were truly interchangeable, this would not be the case.

There is a parallel here in phonology and phonetics with the case of near-mergers of phonemes (Labov, Yeager, and Steiner 1972). In a number of well-documented cases (e.g., *merry* and *Murray* in Philadelphia, *loin* and *line* in Norwich, England), native speakers have consistently distinguished two phonemes in their production but nevertheless reported that they pronounced them identically and in fact could not consistently distinguish them in terms of perception in tape-recorded speech samples. In order to demonstrate that the phonological distinction was present, Labov, Yeager, and Steiner had to analyze the speech data instrumentally rather than relying on the intuitions of native speakers. In this paper I am doing the same sort of thing with a semantic distinction (between CC and non-CC forms) which in some cases is too subtle for native speakers to accurately describe--but quantitative data show that they produce this distinction quite consistently.

1. The effect of the finite verb. The semantic properties of the finite verb have a strong effect on the likelihood of CC. There are a number of verbs which do not allow CC at all; (5)-(8) show examples of these.

- (5) Insisto en hacerLO.
I-insist on doing-it
'I insist on doing it.'
- (6) *LO insisto en hacer.
- (7) Muero por conocerLA
I-die for meet-her
'I'm dying to meet her.'
- (8) *LA muero por conocer.

Aissen and Perlmutter 1976 give a more extensive list of the verbs allowing and not allowing CC. Of the verbs which do allow CC, the text frequency of CC varies widely. This is shown in Table 1.

Table 1. Frequency of CC with different finite verbs.

	CC	non-CC	CC%
estar 'be'	75	9	89%
ir (a) 'go'	136	45	75%
andar 'walk'	5	2	71%
haber (de) 'have'	14	7	67%
seguir 'continue'	8	14	36%
volver (a) 'return'	24	5	32%
venir (a) 'come'	10	21	32%
poder 'can'	33	145	19%
querer 'want'	12	78	15%
tener (que) 'have to'	7	39	15%
deber 'must'	7	55	11%
empezar (a) 'begin'	3	29	9%
tratar (de) 'try'	2	26	7%
comezar (a) 'begin'	1	13	7%
acabar (de) 'finish'	1	15	6%

The meanings represented in the glosses here are, of course, only approximate. For each verb, some semantic interpretations are associated with CC constructions and others are associated with non-CC constructions; the latter are generally close to the verb's basic meaning, while the former are in some sense an abstraction of it. The more frequently a given verb uses CC, the more the meaning of the auxiliary is of the type we normally associate with grammatical morphemes. Thus *estar*, *ir*, and *andar* (the three verbs having CC the most frequently) convey meanings of progressive and future when CC is used; for these verbs, the grammaticalization process has progressed quite far.

For other verbs, on the other hand, CC is rare and, when it does occur, it has a more specialized meaning.

Each verb/auxiliary, then, has a more grammaticalized meaning, which is likely to be represented by the auxiliary, and a less grammaticalized meaning, which is likely to be represented by the verb. The remainder of this section describes the semantic factors affecting the choice of a CC construction or a non-CC construction for a number of the verbs listed in Table 1.

1.1 Modals. There are five different verbs with modal meaning among the words I looked at, *querer* 'want', *poder* 'can', *deber* 'must' or 'should', *tener (que)* 'have to', and *haber (de)*, 'must' (epistemic) (as will become apparent in this section, these words can be used in a variety of contexts not directly corresponding to any particular single English word, so that the English glosses I give are only loose approximations). This section discusses in some detail the factors affecting the choice of whether or not CC is used in a given situation involving these verbs. We can make the general observation that the farther these words drift from their original meaning and toward a more abstract meaning, the more likely CC is.

1.1.1 *deber*. Studies such as Traugott 1972 and Bybee 1985 have shown that there is a close connection between epistemic possibility and root obligation, with the former associated with more grammaticalized expression and the latter with more lexical expression. For example, in English, *must* originally was a verb expressing root obligation; in the course of time, it has become an auxiliary and its meaning is now largely restricted to epistemic modality.

We find a similar pattern in Spanish. *Deber* can have the meaning of epistemic possibility or root obligation; when it has the meaning of obligation, it is almost categorically represented as a verb in a non-CC construction, while with epistemic meaning it is relatively likely to function as an auxiliary in a CC construction. This is shown in Table 2.⁴

Table 2. Likelihood of CC with *deber*.

	CC	non-CC	CC%
Epistemic possibility	4	9	31%
Obligation	1	42	2%

Examples (9) and (10) illustrate this pattern. In (9) *debes* has epistemic meaning and the clitic *te* is climbed, while in (10), *debí* has root meaning and the clitic *te* is not climbed.

- (9) Tú TE debes acordar de él, pues fuimos
compañeros de escuela y lo conociste como yo.
you you must remember of him because we-were companions of
school and him you-knew like I
'You must surely remember him, because we were
schoolmates and you knew him as well as I
did.' (Rulfo 1953:111)

- (10) 'Debí haberTE comprado el sofá.'
 I-should have-you bought the sofa
 'I should have bought you the sofa.'
 (Fuentes 1962:214)

1.1.2 *poder*. The basic meaning of *poder* is that of ability, and in this case, CC is extremely rare. *Poder* may also have the meaning of root possibility, in which case CC is much more common. This is shown in Table 3.

Table 3. Likelihood of CC with *poder*.

	CC	non-CC	CC%
Possibility	18	32	36%
Ability	3	73	4%

This pattern is illustrated in (11) and (12). In (11), *poder* has the meaning of possibility and the clitic *le* is climbed, while in (12) it has the basic meaning of ability and there is no CC.

- (11) ...un ataque LE puede venir a un viejo de mi
 edad...
 an attack him can come to an old-man of my
 age
 'It's possible for an old man like me to have an
 attack...' (lit. 'an attack can come to-him...')
 (Fuentes 1962:223)

- (12) ...y ni siquiera sé cómo pude subirME
 al caballo...
 and not even I-know how I-could raise-myself
 on-the horse
 '...and I don't even know how I managed to get
 on the horse...' (Fuentes 1962:300)

1.1.3 *querer*. In general, *querer* has the same meaning as *want*, and in this situation CC is almost never used. However, *querer* may also be used in another situation where *want* is not normally used; this is when there is an antagonistic relationship between the referents of the subject and the clitic, and the subject attempts to do something against the will of the referent of the clitic. Table 4 shows that in this case, CC is used.

This pattern is illustrated in (13)-(16). In (13) and (14), the subject is attempting to do something hostile to the referent of the clitic and the clitic is climbed. It will be noted that in these cases it is awkward to translate *querer* as *want*; a better translation would be *try*. On the other hand, in (15) and (16) there is no conflict between the referents of the subject and the clitic, the clitic is not climbed, and *querer* is most naturally translated as *want*.

Table 4. Likelihood of CC when finite verb is *querer*.

	CC	non-CC	CC%
Antagonism	5	0	100%
No antagonism	2	56	3%

(13)...se puso a gritar otra vez: ¡Exacto! ¡Exacto!, con unos chillidos que se oían hasta la calle. Y cuando LO quisieron callar, sacó la pistola y...

...he-began to shout again: exactly exactly with some shrieks that (reflex.) heard until the street and when him they-tried-to-shut-up he-took-out the pistol and

'...he began to shout "Exactly! Exactly!", with shrieks that you could hear out in the street. And when they tried to shut him up, he took out his pistol and...' (Rulfo 1953:140)

(14)Y nosotros nos sentamos sobre las trancas para no dejar salir a los toreros, que corrían muy fuerte en cuanto veían el verduguillo con que LOS quería cornear Pedro Zamora.

and we us sat on the crossbars for not let exit the bullfighters who they-ran very hard when they-saw the sword with which THEM was-trying-to-poke Pedro Zamora.

'And we sat on the crossbars so as not to let out the bullfighters, who were running around really fast because they saw the sword Pedro Zamora was trying to poke them with.' (Rulfo 1953:75)

(15)Ella sonrió y él también y él le dijo que quería despeinarLA y besarla y ella se adelantó...

she smiled and he too and he her said that he-wanted tangle-hair her and kiss-her and she (reflex.) advanced

'She smiled and he did too and he told her he wanted to run his hands through her hair and kiss her and she moved closer to him...' (Fuentes 1962:239)

(16) 'Ahora si ya salió la luna.'

'¿Quieres verLA? Si te apoyas en mis hombros, puedes alcanzar...'

now yes came-out the moon

you-want look-at-it if you you-lean on my shoulders you-can get

"The moon's come out"

"Do you want to look at it? If you get on my shoulders, you can..."

(Fuentes 1962:193)

The use of *querer* as an auxiliary can be seen as conveying a type of conative meaning, in which an action is expressed as attempted rather than completed. In some languages, this difference may be expressed grammatically, as for example in Russian *on ugovarival menja, no ne ugovoril* 'He persuaded (Imperfective) me, but he didn't persuade (Perfective) me' or 'He tried to persuade me, but he didn't' (Comrie 1976). Here the use of the

Imperfective conveys a meaning which would best be translated into English as *try*.⁵

If we treat auxiliary *querer* as having conative meaning, we are then confronted with the question of why it is so likely to occur specifically in clauses where there is some sort of conflict involved, rather than in any clause with conative meaning. I have no entirely satisfactory answer to this question at the moment; the most likely possibility is that archetypical conativity involves antagonism and resistance, so that conative meaning would first be expressed grammatically in this environment.

1.1.4 tener. CC occurred seven out of forty-six times when the finite verb was *tener (que)*, which indicates obligation. Six of the seven cases of CC were very similar in meaning: a person was forced to take an action resulting in permanent separation from someone (four cases involved moving away to live somewhere else, and the other two cases involved abandoning a child). Table 7 shows that there was an overwhelming statistical tendency to use CC with *tener* if and only if this meaning was conveyed.

Table 5. Likelihood of CC with *tener*.

	CC	non-CC	CC%
Forced separation	6	0	100%
Other	1	39	3%

This is illustrated in (17).

(17) 'Si Lunero se va, ¿ya sabrás hacer todas las cosas?'

El niño dejó de girar las ruedas de fierro.

¿Si Lunero se va?'

'Si SE tiene que ir.'

if Lunero leave know do all the things

the boy stopped of turn the wheel of iron

if leaves

if (reflex.) has-to go

"If Lunero leaves, do you know how to handle things?"

The boy stopped turning the iron wheel.

"If Lunero leaves?"

"If he has to leave." (Fuentes 1962:283)

The first speaker is Lunero, a man who has been living with the child; he may have to move away from the area because the federal police are looking for him, and he uses the CC construction *se tiene que ir* when talking about this.

Now compare this with (18), where *tener* is used four times in non-CC constructions with no meaning of separation.

(18)...yo no tuve que gritarLES a ustedes, yo no tuve
que emborracharME para asustarlas, yo no tuve que
golpearLAS para imponerme, yo no tuve que

humillarME para rogarles su cariño...
 I not had shout-you at you-all I not had
 get-drunk-me to scare-you I not had
 hit-you to impose-me I not had
 humiliate-me to ask-you your affection
 'I didn't have to shout at you, I didn't have to get
 drunk to scare you, I didn't have to hit you to
 impose myself, I didn't have to humiliate myself
 to ask for your affection...' (Fuentes 1962:120-21)

The range of meanings used in CC constructions with *tener (que)* in the data-base is strikingly narrow; I do not mean to suggest that CC with this verb is restricted to this environment and it does not seem plausible to suggest that the 'meaning' of CC in constructions with *tener (que)* is enforced separation. It will be necessary to gather many more tokens before a more general (and hence more plausible) characterization may be given to this usage of CC.

1.1.5 haber. There is an extremely strong tendency to use CC for *haber (de)* in the present but not the past. This is shown in Table 6.

Table 6. Likelihood of CC with *haber (de)*.

	CC	non-CC	CCC
Present	14	2	88%
Past	0	5	0%

This is related to the fact that there is a difference in meaning between the present and the past. In the present, *haber (de)* has the meaning of epistemic possibility; this is exemplified in (19).

- (19) ...SE ha de sentir sabroso ayudarle a Dios a acabar
 con esos hijos del mal.
 (reflex.) has of feel good help to God to finish
 with those children of-the bad
 '...it must feel good to help God do away with those
 bastards.' (Rulfo 1953:42)

In the past, on the other hand, it has the meaning of future-of-the-past, as in (20):

- (20) 'No quiero flores en mi entierro', me dijo, sin
 pensar que yo había de ocuparME al día siguiente
 de que no las hubiera.
 not I-want flowers in my burial me he-said without
 think that I had of occupy-me on-the day next
 of that not them were
 "I don't want flowers at my burial", he said to me,
 without knowing that I would be occupied the next
 day making sure that there wouldn't be.'

(García Márquez 1981:69)

It is not entirely clear why the meaning of epistemic possibility should be more grammaticalized than the meaning of future-of-the-past. The most likely explanation is that *haber (de)* in the past is an absolute statement that the event took place--it is not stated in terms of tendencies, intentions, or predictions at the reference time. In fact, the future-of-the-past event may be totally unexpected, as is the case in (20), in which none of the characters had any way of knowing that the person in question was going to die in the immediate future. In some sense, the viewpoint in this case is the present, at which time it is known that the event definitely took place.

This may be contrasted with the use of *ir (a)* 'go' in the past as a future-of-the-past, where the projection of the event is based on the state of affairs at the reference time in the past; this projection may be attributed to someone's intentions or someone's prediction of the likely course of future events based on the evidence available at the time. In this case, the clitic is climbed 79% of the time (N=33). Similarly, when *haber (de)* is used in the present, this also projects an event or state on the basis of current appearances and again CC is usual. In some sense, *haber (de)* in the past is not a projection at all but a statement of a past action (which just happens to be later than the reference time); the meaning is therefore more concrete and CC is not used.

1.2 Motion verbs. There are two directional motion verbs listed in Table 1, *ir* 'go' and *venir* 'come', which can be used either in their literal meaning or in constructions with more grammaticalized meaning. CC is associated with the latter meaning.

1.2.1 *ir*. *Ir* has three different usages: when followed by the preposition *a* and the infinitive, it can keep its original meaning of motion or it can have future meaning. When it is followed by a present participle, it forms a progressive. Table 7 shows that CC is far less common when *ir* has its original meaning.

This is exemplified in (21) and (22). In (21), *vas* (a form of *ir*) has future meaning, and so the clitic *la* is climbed. In (22), the general has put so much food on the table that he is unable to fit even the saltshaker on it; *fui* (another form of *ir*) in the fourth line has the literal meaning of motion, and so the clitic *le* is not climbed. On the other hand, when the progressive construction with *ir* is used in the tenth line, the clitic *se* is climbed.

Table 7. Likelihood of CC with *ir* as the finite verb.

	CC	non-CC	CC%
Progressive	44	7	86%
Future	88	28	76%
Motion	4	10	29%

(21) 'Pero si hasta tú sabes que nunca LA vas a tocar'.
but if even you know that never it you-will touch

"But even you know that you're never going to touch it." (Fuentes 1962:116)

(22)...tan llena que hasta ya no cabía ni el salero que el tenía en la mano y cuando lo desocupaba se lo metía en la bolsa de la camisa. Hasta yo fui a decirLE; '¿no gusta sal, mi general?', y él me enseñó riendo el salero que tenía en la bolsa de la camisa, por eso me di cuenta. Lo grande estuvo cuando él comenzó a hablar. Se nos enchinó el pellejo a todos de la pura emoción. SE fue enderezando, despacio, muy despacio, hasta que lo vimos echar la silla hacia atrás con el pie...

...so full that even not fit even the saltshaker that he had in the hand and when it he-took-off him it he-put in the pocket of the shirt even I went to say-him not like salt my general and he showed laughing the saltshaker that he-had in the pocket of the shirt for that me realize the great was when he began to speak (reflex.) us creak the skin to all of the pure emotion (reflex.) went rising slowly very slowly until that him we-saw throw the chair towards back with the foot

'...(the table was) so full that even the saltshaker he had in his hand couldn't fit on it and when he took it off he put it in his shirt pocket. I even went over to say to him "Don't you like salt, General?", and he smiled and showed me the saltshaker in his shirt pocket, that's how I knew. The most incredible thing was when he began to speak. It made our skin crawl. He rose up, slowly, very slowly, until we saw him throw his chair back with his foot... (Rulfo 1953:138)

It will be noted that the progressive construction with *ir* still has some meaning of motion, and this is quite common; nevertheless, there is an extremely strong tendency to use CC in this case (the same is true of the progressive construction with *venir* 'come'). Apparently, the tendency to grammaticalize progressive meaning is so strong that it happens even when the verb retains its lexical meaning. Another possibility is that the motion verb is being reanalyzed not as an auxiliary of the type found in languages like English but rather as a directional--in this case it could keep some of its lexical meaning while losing its status as a main verb.

1.2.2 *venir*. CC is similarly much more common with *venir* when it is used with the present participle in progressive constructions than when it has its basic meaning of 'come'. This is shown in Table 8.

Table 8. Likelihood of CC with *venir*.

	CC	non-CC	CC%
Progressive	5	18	3%
Motion	5	20	20%

This is exemplified in (23) and (24). Example (23) is a progressive construction and the clitic *me* is climbed. In (24), on the other hand, *vendría* has the meaning of 'come' and so the clitic *me* does not climb.

- (23) Los Torricos ME venían siguiendo.
 the Torricos me came following
 'The Torricos came following me.' (Rulfo 1953:23)
- (24) 'Le dijo al Padre que vendría a verME
 hoy mismo.'
 him he-said to-the father that he-would-come to see-me today
 "He said to the father that he would come to see me today."
 (Fuentes 1962:48)

Note that *venir* in (23) retains much of its lexical meaning even though there is CC (see the discussion in section 1.2.1).

1.3 *estar*. The most common way to express progressive meaning in Spanish is with *estar* 'be' followed by the present participle. CC is extremely common in this construction, as it is in all progressive constructions. This is shown in Table 9.

Even with *estar*, however, there is an environment where CC is disfavored, namely, when there is a locative prepositional phrase following the verb. Table 10 shows this.

Table 9. Likelihood of CC in progressive constructions.

	CC	non-CC	CC%
estar	75	9	89%
ir	44	7	86%
venir	5	1	83%
andar	5	2	71%

Example (25) shows this pattern.

- (25) ...porque toda la cosecha de cebada estaba asoleándose en el
 solar
 because all the harvest of barley was

lying-in-the-sun in the yard
 '...because the whole barley harvest was
 lying in the sun in the yard.'
 (Rulfo 1953:29)

Table 10. Likelihood of CC with *estar*.

	CC	non-CC	CC%
Locative PP after	3	5	38%
Other	72	4	95%

The basic meaning of *estar* is *be*, and when it takes a locative prepositional phrase as a complement it is used in expressions of location, as in *Estaba en la casa* 'I was in the house'. This interpretation is possible in constructions like (25) (e.g., *The barley harvest was in the yard lying in the sun*) so that *estar* is closer to its original meaning and CC is disfavored in such constructions. This may be contrasted with the situation in (26).

- (26) 'ME estoy cansando.'
 me I-am tiring
 "I'm getting tired." (Fuentes 1962:219)

Here there is no locative prepositional phrase and so *estar* has an entirely progressive rather than locative meaning and CC is used.

1.4 *volver*. *Volver* 'return' may be used with nonfinite complements with the meaning 'do again.' Even in cases where it has this meaning, it conserves more of its verbal meaning of motion when its nonfinite complement is a motion verb, and therefore CC is less common in this case. This can be seen in Table 11.

Table 11. Likelihood of CC with *volver*.

	CC	non-CC	CC%
Motion verb	4	20	17%
Nonmotion verb	20	30	40%

An example of this is given in (27).

- (27) Ah, el lunes todo terminaría, no LA volvería a ver,
 no volvería a buscarLA a oscuras...
 the Monday all would-end not her return to see
 not return to search-for-her in dark
 'On Monday everything would end, he wouldn't see her again, he
 wouldn't look around for her in the
 dark again...' (Fuentes 1962:159)

When the nonfinite verb is *ver* 'see', *volver* loses all of its lexical meaning; it becomes an auxiliary and the pronoun *la* is climbed. On the other hand, when the nonfinite verb is *buscar*, which involves motion, more of the original meaning of motion is conserved and there is no CC.

1.5 *seguir*. - When followed by the present participle, *seguir* has the meaning of 'continue' or 'keep (on).' In its more basic meaning, *seguir* resembles its English translations in that it means continuing to do something constantly for a limited period of time. In this case CC is rarely used. The meaning of *seguir* may also be extended to cover continuing to do something at irregular intervals and/or for an indefinite period of time. Table 12 shows that CC is very common in this context:

Table 12. Likelihood of CC with *seguir*.

	CC	non-CC	CC%
Indefinite length of time	3	0	100%
Irregular, habitual	3	0	100%
Temporary, continuous	2	14	13%

This is exemplified in (28)-(31). In (28), the nonfinite verb expresses a permanent state; this is therefore not a typical situation for *seguir* to be used and there is CC. In (29), on the other hand, the action represented by the nonfinite verb is temporary and continuous and CC is not used.

- (28) 'Yo ya hasta me olvidé de ti.'
 'Pero you no. ¿Cómo dices que te llamabas?'
 'Nieves...ME sigo llamando Nieves.'
 I even me forget of you
 but I no how you-say that you you-called
 me I-continue calling
 "I forgot about you."
 "But I didn't (forget about you). What did you say
 your name was?"
 "Nieves. My name is still Nieves." (lit. 'I
 continue calling myself Nieves.')
- (Rulfo 1953:121-22)
- (29) La sombra larga y negra de los hombres siguió
 moviéndose de arriba abajo...
 the shadow long and black of the man kept
 moving from above below...
 'The long, black shadow of the men kept moving from top to
 bottom...' (Rulfo 1953:112)

Because there is not normally any purpose in asserting the continuation of something which is permanent, the use of *seguir* with CC in this context is likely to be ironic, as in (28).

Examples (30) and (31) provide further evidence of the difference between CC and non-CC constructions with *seguir*. In (30), the sound of the music continuing takes place a number of times (indicated by the adverbial *a veces*); this is not a prototypical use of *seguir*, and CC is used. In (31), the sound of the river continues on one particular occasion, and there is no CC.

- (30) ...pero aun después de anochecer se oía en todo
Corazón de María la música de la flauta, y
a veces SE seguía oyendo mucho más allá
de la media noche.
...but even after of nightfall (reflex.) heard in all
the music of the flute and at times (reflex.) continue hearing
much more after of the middle night
'...but even after nightfall you could hear the music
of the flute in all of Corazon de Maria, and
sometimes you could hear it long after midnight.'
(lit. '...it continued hearing itself')
(Rulfo 1953:149)
- (31) Allá afuera seguía oyéndoSE el batallar del río.
there outside continued hearing-itself the
sound of-the river
'Outside the sound of the river continued.'
(lit. 'continued hearing-itself')
(Rulfo 1953:95)

2. CC and the animacy hierarchy. Data from a number of languages (Silverstein 1976) have provided evidence for the existence of a hierarchy of NP types based upon 'animacy,' 'topicality,' or 'empathy.' Roughly speaking, NPs high on the animacy hierarchy (hereafter 'AH') receive one type of marking while NPs low on the AH are marked differently. The precise realization of the AH differs from language to language. However, some general patterns are clear. Forms representing speech-act participants (i.e., 1st and 2d person pronouns) are higher than other NPs; in some languages 1st person outranks 2d person, while in others the reverse is true. Pronouns are higher than nouns, and human NPs outrank nonhuman NPs.

The AH may have a variety of morphological, syntactic, and pragmatic consequences. In many languages, for example, ergative case-marking is restricted to transitive subjects which are low on the AH (Silverstein 1976). The verb may receive special 'inverse' marking if the logical object is higher on the AH than the logical subject (Heath 1976). Kuno and Kaburaki 1977 show that (in the unmarked case) speaker 'empathy' in a given sentence is associated with the NP highest on the AH.

The AH has a strong effect on the likelihood of CC in Spanish. CC is favored when the clitic is higher on the AH than the subject and disfavored when the subject is higher on the AH than the clitic. The basic hierarchy as it applies to Spanish is shown in Table 13.

Table 14 gives data showing that CC is much more likely when the clitic is higher than the subject on the AH.⁶

'3HS' here stands for 3d person singular human, while '3O' stands for other 3d person (plural and/or nonhuman). The frequency of CC when the subject is higher than the clitic on the AH is shown by the numbers in the lower left hand corner of Table 14, above and to the right of the Xs, which represent the frequency of CC when the clitic is higher than the subject on the AH. The former range from 9% to 34%, while the latter range from 52% to 83%. For each of the six pairs of percentages in Table 14 (e.g., 1st person subjects/2d person clitics vs. 2d person subjects/1st person clitics), the likelihood of CC is higher when the clitic is higher on the AH, and the difference is statistically significant at the .025 level at least.

Table 13. The animacy hierarchy as it applies to CC in Spanish.

2d person > 1st person > 3d person human singular >
Other 3d person

Table 14. Effect of AH on likelihood of CC.

Subject:					
		2	1	3HS	3O
C	2	X	62%	75%	83%
	1	34%	X	52%	56%
L	3HS	22%	21%	X	56%
	3O	9%	24%	21%	X

In this connection, Langacker 1974 has noted that grammatical processes in languages tend to conspire to get the most prominent information into main clauses; tough-movement (*It's tough to please Bill* vs. *Bill is tough to please*) is one well-known example of this (see Langacker 1974 for many more such examples). In Spanish, when the most prominent and topical NP in the sentence is an argument of a nonfinite verb, and would therefore normally be buried in a subordinate clause, restructuring and CC can serve to collapse the main and subordinate clauses and get the most topical NP into the main clause.

Sentences (32)-(35) show the effect of the AH on CC. In (32) and (33), a 2d person subject prevents (respectively) a 1st person clitic and a 3rd person clitic from climbing, in (34) a 2d person clitic climbs when the subject is 1st person, and in (35) a 1st person clitic climbs when the subject is 3d person.

- (32) 'Puedes herirME cuántas veces quieres.'
 you-can wound-me as-many times you-want
 "You can wound me as many times as you want."
 (Fuentes 1962:113)

- (33) 'No podrás recuperarLO aquí adentro...'
 not you-can recuperate-it here inside
 "You won't be able to get it back in here..."
 (Fuentes 1962:113)

- (34) 'TE puedo hablar de los que murieron porque yo me lavé las manos y me encogí de hombros.'
 you I-can speak of those who died because I
 me washed the hands and me shrugged of shoulders
 "I can talk to you of the ones who died because I've
 washed my hands (of the whole thing) and shrugged
 my shoulders." (Fuentes 1962:114)

- (35) 'Nada ME puede detener, ¿ves? Dime una razón que ME pueda detener.'
 nothing me can stop you-see say-me a reason
 that me can stop
 "Nothing can stop me, see? Tell me something that can
 stop me." (Fuentes 1962:113)

In the tables presented in section 1, there were a number of situations where there was a very strong, but not perfect, correlation between form and meaning. For example, when the finite verb is *tener* (*que*), if we say that CC always takes place when there is a meaning of permanent separation and never takes place otherwise, this accounts for whether or not CC is used in forty-six of the forty-seven tokens. Many of the exceptional cases not accounted for by these rules may be attributed to the AH. In the one case where CC is used with *tener* (*que*) without the meaning of separation, the climbed clitic is 2d person, which is highest on the AH.

- (36) 'Te tenemos que llevar a Amula...'
 you we-have take to
 "We have to take you to Amula..." (Rulfo 1953:127)

Similarly, (37) is the only case where CC is used when the main verb is *empezar*; here the subject is 3d person and the clitic is 1st person, so the use of CC is consistent with the AH.

- (37) 'Sí, porque me empezaba a escasear el dinero en México y Atanasio nunca me negó nada.'
 yes because me began to be-scarce the money in
 Mexico City and never me denied anything
 "Yes, because I was beginning to run out of money in
 Mexico City and Atanasio never denied me
 anything." (lit. '...the money was beginning to
 be scarce to me...') (Fuentes 1962:300)

Example (38) shows the reverse situation. Here the main verb, *estar*, overwhelmingly favors CC (since there is no locative prepositional phrase following the verb). Nevertheless, CC is not used, because the clitic is 3d person and the subject is 1st person.

- (38) 'Ella me reconvenría si yo lo hubiera dejado tirado allí, donde lo encontré, y no lo

hubiera recogido para llevarlo a que lo
 curen, como estoy haciéndolo.
 she me reprimand if I him had left
 abandoned there where him I-found and not him
 had picked-up to take-him to that him
 they-take-care-of as I-am doing-it
 "She would reprimand me if I had left him abandoned
 there where I found him and not taken him to be
 taken care of, as I'm doing (it)."
 (Rulfo 1953:114)

In many languages the AH has become basically grammaticalized, so that it applies in a fairly rigid fashion. This is not the case in Spanish. The AH is rather a general indicator of topicality, and therefore holds in most cases. However, in particular situations it may be overruled if the referent lower on the AH is more prominent in the immediately surrounding discourse. This is shown in (39) and (40); in both cases, the subject is 1st or 2d person and the clitic is 3d person, while the finite verb disfavors CC. Nevertheless, because the referent of the clitic is highly prominent in the discourse at the moment, the clitic is climbed.

(39) Por Dios, he olvidado ese rostro. No. No LO
 debo olvidar.
 for God I-have forgotten that face. no not it
 I-must forget
 'Oh my God, I've forgotten that face. No. I can't
 forget it.' (Fuentes 1962:59-60)

(40) ...esa zona donde podemos encontrar el perdón.
 Donde tú LO podrás encontrar.
 that area where we-can get the pardon
 where you it will-be-able get
 'That area where we can get a pardon. Where you
 can get it.' (Fuentes 1962:33)

Example (41) shows the reverse situation. Here the finite verb strongly favors CC and the clitic is higher on the AH than the subject, but the subject is actually more topical by virtue of having been the center of attention for several clauses, and so there is no CC.

(41) Y los dos avanzan hacia mí, tomados de la mano,
 con sus cuencas vaciadas, creyendo que
 van a convencerME, a provocar mi compasión.
 and the two advance towards me taken of the hand
 with their eye-sockets hollow believing that
 they-will convince-me to provoke my compassion
 'And the two of them advanced towards me, holding
 hands, with their hollow eye-sockets, believing
 that they were going to convince me, to

provoke my compassion.' (Fuentes 1962:85)

Sentence (42) shows how CC can be used or not used in order to indicate greater or lesser topicality among 3d person referents. In this case, the tenants are the topic of conversation, and the clitic referring to them is climbed twice, in *les estaba haciendo* and *les voy a entregar*. Pizarro, on the other hand, is clearly of secondary importance, and so the clitic referring to him is not climbed (*voy a cobrarle*).

(42) 'Ahora, que si ellos se sienten lesionados con mis
préstamos, yo los suspendo. Creía que LES
estaba haciendo un servicio.'

'No, eso no...'

'Cuéntales que dentro de poco voy a cobrarLE
las hipotecas a Pizarro y entonces sí LES
voy a entregar los terrenos de riego...

now that if they feel hurt with my
loans I them stop I-thought that them
I-was doing a service

no that no

tell-them that within of little I-will foreclose-him
the mortgages to and then yes them
I-will turn-over the lands of irrigation

"Now, if they (the tenants) feel hurt by my loans,
I'll stop them. I thought I was doing them a
service."

"No."

"Tell them that in a little while I'll foreclose on
Pizarro and then I'll turn over the irrigated
lands to them." (Fuentes 1962:96)

3. Discussion. This section touches upon a number of questions which arise in the consideration of CC as an example of a grammaticalization process.

3.1 Grammaticalization as weakening of meaning. There is a general pattern of loss or weakening of the original meaning of the finite verb in CC constructions, noted repeatedly in the present paper. But it is also clear that there is not a perfect match between grammatical meaning and grammatical expression or between lexical meaning and lexical expression. For instance, although *ir* with future meaning is generally represented as an auxiliary and *ir* with the meaning of motion is generally represented as a main verb, this is not invariably the case. The lexical meaning of *venir* 'come' generally remains even in progressive constructions where CC is used (such as (23)). *Volver* can have its abstract meaning of repetition even when it is a main verb and CC is not used. Thus we can only state connections between CC and certain meanings as statistical tendencies.

3.2 Grammaticalization and generalization of meaning. A number of linguists (e.g., Heine and Reh 1984, Bybee 1985) have presented evidence suggesting that grammaticalization involves a generalization of meaning. At first glance this might appear to be contradicted by some of the data presented in this paper, where in some cases the meaning associated with the auxiliary use of a verb seems to be more specific than the meaning associated with the main verb use. The most extreme case of this is the auxiliary use of *tener* (*que*), which is almost completely restricted to contexts where there is an enforced separation. The auxiliary use of *querer*, generally associated with antagonism, is another example of an auxiliary used in fairly specific contexts; presumably the same is true of the other verbs allowing CC very rarely, such as *tratar* and *acabar*, which I have not examined in depth here because CC is so rare with them.

I think the difference between these cases and the ones discussed by Bybee and Heine and Reh is that for verbs/auxiliaries like *querer* and *tener* (*que*) the grammaticalization process is at a much less advanced stage. When the text frequency of the grammaticalized form relative to the ungrammaticalized form is still quite low, the grammaticalized form tends to be restricted to contexts where the meaning of the fully verbal form is not entirely appropriate. *Seguir* is used as an auxiliary only when the context forces a reading of permanence or intermittence, which is not consistent with its verbal interpretation. *Querer* is used as an auxiliary when the subject attempts to do something hostile to the referent of the clitic, a situation where the fully verbal form is not normally used. *Deber* and *poder* are given the reading of possibility (and CC is used) when the basic meaning is impossible because there is no person to plausibly attribute obligation or desire to (as in, e.g., *It must have snowed* or *It could rain*).

In all of these cases, the set of meanings covered by the grammaticalized and ungrammaticalized forms are more general than the set of meanings covered by the ungrammaticalized form alone--but the auxiliary form does not usurp the basic meanings of the verb. Rather, the main verbal form retains its original meaning and function, while the auxiliary form expands its meaning. So although *estar* and *ir* are used as auxiliaries in the great majority of cases, they still are used as main verbs (without CC) when the context appropriate to their verbal meaning is present; when the meaning of an auxiliary is quite general and the text frequency of CC is quite high, only a relatively small percent of the contexts can be given the original verbal interpretation.

3.3 Directionality in grammaticalization. There is strong evidence to suggest that grammaticalization processes are in some sense unidirectional. Words commonly develop into bound morphemes; however, once the grammaticalization process has been completed, the bound morphemes do not normally seem to become free words again. This has been supported by considerable cross-linguistic research (Givón 1971, Heine and Reh 1984).

However, at earlier stages in the grammaticalization process, the matter is less clear. The simplest situation would be if in the course of a grammaticalization process the grammaticalized form simply becomes more and more common until it finally replaces the ungrammaticalized form altogether, but things seem to be more complicated than that. Forms which

have advanced fairly far in a grammaticalization process can turn around and revert to their ungrammaticalized form. In English, the class of auxiliaries and modals split syntactically from the verbs in the sixteenth century (Kroch, Myhill, and Pintzuk 1982); in the course of the last few hundred years, a number of words in this class (e.g., *dare*, *need*, and main verb *have*) have shown a tendency to become 'degrammaticalized' and rejoin the class of main verbs in terms of their syntactic properties.

Thus at the relatively early stages of grammaticalization (as is exemplified by CC), there is no clear directionality, in terms of either the ultimate fate of a morpheme or short-term increases and decreases in frequency. It seems possible, and in fact likely, that in the course of grammaticalization there is a good deal of meandering, with the more grammaticalized form dominating at one point and the less grammaticalized form dominating at another point. In Modern Spanish, we may say that CC represents a stage in a grammaticalization process which involves verbs developing into auxiliaries and later tense/aspect markers. But we have no way of knowing how long each of the verbs allowing CC (or their phonologically reduced descendants) will continue to participate in this process. Some may ultimately turn into inflectional morphemes, while others may revert to being only verbs.

4. Conclusion. The factors governing whether CC occurs in a given case are extremely complex and, in terms of defining the function of CC, I cannot claim to have done more here than scratched the surface. More detailed studies will be necessary to determine more precisely what the function of CC is.

I think that CC is particularly deserving of attention because it offers an opportunity to observe grammaticalization in progress objectively. It is quite common for verbs to develop into auxiliaries, but in languages in which this change is in progress, in which a [finite verb + nonfinite verb] combination is sometimes [auxiliary verb + main verb] and sometimes [main-clause verb + nonfinite complement], it is frequently difficult to determine in an objective fashion which way to analyze specific naturally occurring tokens. The position of the clitic in CC constructions gives clear evidence of syntactic restructuring; auxiliarization can, of course, take place in Spanish when there is no clitic, but then there is no objective way to determine whether it has occurred. In English, it might be reasonable to analyze *want* with an infinitival complement as being an auxiliary in some contexts and a main verb in others, but to study this alternation it would be necessary to come up with some objective criteria for distinguishing these usages. It would be possible to say that certain meanings are auxiliary-like and others are main-verb-like, but this would make the investigation circular. Perhaps a better approach would be to study the situations under which contraction to *wanna* takes place, although it is by no means clear that such an approach would produce useful results.

Using CC as a tool for studying grammaticalization has one obvious drawback: The same clitic which makes it possible to state objectively whether the finite verb has been turned into an auxiliary also itself affects the likelihood of CC by being more or less topical. It is therefore necessary to find synchronic grammaticalization processes in other languages which are likewise objectively observable but which do not employ the same syntactic mechanism

of CC; such studies will be necessary to put the findings of the present paper in a broader empirical context.

Appendix

The following are the data sources used for the quantitative study:

- Benedetti, Mario. 1953. *Quién de nosotros*. Montevideo: Nueva Imagen.
- Fuentes, Carlos. 1962. *La muerte de Artemio Cruz*. Bogotá: Fondo de Cultura Económica.
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Notes

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1. Rizzi (1976) argues for a similar analysis of CC in Italian.
2. I excluded from my data count constructions where the finite verb and the nonfinite verb have different subjects (e.g., *Se la vi cantar* = 'him it I-saw sing' = 'I saw him sing it'). I also excluded instances where there were two clitic arguments of the nonfinite verb (e.g., *Te lo voy a decir* = 'you it I-go to say' = 'I'm going to say it to you') and cases where lexical material intervened between the finite and nonfinite verbs (aside from prepositions subcategorized for by the finite verb).
3. See Napoli 1981 for a discussion of the semantic properties of CC in Italian. Napoli's approach is nonquantitative and it is not clear how to apply her findings to a quantitative study. She gives the following characterization of the function of the auxiliary in the CC construction (859): 'The auxiliary offers supplemental information about this action or state (expressed by the main verb), introducing no additional independent action or state...the auxiliary adds conceptually basic or simple information.' I found that no more than a fraction of the verbs in my data-base could be objectively coded for whether or not they satisfy these criteria.
4. The data in Tables 2-4 include only clauses with positive meaning. This is because clauses with negative meaning where the finite verb is *querer*, *deber*, or *poder* are relatively likely to have CC independent of other semantic factors. This is shown in the following table.

Likelihood of CC when the finite verb is *querer*, *deber*, or *poder*.

	CC:	non-CC:	CC%:
Positive	5	172	3%
Negative	16	55	23%

It is not clear at this stage why this should be, but the tendency is so strong that negative tokens were left out to avoid obscuring the effect of the other factors.

Aissen and Perlmutter 1976 claim that epistemic *deber* (*de*) does not allow CC, while *deber* with the meaning 'ought, should' does allow it. If true, this would go against the theory of grammaticalization argued for here. However, it does not seem to be true. My data-base included only two examples of *deber de* in an environment allowing CC, and CC occurred once, in the following example:

...el río se debía de haber llevado, quién sabe desde
cuándo, el tamarindo que estaba en el solar
de mi tía Jacinta...

the river (reflex.) must have carried who knows since
when the tamarind tree that was in the grounds
of my aunt J.

'The river must have carried off, who knows how long ago,
the tamarind tree in my aunt Jacinta's yard.'
(Rulfo 1953:30)

5. The relation between the auxiliary use of *querer* and conativity was suggested to me by Stephen Matthews. On this interpretation, it is not clear why when the finite verb is *tratar* 'try', CC occurs only twice in 28 tokens. The theory advanced in the present paper would predict that there is some meaning difference between *querer* with CC and *tratar* such that the former is more directly associated with conative meaning.

6. The following table gives the number of tokens for each of the cells in Table 14.

Subject:				
	2	1	3HS	3O
	X	58	12	23
C 1	29	X	58	52
L 3HS	9	53	X	68
3O	23	82	66	X

One of the authors studied, Benedetti, apparently has 1st person singular higher than 2d person on the hierarchy; although in most contexts he uses CC at a rate comparable to that of the other authors, he does not use it at all in the eight instances where the subject is 1st person and the clitic is 2d person. This is quite different from the other authors analyzed here, who use CC in this environment 62% of the time. The data from Benedetti are therefore

excluded from Table 14. This sort of variation between the positions of 1st and 2d person on the AH is to be expected on the basis of related phenomena in other languages (see Silverstein 1976, DeLancey 1981); what we do not find is variation in the position of 3d person and inanimate NPs at the bottom of the AH.

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REPAIRS AS INDICATIVE OF INTERLANGUAGE VARIATION AND CHANGE

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1. Introduction. Research on second language acquisition processes has shown that nonnative speech, or interlanguage, is not only rule-governed, but that the application of these rules is dependent on a variety of structural, functional, and stylistic factors in the discourse (Huebner 1985, Schiffrin 1981, Tarone 1980). However, given the fact that most interlanguages (ILs) are transitional systems evolving toward a target language, any rule-governed behavior in the IL is subject to continual conscious and subconscious reevaluation as the language learner acquires more knowledge about the linguistic forms and social use of the target language.

In order to understand the processes governing IL development, we must understand the nature of the interaction between stable and developing IL rules. One synchronic way of viewing this balance between stability and change is through the examination of IL forms across discourse functions or styles. In this paper, I propose that language learner 'repairs' may also be viewed as indicators of various stages of IL development.

2. Communicative strategies and repairs. The structure and function of repairs have been examined in L1 speech (Levelt 1983; Schegloff, Jefferson, and Sacks 1977) and in bilingual speech (Olynyk, d'Anglejan, and Sankoff 1987). Limited research has been conducted on second language repairs (Kasper 1987, Faerch and Kasper 1983, Tarone 1980); however, this research has generally not distinguished between language learners at different stages of IL development with respect to their repair use. Second-language repairs are usually considered one of several types of communicative strategies employed by a language learner. Communicative strategies, as defined by Faerch and Kasper (1983:212) are 'potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular goal.' Types of communicative strategies included in this definition are pauses and hesitation techniques, drawls, repeats, changes in rate of articulation, and repairs. Repairs can either be self-initiated or other-initiated, and may be found at either the phonological, grammatical, or discourse level. Repairs may include repetition of the preceding or following discourse context, or may involve the entire abandonment of a particular linguistic course of action. They may be indicators of planning strategies which anticipate errors or they may be indicators of retrieval difficulties. Finally, it has been noted (Tarone 1980)

that repairs may modify an utterance so that it more closely corresponds with the intended 'meaning' or more closely matches the 'form' which the learner feels is socially acceptable in a given discourse context.

3. Data. Here, discussion is restricted to self-repairs, or repairs that are speaker-initiated. Both anticipatory and corrective repairs are examined and categorization of these repairs includes their function in the discourse.

The IL speech in which these repairs were produced reflects approximately forty-five minutes of taped conversations with six American speakers of French. All six of the American informants had been studying and living in Bordeaux, France for at least six months at the time of their interview, and had frequent contact with French native speakers, both in class, in their host families, and in the numerous French-American activities organized at the Université de Bordeaux, such as coffee and social hours, plays and disco nights.

Through a previous distributional study of narrative tense forms used by these six speakers, as well as through ACTFL oral proficiency evaluations (O'Connor 1987), it was established that three of these speakers represented a beginning stage of IL development while the other three represented an advanced stage of IL development. One of the major differences between these levels was the degree to which structural and discourse factors influenced tense use in the narrative recountings. It was found that structural factors, such as clause type, verb type, presence of negative particles and presence of object pronouns, affected tense use by the beginning IL speakers, while the tenses used by the more advanced speakers depended more on the discourse function of the clause. Given these results, the influence of 'structure' and 'function' in the discourse are also closely examined with respect to the repair behavior of these beginning and advanced level speakers.

4. Hypotheses. Our second language learners of French represent two very different stages of IL development. We might, therefore, expect to find a difference in both the number and type of repairs employed by early and advanced IL speakers.

First, since Faerch and Kasper (1983:198) have suggested that advanced speakers are 'able to predict communicative problems and find solutions at normal planning points in their discourse,' we would expect them to use fewer repairs than beginning speakers. As noted in attention and skill theory, once lower-level tasks have been automated, more capacity is available for higher-level planning and subtasks which have not been automated. Therefore, we would expect that beginning speakers should need to devote more attention to lower-level linguistic and discourse tasks which are not yet automatic. This attention to speech would reduce the possibility of employing planning techniques to avoid problem areas. These beginning speakers would thereby be more prone to use corrective repairs than planning repairs (such as false starts).

Second, we would expect the repairs of the more advanced speakers to show a higher level of sociolinguistic proficiency than the repairs of the lower-level speakers. In other words, repairs should appear in the problem areas typical of the various levels of IL development--with more structural repairs

evident with the beginning speakers and more discourse repairs evident with the more advanced speakers.

Finally, we would expect overall repair strategy to correlate with the attitude and communicative behavior of the language learner. Language learners who are interested in becoming language teachers would be more likely to repair linguistic forms than learners who are interested in French purely as a communicative tool.

Before discussing the repairs found in the data, I would like to voice one note of caution. Although repairs generally indicate monitored discourse for second language learners, the absence of repairs does not necessarily reflect unmonitored language. Therefore, repairs which are superficially evident should be viewed as indicators of some, but certainly not all, of the monitoring strategies used by language learners in communication.

5. Analysis

5.1 Beginning speakers. If we examine the speech of the least advanced IL speaker in our group, Mark, we see various types of corrective repairs involving either replacement repairs and insertions, or false starts, which could be viewed as anticipatory repairs (see Table 1).

Table 1. Distribution of beginning IL repair types.

	Mark	Donna	Ellen
Lexical	20	16	13
Tense	10	5	6
Pronunciation	6	12	5
Agreement	5	9	10
Other	3	2	2
Insertions	12	...	1
False starts	<u>13</u>	...	<u>10</u>
Total	69	44	47

The majority of the corrective repairs and insertions made by Mark reflect concern with either 'structural accuracy' or 'basic semantic meaning'. For example, of the twenty lexical repairs noted, thirteen of them involved lexical replacements which have a very different semantic value than the first utterance, indicating a need to repair the basic meaning of the message:

- (1) (7A:246) ah ils me demandent ah où uh je- je-viens oh je
deviens(?) non où je viens.
 'ah they ask me ah where I-I c-come- oh I become (?) -no where
 I come.'

On the other hand, we also find lexical repairs which are virtually interchangeable elements with respect to their semantic value. These repairs indicate increased grammatical or structural accuracy:

- (2) (7A:218) et moi j'ai très- j'ai beaucoup de besoin pour d'argent pour rester avec mon amie.
'and me I have very- I have a lot of need for money in order to stay with my friend.'

These same repair functions are also dominant in the types of insertions made by Mark which are, like the lexical repairs found, either purely structural additions or absolutely essential for a basic understanding of the utterance:

- (3) (7A:138) et c'est mon ami- c'est la galerie d'art de mon ami.
'and it's my friend- it's the art gallery of my friend.'

Of the tense repairs made, 90% involved tense switches with completely different temporal values, such as between the present and one of the past tenses. No repairs were made between past tense forms, which would have reflected more subtle aspectual changes.

- (4) (7A:61) et uh c'est très bon voyage - c'était un très bon voyage.
'and it's very good trip- it was a very good trip.'

The next most common repairs found in Mark's speech were phonological repairs and repairs of gender or number agreement. These repair types, like many of the others mentioned, do not add any information to the semantic value of the utterance, but rather make the production of the utterance better conform to normative rules of the target language. We should also note that some anticipatory repairs were also present, such as false starts, although these make up less than 20% of the total number of repairs made.

Comparison of Mark's repairs with the two other beginning-level speakers (Donna and Ellen) reflects the same replacement repair types and functions (see Table 1): Lexical repairs are dominant, with agreement, tense, and phonological repairs also common. We again find that the majority of the repairs made by Ellen and Donna involve radical semantic differences between the original utterance and the repaired version or purely structural changes:

- (5) Donna (12A:447) et um si-si um si on parle avec um- un homme Marac il pense que tu-tu viens ah-chez-chez toi- tu vas chez toi- er ch-chez toi- chez-lui-avec-avec lui.
'and um if-if um if you speak with um- a Moroccan man he thinks that you-you come ah- to your place- you go to your place- er to your place- to his place-with him.'

Finally, it is interesting to note that while Ellen had ten false starts (or ~25% of her total repairs), Donna had none; neither favored insertions as a repair strategy. Whether these differences between Mark, Donna, and Ellen reflect differential abilities to anticipate communicative problems or purely speaker preferences is difficult to determine from these limited data. It may be noted, however, that the majority of the repairs employed by the three beginning IL speakers of French (~80%) reflect attention to either 'correct form' or to

'semantic meaning' at the most basic level of communication. Although some evidence of anticipatory repairs can be seen with these speakers, retrieval repairs were much more common with all three speakers than anticipatory ones.

5.2 Advanced speakers. Examination of the speech of our most advanced informant (Cindy) reveals fifty-two repairs during the interview. Again a variety of replacement repairs are found, although insertions and especially false starts are dominant (see Table 2).

Table 2. Distribution of advanced IL speaker repair types.

	Cindy	John	Jill
Lexical	6	5	1
Agreement	3	7	21
Pronunciation	2	3	2
Preposition	1	5	4
Tense	...	5	4
Relative pronoun	...	...	3
Object pronoun	...	...	3
Other	1	2	1
Insertions	10	6	6
False starts	29	16	1
Total	52	49	46

If we look more closely at the timing of these repairs, we find that in only two cases was Cindy obliged actually to repair a complete grammatical error, even in the case of replacement repairs. Most of her grammatical repairs occurred either at the planning stage of the utterance or before the full utterance had been executed.

- (6) (6A:229) mais elle- elle avait envie d'aller *au soi-* uhh *à la soirée*.
 'but she-she wanted to go to the (masculine article) par- uhh to
 the (feminine article) party.'

If we look at the repair 'insertions' in Cindy's speech, we see that they reflect total clauses as well as all different types of lexical items, including adverbs, object pronouns, nouns, adjectives, and verbs. Despite the superficial diversity, however, the functional uses of these repair insertions are similar, and clearly unlike the types of insertions found in the beginning level speakers. In ten out of eleven instances, the insertion serves in one of two capacities: either to clarify the meaning of the utterance through such devices as additional referent specification or background information, or to intensify the discourse effect of the utterance.

- (7) (6A:76) quelquefois j'étais en retard quelques minutes et elle
 disait- elle *me* disait devant tout le monde euh 'c'est pas

vraiment la peine que- que vous veniez en cours si vous venez de retard.'

'sometimes I was late a few minutes and she would say- she would say to me in front of everybody euh "it's really not worth it for you to come to class if you come late."

- (8) (6A:434) aussi si je remar- *j'ai une mauvaise habitude*- si je remarque quelque chose de particulier sur quelqu'un...
'also if I remar- I have a bad habit- if I remark something in particular on someone...'

These are repairs which reflect neither structural nor semantic difficulties on the part of the speaker. The reason for these insertions is not to overcome a communicative problem, in the traditional use of the term 'problem.' Instead, these insertions serve as discourse tools to further specify or evaluate the utterance. These same functions are also apparent in the 'lexical repairs' found in Cindy's speech:

- (9) (6A:32) parce que tout le monde- *tous mes amis* faisaient l'espagnol et je voulais pas faire comme tout le monde.
'because everyone- all my friends were taking Spanish and I didn't want to do like everyone.'
- (10) (6A:444) oh oui ça m'est arrivé à Pau - j'sais pas - après il me regardait-*le garçon* me regardait dans une manière fi-très très fixe.
'oh yes that happened to me at Pau- I don't know- after he looked at me- the waiter looked at me in a fixed wa- in a very very fixed way.'

One type of anticipatory repair common in Cindy's speech is the 'false start'. In fact, twenty-nine out of fifty-two, or 56% of all of the repairs made by her are false starts. Again, it should be noted that no grammatical error is ever repaired, even though utterances containing one false start often contain other repairs, as well, indicating some planning difficulties:

- (11) (6A:330) non- c'est- c'est plutôt-// bon au début de-// bon c'est toujours le problème avec les-// bon quand on est à l'étranger on veut faire des connaissances.
'no- it's- it's rather-// bon at the beginning of-// bon it's always the problem with the-// bon when one is a foreigner one wants to meet people.'

Notice the use of the discourse marker *bon* to signal the hearer that the current grammatical structure will be discontinued and a new one begun. Along with *'sais pas*, the presence of such a discourse marker occurs in sixteen out of twenty-nine (or 55%) of the false start occurrences.

Before turning to the repair behavior of our other two IL speakers, we might consider the meaning of the relative lack of structural repairs in Cindy's speech. Why is it that most repairs are anticipatory or discourse in nature and

that only two full error repairs are present? We might hypothesize that, at least in part, Cindy's ability to plan her discourse is great enough to anticipate and avoid errors. If that were the whole answer, we would expect no grammatical errors to be present in Cindy's speech. A preliminary examination of her grammatical accuracy indicates, however, that Cindy's speech is not error-free. In the first seven minutes of tape, Cindy produced fifteen nonstandard and nonnative-like utterances, or what we might consider errors: seven agreement errors, two tense errors, two object pronoun errors, three mispronunciations, and one nonstandard discourse marker. Therefore, the fact that Cindy repaired only two errors in over forty-five minutes of conversation is not for want of errors to repair in her speech. Instead, she chose, consciously or unconsciously, not to repair these structural errors, but to concentrate instead on the discourse level of her speech. This hypothesis would, of course, allow for and even predict the types of discourse repairs which we have just seen in Cindy's speech.

If we examine the repairs of the other two advanced IL speakers, John and Jill, we find that while both speakers parallel Cindy in showing more anticipatory than retrieval repairs, the specific types of repairs made by Jill are very different from those made by John and Cindy. While John's insertion and lexical repairs add to the discourse as we found with Cindy, most of the insertions and lexical repairs found in Jill's speech have no discourse meaning, but reflect only a desire for greater structural accuracy:

- (12) Jill (22A:55) J'ai pas de courage pour lat- pour *le* latin.
'I have no courage for Lat- for (article) Latin.'

- (13) John (42A:42) et il tourne et c'est- *il m-me voit* c'est un- c'est
un désastre.
'and he turns and it's- he sees me it's a- it's a disaster.'

Like Cindy's, the majority of John's repairs were false starts, which were also sometimes signaled in the discourse by the marker *moi*. Jill, on the other hand, made only one false start; instead, her most common repairs were corrective repairs of agreement and gender, which add little or nothing to the meaning of the discourse but merely bring the utterance to greater conformity with grammatical rules, albeit sometimes quite advanced rules, such as relative pronoun selection:

- (14) Jill (22A:78) c'est le sujet *dont- dans la- dans laquelle* suis *l e*
meilleur- la meilleure.
'it's the subject of which- (feminine pronoun)- in which
(masculine pronoun) I am the (masculine article)- the
(feminine article) best.'

Jill's concern with form over meaning in contrast to Cindy and John's primarily discourse-based repair strategies might be explained by reference to their respective attitudes toward the French language and their social status in French society. Neither Cindy nor John had strong instrumental goals for learning French. John was an ethnography major whose main goal in coming

to France was full sociolinguistic integration into French society. Cindy, an English major, had fallen in love with a Frenchman and, at the time of her interview, had no plans for returning to the States. Jill, on the other hand, was a French major who wanted to become a French professor. Despite her avowed love for the French language, she openly admitted that she disliked the French culture and had made no French friends after six months in the country. Given her professional goals for learning French and the fact that most of her use of oral French was in the classroom (even though she was living in France), it is less surprising that most of Jill's repairs reflect concern with the structural accuracy of the utterance, and that she shows little skill in using repairs as planning or discourse strategies.

6. Conclusion. In summary, we have seen that the three advanced IL speakers of French did not use fewer repairs than the three beginning IL speakers of French, but that the nature and function of these repairs differed. The repairs of the beginning-level IL speakers were primarily corrective rather than anticipatory in nature, with basic communication and structural accuracy the two most frequent repair functions for these speakers.

On the other hand, the repairs of the advanced level IL speakers of French were more often anticipatory than corrective in nature. The frequent use of anticipatory repairs as well as discourse-level repairs by these speakers indicates a greater ability to plan ahead in the discourse and pay attention to the overall discourse quality of the utterance than was found with the beginning-level IL speakers. These discourse-level repairs and insertions may even be viewed as desirable production strategies, given the fact that they add to the content or discourse value of the original utterance. Although structural repairs were employed by both beginning and advanced IL speakers, this type of repair use by the advanced IL speakers often reflected advanced knowledge of grammatical rules (such as relative pronoun use).

As a final note, although we have seen differing repair types in the speech of beginning and advanced learners, some caution must be exercised with respect to the psychological interpretation of these types. Beginning speakers may show more structural than discourse repairs; however, we cannot assume that they realize the minimal discourse effectiveness of these repairs. With their limited knowledge of the target language system, these beginning speakers may think that their structural repairs are of great communicative importance. If this is the case, we may view the evolution of IL repair strategies as a developing knowledge of the discourse and social meaning of linguistic elements in the target language.

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APPLYING AN EXPERIMENTAL APPROACH TO THE INVESTIGATION OF SYNTACTIC CHANGE

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One kind of syntactic change attributed to contact with the literature of a prestige language is the expanded use of a rule in the host language with the resultant elimination of grammatical constraints formerly associated with that rule. Passives in several languages have been cited as illustrations of this process, one of the more recent and better attested examples being the *dvara* passive in modern Hindi (Kachru 1975). Previously, the *dvara* passive occurred only with impersonal agents, and was restricted to very formal communication. Under the influence of the English passive it has become extended to informal situations and now occurs with personal agents. Analogous arguments may be advanced to explain the changing but not well understood conditions under which the highly restricted (cf. Chodzko 1853:59; Lambton 1967:54; Amin-Madani 1972:79) passives in Farsi (see Windfuhr's (1979) excellent discussion, and also Dabir-Moghaddam 1982) and Arabic (Saad 1975) admit surface agents. Similar claims about one kind of passive in Mandarin motivated the study we report in this paper, the purpose of which is to demonstrate how an experimental approach can be usefully applied in the investigation of ongoing syntactic change. As will be seen, the results of the study yield a more explicit characterization of the process of change brought about through translation.

The *bei* passive construction in Mandarin involves subject/object switching with the concomitant insertion of the particle *bei* between these two constituents (1).

(1a) Zhang da le wo
 (name) hit (perf.) I/me
 'Zhang hit me.'

(1b) Wo be Zhang da le.
 'I was hit by Zhang.'

As with most topic-prominence languages, the passive in Mandarin is not used to fulfill rhetorical functions like highlighting the object of an active sentence or focusing on the agent of a transitive verb when the object is the general topic of the discourse. The former function is accomplished by topicalization, (2), which often produces the equivalent of an agentless passive

in English, e.g. (3). The latter function is expressed by the *shi...de* construction exemplified in (4), where the book is the topic of the previous discourse and it is now the intention of the speaker to stress the fact that his or her mother wrote it.

- (2) Zhang wo yi jing kan le.
(name) I already see (perf.)
'Zhang, I've already seen.'
- (3) Nei ben shu yi jing chu ban le
that class book already publish (perf.)
'That book has already been published.'
- (4) Nei ben shu shi wo mu jin xie de.
that class book be I mother write (nom.)
'That book was written by my mother.'

The *bei* passive is governed by two lexical constraints: the logical subject tends to be animate (Cheng, personal communication) and the verb is normally one of disposal, i.e., a verb which describes how the subject is 'dealt with, manipulated or handled in some way' (Li and Thompson 1981:501).¹ Thus sentences like (5) are ill-formed because the verb does not express disposal.

- (5) *Ta bei ta de tong xue hen le
h2 (pass.) he-(nom.) classmates hate (perf.)
'He is hated by his classmates.'

In addition to these lexical restrictions, the *bei* passive is governed by a unique usage constraint: it is deployed most commonly to express adverse or unfortunate events (Chao 1968:702; Li and Thompson 1976:467; 1981:493; Pei and Chi 1987). Sentences (3) and (4) may not appear in the *bei* passive because no unfortunate or adverse implication is conveyed as in (6).

- (6) Ta bei ta fu qin ma le
he (pass.) he father scold (perf.)
'He was scolded by his father.'

Li and Thompson (1981:495) point out that this constraint explains why sentences with neutral verbs convey a negative implication in the *bei* passive. Thus (7) has the implication that the speaker did not want to be seen by the teacher, for whatever reasons might have been supplied in the discourse.²

- (7) Wo bei lao shi kan jian le
I = pass. teacher see (perf.)
'I was seen by the teacher.'

A number of linguists (Kierman 1969; Chao 1968, 1970; Li and Thompson 1981; Pei and Chi 1987) have remarked on the expanding use of the *bei*

passive to include nondisposal verbs in positive contexts. This extension, which has occurred over the past three decades, has been attributed to poor translations of Russian and English documents into Chinese, where any passive was automatically rendered as a *bei* construction with no consideration given to the possibility of a more idiomatic interpretation. Chao claims that although the nonadverse use of the *bei* passive is gaining currency in the written language³ on Taiwan, it is 'still unpalatable to most people, and no one talks that way yet' (Chao 1970:155). Kierman (1969:75), on the other hand, citing the flood of Marxist literature which enveloped Mainland China during the postrevolutionary period, argues that the wholesale adaptation of the Russian passive with agent, typically used in scientific documents, influenced an entire class of intelligentsia and resulted in the widened scope of *bei* passive so that these 'patterns enshrined in ritually admired literature' have become established in the spoken language. These claims formed the basis for an experiment, the purpose of which was to test the hypothesis that educated Mainland Chinese will be more inclined to accept the *bei* passive in nonadverse contexts than their counterparts from Taiwan.

Thirty-six Chinese from Taiwan and eighteen Chinese from Mainland China, who were either graduate students or visiting scholars at the University of Illinois, participated in the experiment. The experimental task was to view sequences of three pictures depicting an episode, which was classified as either negative or positive, and to decide whether an active or *bei* passive sentence was most appropriate for describing the last scene in the episode. Negative episodes were operationally defined as those in which the object was damaged, killed, injured, or otherwise adversely affected, or where the action was of a negative nature, such as boys stealing candy. Positive or neutral episodes were defined as those in which there was no such damage or negative effect, or where the action was of a positive or neutral nature, such as a boy helping another boy or a man buying a book. For the first three frames of every sequence there was a tape recording which described the action being portrayed. The last frame of each sequence had below the scene depicted two sentences, one a *bei* passive and the other an active sentence. All sequences were checked for naturalness and grammaticality by three native speakers; the tape recordings were made by a female native speaker from Taiwan using standard Mandarin dialect and accent. Two sets of sequence-final frames were produced, one with the traditional characters (*fan ti zi*) commonly used on Taiwan, the other using the simplified characters (*jian ti zi*) common to Mainland China. Sequences were balanced to insure an equal number of animate and inanimate objects, as well as situations where the topic was up or down. Topic up here refers to sequences where the logical object of the target sentences in the third frame was the focus of attention and thus 'topically up' in terms of the discourse. Topic down refers to sequences where the object was either removed from focus or absent from the preceding sentence. Distractor sequences were also included to prevent subjects from focusing on the passive/active choice and to check subject attention by occasionally forcing a choice of one sentence over the other. A total of sixty sequences was constructed, twenty negative episodes, twenty positive episodes and twenty distractor sequences.

The subjects were randomly assigned to one of four groups of seven to ten subjects: each group was assigned a different running order. Subjects were given sixty-item response sheets. They were told that they were participating in a test of style and that they were to indicate their preference for one sentence or the other in the third frame by marking either (a) or (b) on the response sheet. Subjects were further told to indicate their interpretation of each sequence as either positive or negative by marking a plus or a minus on the response sheet for each item. Negative and positive situations were defined for the subjects in terms of the operational concepts discussed above, and two example sequences, one positive and one negative, were then shown. The episodes were projected on a screen while the accompanying descriptions were simultaneously played on a tape recorder. A three- to five-second pause separated the first, second, and third frames of each sequence, and a five- to seven-second pause intervened between the third frame and the initial frame of the following sequence, during which the subjects registered their decisions.

Since subject interpretation of sequences as either positive or negative was crucial to the study, subject responses in this regard, as indicated on the response sheets, were correlated with the original sequence division of target sentences. Correlations using a phi coefficient were .8145 for the Taiwanese subjects and .8572 for the Mainland subjects.

A 2 (language group: Mainland vs. Taiwanese) $\times$ 2 (situation: negative vs. positive) $\times$ 2 (object: animate vs. inanimate) $\times$ 2 (topic up vs. topic down) $\times$ 2 (sentence type: passive vs. active) analysis of variance was performed on the subjects' choices. Very significant main effects were found for situation, $F(1,52) = 275.248$ $p < .0001$, and object, $F(1,52) = 7.353$ $p < .009$. All of the subjects favored the *bei* passive in negative situations with animate objects. No main effects were found for language group, or topic position, indicating that neither factor exercised a significant influence on the subjects' decisions. An extremely significant group $\times$ situation interaction, $F(1,52) = 23.3232$ $p < .0001$ revealed that both Mainland Chinese and Taiwanese chose the *bei* passive in negative and in positive situations. But, as Figure 1 shows, the Taiwanese subjects were more highly constrained by the situational context than the Mainland Chinese subjects. The Taiwanese were significantly ($p < .05$) more sensitive to negative contexts than the Mainland Chinese, and although the difference between the two groups is not significant on the positive dimension, the Mainland Chinese nevertheless selected the *bei* passive more often in nonadverse contexts than the Taiwanese. These differences in performance would seem to confirm the hypothesis that the two populations are indeed experiencing differential rates of linguistic change with regard to the usage constraint governing the *bei* passive.

The two groups differed only in this respect. All other interactions worked across group boundaries. A significant situation $\times$ object interaction $F(1,52) = 13.0797$ $p < .006$ appeared initially to indicate that animate objects might be a factor in the choice of *bei* passives in positive (nonadversive) contexts. However, inspection of the distribution of the verbs used in the experiment revealed that the presence of a disposal verb and an animate verb was required to extend the *bei* passive to nonadverse contexts.

Figure 1. Group x situation interaction.

Graphing the topic interaction effects with situation $F(1,52) = 7.612$ $p < .01$, object $F(1,52) = 10.8418$ $p < .002$ and situation $\times$ object $F(1,52) = 10.5548$ $p < .002$ revealed that in all cases topicality exercised an effect only when the other factors conducive to the selection of the *bei* passive were present. This interpretation is supported by the highly insignificant main effect obtained for topic position $F(1,52) = .2096$ $p < .60$. Topic prominence is thus a negligible factor in the choice of the *bei* passive in positive contexts.

The results of this study suggest a realistic model of how syntactic change occurs through translation. The key factors which determine whether a speaker uses a grammatical rule in speech or in writing are any usage constraints which define the contexts of communication in which the rule may be deployed (e.g., in the case of the *bei* passive, the obligatory presence of an adverse situation), the grammatical constraints required for the application of the rule (e.g., verb type and noun subcategorization features), and discourse features which may favor using the rule, such as language-specific conventions governing the integration of information in texts and conversation, e.g., the 'given new' contract (Haviland and Clark 1974) for English.

The process of change is initiated if translators single out a native-language rule, which, in terms of its surface-structure characteristics, appears to be equivalent to a frequently used rule in the prestige language and begin to apply it in translations without regard to any contextual constraints governing the native-language rule. If this practice continues, the rule will be extended to new contexts even though its grammatical constraints may initially be maintained. This extension of the rule will result in a progressive realization of the grammatical constraints associated with it. In the next stage of development, the modified rule may begin to displace other rules which have specific discourse functions, and, eventually, a constituent particular to the rule, e.g., a particle or preposition, may sometimes assume other grammatical functions in different contexts, as occurred in the final stages of what is possibly the most extreme development in syntactic change brought about by translation, the creation of Niassya Burmese (Okell 1965). The inevitable incorporation of these changes appears first in formal style but may eventually filter into more colloquial styles.

As in Naro's (1976) convincing explanation of diachronic innovation resulting from language learning, surface structure output plays a critical role

in the process of translation-induced syntactic change. Bad translation involves the equation of surface structure outputs in the donor and recipient language without regard for the sociolinguistic factors relevant to the use of the rules they embody. Good translation is sensitive to such factors and therefore never provides the basis for initiating grammatical change. Translation-induced syntactic change may thus be thought of as a special case of linguistic borrowing, whereby, at least in the initial stages, a surface structure configuration of the prestige language is imported into the recipient language. This may, as in the case discussed here, involve the recruitment of a rule with a similar surface output configuration, or the restructuring of an existing pattern with morphemes that formerly had a more restricted occurrence, as in Pei and Chi's (1987:118) example of the creation of a new conditional pattern in Chinese modeled on English clauses with *if*.

Over the past two decades linguists have gradually begun to overcome their reticence regarding the use of synchronic evidence for making claims about ongoing diachronic processes in syntax. In addition to the much favored descriptive approach, whereby the linguist attempts to develop arguments for a shift in progress by relating synchronic irregularities in the system (e.g., Li and Thompson 1973; Li 1974, 1975), an increasing number of studies devoted to this topic have focused on the impact of languages in contact (Cheng 1985; Kachru 1975; Nadkarni 1975; Pei and Chi 1987; Pandharipande 1987) and the accompanying sociological variables associated with structural change. Our purpose in this paper was to demonstrate how experimental approaches used in psycholinguistics may provide a valuable adjunct too for the latter type of research.

In studying hypothesized instances of syntactic change induced by prestige or functionally dominant languages, the sociolinguist typically employs traditional, time-tested methods of data collection. However, even when written examples of the posited alteration are available, the investigator may still question how widely it is accepted in the linguistic community or whether it is perceived by speakers to be register-specific. We believe that an experimental approach is most appropriate for examining such questions because it allows the sociolinguist to look at several different factors that may be involved in the change under controlled conditions that tap the speaker's knowledge in an unbiased and objective manner. The ability to assess the contribution of several variables which would otherwise remain the subject of unprovable speculation by examining interaction effects is a feature that should presumably make this approach particularly appealing to linguists. As an example we note that the interaction analyses of this study were able to demonstrate that topicality constraints cannot promote the expanded use of a rule over grammatical constraints. This has implications in the evaluation of the role that topicality and theme/rheme conventions play as mechanisms of syntactic change.

In conclusion, we should mention a few conditions to be observed in applying experimental approaches for the investigation of syntactic change. First, since criterion group experimental designs are undoubtedly most suited to this kind of research, care should be taken to assure that any number of intervening variables are controlled for in the selection of subject samples, e.g., educational background, age, and social class. The question of what constitutes

an acceptable sample size has no simple answer, but we believe that if proper attention is paid to the issue of subject selection, samples of as little as thirty subjects per comparison group may yield dependable results. Finally, for those investigators whose efforts produce inconclusive results, we heartily recommend the experimental scientist's watchword: one replication is worth a thousand experiments.

Notes

1. Chao (1968:706) notes an exception to this general rule: certain verbs of perception like *ting jian* 'hear', *kan jian* 'see' are permissible when used as verbs of actual perception, as opposed to their simplest citation forms: *ting* 'listen', *kan* 'see'.

2. This restriction to negative contexts is not absolute. It appears that the *bei* construction may at times simply mark the direction of a verb toward the subject (logical object) of the sentence, e.g., *yu bei Zhang chi diao le* 'the fish was eaten up by Zhang', where the *bei* particle marks the fact that it is the fish, and not Zhang, which is being eaten (Chao 1968:702). Nevertheless, the *bei* passive is primarily associated with adverse events.

3. Cheng's 1985 account of Taiwanese Mandarin, Taiwanese, and Peking Mandarin (see in particular note 13) seems to indicate that the sociolinguistic conditions favor maintenance of the adversity constraint in the written language on Taiwan. Chao's statement of the resistance found in the spoken language certainly accords with Cheng's perceptions.

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VARIATION AND LEXICAL CHANGE IN TOK PISIN IN PAPUA NEW GUINEA

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0. Introduction. Tok Pisin is an English-based pidgin spoken in Papua New Guinea. Like all pidgin languages it arose as a lingua franca in a situation of language contact among speakers of many different languages. It shares with pidgin languages the characteristic that its lexicon is drawn largely from one language, in this case English (and hence it is referred to as an English-based rather than, say, a French-based pidgin). Its grammar, however, draws to a large extent on another language, in this case, the indigenous languages of Melanesia.

Tok Pisin is the descendant of varieties of a Pacific Jargon English which was spoken over much of the Pacific during the last century and used as a lingua franca between English-speaking Europeans and Pacific Islanders. It was learned by Papua-New Guineans on plantations in Queensland, Samoa, Fiji, and in Papua New Guinea itself. The typical pattern of acquisition was for Melanesian workers to acquire the pidgin or jargon and then bring it back to villages, where it was passed on to younger boys. Tok Pisin crystallized in a distinctive form in the New Guinea islands and spread from there to the mainland.

Although Tok Pisin was born in and kept going by colonialization, it quickly became more than just a means of communication between the indigenous population and their European colonizers. Since its origin in ca. 1880, Tok Pisin has become the most important lingua franca for Papua New Guineans, who according to one estimate, have around 750 indigenous languages. Although it was originally learned as a second language, it is now being acquired by children as their first language. When this happens in the life cycle of a pidgin, we can speak of creolization. In sociolinguistic terms then, Tok Pisin can be described as an expanded pidgin which is currently undergoing creolization. It now has a sizable number of native speakers (more than 20,000), and roughly 44% or nearly half of the population claim to speak it. There has been considerable discussion over the question of whether Tok Pisin should become the national language of Papua New Guinea. At the moment it has official status, along with two other languages, English, and another pidgin, Hiri Motu, which is based on Motu, one of the indigenous languages of what used to be the Territory of Papua. Hiri Motu is, however, regionally restricted, and only about 9% of the population speak it. The name 'Tok Pisin' was officially adopted for the language in 1981. It had been

previously referred to as Neomelanesian, Melanesian pidgin, Tok boi, or just pidgin. It is now, since independence in 1975, the preferred language in the House of Assembly, though English is the official medium of education. What this means in practice varies a great deal, depending on local conditions such as the availability of competent teachers.

One of the things which happen when a pidgin expands and stabilizes, and possibly then creolizes, is that new linguistic resources have to be created or borrowed to fulfill the new functions to which the language is put. One of the things that typically occur is an increase in vocabulary in order to express new concepts (e.g., *nesional baset* 'national budget', *minista bilong edukesan/edukesan minista* 'education minister') and the use of more complicated syntactic structures such as relative clauses and embedded sentences to manipulate discourse.

Tok Pisin is used now in political debates in the House of Assembly, in media broadcasts and in journalism, and it has drawn heavily on English in all its new functions. So much English has been borrowed into the language, particularly by urban educated speakers, that many have recognized two separate varieties of the language, urban and rural or bush pidgin. In many cases borrowing is resorted to as a means of filling a lexical gap, particularly where foreign institutions and ideas are involved. These concepts could be expressed in pidgin but usually only by means of a lengthy circumlocution. For example, *baset* 'budget' could be paraphrased by saying *ol man bilong tresuri i raitim daun ol samting bilong mani bilong gavman* 'the treasury people write down things having to do with the money belonging to the government'. The circumlocution is clear, whereas the borrowing is not. It is common to find that people do not understand the meanings of very frequently used English borrowings. When the country became independent in 1975, the term *independens* was used, but many people then did not understand what it meant, and still do not. I worked with bush informants who said they were happy their country was independent because it meant that Australia would help them, when in fact it means just the opposite.

But in other cases English is borrowed where there are equivalent pidgin words simply because English has more prestige. For example, pidgin uses the term *askim* as both a verb and a noun, but increasingly in urban pidgin *kwesten* appears too. Another example is *infomesen* and *toksave*. An example from grammar is the increasing use of English plural endings in *-s*, e.g., *ol gels/ol meri* 'the girls/women'. I will look at some of the effects of the mixing between pidgin and English which results from this kind of borrowing in the lexicon.

1. Background to the research. Before turning to the problem, I want to give some background about the data which I am going to describe. They were collected over a two-year period as part of a research project on language change, language acquisition, and creolization in Tok Pisin, funded by the Max-Planck-Institut-für-Psycholinguistik (cf. Romaine and Wright 1986).

Presently, there is a multiplicity of situations in which young children are exposed to Tok Pisin. In some cases, e.g., in urban centers such as Lae, it may be the first learned and nearly sole language of the child in early years. In other areas, it may be first learned along with another local language (i.e., *tok*

ples) or learned later in addition to a local village language. There is a great range of competence among speakers of Tok Pisin, depending on the age and different social and historical circumstances which surround acquisition. A major aim of this research was to look at the comparative effects of processes of rural and urban creolization on children's language development in two provinces in Papua New Guinea. Field trips were made in 1986 and 1987.

The data base consists of tape-recorded and video material from over 650 children and adults. The children fall between the ages of five and seventeen and were drawn from eleven areas in two provinces. Since the second field trip was completed in May 1987, the data are still being transcribed and entered into the computer. What I have to say will be based on some of the results from 214 children in five of the areas as shown in Table 1, and is therefore very preliminary.

Table 1. Details of sample.

Province	Date	Location	Setting	No. of children interviewed
Morobe	1986	Lae/Taraka	urban	74
	1986	Lae/Unitech		12
	1986	Bulolo	urban	18
	1986	Indagen	rural	35
	1987	Geraoun	rural	33
Madang	1987	Rempi	rural	42
Total				214

Adults are not included here, nor are various children in other locations such as Indagen and Rempi, who contributed stories, but did not participate in the full range of tasks. The Unitech children's sample is a longitudinal minisample within the larger survey. These children were first contacted and interviewed at a school in Lae. Their parents live on the campus of the Papua New Guinea University of Technology and they took part in regular after-school recording sessions over a period of two years. The data for these children consists of narratives, free play, and video story retellings. In other areas such as Indagen and Bulolo, there are some longitudinal data too since we interviewed some of the same informants in 1986 and 1987.

2. Borrowing in the lexicon. All languages borrow. What is interesting is the extent to which any language can integrate what it borrows without undermining its grammatical and semantic integrity. It is commonly assumed that lexical borrowing is of no consequence for grammar, but this is not so. The number of items in the lexicon of a pidgin is highly restricted. Estimates of size vary from about 300-1,500 words, depending on the language (cf. Romaine 1988:2.4). In the case of the children studied here, for example, it ranged from about 800 in rural areas like Geraoun to about 2,500 in urban areas like Lae, where a greater number of English words have been incorporated.

It is a direct consequence of their impoverished vocabulary that pidgins exhibit a high degree of motivation and transparency in compounding. Tok

Pisin has coined the term *manmeri* (<*man* 'man' + *meri* 'woman') for 'people', but increasingly the English word *pipol* is also used. One can compare also: *haus mani/beng* and *haus sik/hospital*. The English words are lexically arbitrary and opaque as to their meaning, while the pidgin terms are transparent and show systematic relationships with other items. There is an inverse correlation between the lexical expansion of a language and the iconicity of its grammar. The greater the lexicon, the greater the opacity; the smaller the lexicon, the greater the transparency and iconicity (cf. Haiman 1985:158). The more exceptions a language has, the harder it is to learn. In some cases, borrowing from English is making the structure of Tok Pisin more irregular.

Some examples of the disruption to the iconic structure of the vocabulary of Tok Pisin caused by the borrowing of English vocabulary can be taken from the lexical field of animal terms, which is becoming increasingly anglicized in the speech of young children. The English term *duck* competes with Tok Pisin *pato*. We can contrast also *chicken* vs. *kakaruk*, *cow/bull* vs. *bulmakau*, *sheep* vs. *sipsip*, *frog* vs. *rokrok*, *bird* vs. *pisin*, *lizard* vs. *pilai*, and *animal* vs. *abus*. The percent of variants in use in each area for these items is given in Table 2.

The case of *abus* vs. *animal* as the generic term for 'animal' is an interesting place to begin the discussion of lexical borrowing in more detail since *abus* is indeed English *animal* borrowed in the early stages of development and subjected to various natural phonological changes (i.e., /l/ vocalization, loss of unstressed syllable, and replacement of /n/ with homorganic nasal).

It can be seen from Table 2 that the English term *animal* (also *enimal*) has penetrated all but the most rural area, Geraoun, to some degree. It tends to be more frequent in urban areas, where children have more exposure to English. It is fast becoming the preferred term for the Unitech children.

A similar pattern can be seen for the use of *chicken*, although the picture becomes more complicated here by the fact that English has the gender-neutral term *chicken* in addition to the sex-specific *hen* and *rooster*. In the case of these animal terms we cannot argue that the reason for borrowing is lack of vocabulary on the part of Tok Pisin. Tok Pisin has *kakaruk*, so has no need to borrow *chicken* from English. It also has the equivalent for the semantic distinction of gender encoded in English pairs such as *rooster/hen* (Tok Pisin *kakaruk man/kakaruk meri*). The significant difference, of course, lies in the way the two languages encode this grammatical distinction. In Tok Pisin there is a regular and iconic relation between form and meaning. Thus, the meaning of 'chicken + male/female' is derivable from the component parts of the expression *kakaruk man/meri* in a way that it isn't in English *rooster* and *hen*. The English terms are arbitrary. (Compare English *boar/sow* and Tok Pisin *pig man/pig meri*.) In this case it is interesting that the male variant, *roosta*, is being introduced with greater frequency than the female variant *hen*. Similar patterns can be seen for *pato* and *duck*. The generic term *bird* is just beginning to be used by urban children in Lae.

Another complicated case is presented by the competition among the variants for 'sheep'. The Tok Pisin term is *sipsip*, but in addition to the English term *sheep* there are also two intermediate variants, *shipship* and *sip*. *Shipship* is adapted in phonological form to English and is thus in a sense

rephonologized, while *sip* is adapted in morphological shape and it preserves Tok Pisin phonology. Thus, the replacement of Tok Pisin terms by English ones may proceed in stages. In the case of *kakaruk* there are also intermediate forms, *shiken* and *siken*, which I did not discuss. It is only in the urban areas that the fully English form *sheep* is used, although all areas have some intermediate forms.

Table 2. Borrowing in the lexical field of animal names (%).

Corpus: Lae (Trk)	(UTC)	BUL	IND	GER	REM	Total	
Abus	58	27	88	81	100	65	62
animal	42	73	12	19	0	35	38
kakaruk	80	80	53	95	100	84	82
chicken	17	17	25	2		16	16
hen			13				1
roosta	3	3	9	3			1
pato	71	71	12	88	94	75	74
dak	29	29	88	12	6	25	26
pisin	94	84	100	99	100	99	95
bird	6	16	0	1	0	1	5
sipsip	47	67	38	84	20	60	57
shipship	14	8	12	8	20	40	17
sip	17	8	25	8	60	0	12
ship	22	17	25	0	0	0	14
pilai/palai	50	91	-	100	0	100	88
lidjud	25	0	-	0	100	0	6
lizad	25	9	-	0	0	0	6
pukpuk	29	67	33	3	37	69	20
krokodail	71	33	67	97	63	31	80
rokrok	0	0	16	14	0	0	6
frok	100	100	84	86	100	100	94
bulmakau	1	5	6	6	27	0	5
kau	99	95	94	94	73	100	95

Another interesting case with an intermediate form is that of the variants for 'lizard'. The term *palai/pilai* has its origin in Kuanua, one of the indigenous languages of Papua New Guinea, and is the usual term for a lizard or gecko. Now the English terms *lizard* (in several phonetic variants) and *gecko* are beginning to be used. The general pattern for this item is somewhat skewed by the fact that there was only one occurrence of the form *lidjud* in Geraoun. Lizards are not frequently found in the colder mountainous areas

of inland Papua New Guinea, so it is not surprising that the Tok Pisin term is not known.

The lack of familiarity with some animals explains why in some cases rural areas have just as high a frequency of use for the English terms as do urban areas. Thus, for example, crocodiles and frogs are more common along coastal Papua New Guinea. When terms are introduced for these animals into other areas, it will often be the English term that is first used. The Tok Pisin terms *rokrok* for 'frog' and *pukpuk* for 'crocodile' are now becoming very restricted in use. Some children did not know them at all. Mihalic (1971) assigns a Kuanua origin to *rokrok*, but it may also be onomatopoeic. He also gives *pukpuk* an indigenous source.

Also at the other end of the spectrum of replacement of pidgin words by English come the final items in Table 2, *cow* and *bulmakau*. It can be seen that only in the most rural area does the Tok Pisin term *bulmakau* occur with any regularity and even there it has nearly been replaced by *cow*. There were also some other variants, such as *brumakau* and *makau*. The male term *bull* is also beginning to be used.

There is also another aspect of borrowing in evidence in the children's naming of the animals, i.e., semantic specialization. When a language has a word to cover a certain meaning and it borrows another one, one of the terms tends to be restricted in meaning. Pidgins, of course, have little room for synonymy since they have a minimal lexicon. A consequence of the small size of the typical pidgin lexicon is that lexemes tend to cover a wider semantic range and be more general in meaning. Thus, in Pidgin Fijian there is one term for a basket, while Standard Fijian has a number of words referring to baskets of different sizes made of different materials (cf. Romaine 1988:34-35). Semantic generality can also be found in the lexicon of young children. Semantic differentiation and narrowing of meaning is typical of the later developmental stages of both child language and pidgins.

Some of the children sometimes use the English terms for animals to refer to the babies, e.g., *pato wantaim duck or ducklings* 'adult duck with its ducklings'; *kakaruk wantaim chickens, chicklets* 'adult chicken with its chicks or chicklets'.

The case of *animal* vs. *abus* is also interesting. One adult informant from Indagen commented that:

Abus, animal, o enimal em wanpela tok tasol. Enimel em olsem biknem. Enimal blo bus olsem bus i gat kainkain enimal, na abus em olsem wankain liklik. Abus olsem lo stua abus olsem tinfis, mit em ol abus na em lo tinfish ol i no inap tok enimal, em nogat em olsem abus. Wanpla tok.

'Abus, animal, or enimal that's just the same word. *Animal* is the big name. In the bush there are all kinds of animals [i.e., *enimel*], while *abus* is used to refer to things that are more similar. So *abus* in the store like tinfish, or meat, that's *abus*. You can't say *enimal* for those things. But it's the same word.'

He is suggesting that the English term *animal* is used in a generic sense as the superordinate category name, while Tok Pisin *abus* preserves its meaning of

edible meat. The semantic distinction is reminiscent of one that exists between English *pig/pork*, *cow/beef*, etc., where the native English term refers to the animal on the hoof, so to speak, while the borrowed French term refers to the edible version on the table.

The term *abus* is itself established only after 1960 as a generic term for 'land animal'. The term *pisin* was once more general in meaning. Around 1920 it could refer to birds, animals, and fish. Additional qualifications could be added to further specify what kind of creature was being referred to, i.e., *pisin i kalap antap* 'animal that moves around above', e.g., 'bird', or *pisin i save subim wara*, e.g., 'fish'. The term *pis* 'fish' became established around 1930. These processes of borrowing and semantic specialization are operative in the history of languages and child acquisition more generally, not just in pidgins (cf., e.g., Kuryłowicz 1949).

There are various other examples one could take to show the disruptive effects of English borrowing on the lexicon of Tok Pisin. In Table 3 I have shown the responses to a task in which the children had to make up a narrative in response to seeing a picture of a boy running with a pot in his hand. A pig is jumping out of the pot, thus making the lid of the pot fall to the ground.

The following is an example of such a narrative told by a seven-year-old boy from Lae:

Wanpela taim wanpela liklik manki haus blem i stap klostu long kunai na wanpela diwai sanap. Wanpela taim nau em karim putim pik blem go insait long wanem pan na karapim na em karim go. Em la karim go lo hau hau fens bilong pik. Em karim go nau karim go nau long rot stret nogat pik ia belhat na em kalap go outsait nau ai bilong pot i pundaun nau pik ia kalap go daun na ranawe.

'Once upon a time there was a little boy. His house was close to the bush and there was a tree standing there. One time now he put his pig inside a pot and covered it. He was carrying it to the pig's fence. He was carrying it along the road but the pig got angry and jumped out and the lid of the pot fell off and the pig jumped down and ran away.' (UTM1)

What is interesting is the way in which the lid of the pot is referred to in the different areas. In Table 4 I have given the number and percent of the main variants, *ai*, *hat*, *maus*, *lid*, and *tuptup*.

Looking at Mihalic (1971), for instance, we find no mention of *pot*, or *pan* for the container, or of *lid*, *hat*, or *maus* for its cover. *Tuptup* is listed as an item having its source in Kuanua (< *tubatuba*), and *tuptup bilong sospen* is listed as the 'lid for a kettle' and *ai bilong sospen* as 'lid for a pot'. *Sospen* is the only word listed for 'pot' or 'saucepan'. *Tin* and *baket* are in use but usually refer to different kinds of containers, as they do in English. It is not clear how long *tuptup* has been in existence; it is likely that it has been in the language since its formative days, but it was perhaps always regionally restricted, as it appears to be now. It competed with the standard Tok Pisin *ai/hat/maus bilong sospen*. Even now *ai bilong sospen/pot* enjoys the widest distribution and is the most frequent form in all the areas except for the Unitech children in Lae, who use mainly *lid*. The next most widely distributed

form is the new word *lid* taken from English, which appears in all of the areas except the most rural, Geraoun and Indagen. The next most widely distributed and frequent form is *hat*, followed by *maus*. It is interesting that the greatest variation in form occurs in Rempi. The other areas tend to be split between two or three items.

Table 3. Names for 'lid' in the pig in the pot narrative.

Corpus:	Lae (TRK)	(UTC)	BUL	IND	GER	REM	Total
ai bilong pot	2	1	4	2	2	7	18
ai bilong fot						1	1
ai bilong en		1		1		1	3
ai bilong sospen	6		1	1		2	10
ai bilong en				1	1	1	3
ai blem	1					1	2
ai blo baket	1						1
ai blo (?)	1						1
Total for ai	11	2	5	5	3	13	39
hat bilong sospen					1		1
hat blong wara						2	2
hat bilong tin				1			1
Total for hat				1	1	2	4
lid	5	3					8
lid bilong pot	1		2			7	10
lid blem		1				1	2
lid blo sospen	3	1					4
Total for lid	9	5	2			8	24
maus bilong en (pot)					1		1
maus blongen						1	1
maus blem						1	1
Total for maus					1	2	3
tuptup						1	1
Totals	20	7	7	6	5	26	71

Of what consequence to the lexicon is the borrowing of *lid*? Again, this is a case where the English term is opaque, as is the variant *tuptup*. The Tok Pisin *ai/hat/maus* are all motivated. Todd (1985) has drawn attention to the productivity of *ai* and other body parts such as *maus* (and *hat*) as metaphors

in both Tok Pisin and Cameroon Pidgin. For example, Tok Pisin has *apias* 'blind' (< 'close' + 'eye'). Compare also Cameroon Pidgin *lokai* and also Tok Pisin *mauspas* 'silent' and *yaupas* 'deaf'. Tok Pisin also has *ai bilong sua* 'head of a sore', *ai bilong botol* 'lid of a bottle', and *ai bilong kokonas* 'hole of a coconut'. Of course, English has metaphorical extensions of body parts too, such as *eye of a storm* and *ear of corn*, but the fact that it has many more arbitrary terms like *blind*, *deaf*, and *dumb* to encode meanings which are all formally linked in Tok Pisin is an indication of the greater degree of lexicalization of English.

Table 4. N/% of *ai/hat/lid/maus/tuptup* for 'lid' in the 'Pig in the pot' narrative.

Corpus: LAE	(TRK)	(UTC)	BUL	IND	GER	REM	Total
ai	11/55	2/29	5/71	5/83	3/60	13/50	39/55
hat				1/17	1/20	2/8	4/6
lid	9/45	5/71	2/29			8/31	24/34
maus					1/20	2/8	3/4
tuptup						1/3	1/1
Totals	20	7	7	6	5	26	71

The structure of such lexical fields represents a case of what Haiman (1985) has called diagrammatic iconicity; that is, a systematic arrangement of signs, none of which necessarily resembles its referent, but whose relationships to each other mirror the relationships to their referents. Thus, one can say that *hat* has the same relationship to head as a lid has to a pot. They are coverings of different surfaces. Or alternatively, a *mouth* or an *eye* is an opening to the face in the same way that an 'eye of a pot' is something one puts over the pot to close the opening. Another more general process of grammaticalization is probably at work here too. Body parts provide the most important source domain for spatial concepts in language. Thus, locative pre- and postpositions in many languages are cognate with or derived from body parts (cf. Heine and Noske 1988); e.g., *behind* in English refers to the body part and to a spatial dimension. Thus, *mouth* and *eye* frequently provide the source for the spatial dimension of 'front.' Thus, in Tok Pisin *sanap long ai bilong ol* means 'to stand up in front of everyone'. Similarly, the word for 'head' in many languages comes to encode the dimension of 'on' or 'front', *back*, the location of 'behind' and buttocks or anus, the location of 'under'. In Tok Pisin, we have as *bilong diwai/flaua* 'the base of the tree/flower' and *asples* 'one's place of origin', as well as *as bilong kros* 'the reason/cause for anger'. In the latter case we have a metaphorical extension from the concrete domain of body parts to a more abstract concept which does not have an inherent spatial dimension of 'bottomness' or 'under.'

Since a lid refers to a spatial location with respect to its container, it should not be surprising that body parts like *maus*, *ai*, and the related *hat* should come to be used in Tok Pisin. In pidgins these metaphorical uses are an important means of extending a restricted vocabulary with limited syntactic

means. Borrowing from English, however, is threatening to disrupt the unity of a great many semantic fields which are linked by these metaphors.

3. Implications for language planning, education, and literacy development. I want to conclude by making some remarks about the more general consequences of borrowing from English, although it is not my intention to make any statements about what kind of language planning efforts, if indeed any, should be undertaken in Papua New Guinea with regard to Tok Pisin.

The increasing contrast between rural and urban lifestyles in Third World countries where pidgins and creoles are typically spoken has had its linguistic consequences. In discussing the dichotomy between rural and urban Liberian English, Singler (1987:121) observes that the rural-urban, contemporary-traditional dichotomy is intensified in countries like Liberia, where the city itself is an innovation and not part of a traditional society. The city flaunts its Western-style modernity and fads. It acts as a center from which innovations spread out into rural areas. The role of major cities like London in diffusing linguistic changes has, of course, been noted in Western societies too (cf., e.g. Trudgill 1984).

One young man from Indagen, who has since left the village and lives now in Lae, said that the speech of urban children was prestigious and served as a model for rural children. He said:

Na taim ol pikinini go raun wantaim ol poroman blol yet long taun em ol sa tok pidgin tasol na raun. Orait disla kain na taim ol pikinini sa kam long hia ol sa tok pisin wantaim ol manki long hia na wanwan taim ol sa gejim ol stail blong ol taun na chenjim liklik.

'When the children hang around with their friends in town they all speak pidgin. So it's like this, when these children come here and they speak pidgin with the children from here they gauge the style of the town children and they change.'

Many linguists such as Wurm (1977 and 1980) have argued that the standard for Tok Pisin should be based on the regionally most widespread variety of pidgin, which shows as little influence as possible from English; namely, bush pidgin. Unlike other cases of standardization, e.g., in Europe, where the varieties of the elite in capital cities like London and Paris provided the basis for the codification of a standard, in Papua New Guinea it has been rural pidgin which has set the standard. A desire to stick to this variety in any future language standardization has become increasingly unrealistic, given the almost universal imposition of English medium education in Papua New Guinea. One elderly informant in Indagen commented on the effect of English education:

Man bin skul finish long inglish, bai yu harim narafela kain nek bilong ol....Na man bilong ol i stap long tok ples, skul long hap ia, ol i wokim pisin stret.

'You'll hear another kind of Tok Pisin from those who have gone to school in English. But those who stay with their indigenous language in the [vernacular language] school over there, they speak the real pidgin.'

In this regard, Samarin's remarks about possible standardization of Sango are interesting. He comments (1980:217) that given the opportunity to do so, he would choose as a basis for standard Sango the variety which was most widely used in urban centers. His reasons include the fact that this is where one finds most of the first-language speakers and the fact that urban life is most admired in the Central African Republic, and this is where new trends are set. The choice of urban Sango, however, implies a more Frenchified Sango, just as in Papua New Guinea the choice of urban pidgin would mean an anglicized pidgin. Similarly, Valdman (1975:71) has predicted that the Haitian capital, Port-au-Prince, is likely to set the standard for Haitian Creole. The language of the capital is heavily Gallicized by contrast to rural varieties.

There is now a considerable gap between rural and urban Tok Pisin, which partially coincides with that between the written and spoken forms of the language. Although the competence of most urban speakers includes rural pidgin, the reverse is not true. Many of the items which are found in print and commonly used in town speech are not intelligible to the average rural adult speaker. Mühlhäusler (1985) has discussed some of the strategies used by speakers to communicate across lectal boundaries. I leave the final word to one informant who commented:

Senis i kamap em i gutpla tasol i no gutpla tumas. Nau em no gutpla tumas blo wanem yu mekim lapun i no klia long Tok Pisin blo wanem i miks wantaim Inglis.

'There are changes taking place which are good, but they are not always very good. They are not very good because they've made it so that the old people don't understand Tok Pisin because it's mixed with English.'

Note

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THE ROLE OF CONTEXT IN LANGUAGE CHANGE: EVIDENCE FROM ANDALUSIAN SPANISH

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1. Introduction. Context serves an undeniable function in language change, yet until recent years its role had often been neglected in linguistic investigation. Current research in discourse analysis, however, through its emphasis on the speech act within its natural setting, provides the means to begin systematizing the effects of context. This paper investigates the informational role of context as a factor in language change. Specifically, I show that the ongoing changes in nominal number marking in a representative Spanish dialect cannot be adequately understood without reference to context.

In Andalusian Spanish, as in many other Spanish dialects, the deletion of the plural morpheme /s/ reduces redundancy in signalling number. When number markers other than /s/ are present, the sound change does not give rise to any ambiguity. In the following sentence the deletion of word-final /s/ eliminates five redundant plural markers (indicated in parentheses), yet the number of the noun in subject position is still indicated by the verb.

- (1) La(s) conferencia(s) a la(s) que asistí el viernes fueron la(s)
más interesante(s).
'The talks I attended Friday were the most interesting.'

When no other linguistic markers are present, however, number is ambiguous:

- (2) Asistí a la(s) conferencia(s) más interesante(s) el viernes.
'I attended the most interesting talks Friday.'

As will be seen below, the potential for morphological ambiguity has been a primary consideration in discussions of /s/ deletion. Contextual indications of number can, of course, reduce the resulting ambiguity. In (2), number can be disambiguated contextually by naming the presenters of the talks:

- (3) Asistí a la(s) conferencia(s) más interesante(s) el viernes. Tanto
John Joseph como Tony Espósito hablaron de manera convin-
cente.
'I attended the most interesting lectures Friday. Both John Joseph
and Tony Esposito spoke convincingly.'

Example (3) illustrates only one of the many types of information provided by context which bear on the hearer's interpretation of discourse. Because of its informational role, then, context must be included in assessing the ambiguity resulting from /s/ deletion and, consequently, in considering the future direction of number marking in Spanish.

As a necessary background to understanding the role of context in language change, one must consider two factors which guide a speaker's performance: sufficiency and necessity. Horn (1984:13) recently reformulated these considerations in light of Zipf's and Martinet's principles of functional economy and Grice's maxims of conversation. Simply stated, the speaker attempts to make his contribution sufficient by saying as much as he can, and necessary by saying no more than he must. The speaker undoubtedly relies heavily on contextual information in determining the sufficiency and necessity of his linguistic contributions. The speaker will tend to avoid repeating information which is already known to the hearer (that which is contained in the 'presupposition pool' between speaker and hearer) and will supply new information only when it is pertinent to the focus of discourse. If the speaker wants the hearer to serve him some ice cream at the dinner table, he will refrain from specifying the description and location of the ice cream if he believes this information to be obvious from the situational context. The speaker will, however, indicate the desired quantity of ice cream unless he views this information as irrelevant because he assumes that the hearer will give him a 'normal quantity' or unless he has already made clear his preferences in preceding conversation, e.g., *I'm not very hungry tonight* or *I can never eat too much ice cream*.

In light of these principles, a speaker's decision to signal number, where indeed he has the choice, will logically depend on his judgment of whether the distinction is relevant to his message and whether he believes the hearer already knows whether a particular noun is singular or plural. In this study, it will be seen that even when /s/ is deleted, the speaker rarely, if ever, wishes to make a number distinction which is not already indicated either by linguistic or contextual means. In other words, the speaker can signal number sufficiently for his purposes without /s/. Furthermore, in view of the other means of signalling number in Spanish, the use of /s/ for this purpose is in fact unnecessary.

The principles of sufficiency and necessity, through their application in individual speech acts, can also influence the direction of language change. If number were frequently undersignalled in places in the discourse where this distinction was pertinent, the speaker would likely seek to restore sufficient marking through other means. As stated above, however, ambiguity rarely arises in Andalusian Spanish when contextual factors are considered. Any restructuring to reinforce number marking, such as that which occurred in French, will likely not be motivated by the sufficiency principle. The future of number marking in Spanish will be considered in the conclusion.

2. Previous studies on /s/ in Spanish. The question of sufficiency of number marking has been a primary concern in previous studies on the weakening of /s/. Based on Kiparsky's distinctiveness condition, 'the tendency

for semantically relevant information to be retained in surface structure' (1982:87), it was assumed that /s/ would be deleted less frequently where it served as a number or person marker, as in *casas* and *hablas*, than where it did not, as in *entonces* and *pues*. Initial data yielded support for Kiparsky's functionalist hypothesis in modified form. While it was not true that the morpheme /s/ was deleted less often than lexical /s/ on the whole, it appeared at least that the /s/ of the determiner tended to be retained, as in *las casa(s)* [laskása]. In this way the reduction of redundancy did not lead to ambiguity, since /s/ was retained at least at one point in the surface structure. Terrell (1977:165) interpreted this finding as 'support to the hypothesis that deletion is constrained by a functional factor: the desire to preserve a plural marker in the noun phrase.' Other studies confirmed that /s/ was retained more frequently on the determiner, especially before a stressed vowel (e.g. Lafford 1982:128, Cedergren 1973:53, Terrell and Tranel 1979:32-33). It appeared then the deletion of /s/ proceeded according to phonological and functional constraints.

Further investigation in dialects with higher rates of /s/ deletion revealed that the sound change was not constrained by functional factors. Poplack (1979:89) found that 'counter to any functionalist claim' the deletion of /s/ on one segment in the noun phrase favored its deletion on other segments (cf. Poplack 1980:377, 1984:212-13). In other words, plural was either redundant, as in *las casas* [laskásas] or ambiguous [lakása], but not merely sufficient [laskása]. Similarly, Terrell concluded from his studies in the Dominican Republic that functional conditioning was 'not sufficient to stop or impede the [sound] change' (1981a:120). Such evidence does not invalidate Kiparsky's premise, but rather calls for removing the stipulation that semantically relevant information be retained in the surface structure. One could state simply that 'semantically relevant information will tend to be retained' regardless of the elements which provide the information. In dialects, such as Andalusian Spanish, in which /s/ is almost categorically deleted, number is indicated by either linguistic markers, such as the verb *fuleron* in (1), or contextual markers, such as the names of the presenters in (3).

Poplack (1979:84) and Terrell (1981b:927ff.) have presented data which quantify the occurrence of linguistic number markers other than /s/ in Puerto Rican and Dominican Spanish, respectively. Contextual markers, however, have not yet received sufficient attention. Poplack (1979:84) mentioned in passing the role of 'shared knowledge' in disambiguation, while Terrell pointed out that context and common sense could determine number. Furthermore, he identified cases where number could remain unsignalled with no effect on meaning (1981b:934-35). After a brief discussion of redundancy and ambiguity in linguistic marking in Andalusian Spanish, I describe and quantify the presence of contextual markers of singular and plural. Only when context is considered can the deletion of /s/ and the morphological restructuring in its wake be interpreted in light of the principles of sufficiency and necessity.

3. Number marking in Andalusian Spanish. The data for this study are based on a spontaneous forty-five-minute conversation with a housewife from Puente Genil, a town in central Andalusia in the province of Córdoba. For each of the more than five hundred nouns in her speech I recorded the type

and frequency of all number markers: linguistic markers other than word-final /s/ (which was deleted in all but four examples) and also contextual markers.

3.1 Linguistic number markers. The distinctive linguistic number markers were classified into three categories:

A. Determiners, such as the definite article, *el/lo(s)*, the indefinite article, *un/uno(s)*, and the demonstrative adjectives, *este/esto(s)*, *ese/eso(s)*. (It should be noted that only the masculine determiners distinguish number when /s/ is deleted, whereas the feminine forms become ambiguous, *la(s)*, *una(s)*, *esta(s)*, and *esa(s)*. No examples of *aqué/aqueello(s)* or the interrogative adjective, *cual/cuale(s)* occurred in the text. Ordinal numbers, *dos*, *tres*, etc. were included in this group for plural nouns since they also precede the noun.)

B. The suffix, [e], in consonant-final nouns and adjectives, *una canción popular/una(s) canciöne(s) populäre(s)*, and

C. The verb when the noun is the grammatical subject, *mi amigo es/mi(s) amigo(s) son*.

In accordance with the necessity principle, the deletion of /s/ significantly reduces redundant linguistic marking of number in Spanish, as shown in Table 1. The average number of linguistic markers per noun in the speech of the informant, who deleted /s/, is compared with the number of markers which would have occurred if /s/ had been pronounced. When /s/ was not pronounced, the number of linguistic markers per noun was on the average perfectly sufficient: one marker per noun. If /s/ had been pronounced, however, the average would have been two and a half markers per noun. By deleting /s/, speakers avoid indicating more information than is necessary in signaling number, a process in line with the principle that speakers say no more than they must.

Table 1. Average number of linguistic number markers per noun.

	/s/ deleted	/s/ pronounced
Masculine	1.2	2.4
Feminine	.7	2.7
Total	1.0	2.5

While speakers reduce redundancy in accordance with the necessity principle, they also create ambiguity, at least on the surface, in defiance of the sufficiency principle. As shown in Table 2, number is ambiguous for the nouns which occur with no linguistic marker and redundant for those occurring with two or more markers.

Table 2. Percentage of nouns per number of linguistic markers.

No. of markers	Masc. (279)	Fem. (274)	Total (553)
0	21% (58)	49% (133)	35% (191)
1	46% (128)	38% (105)	42% (134)
2+	33% (93)	13% (36)	24% (131)

(The absolute number of nouns is indicated in parentheses.)

In the following discussion of the role of context in number marking, it will become clear why ambiguity in linguistic marking in 35% of the nouns in the text causes little difficulty in communication.

3.2 Contextual number markers. Failure to mark number linguistically does not affect communication for three reasons. First, the number of nouns in certain constructions is irrelevant to the message; second, context conclusively indicates the number of the noun; and third, the number of the noun is not essential to the topic of conversation, even though number may be relevant and not indicated by context. Nouns were classified accordingly into three groups: those for which number was irrelevant, those for which number was conclusively marked by context, and those for which number was not conclusively marked by context.

Whether the number of a noun is relevant or irrelevant depends on the relationship between grammatical number and real number. Grammatical number is relevant only when the noun serves 'as a symbol for an objective entity, a countable item' (Bull 1965:221), when the singular stands for one entity in the real world and the plural stands for more than one entity, as in *el niño/los niños*. Conversely, the expression of number is irrelevant to the message when grammatical number does not reflect real number, as in *ropa de niño*. Stated in other words, nouns considered in their existence show a number distinction whereas those considered in their essence do not.

3.2.1 Number irrelevant. Number was considered to be irrelevant when the noun fulfilled the following functions:

A. Reference to a noncount entity, '...a numerically neutral form of the noun' (Bull 1965:231). Nouns such as *tiempo* and *dinero* are typically uncountable in Spanish. Other nouns may be considered either countable or uncountable, depending on the frame of reference in which they occur. In *le nuestro mucho cariño* the noun *cariño* is not countable, whereas in *dale un cariño*, the noun refers to an act of affection and as such is countable. In some cases, the uncountable noun has a meaning distinct from the countable form. When *compañía* means 'company, companionship', it is uncountable. When it refers to a business enterprise it is countable, as illustrated below:

- (4) No me gusta la soledad. Me encanta la compañía.
'I don't like solitude. I love company.'
- (5) Mi hija trabaja en una compañía.
'My daughter works in a company.'

B. Adjectival or adverbial modifier. When a noun is used in an adjectival expression, as is *lengua* in *profesora de lengua(s)* 'language teacher' or in an adverbial expression, as is *pie* in *ir a pie* 'to walk, go by foot', it does not reflect the actual number of entities involved. A *profesora de lengua(s)* may teach one or more languages and *ir a pie* almost always involves two feet,

depending on who is doing the walking. (Cf. Bull 1965:225, '[a noun may] have no number value whatsoever. It has none as a ...modifier.')

C. Expression of generic totality. Since this notion can be expressed either by a singular noun, which represents a class, or by a plural noun, which refers to all members of a class, the grammatical number is irrelevant. Consider the informant's explanation of whether both men and women use a certain pronunciation. In the first instance, the generic totality of men is expressed by the plural and in the second case by the singular:

- (6) Hombre(s) y mujere(s). Sí. El hombre meno(s) porque luego van al servicio militar y se le quita un poco, pero las mujere(s) de sesenta años y para arriba, toda(s).
'Men and women. Yes. Men less because later they do military service and they lose it a little, but women 60 years old and older, all of them.'

D. The noun expresses the object owned by a plural group of possessors and as such does not indicate whether each person possessed one or more items:

- (7) Todos tienen su(s) criada(s).
'They all have their maid(s).'

Even if /s/ were pronounced, one would not know conclusively whether each person had one maid or more than one.

In addition to the above categories, I include as irrelevant the noun *gente*, which is grammatically singular yet conceptually plural (as indicated by its frequent use with a plural verb, e.g., *hay gente que no saben escribir*) and the quantitative expressions, *un montón de/montones de*, since the actual number of piles is not important in indicating the idea of quantity.

The percentages with which nouns in the recorded conversation occurred in the preceding categories appears in Table 3.

Table 3. Number irrelevant.

Category	No linguistic markers (195)	Linguistic markers (358)	Total (553)
Noncount	13% (25)	9% (30)	10% (55)
Modifier	11% (21)	2% (7)	5% (28)
Totality	12% (24)	12% (42)	12% (66)
Possession	3% (5)	1% (2)	1% (7)
Gente	7% (13)	3% (10)	4% (23)
Quantifier	0% (0)	31% (103)	34% (188)

The presence or absence of linguistic markings is considered to determine whether contextual markers tend to compensate for the absence of linguistic markers. Indeed, in this case, a higher percentage of unmarked nouns (46%) is irrelevant with respect to number than marked nouns (31%). Most significant is the fact that for over one-third of the nouns in the sample

number is irrelevant and, therefore, need not be marked by linguistic means. Indeed, when the speaker marks these nouns for number, he is providing unnecessary information.

3.2.2 Number relevant. Let us now consider cases in which grammatical number is relevant. In these cases, context can either indicate number conclusively or inconclusively. The judgment of definitive marking is, of course, one of interpretation. I adopted, therefore, a conservative approach to conclusive contextual marking. When a speaker says, for example:

- (8) *Mi hermana vive en Barcelona.*
'My sister lives in Barcelona.'

one can infer, even without considering linguistic markers, such as the verb *vive*, that perhaps only one sister would live in Barcelona. Yet this inference alone is not sufficient proof. When later the speaker identifies her sister in Barcelona as seven years younger than she, one has more reason to conclude that only one sister lives in Barcelona, but the evidence is still not conclusive. She might have twin sisters. Conclusive contextual indication of singular came finally in response to a direct question about the number of sisters she had:

- (9) *Tres hermanas...soy más internacional,...mi hermana ha sido muy madrera, nada más que con mi madre. Y tengo otra hermana que vive en San Pedro Alcántara...y es con todo el mundo....Pero mi hermana, ésta de Barcelona, ha sido nada más que con mi madre siempre.*
'Three sisters...I am more international,...my sister has been a mother's girl, never with anyone except my mother. I have another sister who lives in San Pedro Alcántara...and she is with everybody...But my sister, the one in Barcelona, has never been with anyone but my mother.'

One can now calculate mathematically that there are three girls in the speaker's family: the speaker herself, a sister in San Pedro Alcántara, and another sister who lives in Barcelona. This knowledge allows the listener to interpret all previous references to the sister in Barcelona as singular.

3.2.2.1 Number marked conclusively by context. Conclusive contextual markers derive from two types of information: knowledge and reference. There exists between any two participants in discourse a 'presupposition pool' which contains information 'constituted from general knowledge, from the situational context of the discourse, and from the completed part of the discourse itself' (Venneman 1975:314, cited in Brown and Yule 1983:79). Various types of information drawn from the presupposition pool enable the listener to determine number, as well as information which follows in discourse, as in the preceding example of the sister in Barcelona. This knowledge is considered to be textually based, when all the information needed to distinguish number is fully provided by the speaker in discourse. When the hearer must rely also or exclusively on general knowledge of the

world or previously acquired information specifically related to the people and events the speaker describes, knowledge is considered nontextual. It is only by assuming that the speaker portrays 'normality' of the world in his discourse (van Dijk 1977:99) that the listener can apply general knowledge to the specific events recounted. These subcategories of textual and nontextual knowledge are illustrated below:

A. Textual knowledge may precede or follow the noun whose number it indicates. In the following passage, the plural number of *las personas* is determined conclusively from the previous mention of the Old Testament figures:

- (10) ...e(s) el Antiguo Testamento entero, desde Abraham, no, desde Adán y Eva, salen todo(s) ... personificado(s), la(s) persona(s) vestida(s)

...It is the whole Old Testament, from Abraham, no, from Adam and Eve, they all come out...personified, the people dressed...'

In (11) the disambiguating information follows the noun *padre*:

- (11) Mi padre murió...y mi madre se va donde quiere.
'My father died...and my mother goes where she likes.'

Knowledge that the speaker's mother is still alive indicates clearly that *padre* is singular rather than the plural *padres* 'parents.'

B. Nontextual knowledge may indicate number conclusively in a variety of ways. A noun may be considered 'unique' in the present sphere of reference (cf. Bull 1965:217). In this text, *la Semana Santa*, *La Inmaculada Concepción*, *El Cristo*, *El Antiguo Testamento*, *el Ayuntamiento (de Puente Genil)*, and *el servicio militar* are examples of unique and therefore contextually determined singular nouns. Other nouns can be interpreted as singular because our assumption of normality indicates that only one would be possessed by a possessor, e.g., *yo tengo la mente en blanco*, *con la voz que tengo*, *mi madre*, *tu marido*, *el día de su santo*, *gente que son de mi edad*. Another means of signaling number is to activate in the hearer's mind a shared experience for which number of the entities referred to is known:

- (12) ...mi prima que ayer quería que le hiciera(s) la entrevista.
'...my cousin with whom yesterday I wanted you to do the interview.'

From previous experience I know that the speaker wanted me to perform a single interview with a single cousin the day before. Similarly, in example (13), I know that I arrived on a single day and that the speaker is referring to a single party which we attended in a single section of the town:

- (13) El día que tú llegaste había otra verbena en otro barrio.
'The day you arrived there was another party in another section of town.'

In (14), general knowledge that a person can be in only one place at one time, combined with knowledge that the speaker is referring to a single event, indicates contextually that *bridge* is singular.

- (14) ...y la virgen se quedó en mitad del puente.
'... and the virgin stayed in the middle of the bridge.'

In addition to knowledge, number may be determined contextually by reference to another noun in the text or to a real object whose number is known. Reference depends on the principle of local interpretation, 'that the entities referred to will remain constant' (Brown and Yule 1983:59). As in the case of knowledge, reference can be textually or nontextually based. The two categories are illustrated below.

A. The most common form of textual reference occurs when one noun refers to an identical preceding or following noun whose number is indicated through knowledge or linguistic markers. Another type consists of naming specifically the entities referred to, as was the case for the noun, *conferencias*, in sentence (3). Example (15) illustrates these two types of reference:

- (15) ...si vamos, por ejemplo, salimos un sábado o un domingo, porque claro esto son fiesta(s). Así no estamos todos los días, no, no podríamos vivir. Esto son fiesta(s) luego ya te quedas más tranquila.
'...if we go, for example, we go out on a Saturday or a Sunday, because of course those are holidays. We are not like that everyday, no, we couldn't live like that. Those are holidays and then later you aren't as busy.'

In addition to the linguistic marker *son*, the first occurrence of *fiestas* is identified as plural because it refers back to *sábado* and *domingo* and the second occurrence of *fiestas* is plural because it refers back to the first. The number of a noun can be determined not only by naming, but also by reference to an action:

- (16) He estado de maestra...en el colegio...como una obra de caridad.
'I have been a teacher...in the school...as charity work.'

The noun *obra* can be identified as singular since it refers to one event, that of being a teacher. Specifying the date marks the noun *día* as singular in example (17):

- (17) Luego hay otro día,...el día de San Marcos, que es...el veinticinco de abril.
'Then there is another day,...Saint Mark's day, which is...April 25th.'

In Table 4 the percentage of nouns whose number is distinguished by contextual markers is summarized. Knowledge provides disambiguating information in the same proportion as reference, both in 24% of the total

number of nouns in the sample. Reference, however, disambiguates more frequently in nouns with linguistic number markers than in nouns unmarked. Contextual markers, therefore, do not appear to compensate the lack of linguistic markers. Most significant is the finding that context provides disambiguating information for 47% of the nouns in the text. Because of these contextual markers, linguistic number markers are in theory redundant and unnecessary. In light of the nouns whose number is irrelevant (34%) and those which are marked by context (47%), number need not be marked linguistically for 81% of the nouns. The deletion of /s/ is clearly in accordance with saying no more than one must, in this case, not indicating unnecessary information.

Table 4. Number relevant, marked by context.

Category	No linguistic markers (195)	Linguistic markers (358)	Total (553)
Knowledge (total)	22% (43)	24% (87)	24% (130)
Nontextual	14% (28)	15% (55)	
Textual	8% (15)	9% (32)	
Reference (total)	16% (32)	28% (100)	24% (132)
Nontextual	2% (3)	0% (1)	
Textual	15% (29)	28% (99)	
Total	38% (75)	52% (187)	47% (262)

In only 19% of the total group of nouns is number both relevant and not conclusively marked by context. Moreover, as shown in Table 5, only 6% of these nouns occur without linguistic markers. Once nouns have been classified as relevant and irrelevant with respect to number and contextual markers have been considered, only a very small percentage of nouns is ambiguous.

Table 5. Percentage of nouns according to contextual marking.

Number	No linguistic markers	Linguistic markers	Total
Irrelevant	16% (88)	18% (100)	34% (188)
Marked by context	14% (75)	32% (187)	46% (262)
Not marked by context	6% (32)	13% (71)	19% (103)
Total	35% (195)	65% (358)	100% (553)

It is likely that an ambiguity rate as low as 6% would not severely hinder communication in any event. This ambiguity would be more or less disruptive, though, depending on the importance of the number distinction to the topic of discourse. Examples (18) to (20) illustrate that in the text analyzed the number of the ambiguous noun had little effect on the ideas expressed.

- (18) Si viniera mi marido podríamos subir y hablabas con ella un rato, es que se ha dejado la(s) llave(s) aquí.

'If my husband came home we could go and you would talk with her a while, since she left the key(s) here.'

The speaker's point is that we will have no trouble going to see the person referred to because we have the means to get into her house, regardless of the actual number of keys.

(19) Le dice a mi padre, dice 'Entra, que la comida ya está en la(s) mesa(s).'

'She says to my father, she says, "Come in, the food is already on the table(s)".'

Regardless of the number of tables, the listener understands that dinner is ready.

(20) ¿Le pongo algo? ¿Una(s) cervecita(s)?

'Shall I give him something? A/some beer(s)?'

The listener understands that the speaker is offering something to drink regardless of the number of beers to be served at once. One may furthermore infer, based on normality, that only one beer will be served at a time, even though the context does not indicate this conclusively.

4. Conclusion. The preceding data and discussion have shown that only when context is considered can one explain why the weakening of /s/ in Andalusian Spanish creates no significant ambiguity in number marking. The nouns in which number is indicated neither linguistically nor contextually are rare. Even in such cases, the listener can usually infer the number of the noun from 'assumed normality' and these number distinctions are rarely pertinent to the topic of discourse. The failure to indicate, for example, how many tables were set for the family dinner will probably not prompt the listener to ask for clarification. In accordance with the necessity principle, the loss of /s/ frees the speaker from indicating number unnecessarily, either because such a distinction is irrelevant or because it is already expressed elsewhere.

In the ongoing processes of sound change and morphological restructuring in Andalusian Spanish, a tendency toward economy is observable. As I have argued previously, a reduction of articulatory movement is likely to be the motivation for the sound change (Seklaoui 1986:62). The original saving in articulatory terms is later enhanced by eliminating unnecessary number marking. The occasions on which a speaker needs to explain number explicitly through a circumlocution are so infrequent that they certainly do not obviate the savings from the systematic deletion of /s/.

In conclusion, one may speculate as to the future of number marking in Spanish. We have seen that /s/ is a redundant and unnecessary number marker, so that even after its loss number is still adequately marked for the speaker's purposes. There exists no motivation to restore consistent linguistic number markers for the sake of sufficiency. Based on this evidence alone, one could conclude that number marking in /s/ deleting Spanish dialects will continue to rely on both linguistic and contextual markers.

Evidence from French, on the other hand, suggests another direction for number marking. The deletion of word-final /s/, which was completed in French by the seventeenth century except as maintained in liaison, led to the loss of the singular/plural distinction in most nouns and adjectives. Through a somewhat obscure phonetic evolution, the determiners developed distinct forms in the singular and plural in both genders, even though the gender distinction was blurred in favor of number in the plural (Seklaoui 1986:85-87):

- (21) le livre/le(s) livre(s)
la maison/le(s) maison(s)

In Spanish as in French, the feminine determiners could be reformed by analogy to the masculine determiners to signal number clearly, a possibility which has been suggested by Poplack (1979:91-92) and Flores et al. (1983). If Spanish followed the same pattern as French, the vowel of the feminine plural determiner would change from /a/ to /o/:

- (22) el libro/lo(s) libro(s)
la casa/*lo(s) casa(s)

Although I found no examples of this type of gender reassignment in my recordings, the regularization of the determiners would indeed lead to almost consistent number marking by linguistic means. In both masculine and feminine nouns a determiner occurred in the text under consideration with 69% of all nouns. Where a determiner does not appear, the number of the noun is often irrelevant, as in the case of modifiers, *profesora de lengua(s)*.

The motivation for this restructuring in Spanish, as was likely the case in French, would not be disambiguation. One possibility would be the tendency toward regularization or paradigmatic coherence (Kiparsky 1972:99ff.). The remodelling of the feminine determiner on the model of the masculine would lead to consistent number marking for all nouns, regardless of gender. Another possible explanation is based on the role of context in signalling grammatical information. A restoration of linguistic markers might indicate that the primary task of signalling number is better fulfilled by linguistic markers which are reinforced, not replaced, by contextual markers. This would indicate that the informational role of context is better suited to serve redundantly rather than exclusively. It may be that, even though both linguistic and contextual markers distinguish number in Andalusian Spanish, they do not share the task equally.

It is clear that context plays an essential role in disambiguating number in Andalusian Spanish. What is less clear is whether contextual markers alone would be sufficient to signal number in the long run or whether speakers prefer to signal number on the surface and to reserve context for built-in redundancy. Further analysis of the morphological restructuring completed in French and still in progress in Spanish will bear on the role of context in expressing grammatical categories. In any event, the information provided by context changes the interpretation of sufficiency and necessity in language and explains why in the short term semantically relevant information is not necessarily retained in surface structure.

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THE SOCIAL CONTEXT OF THE STUDY OF THE SOCIAL CONTEXT OF LANGUAGE VARIATION

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If there is any one thing that students of language variation appear to agree upon, it is that language occurs in social contexts. We may disagree about whether or not a theory of language should account for the social function of language or whether language theory simply interacts with such social phenomena. We may also disagree about what specifically is the exact territory of sociolinguistics. But one thing that those who study language variation steadfastly stress is that social context is important, if not central to the study of variation found in all languages. What has been oddly missing, however, is a description of that very social context that gave rise to the study of the social context of language variation. It occurred to me that many aspiring students of variation are unaware of the historical and personal forces that brought their specialty to its current state of affairs. Some, I have discovered, have never thought about this issue, perhaps taking it for granted that linguists have always focused on language variation or that such concerns arose outside of the usual social, political, economic, or personal forces that are at work on any topic.

History is a somewhat deceptive phenomenon. One can find a great deal of information on the political, social, and economic history of various areas of the world, but the facts about settlement history, where people came from and moved to, is sketchy at best. For example, a few years ago when I was studying the dialects of Illinois, I tried to determine some specific facts about the settlement history of that state. Most general histories of the state and its environment provided detailed information about politics, resource development, industrialization, agriculture, and population figures; but I could not obtain a satisfactory answer to the question, 'Where did the settlers come from?' Some texts, in passing, indicated that they came from the East. This, of course, did not surprise me, but neither did it satisfy me with its dazzling precision.

As I considered the issue of the development of current language variation study, it occurred to me that we might make use of one of our major concepts, 'social context', and ask ourselves the questions, 'Where did we come from?', 'What forces in the development of our field of study led us to the point at which we exist today?', 'What was this "social context" in which sociolinguists developed, was this development merely accidental or serendipitous?', 'Were

there critical periods or movements in which conditions permitted its development and other periods or movements that blocked it? And how did the people who study variation get that way?

The observation of language variation, of course, goes as far back as the beginnings of language itself. The biblical account of the people of Gilead in about 1100 B.C. records that they had killed a number of Ephraimites and then devised a dialect-discrimination test to ferret out the remaining enemy in the land. In the book of Judges (12:5-6) we read:

...The men of Gilead said to them, "Are you Ephraimites?" If they answered "No," they then asked them, "Say the word Shibboleth." The true Ephraimites responded, "Sibboleth," for they could not pronounce it right.

No record of any systematic study considering language variation is available through most of recorded history until the nineteenth century, when some of the insights of the Indian grammarian Panini (c. 650 B.C.) began to influence statements about language variation. There are those, including Kiparsky, who claim that Panini was the originator of what later became known as the variable rule (Kiparsky 1979).

There is, oddly enough, a scarcity of published information on the historical roots of variability studies. Many texts and collections of readings on sociolinguistics skip over historical antecedents, offering only such generalities as 'Sociolinguistics has been established as a distinct discipline for some years' (Pride and Holmes 1972). Other writers associate modern sociolinguistics to the tradition of dialectology (Bell 1976, Romaine 1982). Most current works ignore the origins of variation study entirely, treating it as though it were an entirely modern phenomenon.

Labov, as one might expect, does not overlook the thinking of those who preceded modern times, devoting some eight pages to the topic, 'Some Earlier Studies of Language in Its Social Context' (Labov 1966). He cites the lecture notes of Antoine Meillet in 1905, in which the French scholar expressed unwillingness to accept historical laws discovered in the nineteenth century and observed that there must be variables as yet undiscovered, continuous, even rapid, variation:

...but from the fact that language is a social institution, it follows that linguistics is a social science, and the only variable to which we can turn to account for linguistic change is social change, of which linguistic variations are only consequences. We must determine which social structure corresponds to a given linguistic structure and how, in a general manner, changes in social structure are translated into changes in linguistic structure. (Meillet 1921)

Meillet's words sound strangely modern, yet neither he nor his colleagues or students seem to have followed up on the idea that social and linguistic phenomena were interrelated. The reason for this is obvious when we examine the context of the period. Linguistics, like any other discipline, is a victim of its theoretical revolutions. In the nineteenth century, language history, change, etymology, and language relationships dominated the thinking of linguists.

Early in the twentieth century, the central interest changed to language structure. The notion of cultural relativity emerged strongly in the work of anthropologists, turning away from what Edward Sapir referred to as 'the evolutionary prejudice' of previous linguistic studies (Sapir 1921). The belief that the highest development in language was found in the patterns of Sanskrit, Greek, Latin, and German was, as Sapir observed, now frowned upon: 'Now any classification that starts with preconceived values or that works up to sentimental satisfaction is self-condemned as unscientific' (Sapir 1921).

This relativism in the view of language and culture was accompanied in linguistics proper by a turn toward structuralism, led by de Saussure and others. As Labov points out, nothing much was accomplished until the field had developed a more explicit theory of phonological structure, the development of tape recorders, spectrograms, sampling procedures and, even more recently, computers, that were equipped to process large quantities of data (Labov 1966). However right Meillet was in his assessment, the social context was simply not yet adequate for the development of his ideas.

Meanwhile, as structuralism developed with Bloomfield, Sapir, Bloch, Hockett, Pike, and others, the focus of linguistics turned inward to the basic outline of languages in general and away from variation within those languages. This is not to imply criticism of such a direction, for linguistics most certainly needed to develop in this way. In fact, when one squints one's eyes and obliterates details to see only gross patterns and shapes, one can see a sweet reasonableness in the ebb and flow of the field's birth, adolescence, and maturity. There is a logic to its nineteenth-century focus on the relationship of languages to each other, born in the age of science and awareness of the relationship of things to each other. It would have been perhaps even ludicrous to have expected linguistics to have developed the fine points of government and binding theory at that time. And, as Labov hints, it might have been disastrous to have attempted the development of Meillet's notions of the relationship of language and society before electronic equipment had become available for more precise data analysis.

With structuralism, nonetheless, came the focus on language unity, similarity, and universals at the expense of whatever nascent thoughts might have created the study of language variation at that time. But it would be wrong to say that variation study did not exist at all. While structuralism dominated the work of most linguists, a small cadre of linguists maintained a concern for regional dialectology.

Linguistic geography, at least in Western countries, is said to have its origins in late-nineteenth-century Germany, when Georg Wenker mailed out forty sentences to thousands of village schoolmasters. These sentences contained words known to vary locally in pronunciation. With whatever semiphonetic skills they could muster, these schoolmasters dutifully responded, creating a pseudo-data base which still exists in Marburg and, last I heard, was being computerized. The point here, however, is that the focus of Wenker's effort was on the rich variation that characterizes the German language.

From Wenker's study, dialectologists learned at least one very important principle--that the postal questionnaire method permits a vast quantity of language data to be gathered in a relatively short period of time. At issue,

however, was, and continues to be, the degree of accuracy achievable, especially in matters of pronunciation, from the written impressions of nonlinguists. In 1896, the linguistic survey of France addressed this problem directly. A French atlas was devised and directed by Jules Gilliéron, who determined that it would be possible to achieve more consistent and accurate representations of the actual speech of informants if a single field worker with good phonetics skills would interview subjects and transcribe their speech phonetically. So he sent Edmond Edmont out on his bicycle to various French communities. In a period of four years, Edmont completed the 200-item questionnaire with 700 informants. The *Atlas Linguistique de la France* was published between 1902 and 1910.

Since the French atlas, linguistic geography projects have been conducted in many parts of Europe--in Italy, Switzerland, Spain, Holland, and Denmark, in particular. Such work has also been carried out in Australia, South America, Africa, and Asia. Of particular interest is the work in the United States and in England. Harold Orton and Eugene Dieth carried out a field survey of English dialects between 1950 and 1961 in 313 communities, using some 1300 questions or topics such as housekeeping, farming, animals, and social activities. In 1977, the *Linguistic Atlas of England* was published. Likewise in Wales, Alan Thomas directed a postal survey with 500 questions. Like the Wenker study, spellings were intended to reflect regional pronunciations. *The Linguistic Geography of Wales* was published in 1973.

The American atlas project, under the initial direction of Hans Kurath, began in 1931. The original idea was to produce a dialect dictionary. Concerned scholars, including George Kittredge and James Russell Lowell, gathered, ironically enough, in Cambridge, Massachusetts in 1889 and formed the American Dialect Society. After thirty years, although the society had not come close to publishing a dialect dictionary, it had collected over 26,000 interesting dialect words and phrases in its publication, *Dialect Notes*.¹ By 1929, the interests of many American dialectologists had turned away from a dialect dictionary to a linguistic atlas. With the assistance of the American Council of Learned Societies, a plan for such an atlas was published and Hans Kurath was appointed its director. The plan was to produce a set of 'work sheets' containing over 700 items arranged roughly according to topics. This approach was unique for it formulated the informants' answers but did not specify the questions, leaving that to the ingenuity of the fieldworker.

As a matter of historical significance, it should be noted that this vast study of language variation received the support of major academic organizations, such as The American Council of Learned Societies, The American Dialect Society, The Modern Language Association, and the National Council of Teachers of English. Major, well-known linguists of the time participated actively, including E.H. Sturtevant, Sir William Cragie, George Phillip Krapp, Bernard Bloch, Allen Walker Reed, Charles C. Fries, John S. Kenyon, Leonard Bloomfield, Miles Hanley, Eduard Prokosh, Archibald A. Hill, and Kemp Malone. In 1931, the annual Institute of the Linguistic Society of America brought together scholars from all over the world to provide a training program for fieldworkers, both faculty and students. By 1943, the three-volume *Linguistic Atlas of New England* had appeared in print and now the rest of the country was the target.

Perhaps the single most active student of language variation in this country was Raven I. McDavid, Jr., whose monumental efforts both as a fieldworker and analyst are widely recognized. Almost singlehandedly, McDavid kept the light of language variation burning after the initial flurry of interest produced the *Linguistic Atlas of New England*. At that juncture, the major concerns of most linguists, even those who had participated previously in the atlas project, turned to the dominant theme of the time, structuralism. The necessary ingredient for any long-term project such as a linguistic atlas is the production of students who will wear the mantle and continue the work. But an odd thing happened. Students trained to be linguistic geographers began to find the grass greener elsewhere. One of Bloch's students at Yale, Alistair Cooke, found the arts more to his liking. Others, such as Archibald Hill, produced a series of language theorists, primarily structuralists. Some of Albert Marckwardt's and Charles Fries's Michigan students and Harold B. Allen's Minnesota students continued atlas-type work, but more turned to language teaching and learning. McDavid produced a few followers who continued the work, such as Lee A. Pederson, who is now completing the *Linguistic Atlas of the Gulf States*; but others, including this author, turned to a different version of language variation studies now labeled sociolinguistics.

Linguistic atlas research in the United States continues at a somewhat regular but slow pace today, aided by computerization of data and by the hard work of a talented few scholars. Many linguists question the value of the methods by which the data were elicited, the accuracy of pretape-recorded phonetic transcriptions, the biases of sampling, the focus only on lexicon and pronunciation, the omission of analytical procedures such as discourse analysis and pragmatic meaning, that developed after the atlas procedure was unchangeably determined. One serious danger of any long-range project such as this is, of course, that the field of knowledge will develop after the methods and procedures are cast in stone. Consistency and compatibility were critical features of the U.S. atlas approach. Later changes were difficult, if not impossible. Whatever criticisms one may wish to make of the era of linguistic geography, however, one has to admit that this period kept variability studies alive, even in the midst of more dominating concerns of the field. It also produced a rich data-base of language use which, whatever value judgments one may place on it, provided later scholars with evidence to be considered. The ultimate question might be, 'Wouldn't we be able to make good use of similar evidence from the sixteenth, seventeenth, eighteenth, and nineteenth centuries?' Of course, we would. We stand on the shoulders of our predecessors in linguistics, however much more we may think we have learned since they produced us.

Although the American atlas attempted to get informants of three general social classes in more urban communities, it was McDavid who made the clearest connection between social factors and pronunciation variables. In his classic article, 'Postvocalic /-r/ in South Carolina: A Social Analysis' (1948), he noted that in communities where postvocalic /r/ occurs with constriction, three variables decrease it: the more urban, younger, better-educated speakers use less constriction. Such sensitivity to social influences of variation were not common, however, until the sixties, when language variation studies in America entered a kind of renaissance.

This was a time of new interest in minorities, civil rights, and the value of the individual. The country, under President Kennedy's leadership, began looking at its citizens in a new way. Those who are products of later societies might not realize the tremendous impact such ideas had on linguistics at that time.

For historical perspective it should be noted that at that time the dominant theoretical concerns in linguistics were at a crossroads. The structuralism of Sapir, Bloomfield, Trager, Bloch, Hockett, Gleason, and Pike, which had prevailed to that point, was now under severe challenge by Chomsky and his students. Younger scholars, trained in structuralism, were at a critical career decision point. The temptation was to fight back, a task made easier by the rhetoric of the new generative grammarians. Some did this but others decided to 'convert' to generative philosophies, casting off the stigmas of being considered old-fashioned or trivial (the catchword of the day).

As often happens, a specific set of events framed the staging ground for a number of changes within our field, some related but others more serendipitous. One of these events was the annual Linguistic Institute at Indiana University, Bloomington, in 1964. The major proponents of structuralism and generative grammar were matched against each other in a series of week-long lectures, first by Chomsky, then by Pike. It was an unusually well-attended institute that summer and, along with the Linguistic Society of America summer meeting, it provided one of the most exciting programs in the history of the field. One reason that the institute was so well attended has already been mentioned--the arm-to-arm combat for theoretical leadership in the field. But there were other reasons as well.

In May 1964, a month or so before the LSA Institute, the UCLA Center for Research in Language and Linguistics sponsored a conference on something called 'Sociolinguistics' at Lake Arrowhead, California. The edited papers of the conference appeared under the title *Sociolinguistics* (Bright 1966). To give an idea of the recency of the term 'sociolinguistics,' it should be noted that the 1961 third edition of *Webster's New International Dictionary* does not list this word at all. Its only extant use preceding the Lake Arrowhead conference and the 1964 UCLA Institute appears to be in a 1952 article by Haver C. Currie in the *Southern Speech Journal*. Although I do not wish to demean Currie's claim to the first use of the term, it is unlikely that his use of it was the force behind Bright's choice of the word to describe the constellation of features of language discussed at Lake Arrowhead. At the time of the conference, a number of scholars had been investigating the relationship between language and society, including Henry Hoenigswald, John Gumperz, Einar Haugen, Raven I. McDavid, Jr., Dell Hymes, John Fischer, William Samarin, Paul Freidrich, and Charles Ferguson. One bright new star on the horizon, a student of Uriel Weinreich at Columbia, named William Labov, was also invited to Lake Arrowhead to describe his dissertation research on New York City speech. This cadre of participants represented a number of quite different research traditions--linguistic geography, language contact, historical changes, ethnography, and language planning. Out of this conference-induced blending of traditions it was only natural to find terms into which each research tradition might fit. 'Language and Society' and 'Sociolinguistics' were the most logical choices.

In any case, it was determined that two courses in this area should be offered at the LSA institute and that they should be called Sociolinguistics and Language and Society.

John Gumperz had been carrying out earlier research in India and Norway on the differences in language used among people of various castes and social status. Those who had heard him talk about this in the past prevailed upon him to offer a summer institute course dealing with the broad issues involved in such variability. Gumperz had been trained in the linguistic geography tradition at Michigan but had found, in his recent work, new territories to study besides geographical variety. He taught a course called 'Language and Society.'

Charles Ferguson's research began with Bengali and Arabic studies, which led him to focus on different uses and/or varieties of those languages. By the fifties, he had written about Arabic politeness and baby talk, for example. In the early sixties he, along with Gumperz, edited an issue of *IJAL* called 'Linguistic Diversity in South Asia.' He also wrote about diglossia as a language teaching problem. At the 1964 LSA Institute he conducted a seminar in Sociolinguistics which, as far as can be determined, was the first time a course by this name had been offered at an American university.

For the benefit of younger scholars in linguistics it should be noted that it was common practice in the early days of our field for LSA institute classes to contain as many visiting PhD's, some often leaders in the field, as graduate students. In my own case, I had obtained my doctorate three years earlier and was attending the institute on a fellowship from the U.S. Air Force to study linguistics and computers. Nevertheless, I seized every opportunity to take courses from my colleagues, including Gumperz's 'Language and Society' and Pavle Ivic's 'Linguistic Geography.' My case was similar to that of many others that summer. And this is where the serendipity factor came in.

For an idea to develop and to change the direction of a field of study, it is often the coming together of a nucleus of scholars with the same growing concerns, what Carl Jung called a collective consciousness, that frees it and lets the idea grow. It is not my purpose to pinpoint this event as the Lake Arrowhead conference or LSA Institute alone, but rather the combination of both in a continuous period from mid-May to mid-August 1964. This period was certainly the flowering of variation study in America.

Just as linguistic geographers had broken from the view of language study which treated languages as homogenous and unified, so sociolinguists broke from structural linguists in their treatment of languages 'as completely uniform, homogeneous or monolithic in their structure' (Bright 1966:11).

In addition to Gumperz's and Ferguson's courses in sociolinguistics, the 1964 LSA Summer Institute provided still another impetus for the development of language variation study. Alva L. Davis, a linguistic geographer then at the Illinois Institute of Technology, along with Robert F. Hogan, of the National Council of Teachers of English, secured funding for a conference on Social Dialects and Language Learning, to be held in conjunction with this same LSA Summer Institute at Bloomington. Twenty-five participants, including linguists, educators, sociologists, and psychologists, were invited. Gumperz, Labov, McDavid, and Ferguson represented continuity from the Lake Arrowhead group. All other linguists were from dialectology, language

contact, or multilingualism specialties. The presentations and discussion at this meeting focused on the equality of dialects, on the need for research on urban language, on the adequacy of past approaches to dialectology research, on the pedagogical usefulness of deeper information about language variation, and on whether nonstandard varieties should be eliminated or added to by standard English (Shuy 1965).

Today, these topics seem rather common. But in the summer of 1964 they were exciting new issues. Several of the educators present argued, traditionally, for holding the line against substandard English. The conference came to grips with terminological issues such as 'substandard' vs. 'nonstandard' and 'culturally deprived' vs. 'culturally different.' Haugen called into question the approach suggested by many: that we use English as a Second Language methodology to teach English as a second dialect. He pointed out that language learning and dialect learning are not the same thing, despite what seemed to be similarities.

Perhaps the most significant aspect of this conference was Labov's historic paper 'Stages in the Acquisition of Standard English,' since reprinted in almost every collection of articles on social dialect. Labov argued that social perceptions of speech stratification begin to match adult norms somewhere around the ages of 14 or 15. More important was the effect Labov's paper had on other scholars present. He had clearly gone beyond the focus of research on older, white, uneducated, rural informants. He had identified four socioeconomic classes of speakers and had shown how features such as *d* vs. *th* varied across classes. For many of us at that meeting, we had been given a lesson on how to make our sixties concern for minorities, justice, and the dignity of the individual become real in our linguistic scholarship.

With the Lake Arrowhead meeting, the LSA Institute, Gumperz's and Ferguson's courses in sociolinguistics, and the conference on Social Dialects, the summer of 1964 was very important for the establishment of the field of sociolinguistics. What happened afterward proves this. Many of the participants in these meetings began teaching courses called sociolinguistics at their home universities. In my own case, I taught a seminar which led to a proposal to the U.S. Office of Education to carry out a survey of social dialects of Detroit.

For most regional dialectologists, an urban study would simply use the same questionnaire and methodology in the selected city that had been used for decades in the rural Atlas research. In fact, Lee Pederson had done exactly this in his study of Chicago speech. But Labov had brought an exciting new dimension to this work--continuous discourse, frequency of occurrence of features rather than categorical presence or absence, minority informants, and a unique guide to questioning that let the informants talk as long as they wanted on a topic of their own choice. I decided to use this new approach. It made sense. What I had not counted on was the cold shoulder and criticism I was to receive from my fellow dialectologists as a result of my decision. There were other academic skirmishes going on at that time--structuralist vs. generativist in particular. To this point I had imagined the major contrast to be between the Language Similarity and the Language Difference people, which would place regional dialectologists, sociolinguists, and ethnographers of communication in the same general camp. What I observed, however, was

a new 'us-them' contrast, between regional dialectologists and sociolinguists. Suddenly, to my surprise, I was considered a turncoat by the scholars in my research background. What was particularly sad to me was that my own mentor was now disappointed with me. He had apparently counted on me to help carry the mantle of regional dialectology's version of variation study into the coming decades. And now I had opted instead for the newer approach that was bubbling with excitement from the events of the summer of 1964.

After Labov completed his New York dissertation, he continued his sociolinguistic studies in New York with a cadre of excellent graduate students. Meanwhile I carried out my Detroit sociolinguistic study, with the help of a few of my students at Michigan State, but perhaps more importantly, also involving two former undergraduate students, Walt Wolfram and Ralph Fasold, whose lives I have now interfered with for some twenty-five years. At the same time, the Ford Foundation had funded the Center for Applied Linguistics, then under the directorship of Charles Ferguson and with the fertile ideas of William Stewart, to study urban dialects in Washington, D.C. Two years later, Wolfram, Fasold, and I moved to Washington, merged the Detroit and Washington research into a single project, and formed the sociolinguistics program at CAL. With constant communication with Labov and his Columbia University associates, the three urban studies were able to make useful comparisons of urban Black speech phenomena and establish Vernacular Black English studies more firmly. These studies had many useful consequences for the field but also one unfortunate by-product. Sociolinguistics, as an area of study, was certainly a great deal larger than Vernacular Black English, and we were, justifiably, accused of a certain myopia. Our work had certainly identified some of the language diversity and change upon which the Lake Arrowhead conference had been based, but it had not dealt with all of the issues suggested, for example, by Hymes in his approach to the ethnography of communication. This aspect of sociolinguistics focused at the University of Pennsylvania, where Hymes and his students contributed their own singular richness and breadth to the field.

More than anything else it is probably the peculiar structure of universities that kept separate the more ethnographic from the more form-oriented approaches to language variation study. At that time, linguistics departments tended to focus on language forms. Anthropology departments tended to focus on more functional concerns. A frequent misperception of many linguists is that the area of research called ethnography of communication was originated by anthropologists and is the exclusive territory of that academic field. In truth, Dell Hymes, the undisputed creator of such research, was trained as a linguist and is, by any definition other than university departmental affiliation, a linguist. Ethnographic approaches to language study parallel empirical linguistic study and are difficult to separate, in any deep way, from linguistics. One might argue that qualitative research is separable from some of the more experimental work found, for example, in certain language variation studies, but there is no particular reason why ethnographic data cannot be quantified.²

Concurrent with the growth of the sort of work described here, carried out by Labov in New York and others in Detroit and Washington, D.C. in the sixties, was the development of more ethnographic research on language variation. Hymes, Gumperz, and their colleagues and students focused on

language as a social fact and studied the interaction between communication and culture. Perhaps out of dissatisfaction with the generativists' limitation of 'competence' to grammatical knowledge, Hymes extended the notion to 'communicative competence,' the most general term for the speaking and hearing capabilities of a person (Hymes 1964). Although Newmeyer asserts that Hymes intended 'communicative competence' to exclude grammatical competence (Newmeyer 1983), it is my understanding that this was not Hymes's intention at all. Hymes did not reject grammatical competence; rather, he believed it to be part of a larger competence that was worthy of study.

By the late 1960s, then, several strands of research approaches were fermenting and coming together. The regional dialectology strand had been around for almost a century; the language contact strand, evidenced by the work of Ferguson, Haugen, Weinreich, Fishman, and others, had strongly made its presence known; and the ethnography of communication strand had made a powerful impact in a relatively short time. All strands were concerned with language in its social context and all were composed of scholars who considered themselves to be doing linguistics. The term 'sociolinguistics' began to crop up in university course catalogues, in journal articles, and in book titles. With this approaching harmony, however, were discordant tones brought about by the fact that the practitioners of this work were found in separate academic disciplines, at least as university structure defined them. Certain scholars easily moved between these supposedly separate disciplines; e.g., Gumperz, who was trained as a dialectologist, then carried out more ethnographic work; Hymes, trained as a structural linguist, then created the work now called the ethnography of communication; and Labov, trained in language contact, then went on to work in a more generative framework. The exactness of these characterizations may be questioned somewhat, but the point I wish to make remains. The late sixties witnessed a reaching out across the former rigidity of disciplinary boundaries largely because no preexisting discipline could contain everything there was to say about language variation in its social context.

Such was the situation facing Georgetown University at that time. Deans Robert Lado and James Alatis, who had a vision for the establishment of a specialty in sociolinguistics at Georgetown, submitted a proposal to the National Science Foundation toward that end. Not surprisingly, the NSF advisory board, consisting of Hymes, Labov, and Fishman, suggested that the proposal include such topics as the ethnography of communication, in addition to the proposed focus on language variation. The proposal was accepted and the program was launched in 1970, with Shuy, Fasold, C.-J. Bailey, and an ethnographer, David Smith. It became the first linguistics department in which sociolinguistics could be the major study of a doctoral student. Departmental structures vary among universities, of course, and this is not to say that other programs do not exist. In fact, other universities have clusters of sociolinguists with whom graduate students can frame such a specialization, e.g., the University of Pennsylvania, the University of California at Berkeley, and the State University of New York at Buffalo, among others.

Symbolically, the creation of a major area of graduate study called sociolinguistics gave great impetus to this field. Language variation was now

not only an exciting area of research and publication, it was also a defined and legitimate field of study in its own right.

The work of the Sociolinguistics Committee of the Social Science Research Council must also be mentioned whenever the development of language variation study is discussed. The goal of SSRC is to develop new areas of specialization in the social sciences until such time as these areas are self-sufficient. The Sociolinguistics Committee was founded in 1970, with Dell Hymes as its chairman. One of its early goals was to bring together the leaders in this growing field for a public discussion of pertinent issues. The Lake Arrowhead conference of 1964 was by invitation, as was the Indiana conference on social dialects. Seven years later witnessed an expanding corps of leaders and issues. With the cooperation of Deans Alatis and Lado of Georgetown, it was decided to hold such a conference as the 23rd annual Georgetown University Round Table on Languages and Linguistics in 1972. Interest in this meeting, called 'Sociolinguistics: Current Trends and Prospects,' was overwhelming, so much so, in fact, that for the first time in Round Table history, an additional day was added for what has since become a tradition here, sustained interest-group sessions. The purpose of these interest groups, in addition to allowing more participation than the traditional fifteen-paper program permitted, was to 'bring together active scholars and advanced graduate students in an intimate setting, discussing needed research in specific areas of sociolinguistics and evaluating current progress to date' (Shuy 1973).

The nine special interest groups were ethnographic semantics, sociolinguistics and religion, language socialization, language planning, social and ethnic diversity in the American speech community, paralinguistics, ethnography of interrogation, pidginization and creolization, and speech performance and repertoires.

Seldom has a meeting of this sort produced as much thought, discussion, and published work as this one did. In addition to the traditional Round Table publication, four books of the collected papers were subsequently published, two by Georgetown University Press and two by Newbury House. In addition, the Pidgins and Creoles Newsletter was founded in the interest group of that name.

Although some papers on variation in language had been accepted at annual Linguistic Society of America meetings, it became apparent that the ferment and excitement of the 1972 Round Table should be continued in a more focused way. C.-J. Bailey, then on Georgetown's faculty, pressed for the creation of a small annual conference of scholars on this topic. Again with the assistance of Deans Lado and Alatis, the first annual conference of NWAWE was held on Georgetown's campus in the fall of 1972. This first meeting was held in combination with the Eighth Southeast Conference on Linguistics (SECOL) and attracted over 300 participants to hear sixty-four papers. NWAWE continued at Georgetown as an annual meeting for six years, with Georgetown University Press publishing many of the proceedings (see Appendix for a list of G.U. Press publications on sociolinguistics), after which time it was decided to rotate the meeting to various other universities. It has since been held in Philadelphia, Montreal, Ann Arbor, Stanford, and Austin, as well as Washington, D.C.

As an area of study, language variation continues to change and grow. With developments in discourse analysis and pragmatics in recent years, specialists in variation have incorporated these areas into their work as well. If variation is found in phonology, morphology and syntax, can't it also be discovered in discourse? If variation exists in semantics or referential meaning, can't it also be located in pragmatics and speech acts?

In terms of what might be called applied sociolinguistics, the early focus of variation studies was primarily concerned with education. This was only natural since the sixties origin of the field focused largely on the language differences in the speech and literacy of minority children. As noted earlier, this was partly a result of the much needed national 'discovery' of minority problems in general and partly because of a reaction against the early predisposition to study dialect differences in older, rural people.³ Since that time, applied sociolinguistics has continued its concern for issues of language teaching and learning but has gone far beyond education as well. Currently, variation studies have addressed themselves to many other fields, including politics, medical communication, law, service encounters, advertising, employment interviews, and other areas.

To this point we have reviewed the social context of the study of social context in a type of historical setting approach. The topic and setting have been discussed, and to a certain extent, the leaders. What is still missing is how the participants got into this field in the first place. Up to now I have pointed out how the field developed, but any field is the product of its actors. Any study of the social context of a field such as language variation must also look inward to the motivations and concerns of the scholars who got into that field.

Some people say that there are two ways to look at language--for similarities, universals, and broad general principles; or for differences, variation, and more restricted principles. I suspect that linguists choose one or the other of these areas to work in because of some kind of internal comfort much in the same way that some people prefer to work with numbers, some with shapes, and others with words.

How we got into this business of studying variation is an interesting phenomenon. My own entry to the field is circuitous and somewhat random. Like many linguists, I began my academic life in an entirely different field, literary criticism. During the course of my training as a specialist in the English Renaissance, I took the obligatory course in Middle English from Leonard Bloomfield. I wrote the obligatory paper, comparing Chaucer's 'Wife of Bath's Tale' with Gower's 'Tale of Florent,' but what really attracted me was the comparison of Middle English dialects that Bloomfield presented. I found myself thinking about these dialects and doing independent research on them far beyond the course requirements. At the end of the term I spoke with Bloomfield about this new-found excitement. I suspect that he recognized in me the emergence of that magic moment that all teachers look for in their students--the full blooming of deep intellectual curiosity. As we talked, it became apparent to him that my excitement was for dialect variation in a broad sense, one that went far beyond Middle English. What he suggested to me was the catalyst for a right-angle change in my life. He told me about American dialect study, then existing only in the study of regional dialects,

largely the product of the Linguistic Atlas of the United States and Canada. He advised me to talk with Raven I. McDavid, Jr., whom he described, quite correctly as it turns out, as the foremost authority on this subject. I should note that this conversation happened on a Friday. The next morning, Saturday, I traveled a considerable distance to meet with McDavid and the right-angle turn was accomplished. I met a man surrounded by variation, engrossed in his study, excited by the ways people differ from each other. A new world opened to me that day and, although my concerns for variability have since extended more broadly than regional dialects, I knew that I was one of those people who was concerned with principled behavior, perhaps even rule-governed behavior, that focused on how people are linguistically different from each other.

In recent months I have sent out a survey to forty prominent linguists who study variation to discover their origins of entry to this field. I have received responses from twenty-seven, or 67%, to this date. They responded to four simple questions I put to them.

1. How did you get interested in variation in language?
2. What further changes took place since the birth of that interest?
3. What future changes in language variation study do you predict for yourself and the field?
4. What areas of linguistic study would you identify under the label language variation?

Where do variationists come from? Of the twenty-seven respondents, 37% originally were students of literature, 22% were from anthropology, 22% started in generative syntax, 15% came from language teaching, and the remainder started out in other fields such as mathematics and speech. What is interesting about this display is that about 80% began without linguistics as a major concern. That is, they came to linguistics with a field of study that failed to offer them enough help in addressing the issues they felt to be most important in life.

What were these issues? The specifics vary but they can be categorized as social justice, personal needs, needs of learners, and basically intellectual issues. No fewer than 40% admitted to being moved by issues of social justice, 40% by intellectual concerns--the need to know, 12% were largely motivated by the needs of learners of language, and 8% got into variation work because of personal needs or problems for which the field offered hope of solution.

On the assumption that students of language variation change their initial interests to newer ones, the questionnaire also asked for biographical sketches of all shifts of focus or interest. Of the respondents, half were older (about fifty and up) and half were younger. It can be expected that the older scholars will have shifted concerns more than the younger ones, simply because they have lived longer. What is most interesting, however, is that older scholars eventually cycle back to or near their initial academic concern, having passed through two or three focus shifts in between. One major reason why this is possible is that the development of discourse analysis and pragmatics has enabled scholars who began in literature to apply linguistic variation to written

discourse. Roughly 40% of the older scholars surveyed evidence such a full-cycle return to at least some aspect of the field where they started. This 'salmon spawning' phenomenon is not restricted to those who began with literature; it is also true of most of those who began in anthropology.

The younger respondents tend to evidence only one major shift in focus, the one where they are now working.

Where is variation study headed? The question of prediction for future changes in variation study was perhaps the most interesting. Most responses were optimistic, as the following comments illustrate:

- the merger of variation studies with cognitive models
- a growing realization by all linguists that variation in encoding cannot be studied apart from variation in use
- a broad understanding that discourse patterns are also universal
- linguistic variation will integrate with social theory
- we will see an alliance between psychologists, linguists, philosophers, anthropologists, and biologists
- increasing statistical sophistication
- a movement toward a humanistic, holistic linguistics
- linguistic repertoires will be seen to be more important than discrete languages
- progress in field methodology, computer-assisted analysis, and phonological variation
- the possible merger of variation theory with construction grammar, making construction-variation theory the dominant theory

Other responses evidence impending dangers and predict a more dire future, as follows:

- ethnomethodological studies will become more formalized
- a fracture between more informal studies of discourse and more formal studies of language variation
- an increasing gap between dialectologists and variationists
- a growing gap between variation theory (computer quantified) and descriptive studies (discourse, ethnographic)
- variation studies will dichotomize into functional linguistics vs. mental linguistics
- variation studies will continue toward methodological reductionism
- a split between interactional variation and formal variation
- a gulf between theoretical syntax (concerned with possible abstract structures) and variation studies (more interested in the grammatical meaning of

- morphemes and their distribution in texts)
- increased emphasis on social context influences on linguistic phenomena and less emphasis on how linguistic elements influence each other (a reaction against abstract syntactic theorists)

Like cellular life, variation scholars see mergers, progress, increased understanding, and growth on the one hand, but fractures, gaps, dichotomies, splits, reactions, and gulfs on the other. A major concern, as always, is how variation studies will relate to the parent field of linguistics, linguistic theory in particular. A second major concern continues to be how an increasingly complex area of study can hang together at the same time that subdivisions develop. Such concerns are the normal process of all other areas of life--business, government, religion, even the family; and can be expected in our field as well.

I began this paper with the statement that language variation is not as easy to define as it might seem. The last question in the questionnaire discussed here asked for a definition. Twenty percent refused to attempt one. Twenty-eight percent said, in essence, 'everything.' Sixteen percent insisted on a form-focused and quantified definition. Another 16% gave lists of what seem to be courses. Twelve percent identified variation by what it is not, all agreeing on the words 'beyond idealism,' as the key factor. The remainder, 8%, included both formal and functional in their definition.

The study of language variation, a central theme of this conference, is broad and difficult to define with precision. As noted earlier, those who study language variation agree that social context is a critical aspect of such study. But that same phenomenon, social context, is also a critical aspect in the study of variation. As scholars, we are a part of the object we study. We are a product of those who preceded us, however much we may disagree with them. We stand on their shoulders, benefit from their perseverance, and build on their accomplishments. Fields of specialization, such as sociolinguistics, are not always well-planned courses of activity. Like most of human life, such fields react to and are created out of specific events in time and social ferment. And the field we create is subject to the same types of influences and changes in the future. We unify and split. We seek out the knowledge of other disciplines, then attempt to integrate this knowledge into our own field, making it our own in the process. We work with both form and function, sometimes deciding that one or the other of these is most comfortable to us. In the process, like all human beings, we tend to mischaracterize the position of those who oppose us. We dispute, we challenge, and we differ, but the unifying force throughout is growth.

As any student of organizational history can confirm, institutional memory is a weak vessel. From various bits and pieces of written records or from the memories of veterans, one can often glean something of its patterns and past. On the assumption that at least some of this social context might be useful to current or future students of language variation, this admittedly partial account has been offered.

Appendix. Georgetown University Press publications on sociolinguistics.

- Bailey, Charles-James N., and Roger W. Shuy, eds. 1973. *New ways of analyzing variation in English*.
- Fasold, Ralph W., ed. 1983. *Variation in the form and use of language: A sociolinguistic reader*.
- Fasold, Ralph W., and Roger W. Shuy, eds. 1973. *Analyzing variation in language*.
- Fasold, Ralph W., and Roger W. Shuy, eds. 1977. *Studies in language variation: Semantics, syntax, phonology, pragmatics, social situations, ethnographic approaches*.
- Feagin, Crawford. 1979. *Variation and change in Alabama English: A sociolinguistic study of the white community*.
- Georgetown University Round Table on Languages and Linguistics 1972 (GURT 1972) 1972. *Sociolinguistics: Current trends and prospects*. Roger W. Shuy, ed.
- GURT 1981. *Analyzing discourse: Text and talk*. Deborah Tannen, ed.
- GURT 1982. *Contemporary perceptions of language: Interdisciplinary dimensions*. Heidi Byrnes, ed.
- GURT 1984. *Meaning, form, and use in context: Linguistic applications*. Deborah Schiffrin, ed.
- Shuy, Roger W., ed. 1973. *Some new directions in linguistics*.
- Shuy, Roger W., and Charles-James N. Bailey, eds. 1974. *Towards tomorrow's linguistics*.
- Shuy, Roger W. and Anna Shnukal, eds. 1980. *Language use and the uses of language*.
- Smith, David M., and Roger W. Shuy, eds. 1972. *Sociolinguistics in cross-cultural analysis*.

Notes

1. The title of this journal was later changed to *Publications of the American Dialect Society* and remains the same today.
2. The obverse, however, appears to be true. Experimental studies probably cannot be made ethnographic.
3. It should be noted that this was only a natural concern for dialectology, since historical change had been its major interest and, by focusing on older informants, one could dig further back in time.

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ACTUALIZATION REANALYZED: EVIDENCE FROM THE ROMANCE COMPOUND PAST TENSES

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0. Introduction. Latin periphrases involving the verbs *ESSE* 'to be' and *HABERE* 'to have' together with a past participle give rise to compound past tense forms in the Romance languages. The construction in which *HABERE* occurs together with a direct object and a past participle modifying this direct object and agreeing with it undergoes a progressive semantic shift; thus, *HABEO SCRIPTUM LIBRUM* --literally, 'I possess the book which is written'--comes to signify 'I have got the book written', and ultimately yields compound past tense forms (compare Fr. *J'ai écrit le livre*, Ital. *Ho scritto il libro*, Span. *He escrito el libro* --all meaning, with various degrees of aspectual nuance, 'I have written the book'). At the same time, the use of the construction *ESSE* + past participle to form perfective tenses is extended from passive and deponent verbs into a number of nondeponent intransitives. These developments have been relatively well charted, and it is not my intention in this short paper to survey all the literature on the subject--an exhaustive bibliography can be found in Vincent 1982.

The process in question is best viewed as a reanalysis. That is to say, a given surface structure continues to exist, but now corresponds to a different underlying structure from that with which it was originally associated. Surface changes may result from this underlying change. Langacker (1977:58) speaks of reanalysis in the following terms:

[Reanalysis is] change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation. Reanalysis may lead to changes at the surface level..., but these surface changes can be viewed as the natural and expected result of functionally prior modifications in rules and underlying representations.

A similar point of view is expressed by Timberlake (1977:141):

it is instructive to distinguish between two types of change in syntax, as in other components of grammar: reanalysis--the formulation of a novel set of underlying relationships and rules--and actualization--the gradual mapping out of the consequences of the reanalysis.

The development of the Romance compound past tenses is a particularly interesting example of reanalysis, since it apparently leads to several distinct actualizations. In this paper, I examine these various phenomena, and attempt to discover whether they shed light on the nature of actualization.

1. Auxiliary selection. In many varieties of Romance, the relationship between the auxiliaries 'have' and 'be' has been recast. Perhaps the most common development has been the extension of the auxiliary 'have', which, in a majority of Romance languages, has supplanted 'be' as the auxiliary of the compound past tenses of a number of verbs (for discussion and full references, see Vincent (1982)). In Castilian Spanish, standard Catalan, Sicilian, and many *oil* dialects, the extension of 'have' has been total, and it is now the auxiliary used with all verbs. In other languages and dialects, the extension is more tentative. I suggest that this tendency is favored by the 'opacity' of a system involving two auxiliaries. Analytical tense or aspect forms in Romance (as in many other language groups) normally exhibit a single auxiliary which is common to all verbs (as in Fr. *je vais faire* and Ital. *sto facendo*, Span. *estoy haciendo*, etc.); in this sense, a tense/aspect form involving two different auxiliaries, with the selection of the appropriate auxiliary depending on the identity of the verb, is 'opaque' (for the moment, I shall adopt as a working definition of the term 'opaque' 'which is at variance with the norm for forms with a similar function'). Another significant consideration is that, when there is a distinction between the ways in which different verbs form a given synthetic tense, this distinction is based on the class (or 'conjugation') to which the verb belongs. By contrast, the original criteria for selecting a particular auxiliary in the compound past tenses derive from the syntactic or semantic features of the verb rather than from its membership of a particular morphological class. In this sense, too, therefore, the distribution of the two auxiliaries at the outset may be termed 'opaque.' The extension of one of the auxiliaries to all verbs will create more 'transparent' forms; it is not surprising that 'have', as the more frequent, unmarked, auxiliary, should be generalized.

An alternative solution to the problem of opacity has been adopted by some Catalan and Italian dialects, in which the distribution of the auxiliaries 'have' and 'be' is based on grammatical person. The most common distribution is 'have' for the third person and 'be' for the first and second, with all verbs, although other patterns are found (see, for Catalan, Puig y Sais (1908:136), Arquès i Arrufat (1910), Fabra (1912:§104), Alcover (1924), Badía Margarit (1962:§156n), Verdager (1974:138); for Italian, Vignoli (1911:168), Giammarco (1958:53), Rohlf s (1969:§730); a painstakingly documented discussion, including many further references, is to be found in Tuttle (1986)). Distribution according to person is 'transparent,' inasmuch as it is based on morphological, rather than syntactic or semantic criteria.

In Daco-Rumanian, the selection of the appropriate auxiliary is determined by the tense and mood of the verb. Of the indicative compound past tenses of modern Rumanian, only the compound past proper (*perfectul compus*) is formed with *a avea* 'to have' (e.g., *am făcut* 'I have done'), while *a fi* 'to be' occurs in the future perfect (*voi fi făcut* 'I shall have done') and the conditional perfect (*aş fi făcut* 'I should have done'), as well as in the perfect

subjunctive, where it is uninflected (*să fi făcut* 'that I, etc., had done'). In standard Daco-Rumanian, the pluperfect is a synthetic tense-form (*făcusem* 'I had done'), but in some areas (particularly in northern and western regions, such as Transylvania, the Banat, Crișana, the Maramureș, and a small part of northern Moldavia--see Dimitrescu (1978:313), Pancratz (1925:104), and maps 2017-2020 of the *ALR* (Patruț 1972)) a compound pluperfect tense is found, which is also formed with *a fi* (*am fost făcut* 'I had done'). Distribution according to tense and mood of the verb is, like distribution according to person, transparent, being based on morphological, rather than syntactic or semantic, criteria.

2. Participial agreement. When the auxiliary of a compound past tense is 'be', agreement generally takes place between the past participle and the subject, as in the Latin construction (a frequent exception to this rule is when 'be' has usurped 'have'--see Tuttle (1986:273)). However, in all but a minority of varieties of Romance, agreement between the past participle and the direct object in the compound past tenses conjugated with 'have' has been curtailed or completely lost (for further discussion, see Smith (1987)). The traditional explanation for the disappearance of object-participle agreement can be summarized as follows. When the verb 'have' in this construction lost its original function of indicating possession and became an auxiliary (i.e., a form of tense/aspect marker), the participle, as part of the same process, lost its adjectival connection with the direct object, and came simply to be the standard form assumed by the lexical verb in the presence of the appropriate tense/aspect marker, the severance of this adjectival link leading to invariability (see, for instance, Harris 1978:202). The disappearance of agreement is not a necessary result of the reanalysis--we find varieties of Occitan, Catalan, Italian, and Friulan in which the past participle continues to agree with any type of direct object (Smith 1987). It is nonetheless a logical one. The reason is once again to be found in opacity--in this case, the opacity of agreement once the reanalysis has taken place. Before 'have' + past participle is grammaticalized, the agreement between the participle and the direct object of 'have' follows from the normal rule of agreement between an attributive adjective and the noun it modifies. However, once 'have' + past participle has been reanalyzed as a tense form, the agreement between participle and direct object no longer follows from the normal rule of agreement, and a new agreement rule has to be added to the grammar in order to account for this situation. The direct object in the reanalyzed form is the direct object of the participle, not of 'have'--the new rule is therefore a rule of 'object-verb agreement,' as opposed to all other verbal agreement rules in the Romance languages, which involve the subject. For this reason, the rule required to account for participial agreement after the reanalysis of 'have' + past participle has taken place is highly opaque and very much a 'black sheep' among the other rules of the grammar. These circumstances will favor its elimination.

We may contrast the case of agreement between participle and subject when the auxiliary of the compound past tense is 'be'. Agreement in these circumstances is highly transparent, on account of the independent existence of rules such as subject-predicate agreement; as a rule of 'subject-verb

agreement,' it also conforms to the norm for verbal agreement rules in Romance.

3. Separability of auxiliary and participle. Some Romance languages show a tendency to fuse the sequence auxiliary-participle into an indissoluble unit. For instance, in Old Spanish, up to the sixteenth century and beyond, we find that items may be intercalated between auxiliary and participle. According to Sturcken (1953:165), 'these two forms were freely separated in the thirteenth century by any part of the sentence.' Examples from the medieval period are provided by Company (1983:250-53), who charts the progressive decline of the construction. Keniston (1937:452) notes that in sixteenth-century prose 'the compound tenses are normally treated as an inseparable unit,' although he adds that 'exceptions to the regular practice are not uncommon.' The items which may be intercalated between the auxiliary and the participle include clitic object pronouns, adverbs (examples involve *ya*, 'the most frequently inserted adverb'; *aquí*, *arriba*, *así*, *bien*, *casi*, *mucho*, *siempre*, *tanvien*, and *tampoco*), adverbial phrases, pronoun and noun subjects, and direct and indirect objects (ibid.:453). In some cases, a substantial amount of material may intervene. However, intercalation is rare in modern Spanish, and is felt to be literary or affected (Gili y Gaya 1964:§120bis; Carratalá 1980:141). Native informants tend to reject compound past tense forms in which an item intrudes between auxiliary and participle, and the few examples of such constructions in contemporary Spanish come from literary, or, more rarely, journalistic texts. They appear to involve a restricted number of monosyllabic adverbs, chiefly *ya* and *aun*. The following is a journalistic example, taken from a feature article in the daily *El País*:

- (1) *había ya abandonado casi totalmente los hábitos de la
lucha en la ilegalidad. (El País, 30 October 1982, p. 24)*

Portuguese behaves similarly to Spanish in the matter of intercalation. In the medieval language, we find examples of the two elements of the compound past tenses being separated by various items:

- (2) *saluo se ouuese ia feita profisom (Codex
Alcobacensis 200,208Vo, l.6)*
- (3) *Equando elRey estas cousas ouue assy hordenadas...*
(Barlaam and Josaphat, 16Vo, ll.18-19)

This possibility is absent from modern Portuguese, in which adverbs may not intervene between the auxiliary and the participle (Dunn 1928:§650c).

The situation in Catalan is similar to that found in the other Ibero-Romance languages. No item may separate the auxiliary and the participle, with the single exception of the adverb *ben* (Yates 1975:89,215). Similarly, in contemporary Rumanian, auxiliary and participle may be separated only by one of a restricted set of monosyllabic adverbs (*mai*, *și*, *prea*, *cam*, *tot*), as noted by Guțu-Romalo (1971:18).

In Romance languages other than Rumanian and the Ibero-Romance group, items may be intercalated between the auxiliary and the participle. For French, this phenomenon is remarked upon by Vaugelas (1647:460), for whom '*je l'en ay plusieurs fois asseuré est bien mieux dit que je l'en ay asseuré plusieurs fois.*' In the contemporary language, the intercalation of adverbs in French is commonplace (Grevisse 1980:§2039b). Interjections may also appear in this position:

- (4) Sa maison, qui ressemblait à quelque grande villa de la Côte d'Azur, avait, je crois, été mise récemment à sa disposition. (Malraux, *Antimémoires*, p. 334)
- (5) Le président Kanuda de Zambie a semble-t-il définitivement renoncé au dialogue. (*Le Monde*, 18 May 1977, p. 1)

NPs, usually in apposition to the subject, may also be intercalated:

- (6) M. Oreja l'a lui-même rappelé avec franchise. (*Le Monde*, 29-30 August 1976, p. 1)
- (7) le tunnel de huit mètres de long qu'ils avaient eux-mêmes creusé. (*Le Monde*, 23 July 1976, p. 10)
- (8) je suis, petit voyageur de banlieue, descendu à Bayonne. (Daninos, *Voyages à tous prix*, p. 36)
- (9) Avez-vous, chère Brigitte Bardot, assisté au gavage d'une oie? (*Le Monde*, 2-3 May 1976, p. 17)

Even very substantial (or 'heavy') phrases may be intercalated in French, as shown by example (10):

- (10) Malheureusement, M. Robert Galley, alors ministre de l'équipement, a--encouragé dans un premier temps par l'Elysée--préféré imposer par la force le péage dans le Val-de-Marne. (*Le Monde*, 14 October 1976, p. 36)

In Italian, intercalation is also possible, although grammars of the language tend to regard it as stylistically marked (see, for instance, Battaglia and Pernicone (1965:410) and Fogarasi (1969:242)). However, the material intercalated in Italian tends to be less 'heavy' than in French; although examples (11) and (12) from the contemporary press do show more than one item separating auxiliary and participle:

- (11) Mai abbiamo neppure lontanamente pensato a un rapporto tra il Presidente e associazioni segrete di qualunque tipo. (*La Stampa*, 31 August 1983, p. 7)

- (12) La "British Airways" non ha però ancora annunciato ufficialmente la sospensione dei voli per l'Unione Sovietica. (*La Stampa*, 8 September 1983, p. 4)

Intercalation is also possible in Occitan. According to Ronjat (1937:\$766), only fairly 'light' items (short and commonly used complements, adverbs, and negative particles) appear between the auxiliary and the participle; but the following examples from Mistral's *Moun Espelido*, possibly influenced by French, show a fuller range of possibilities:

- (13) avié tout simplamen e sènso tant de brut, resoulu lou proublèmo de la Banco d'Eschange. (p. 67)
- (14) aquelo ciéutadello d'opera erouï-coumique--que quatre o cinq gendarmo aurièn, s'avien vougu, facho veni à jube. (p. 82)
- (15) lis an, pèr se caufa, abrado an fiò de sant Eume. (p. 89)
- (16) Áviéu proun, enjusquo aqui, o de bri o de bro, legi un pau de prouvençau. (p. 110)
- (17) Li pouèto miejournen avien, pér inchaiènço, o pulèu pèr ignourenço, adóuta la grafico de la lengo franceso. (p. 113)
- (18) Ávié, estènt sòudard de Bonaparte (coume, proun despichous, apelavo l'Empeiraire), vist la bataio de Waterloo. (p. 205)

It would be possible to account for the different behavior of various Romance languages and dialects in respect of intercalation by proposing two different structures for compound past tense forms. If we assume that, in those varieties which no longer permit intercalation, auxiliary and participle are each dominated by a V node, with these two V nodes being in turn dominated by a third (V [V V]), then the impossibility of intercalation follows naturally. Intercalation of any item between auxiliary and participle will be impossible given the unitary nature of the material dominated by a single lexical category node--indivisibility is, as Rizzi (1978:154) remarks, 'a trivial property of lexical categories' (apart, we might add, from very marginal cases, such as tmesis). Languages which permit intercalation will have a structure in which the sequence auxiliary-participle is not dominated by a single V node (say, V[V V])--in these circumstances, the intercalation of material between auxiliary and participle will not split up a lexical category. Note that, under this analysis, the intercalation of certain specified items in Spanish, Catalan, and Rumanian will have to be regarded as exceptional. It seems at least plausible that we are in fact dealing with a continuum which does not lend itself to structural formalism: the proposed structure is probably best regarded as a 'tendency.' Once again, the motivation for this tendency is the avoidance of opacity--synthetic verb-forms in the Romance languages are clearly dominated by a single lexical category node V.

One case in which intercalation of an item between auxiliary and participle may appear obligatory in Spanish is when the auxiliary is a nonfinite form--*haberlo hecho* 'to have done it', *habiéndola visto* 'having seen her', etc. Similarly, the only items which regularly occupy the position between the auxiliary and the participle in Portuguese are the clitic object pronouns (Dunn 1928:§273a), which are generally enclitic to finite and nonfinite verb forms alike. These are not really intercalations in the sense in which we have been using the term--although the clitic breaks up the linear surface sequence auxiliary-participle, we assume it to be adjoined to the auxiliary, yielding a structure V[V[V cl]V]. This leaves the proposed V V sequence intact at the appropriate level of structure.

4. Relative position of auxiliary and participle. The order auxiliary-participle has become the norm for the compound past tenses of Romance. In Old Spanish, the auxiliary may precede or follow the participle, although the order auxiliary-participle becomes more prevalent with the passage of time (for discussion and examples, see Company (1983:248-50)). Gili y Gaya (1964:§120bis) notes that anteposition of the participle is considered incorrect in modern Spanish. Similarly, while the participle may precede the auxiliary in Rumanian, this type of inversion is rare and characterized as archaic (Sandfeld and Olsen 1936:316; Academia R.S.R. 1969:269). In contemporary French, too, the participle must follow the auxiliary.

In Italian, the participle may precede the auxiliary in certain contexts, particularly in response to questions--for instance:

- (19) --Hai visto Giovanni?
--Visto non l'ho; ma gli ho parlato al telefono.

However, informants report that this usage is confined to extremely formal levels of the language. Anteposition of the participle is also possible in Occitan, as witness example (20):

- (20)nascuda èra estropiada. (Bodon, *Domaisèlas*, p. 145)

Once again, the construction appears to be limited to formal registers of the language.

Anteposition of the participle is common in the Nuorese dialect of Sardinian, as noted by Pittau (1972:§224). The construction is normal in interrogative sentences involving a compound past tense--Pittau gives the following examples: *Bènnios sunu?* 'Have they come?' (lit. 'Come are they?'); *Andáu sink'este?* 'Has he gone away?' (lit. 'Gone away is he?'); *Fattu l'an su travallu?* 'Have they done the work?' (lit. 'Done have they the work?') *Bida bbi l'as s'ebba?* 'Have you seen the mare?' (lit. 'Seen have you the mare?') He observes that this type of inversion is also found in the replies to such questions; compare: *Manicáu asa?* *Manicáu appo.* 'Have you eaten? I have eaten' (lit. 'Eaten have you? Eaten have I.'). Identical phenomena in the dialect of Sassari are described by Sassu (1963:68).

As before, we might assume that compound past tense forms in languages and dialects which do not permit the participle to precede the auxiliary consist

of two V nodes dominated by a third (V[V V]), with the auxiliary preceding the participle; in these circumstances, fronting of the participle might be ruled out by an exaction principle linked to the indivisibility of lexical category nodes. The corresponding forms in varieties which do allow either order might then have a structure of the form V'[V V], enabling anteposition to take place without any such principle being violated. However, some caution is called for, as it is once again clear that we are dealing with a continuum which is not easily represented by means of a discrete formalism--note, for instance, that the absence of participle-fronting in French would lead us to postulate the structure V[V V] for compound past tense forms in this language; while the fact that material can be freely intercalated between auxiliary and participle would argue against such a structure.

Once again, opacity may be invoked to account for the decline of the order 'participle-auxiliary' in many varieties of Romance. The grammatical person and tense/aspect of verb forms in Romance are generally indicated by a flexion which occupies a fixed position; a 'floating marker' of tense/aspect and person is at variance with the norm. One slight difficulty with this analysis is that the flexion follows the stem in the synthetic verb forms of Romance, and in these circumstances, the order 'participle-auxiliary' is less opaque than the order 'auxiliary-participle,' which ultimately prevailed. For the moment, I have no solution to offer to this problem noting merely that other compound tense/aspect forms in Romance also tend to exhibit the order 'auxiliary followed by nonfinite verb form.'

5. Dissociation of auxiliary and verb signifying possession. Another parameter of actualization is the dissociation of the *have* auxiliary of the compound past tenses and the verb signifying possession. In some varieties of Romance, this dissociation is lexical; that is, the reflex of Latin HABERE has been retained purely in its auxiliary function and supplanted as a verb signifying possession by a reflex of Latin TENERE. Thus, in Spanish, the lexical item *haber* ceased to indicate possession, and was replaced in this function by *tener*, which extended its semantic value from its original meaning of 'hold' (the phenomenon is discussed extensively by Seifert (1930a)). A similar strategy was adopted by Catalan (Seifert 1957), by Sardinian dialects (Seifert 1930b), by some southern Italian dialects (Seifert 1935; Rohlfs 1969:§733), and by the Ambertois Auvergnat dialect of Occitan (Michalias 1906:85).

The dissociation may also be realized morphosyntactically, however. In contemporary Daco-Rumanian, for instance, the paradigms of the *have*-auxiliary and the verb signifying possession are partially distinct. Guțu-Romalo (1962:194) notes that the third person singular and first and second person plural forms of the 'present indicative' of the auxiliary *a avea* are distinct from those of the verb signifying possession (compare *am/ai/au o carte* 'I have/you have/they have a book'; *am/ai/au venit* 'I have/you have/they have come' with *are/avem/aveți o carte* '(s)he has/we have/you have come') and concludes that *a avea* the auxiliary of the *perfect compus* and *a avea* the verb signifying possession are two separate items. Sădeanu (1959:329) explicitly compares this morphosyntactic distinction between the two items to the distinction which exists in Spanish between *haber* and *tener*. However, the two cases are not identical. The distinction between the two

items in Spanish is, as we have noted, a lexical one--there is no syncretism between the paradigms of *haber* and *tener*. By contrast, in Daco-Rumanian, the auxiliary and the verb signifying possession have identical forms in the first and second persons singular and the third person plural.

In fact, the paradigm of the auxiliary is complicated by the existence of a variety of forms for the third persons singular and plural. Although the standard language exhibits the forms *a* (third person singular) and *au* (third person plural), in certain dialects (particularly those of western and central regions), we find the forms *au* or *o* in the third person singular, and *ar* or *or* in the third person plural. I shall not discuss these forms in detail here--accounts of their development and distribution can be found in Sădeanu (1959), Frincu (1969), Bugeanu (1971), Gheție and Teodorescu (1973).

No dissociation of the auxiliary and the verb signifying possession has taken place in Meglenorumanian and Arumanian, which exhibit a single paradigm for *a avea* in both functions (see Streller 1902:40) and the forms recorded on maps 1997 and 1998 of the *ALR* (Patruș 1972)). In addition, the compound pluperfect and future perfect tenses are formed in these dialects with the imperfect and future of *a avea* + past participle (see maps 2017-2020 and 2031-2034 of the *ALR* (Patruș 1972)).

In many Italian dialects, the verb *avere* or its cognate is unmodified only when used as an auxiliary; as a verb indicating possession, it is normally accompanied by the clitic particle *ci* or its cognate (compare *ho comprato la casa* 'I have bought the house'; *ci ho una casa* 'I have a house'). Rohlfs (1969:§899) gives examples from Tuscan. The phenomenon is also found in many northern Italian dialects; see, for instance, De Marchi 1976:84 for the dialect of Parma, and Biolcati 1980:110 for the dialect of Ferrara. Pulgram (1978) remarks on a similar phenomenon in Roman dialect and in standard Italian; he makes the strong claim (ibid.:2) that 'current colloquial Italian has two verbs, *ciavere* and *avere*, which function typically and distinctively' as verb signifying possession and auxiliary, respectively. He compares this distinction to the lexical dissociation of *haber* and *tener* in Spanish, and goes on to speculate that 'sooner or later, Modern Italian will raise *cià* and similar forms from colloquial to standard, and will establish *ciavere* as a full-blown, separate verb with all the syntactic and orthographic consequences attendant upon this elevation.'

Despite Pulgram's futuristic visions, we must recognize that the distinction between auxiliary and verb signifying possession is, for the moment at least, a morphosyntactic one; the *ci* is still construed as a clitic particle, as is clear from the fact that it interacts with other clitics in the normal way (compare *Già ce l'ho*/**Già lo ci ho* 'I already have it')--a fact acknowledged by Pulgram (1978:2). I should also point out that, in some dialects of Italian, this type of dissociation is not watertight, as the clitic particle *ci* (or its cognate) is optionally used with *avere* in its auxiliary function; this is the case, for instance, in Cremonese (Rossini 1975:129-33) and in Assisano and a number of other central Italian dialects (Martin Maiden, personal communication). All in all, it seems that we are less justified in speaking of a true 'dissociation' in this case.

The effect of dissociating the auxiliary 'have' and the verb signifying possession is to create an element which unequivocally indicates grammatical

person and tense/aspect. This development may also be regarded as reducing the opacity of the compound past tense forms, inasmuch as the norm in Romance is for tense/aspect and grammatical person to be indicated by a bound flexion which has no independent function.

An important exception to the development outlined in this section is Portuguese. Although *ter* (< TENER) supplanted *haver* (< HABERE) as the verb signifying possession, it also encroached on the role of *haver* as the auxiliary of the compound past tenses, and is now the only item found in this function in most registers of the contemporary language (Mattoso Camara 1972:145).

6. The gradual nature of actualization. Vincent (1982:96) notes that the progressive replacement of 'be' by 'have' as the auxiliary of the compound past tenses in most varieties of Romance is 'a gradual syntactic change'--although he does not define in detail the nature of the gradualness. Smith (1987) outlines the gradual disappearance of object-participle agreement, claiming that the differential nature of this process is due to perceptual factors. In fact, I claim that all the developments which I have surveyed are gradual changes.

We may usefully view gradualness according to the criteria proposed by Bennett (1981:119-20), who distinguishes five parameters along which gradualness may be defined. The first is 'syntactic gradualness,' 'where the syntactic status of some element changes gradually, e.g. from one part of speech to another or from one grammatical relation to another.' In this sense, both the generalization of the auxiliary 'have' and the disappearance of object-participle agreement are abrupt changes. There is no auxiliary intermediate between 'be' and 'have'; nor is there any intervening stage between agreement and nonagreement. Similarly, there is no 'halfway house' between nonintercalation and intercalation or between the order participle-auxiliary and the order auxiliary-participle.

Bennett's second parameter is that of 'strategic gradualness.' A 'strategy' is 'a way of expressing a particular meaning, e.g. use of *will* is one strategy for expressing future time in English.' Thus 'strategic gradualness refers to a situation where there is no sudden switch from strategy *x* to strategy *y*, but instead there is an intermediate stage where a speaker uses both *x* and *y*, in whatever proportions.' Auxiliary selection in several Romance languages appears to reveal that the generalization of 'have' is gradual in this sense--see, for instance the data provided for Canadian French by Sankoff and Thibault (1977) and by Canale et al. (1978). Inasmuch as participles which agree with their direct objects appear to exist side by side with participles which do not, in otherwise identical sentences, we might also define the disappearance of this type of agreement as strategically gradual, interpreting the agreeing participle and the invariable participle as different ways of expressing the same meaning. Instances of sentences with similar context and meaning which are virtually identical apart from the pattern of participial agreement include examples (21) and (22) in the Gascon dialect of Occitan, taken from the same page (vol. 1, p. 56) of Bladér's *Contes de Gasconha*, and Italian examples (23) and (24) from the first chapter of Primo Levi's *Il sistema periodico*.

(21) tota la pena que ma mair s'avèva meritada

- (22) tota la pena que sa mair s'avéva meritat
 (23) cosa che lui aveva sempre rifiutato (p. 14)
 (24) cosa che aveva recisamente rifiutata (p. 17)

Native informants claim that, in a large number of cases, intercalation has stylistic rather than semantic significance in those languages where it is still possible.

Third, 'a change is lexically gradual if some lexical items are affected before others (e.g. some lexemes drift into a new word class before others), and lexically abrupt if all relevant lexical items are affected at once.' By this definition, all the changes under discussion are lexically gradual. As far as auxiliary selection is concerned, we may note the findings of Sankoff and Thibault (1977) and Canale et al. (1978) concerning Canadian French. In some varieties of Romance, the gradualness of the change may be very 'finely tuned'--Aub-Büscher (1962:84) notes that in the Lorrain dialect of Ranrupt, in the Bas-Rhin, *venir* 'to come' is the only verb which continues to form its compound past tenses with the auxiliary 'be'. There is evidence that the disappearance of object-participle agreement may also be sensitive to the identity of the verb (see, for instance, Eker (1923:69-70, 75) for Old French; Lucchesi (1963:233ff.) for Old Italian; Macpherson (1967:246) for Old Spanish; and Augustin (1903:52) for Engadinish).

The disappearance of intercalation from Rumanian and the Ibero-Romance languages has also been lexically gradual, as we have seen, although the relevant lexical item in this case is the intercalated item rather than the verb. The decline of the order participle-auxiliary may also be a lexically gradual change. Criado de Val (1969:305) observes that, in the Spanish *La Celestina* of circa 1500, anteposition of the participle is particularly frequent in the expression *oído he* 'I have heard'. Similarly, Seifert (1930a, 1930b, 1935, 1957) demonstrates that the extension of the reflex of Latin *TENERE* to indicate possession is partly dependent on the semantic identity of the complement.

A fourth parameter is 'environmental': 'a change is environmentally gradual if it occurs in some syntactic environments before others (e.g. in main before embedded clauses), and environmentally abrupt if it applies in all environments "across the board".' Clearly, the disappearance of object-participle agreement is a *prima facie* case of an environmentally gradual change, varying as it does with the position and surface identity of the object (for fuller discussion, see Smith (1987)). There is less evidence that the generalization of the auxiliary 'have' has been environmentally gradual in Bennett's sense; however, we do note one respect in which the change may be so defined in some dialects of Occitan. In these dialects, the auxiliary selected with certain verbs is 'have' when the subject follows the verb, and 'be' when the subject precedes. According to Ronjat (1937:§583), we find *siés toumba au sòu* 'you have (lit. 'are') fallen onto the ground', but *a toumba de nèu* 'snow has fallen' (lit. 'has fallen snow'). For the Limousin dialect, Roux (1895:103) gives *A toumba una plueja rajousa* 'torrential rain has fallen' (lit. 'has fallen torrential rain'), and *Una plueja rajousa es toumbada* 'torrential rain has (lit. 'is') fallen', while Sicre (1909:42), in his grammar of the Languedocien dialect of Foix, quotes the examples *a bengut qualqus* 'someone has come' (lit. 'has come someone') and *qualqus es bengut* 'someone has (lit. 'is') come'. The

existence of this distinction in *félibréen* Provençal is confirmed by the following examples from Mistral's *Moun Espelido*:

(25) n'a plus toumba 'n degout de pluieo. (p. 100)

(26) Après èstre retoumbado... (p. 81)

(27) L'auro es toumbado. (p. 286--verse)

(28) l'aubre de l'oustau èro toumba. (p. 288)

Similar data (showing the auxiliary 'have' when the subject follows the verb and the auxiliary *be* when the subject precedes) are provided for Sardinian by Jones (1988). If we extend to Occitan and Sardinian the 'ergative' analysis proposed for comparable verbs in Italian by Burzio (1986:27-31)--i.e., that the 'subject' is base-generated in postverbal position--then we may note that the generalization of the auxiliary 'have', like the disappearance of object-participle agreement, seems to be occurring first of all in the 'unmarked' surface order--that is, the surface order which corresponds most closely to the underlying order.

There are other indications that the changes under discussion are gradual in this sense. Montes Giraldo (1976) notes the retention of 'be' as the auxiliary of some compound past subjunctive forms (but not indicative forms) in Colombian Spanish. Agreement of the past participle with a following direct object may be more resilient in Italian when the verb is in the pluperfect (Nicoli 1983:372; Giulio Lepschy, personal communication). Spanish informants have claimed that the intercalation of items such as *aun* and *ya* between the auxiliary and the participle is more acceptable in the pluperfect tense than in the compound past proper. The dissociation in Daco-Rumanian of the 'have'-auxiliary and the verb signifying possession may also be construed as an environmentally gradual change, inasmuch as the dissociation involves certain parts of the paradigm (third person singular, first and second persons plural) and not others. Similarly, in some Italian dialects of south Lazio, *tenere* has displaced *avere* in the present tense, but not in the preterite (Seifert 1935:108-9). In a majority of these cases, the change appears to occur in unmarked contexts before marked ones.

Finally, Bennett defines a 'socio-geographic' parameter of change: 'a change is socio-geographically gradual if it is adopted by speakers of some variety before others, and socio-geographically abrupt if there is no such distinction.' All the changes under consideration are gradual changes, according to this criterion. Both in Romance as a whole and within individual dialect groups, the progression of the changes varies with geographical area, as we have seen. What is particularly striking is that the changes generally proceed hand in hand--there is a strong, though far from absolute, likelihood that a language or dialect which exhibits one of the developments under discussion also exhibits others. Thus, Castilian Spanish and Daco-Rumanian have undergone all the changes discussed above, while those dialects of French which have generalized the auxiliary 'have' to all verbs also tend to have lost object-participle agreement, and vice versa (Smith 1987). Conversely, where a given variety of Romance is conservative, it tends to be so with respect to several of the developments. For instance, some varieties of Aragonese, alone among Spanish dialects, have maintained a distinction between two auxiliaries,

'be' and 'have'; the same dialects have also retained object-participle agreement in some form, and have not dissociated the auxiliary 'have' and the verb signifying possession (Umphrey 1911:37-39; Kuhn 1935:152-55). There are, of course, exceptions to this tendency; but they do not invalidate the general trend.

7. Conclusion. It has not been possible in this brief account to undertake anything like a complete survey of the data--there are many details to which I hope to return in a subsequent paper. What I have attempted to do is to outline a number of consequences of the reanalysis represented by the development of the Romance compound past tenses from Latin periphrases involving *ESSE* and *HABERE* with the past participle. These consequences appear to be formally quite distinct--a fact which might lead us to conclude that they are multiple, unrelated actualizations. However, I suggest that, on the contrary, the phenomena under discussion are in fact multiple manifestations of a unitary process of actualization. The data are, as always, 'fuzzy'; but we find a correlation between the various changes in three senses. Geographically, a language or dialect which exhibits one of the changes tends to exhibit others as well; chronologically, those changes which take place in a given language or dialect tend to occur over the same period of time; parametrically, each change may be defined as gradual according to similar criteria. This threefold correlation is certainly not absolute--but it is, I suggest, indicative of an underlying unity of the process of actualization. In the case under discussion, the unity consists of a tendency toward the overt incorporation of the original Latin periphrases into the tense system of Romance. This particular development is, in turn, an instance of the fundamental principle which I claim motivates actualization--the principle of 'transparency'. I suggest that a form is 'opaque' when it does not possess a structural feature which is found in a majority of forms with a similar function in the same language, and that actualization is the process whereby opaque forms are rendered more transparent.

The notion of 'transparency' in diachronic linguistics is still largely associated with Lightfoot's 'transparency principle'--a synchronic principle which 'requires derivations to be minimally complex' (Lightfoot 1979:121). Lightfoot argues that a number of unrelated changes lead to a build-up of opacity (in his sense), and that, at the point at which the opacity becomes intolerable, a 'catastrophic' restructuring of the language takes place. My own claims are rather different. In the case of the Romance compound past tenses, at least, the opacity (as I have defined it) is created by reanalysis, and not built up piecemeal by a variety of accidental developments. It is subsequently resolved by a number of apparently unrelated changes, all of which tend to bring the morphosyntactic behavior of the reanalyzed forms into line with the morphosyntactic behavior of forms with a related function (in the case under discussion, tense/aspect forms). Crucially, the surface changes brought about by the reanalysis are gradual and tendential--we have seen that it is often difficult to express their results in terms of clear-cut formal structures. Actualization appears to be a multidimensional structural convergence of new forms with functionally similar existing forms. Further investigations of apparently multiple actualizations are required, in order to establish whether

the compound past tenses of Romance are an isolated case or whether, as I suspect, the principle I have outlined in this paper is generally valid.

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PRAGMATIC DIFFERENCES BETWEEN NATIVE AND INDIGENIZED VARIETIES: REQUESTING IN INDIAN ENGLISH

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Recent research on language use attempts to cover 'all the contextual coordinates of language organization,' to use Levinson's terms (1983). One contextual parameter that has attracted a great deal of attention has been the Speech Act theory (Austin 1967, Searle 1979). As Levinson points out (1983:226), psychologists have proposed that the acquisition of the concepts underlying speech acts may be a prerequisite for language acquisition in general (see, e.g., Bruner 1975, Bates 1976), and psycholinguists have extended the applicability of the notions of speech acts to second-language acquisition (see, e.g., Jakobovitz and Gordon 1974, Wolfson and Judd 1983).

In studies of indigenized varieties of English (hereafter IVEs),¹ with few exceptions (D'Souza 1987, Kachru 1982, 1985, 1987, Smith 1983), not much attention has been paid to what may be called the pragmatic aspects of variation. By pragmatic aspects, I mean topics such as how certain speech acts (informatives, directives, commissives, etc.) are performed in these varieties. Since IVEs differ from native varieties in the performance of speech acts as well as in formal properties, it is possible that the pragmatic approach may succeed in capturing the uniqueness of an IVE where structural analyses fail to do so.

Recent studies have shown that there are important cross-cultural and cross-linguistic differences in the way the 'same' speech act is performed in different languages. Olshtain and Cohen (1981) have pointed out that an apology in Hebrew is less likely to include a 'promise of forbearance' or 'an offer of repair' (for the damage) than is an apology in English. They also observe that the two languages differ in both the range of offenses for which an apology is offered and the intensity of the expression of regret. (For other cross-cultural differences, see Apte 1974, Loveday 1982, Sridhar and Sridhar 1986, and Wolfson and Judd 1983, among others). As we shall see, pragmatic differences exist between varieties of the same language as well, especially between native and nonnative varieties, and between one nonnative variety and another. It is perhaps useful to remind ourselves at the outset that the study of language variation and change in an IVE involves, by definition: (1) a cross-cultural comparison between native and indigenized varieties; (2) a bilingual's competence in the English language, with the first language and culture

playing an important role; and (3) a range or continuum of competence in a second language.

Design of the study. In this study I focus on requesting as a speech act, and examine how Indian English speakers perform this speech act. The study is based on an analysis of 1,148 examples of 'request' expressions collected in India in January 1988, using an elicitation technique in which college students were asked to provide 'free responses to structured situations' (cf. Olshtain and Cohen 1983) given to them in the form of a questionnaire.

The questionnaire given to the students was divided into three parts. Part 1 elicited background information on the students' native language, area of study, earlier training and exposure to English, use of English, mother tongue and the regional language in the various utilitarian and affective domains, and how comfortable they felt in using English. Part 2 outlined seven discourse situations and asked the participants to write down what they would say to request the service, favor, etc., specified in the situation. The situations were constructed so as to incorporate a number of sociocultural variables: deference, Westernized versus traditional (South Indian) setting, differences in social status between the requestor and the requestee, etc. In part 3, the respondents indicated whether they would use their mother tongue, English, or both languages in each of the seven situations presented in part 2. All responses were in writing.

The requesting expressions were analyzed in relation to (1) the sociocultural variables incorporated in the stimulus situations; (2) the sociocultural background of the students themselves; and (3) the conventions governing the performance of equivalent speech acts in their own languages. The characteristics of the language used by the Indian students were compared to the way requests are performed in a native variety of English, namely American English, as revealed in the judgments and comments on the acceptability of students' responses by two native speakers of American English (experienced teachers of English as a second language).

Second-year undergraduate students, 164 in all, from three different colleges (Mount Carmel College, NMRV College, and Vijaya College) in the cosmopolitan city of Bangalore, South India, took part in the study. The students all came from what is roughly described as a 'middle class' background in India. However, their sociocultural backgrounds were interestingly varied. Students from Mount Carmel College (MCC hereafter) typically came from more Westernized family and friendship backgrounds. These students tend to have greater facility in spoken English, having studied through the English medium practically from kindergarten and also having attended 'convent' schools where the use of the child's mother tongue is usually discouraged. Students from Vijaya College (VC, hereafter), on the other hand, come from a relatively more 'traditional' background, with their culture rooted in the regional languages. Students from the third campus, NMRV College (NMRVC, hereafter) are somewhat in between the two clearly defined institutions, though they are perhaps closer to MCC than to VC.

The study tested two hypotheses: (1) whether the differences in sociocultural background affected the choice of verbal strategies in requesting;

in the choice of language in a neutral encounter, in the choice of address forms, and in the choice of syntactic and semantic formulae and lexical items; (2) whether the students from the more Westernized background (e.g., MCC students) would perform requests in a more native-English manner, while those from traditional backgrounds (e.g., VC students) would use strategies more closely reflecting those of Indian languages, with those from NMRVC falling in between.

The breakdown of the students from the three colleges is as follows: NMRVC 65, MCC 49, and VC 50. The mother tongues of the students are given in Table 1.

Table 1. Mother tongues of students.

Language	No. of speakers	Percentage
Kannada	59	36.0
Tamil	30	18.3
Telugu	25	15.2
Hindi/Urdu	20	12.2
Konkani	8	4.9
Malayalam	6	3.7
Others	16	9.7
Total	164	100%

The majority of the students (73%) are speakers of the four major Dravidian languages of South India--Kannada (the major language of the state of Karnataka, of which Bangalore is the capital), Malayalam, Tamil, and Telugu --and of Hindi/Urdu. The other languages represented are Konkani, Gujarati, Sindhi, Marathi, Punjabi, and Tulu.

For almost all the students (97%), English was the medium of instruction at high school and college levels. In other words, they had studied English for at least six years. Many had studied English as a subject and the other subjects through the medium of English much longer. (However, as we shall see, having English as medium of instruction means different things in different settings.) Ninety percent of the students claimed that they used English most often with their friends. An even higher number (98%) claimed that they felt comfortable in using English. (This claim turned out to be interesting in the light of the data analyzed below; see especially discussion of situation 2). These claims reflect not only the multilingual, cosmopolitan nature of Bangalore city, where English often serves as a link language, but also the fact that it is prestigious to claim competence in English.

Results and discussion. I now turn to a detailed discussion of the requesting strategies reported by the students. The various types of constructions used for each of the seven situations is summarized in tables showing the most frequently given response-types along with the number and percentage of subjects who chose these response-types. I discuss the other, less common responses only when they illustrate a noteworthy aspect of the

sociocultural context (i.e., those judged to be particularly 'deviant' or unusual by the two native speaker judges).

- Situation 1. You are visiting your friend's house. Your friend is busy inside. Her/His mother comes out and asks you to sit down. You are very thirsty and need a glass of water. How would you ask her for a glass of water?

One of the features of the responses noted by native English speakers was the students' use of address forms. In Indian languages, it is customary to address elders with a kinship term. The addressee's proper name with title (e.g., Mrs. Waverly) is never used. (It would be considered 'uppity' or disrespectful.) With one's own relatives, the first name with the kinship term is used (as in the United States). In the given situation, the friend's mother was addressed as 'Aunty' by 92 out of a total of 164 (or 56.1%) of the respondents. Native speakers of English found the use of 'Aunty' strange. However, it is worthy of note that *Aunty* is an English word grafted onto a basically Indic semantic pattern, which functions as a marker of Westernized sophistication among the upwardly mobile middle classes in urban and semiurban India. This is seen clearly in the distribution of the use of 'Aunty' in the three colleges (see Table 2): it is most frequently used by NMRVC students (64%) and MCC students (57.1%), and least by VC students (46%).

I now turn to an examination of the choice of syntactic and semantic formulae used in this situation. The responses (see Table 3) may be grouped into two types--those that involved questions and those that did not. Of course, the former is the preferred, polite pattern of request in native varieties of English. Questions are used for requesting in Indian languages but that is not the only polite strategy. It is quite acceptable in Indian languages to use polite imperatives or desideratives as requests, especially since the force of the imperative is toned down by honorific number-marking on the verb and by the use of nonperemptory intonation (see, e.g., Sridhar (1988)).

Table 2. Distribution of 'Aunty'.

College	No. of respondents	No. of subjects using 'Aunty'	Percent
Mount Carmel	49	28	57.1
NMRV College	65	41	63.7
Vijaya College	50	23	46.0
Total	164	92	56.1

The overwhelming majority of the students, 125 out of 164 (76%), used indirect questions involving permission, ability, or willingness, much as native speakers would do in this situation. However, as many as thirty-three (20%) used imperatives or desideratives, reflecting Indian language conventions. The use of imperatives and desideratives was more characteristic of VC students, and constituted more than a third of their responses, while these patterns accounted for only 8% of MC responses and 16% of NMRVC requests.

It is also interesting to note that even the students of MCC, who are relatively more native-like in their English, express politeness in ways that are not used in native English. A case in point is the fact that as many as thirteen out of forty-nine students (26.5%) used a *please* sentence initially with indirect questions (*Please, could I have a glass of water?*)--a usage that seems to convey more obsequiousness than is called for by the situation.

Table 3. Choice of formulae in requesting water.

Constructions	MCC	%	NMRV	%	VC	%
<i>Imperatives:</i> Please give... Give/get me...	3	6.1	8	12.31	3	26.0
<i>Permission:</i> Can/could/may I have...	41	83.8	49	75.4	22	44.0
<i>Ability/willingness:</i> Can/could you get... Will/would you get...	3	6.1	5	7.7	5	10.0
<i>Desiderative:</i> I like/want/need...	1	2.0	3	4.6	5	10.0
<i>Bare nominal:</i> Glass of water.	0	...	0	...	3	6.0
<i>Other:</i> (Request in native lg.)	1	2.0	0	...	1	2.0
<i>Invalid:</i>	0	...	0	...	1	2.0
Total:	49	100%	65	100%	50	100%

Unexpectedly, two students actually wrote their responses in Kannada, the main local language. While it is easy to dismiss such responses as aberrant, I think that would be a mistake. What they indicate is that English is not always appropriate for many types of transactions in a bilingual society and that these students were being more true to life in giving a Kannada response in such situations. This phenomenon underscores the complementarity of functions performed by the various languages in the linguistic repertoire of bilinguals.²

Situation 2. You are in the local Koshy's restaurant with some friends. You want to order some snacks. How would you ask the waiter for the menu?

This situation tested the effect of two variables; one was the Westernized setting, and the other the relatively low socioeconomic status of the addressee. In contrast with the traditional restaurants, where the waiter, a rather low-

status employee (often a teenager) orally recites the menu at the patron's table, Koshy's is a fashionable restaurant in the Westernized part of Bangalore, the Cantonment. The choice of various formulae in this situation (see Table 4) reveals fascinating differences among the three groups of students, and gives us insights into the powerful role of sociocultural factors in the choice of request strategies.

Table 4. Choice of formulae in requesting menu.

Constructions	MC	%	NMRV	%	VC	%
<i>Imperatives:</i>	8	16.3	10	6.2	17	34.7
Get/give me/us...						
Let me/us have...						
Show us the...						
<i>Possibility:</i>	30	61.2	32	50.0	13	26.0
Can/could/may we/I have...						
<i>Ability/ willingness:</i>	3	6.1	6	9.4	0	...
Can you bring/get...						
<i>Desiderative:</i>	3	6.1	1	1.6	1	2.0
We would like to have...						
I want the...						
<i>Bare nominal:</i>	5	10.2	11	17.2	8	16.0
Menu, please.						
<i>Other:</i>	0	...	4	6.2	11	22.0
(Actual order of snacks)						
<i>Invalid:</i>	0	...	1	...	0	...
Total:	49		65		50	

First of all, note that only about one-half of the respondents (84/163, or 51.5%) chose indirect questions. As many as thirty-five (21.4%) employed imperatives. And another twenty-four (14.7%) used a bare nominal ('menu, please'), while fifteen (9%) actually placed the order rather than request the menu. The significant frequency of the use of these (nonquestion) patterns suggests that despite the Westernized setting of the restaurant, the low social status associated with the waiter in traditional restaurants plays a role in the choice of request strategies. This is particularly so in the case of students from VC, where as many as one-third of the students (17, or 35%) used imperatives and a much smaller number (13, or 26%) used indirect requests. It is worth noting that almost one-fourth of the VC students actually placed the order, following the practice in traditional restaurants. Here, as in the previous situation, we find that the students from MCC are nearer to native English

norms and VC students are closer to their mother-tongue norms (see also note 2).

The difference between the students from the three colleges is also reflected in their use of the polite expression *please* in addressing the waiter. As Table 5 shows, students from MCC consistently follow the native English pragmatic convention of extending minimal courtesies such as the use of *please* regardless of the social or economic background of the addressee. In contrast, VC students more closely follow the conventions of politeness characteristic of Indian languages, namely, the use of polite forms is more frequent with social superiors and considerably less so when the addressee is one's social inferior.

Table 5. Use of the politeness marker *please*.

MC	%	NMRVC	%	VC	%
41	83.7	50	76.9	25	50.0

Situation 3. You are at the movie theater with some friends. You need five tickets. What will you say to the person in the ticket office?

This situation also involved a low-status addressee of whom a request is made. Given the relative social ranking of the addressees in the two situations, one would expect even fewer instances of polite forms here. The response patterns are given in Table 6.

The most common choice of request form in this situation was simply a noun phrase, e.g., 'five tickets (please)'. However, once again, there was a difference between the three groups in their choice of strategies. Students from VC used more imperatives than the other two groups.

Situation 4. You are on Commercial Street, buying clothes (sarees, shirts, etc.) for yourself. You want the shopkeeper to show you the latest designs. What will you say to the shopkeeper?

Given the location of the shop (also in the Cantonment area), this situation involved a fashionable, relatively more Westernized context. The semantic formulae used for requesting in this situation are given in Table 7.

The data in Table 7 call for several comments. First, we notice the by-now familiar difference between VC students on the one hand, and students from the other two colleges on the other, in the use of imperatives. Vijaya College students tended to use as many direct imperatives (46%) as indirect questions involving ability/willingness requests (46%), while students from MCC and NMRVC overwhelmingly chose indirect question requests (63.3% and 56.9%, respectively). However, the difference is not as marked as in earlier situations. The increased use of imperatives by MMC and NMRVC students (26.5% and 32.3%, respectively) is perhaps explained as follows. In Indian shops, especially the more affluent ones, the clothes are shown to the customers by a low-paid attendant rather than by the shopkeeper himself.

Requesting in this situation, therefore, calls for minimum politeness. (Recall that even imperatives are acceptable polite requests in Indian languages).

Table 6. Choice of formulae in requesting movie tickets.

Constructions	MC	%	NMRV	%	VC	%
<i>Imperatives:</i> Give me five tickets	8	16.3	10	15.4	13	26.0
<i>Possibility/permission:</i> Can/May/Could I have...	9	18.4	4	6.2	3	6.0
<i>Ability/willingness:</i> Can/Could you give me...	5	10.2	2	3.1	5	10.0
<i>Desiderative:</i> I/we want/need...	5	10.2	6	9.2	1	2.0
<i>Bare nominal:</i> Five tickets.	22	44.9	42	64.6	25	50.0
<i>Other:</i> Are tickets available?	0	...	1	1.5	3	6.0
Total:	49	100%	65	100%	50	100%

Table 7. Choice of formulae in shopping.

Constructions	MC	%	NMRV	%	VC	%
<i>Imperative:</i> Show me...	13	26.5	21	32.3	23	46.0
<i>Permission directive:</i> Can/May/Could I see...	9	18.4	6	9.2	4	8.0
<i>Ability/willingness:</i> Will/Can you show...	22	44.9	31	47.7	19	38.0
<i>Desiderative:</i> I want/would like to see...	5	10.2	6	9.2	2	4.0
<i>Other:</i> Imfor.Qu. + Polite Imp.	0	...	1	1.6	2	4.0
Total:	49	100%	65	100%	50	100%

The next situation also involved a Westernized setting, but the addressee was not of low status but of relatively high status.

Situation 5. You are in the British Council Library and cannot find a particular book. You need it urgently. What will you say to the person at the desk (you want his help)?

The British Council Library, which (unlike most libraries) charges a membership fee and carries only English books, is also located in the Westernized part of Bangalore. Most (80%) of the respondents are not members of this library, nor are they frequent users of this facility. It is used mainly by ambitious, upper middle-class students. The specialized setting of this small, elitist library contrasts with the anonymity of a movie theater ticket counter. The library clerk, being an educated professional and speaking English with a native-like accent and fluency, is of a decidedly higher status than the restaurant waiter, the shop attendant, or the clerk at the ticket counter. As expected, fewer imperatives were used in this situation. The patterns of response are given in Table 8.

Table 8. Choice of formulae in the British Council Library.

Constructions	MC	%	NMRV	%	VC	%
<i>Imperatives:</i> (Please) get me...	0	...	2	3.1	5	10.4
<i>Ability/willingness:</i> Can/Could you help...	37	80.4	49	76.6	26	54.1
Will you help me...	5	10.9	10	15.6	12	25.1
<i>Information Q.:</i> Do you have x... Where can I find x...	3	6.5	3	4.7	5	10.4
<i>Desiderative:</i>	1	2.2	0	...	0	...
<i>No answer:</i>	3	...	1	...	2	...
Total:	49	100%	65	100%	50	100%

Very few imperatives were employed in this situation, although, once again, there was a difference between Vijaya College and the other two colleges. As many as 10.4% of the respondents from VC used imperatives, while only 3% from NMRVC and none from MCC used it. Another noteworthy point is the high frequency of use of *Will you* as a request form, especially by students of VC (22%).

A noteworthy aspect of the requesting strategy, distributed fairly evenly among the subjects of the three colleges, is the use of the modal question, *Will you...?* While this expression would be regarded as petulant or rude in a native English context, it does not necessarily carry that social meaning in the

Indian English context. Indian English speakers are genuinely confused about the distinctions between *can*, *could*, *will*, *would*, *will*, *shall*, *may*, etc., since no satisfactory grammatical account of these is available in pedagogical materials. Therefore, when an Indian English speaker uses a 'Will you...?' question, he or she is not necessarily being rude. Rather he/she is only using the equivalent of a question form in the native language.

The next situation involved a neutral setting with a child as the addressee and the request was for the time of day.

Situation 6. You are on your way to college and you are a bit late. You realize you have left your watch at home. A young schoolboy wearing a watch passes by. You really want to know how late you are. What will you ask the schoolboy?

In this situation, in Indian languages, a simple information question, with perhaps an attention getter or the vocative *boy*, will do, since the addressee is younger than the speaker. The responses (summarized in Table 9) show that the single most frequently used (40-50%) structure is the direct information question ('*What's the time?*'), without any preliminaries or embellishments.

Table 9. Formulae used for requesting time.

Constructions	MC	%	NMRV	%	VC	%
<i>Imperatives:</i> (Please) tell me...	1	2.0	1	1.5	0	...
<i>Epistemic questions:</i> May/Can I know...	19	38.8	16	24.6	11	22.0
<i>Willingness/Ability:</i> Can/Could/Would you...	8	16.4	17	26.2	7	14.0
<i>Infor. Questions:</i> What's the time? Is it past nine?	20	40.8	27	41.5	25	50.0
<i>Bare nominals:</i> Time (please)	1	2.0	3	4.7	7	14.0
<i>Other:</i> Do you have...	0	...	1	1.5	0	...
Total:	49	100%	65	100%	50	100%

The other half of the students use some form of an indirect question, though once again, students from VC are less likely to use indirect questions for requests. Since the addressee is a young boy, it is not surprising that as many as 14% of the respondents from VC used a 'bare nominal' (e.g., *Time (please)?*) to request for the time. The use of 'epistemic/permissive questions'

such as *May I know...* by a third of the MCC students is a little unexpected in that that structure would be regarded as overly polite when addressed to someone younger than oneself in the Indian context.

One also sees an attempt by students from VC to express in English the equivalents of various address forms used in Indian languages as palliatives to the imperative. Some of the expressions used were: *Dear, Hello, Child, Dear friend, Aay, Hey, Hi*, etc. As many as eight (16%) of the respondents used one or more of these forms in their requests. Awkwardness in the choice of address forms reflects lack of emphasis on spoken English and informal registers in the present educational system.

Situation 7. You need a copy of your mark sheets from the registrar's office. What would you say to the person at the desk?

The students' responses to this situation (see Table 10) provide a number of interesting insights into the intimate relationship between the choice of linguistic form and social structure in nonnative varieties.

Table 10. Choice of formulae in requesting for marks sheet.

Constructions	MC	%	NMRV	%	VC	%
<i>Imperatives:</i> Give me (please)...	5	10.4	2	3.1	4	8.0
<i>Permission directives:</i> Can/May I have...	16	33.3	26	40.0	10	20.0
<i>Ability/willingness:</i> Can/Would/Could you...	8	16.7	19	29.2	15	30.0
<i>Desiderative:</i> I need/want a...	19	39.6	18	27.7	20	40.0
<i>Bare nominals:</i> Mark sheet (please).	0	...	0	...	1	2.0
<i>No answer:</i>	1	...	0	...	0	...
Total:	49	100%	65	100%	50	100%

First, note that the frequency of use of imperatives in this situation is much less than in the first four situations, even by students of VC. This reflects the Indian attitude toward bureaucracy--the feeling that the bureaucrat is doing the consumer/client a favor even when performing a service that is regarded as the client's right in Western societies. Second, notice the high frequency of use of desideratives in this situation, by far the highest in any of the seven. The students who use them seem to find it necessary to preface their request with elaborate explanations and justifications by way of coaxing the bureaucrat to accede to their request.

In this situation, the difference among the respondents from the various colleges is not so obvious in the choice of formulae as such, but in the degree of elaboration of the request. Students from VC in particular gave verbose explanations, either prior to stating their request, or immediately following their request, while students from the other colleges did not find it necessary to do so.

The choice of specific semantic formulae as well as the degree of elaboration of speech acts is dictated by the nature of the relationship between the interlocutors. Indian English speakers seem to find it necessary to explain their need for service in situations such as the one in question and do not take for granted their right to demand that service. In general (and this is true of performance of speech acts in the native variety as well), the more servile the position of the speaker with respect to the addressee and the less confident a claim the speaker feels he/she has to the service requested, the greater the elaboration of the statement. Thus there is a relationship between choice of sentence formula and the interlocutor's relative position in the social structure.

This point is illustrated in the wording of some of the requests:

I kindly request you, sir, will you show me a copy of my marks sheets please? I am in need of it.

Excuse me, kind sir, I need to have a copy of my marks sheet. Could you tell me whom should I contact for the same? Would you kindly let me know where the copies of the marks sheets are being issued?

Excuse me, sir, will you grant me a copy of my marks sheet which is in the registrar's office?

I want to know my marks. Could you just give me a copy of my marks sheet?

General discussion. It is fascinating to study the choice of lexical items in these (and indeed all) Indian English sentences. Consider, for example, the register confusion in the use of '*I kindly request you, sir,*' the archaism of '*kind sir,*' the palliative *just*, among other things. However, limited space does not permit that analysis here.

Having discussed the choice of request strategies in each situation, let us now examine the patterns of response in relation to one another. Table 11 gives a comparative statement of the choice of strategies across situations.

Table 11 shows that students show clear preferences in choice of one strategy over another in specific situations. Few imperatives are used in the library, the registrar's office, and with the schoolboy, while they are quite common in the clothing store, the restaurant, and the movie theater. This is obviously a function of the speaker's evaluation of his/her status relative to that of the addressee. However, the use of direct versus indirect requests is also a function of the students' degree of Westernization. This is seen when we compare the use of different request strategies by students from the three colleges. The relevant patterns are presented in Table 12.

Table 12 shows that the highest frequency of use of direct requesting strategies (imperatives, desideratives, bare nominals, information questions) is by students from VC, while requesting in the form of indirect questions is

the preferred strategy of Mount Carmel College students. NMRV College students are in between the two groups, though closer to MCC.

Table 11. Choice of semantic formulae by situation.

Constructions:	Situation:							Total
	1.	2.	3.	4.	5.	6.	7.	
Nom.	3	24	89	0	0	11	1	128
Imp.	24	35	31	57	7	2	11	167
Per.	112	75	16	19	0	46	52	320
Abl/Will.	13	9	12	72	139	32	42	319
Desid.	9	5	12	13	1	0	57	97
Info. Q.	0	0	0	0	11	72	0	83
Oth.	2	15	4	3	0	1	0	25
Inv.	1	1	0	0	6	0	1	9
Total	164	164	164	164	164	164	164	

What is particularly interesting about the response patterns summarized in Tables 11 and 12 is the following. These patterns cannot be explained away in terms of transfer from the Indian languages. Although there is clear evidence of transfer, it seems to operate selectively. The mother-tongue-like patterns are used more in informal situations, while patterns closer to native English are used in formal situations (e.g., library, university). This type of variability is reminiscent of the classic sociolinguistic correlation between contextual formality and the use of 'standard' variants, although this has not, to my knowledge, been discussed in relation to the pragmatics of indigenized varieties of English.

Table 12. Choice of semantic formulae by students from different colleges.

Constructions	Colleges:		
	MC % n=49x7=343	NMRV % n=65x7=455	VC % n=50x7=350
Bare nominals	28 (8.2)	56 (12.3)	44 (12.6)
Imperatives	38 (11.2)	54 (11.9)	75 (21.4)
Permission	124 (36.2)	133 (29.3)	63 (18.0)
Ability/ Willingness	92 (26.5)	139 (30.5)	89 (25.4)
Desiderative	34 (9.9)	34 (7.5)	29 (8.3)
Info. Ques.	23 (6.8)	30 (6.6)	30 (8.5)
Other	1 (.3)	7 (1.5)	16 (4.8)
Invalid	3 (.9)	2 (.4)	4 (1.0)
	100%	100%	100%

Summary and conclusion. The major findings of this study could be summarized as follows: First, it seems clear that requesting strategies in Indian English are different from those in native varieties of English. This is most apparent in the less common use of indirect questions and more frequent use of direct questions and desiderative statements.

Second, many of the differences between native and nonnative patterns of requesting have their source in the conventions of requesting in Indian languages. Thus, if variation theory is to be able to explain nonnative varieties of language, the speaker's mother tongue and the sociocultural conventions associated with it have to be recognized as major variables, analogous to class, region, style, etc., recognized in the current paradigm.

Third, even when a nonnative variety uses a structure that is apparently identical to one that may be employed in a native variety, the 'social meaning' of that structure may be different in the two contexts. This is illustrated by the use of the '*Will you...*' question in Indian English. Thus pragmatic 'meaning' is not inherent in the structures themselves, but is assigned variably by the sociocultural matrix of use.

Fourth, variation studies must pay attention not only to the differences between native and nonnative varieties, but also to variation within nonnative varieties. In this connection, sociocultural factors such as degree of Westernization and stratification within the nonnative society function as variables differentiating one variety of nonnative English from another. Again, this is a neglected aspect in the study of indigenized varieties of English, where only regional and proficiency-based subvarieties have been discussed so far.

Fifth, one of the most important differences between native and nonnative varieties is that the latter involve 'partial linguistic/communicative competence' (see Grosjean 1982, Sridhar and Sridhar 1986). The nonnative speaker does not need English to perform a great many speech functions--his/her mother tongue is used for these purposes. Consequently, a number of speech functions are performed at best awkwardly (from the point of view of the native speaker), but, in reality, in ways that involve a direct extension of either the limited L2 competence or the speaker's mother tongue competence. (In this connection, it may be noted that students from VC consistently gave a higher relative rating to the mother tongue as the language they would use in most of the given situations, compared to students from the other two colleges, although the majority said they would use English in all but the first situation.)

To conclude in a becomingly modest fashion, this has been a pilot study: The results I have presented are only a first look and need to be analyzed carefully.³ Nevertheless, I hope that this short paper has succeeded in identifying, at least broadly, the variables involved, and in demonstrating the research potential of the topic. A language like English, with its global spread and bewildering diversity of speakers and sociocultural contexts of use, poses special challenges to theories of language variation and change: Nonnative varieties have to be integrated into variation theory and the structural and pragmatic features of the speakers' mother tongues have to be treated as variables. After all, in the long run, pragmatic variation may well come to be seen as fraught with greater social consequences in interpersonal interaction than structural differences.

Notes

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1. I use the term Indigenized Variety of English (IVE) in contradistinction to nonnative variety of English. The former term includes what Kachru has called the institutionalized varieties of English, while the latter comprises second as well as foreign language varieties. For more references on IVEs, see Aggarwal (1982).

2. In indicating their preferences for English, mother tongue, or both as their language of choice in the various situations, students from VC consistently rated mother tongue higher than English as compared to students from other colleges.

3. It has not been possible to discuss the wealth of data on the use of attention-getters, stylistic features of Indian English, and other related topics here. These issues will be addressed in a forthcoming paper.

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THE CULTURAL DIMENSION IN LANGUAGE VARIATION: SALES TALK IN JAPAN AND THE UNITED STATES

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1. Introduction. Recent studies in sociolinguistics have shed light upon a number of issues important to the study of language in interaction with social life. Hymes (1962, 1964a, 1964b, 1967), Gumperz (1977), and Sherzer (1977) point out that traditional grammatical analysis does not provide sufficient information on actual patterns of language usage. They emphasize that 'situated meaning' can be studied only on the basis of sociocultural assumptions concerning role and status relationships, social values, and norms. Ethnographers are trying to formalize a general theory of interaction of language and social life encompassing the mutual relations between linguistic meaning and social significance.

2. Topic for present investigation. Assuming that communication processes in social interaction are culture-specific, this study investigates the general characteristics of sales talk in Japan and the United States in an ethnographic framework. Use of language or ways of speaking can be described in terms of the role relationship between the salespeople and the customer. Since the salesman-customer relationship is a regular pattern of social interaction and each participant has a definite role, we can analyze this specific social relationship in terms of rights and obligations of the participants.

3. General procedures in Japan. In order to accomplish the goal mentioned above, I engaged in field work to collect data in Japan, chiefly in Tokyo and Nagoya. I also tried to acquire additional relevant information by obtaining handbooks for salespeople, observing media presentations such as television and radio commercials, and reading and selecting samples of newspaper and magazine advertisements and billboards providing additional material on the psychology of sales mannerisms typical of the speech community.

Data were collected by three methods: (1) I visited various places where I thought sales transactions would likely take place; (2) since sales transactions on public transportation vehicles are also popular in Japan, incidents of selling and buying on the Japanese bullet train between Tokyo and Nagoya were used for gathering data; (3) I visited the Japanese Sales Training Center in Tokyo and received permission from the president of that company to duplicate

seventeen taped examples of door-to-door salespeople's talk. Each example was recorded by a sales trainer who accompanied a salesperson during an actual transaction. Each tape was recorded by Sony Cassette-Corder TC 1100B. Since this model is small and features a built-in microphone, the participants involved in sales transactions were less suspicious throughout the recording period.

For the data collected in the hospital, however, a totally different method was employed. My brother, a surgeon, introduced me to a specialist who is head of the department of internal medicine at a private hospital in Tokyo. Sales transactions between drug companies and individual physicians in Japan are in the hands of a special type of salesperson known as 'proper.' The usual mode for such a salesperson in approaching a prospective client is to enter the physician's waiting room, identify himself to the receptionist, and wait until the doctor has finished with his patients. After the doctor finished seeing his last patient, one of the nurses notified me as I waited outside his office and the doctor let me sit beside him. These encounter situations were artificially arranged but, as the salesperson concentrated on the purpose of his visit, he seemed to forget my presence and his talk began to flow naturally, accompanied by body motions such as repeated bows and nodding.

4. General procedures in the United States. Field work in the United States was carried out in Washington, D.C., Maryland, and Philadelphia. For eight months, I tried to repeat the process I had used in Japan. However, in the U.S. stores, I was always conscious of the strange looks I received from people, and of their noticeably uneasy attitude. Therefore, the next method employed was to obtain permission from store supervisors, but in many instances, I had difficulty in securing this permission. Even if I succeeded in obtaining permission, many salespeople were reluctant to have their conversations recorded. I then attempted a different method. I would accompany my American friends to stores and try to collect data while standing next to them. Sometimes, my friend was a customer, and at other times, my friend(s) and I were just observers.

As to data collected in the hospital, I took the following approaches: (1) I wrote letters to two different hospitals, explaining the purpose of my research to the administrators; (2) in one hospital, after meeting the supervisor personally, I was introduced to 'buyers' whose profession is to purchase medical, surgical, and office supplies from salespeople who visit the hospital regularly.

5. Data-gathering technique. While engaged in field work in Japan, I used the technique of participant observation. In the United States, most of the time I was an observer. Given the racial and social-class diversity characteristic of American society as a whole, decisions were necessary in the selection of the population to be studied. To minimize participant variables, I focused on transactions within the middle-class white segment of the American speech community. The second technique used in this research was the personal interview with salespeople. The third technique was a questionnaire to obtain additional background information from salespeople and customers.

6. Data analysis. From the analysis of the 244 events collected within the Japanese speech community, there emerged two general categories of salespersons: (1) those engaged in face-to-face negotiation with prospective customers, and (2) those engaged in a predominantly one-way address to a general audience. The first of these two categories includes institutional sales, door-to-door sales, sales in department stores, sales in private stores, sales in markets and sales by street hawkers. The second category includes sales in markets, in department stores, and on trains.

From the analysis of the eighty-five events collected within the American speech community, similar categories emerged, in addition to the category of sales transactions by telephone, which did not appear in the analysis of Japanese data. The data collected in both speech communities ranged from sales transactions dealing with medicine, insurance, and cars to additional types of sales dealing with vegetables, candies, fish, flowers, clothes, etc.

The framework of analysis is modeled on the general outline suggested by Hymes (1972). Whatever the nature of linguistic investigation, it is essential to decide the basic unit before attempting a description and analysis of the spoken text. The majority of studies done in this field so far have dealt with simple or occasionally regularized or hypothetical data. In a certain type of salesperson's conversational patterns, however, there is a great diversity of speech units within a single utterance, due to the varying intention of the speaker. Within a single utterance, it is possible to find varieties of functions such as soliciting, introducing, explaining, persuading, negotiating, and so forth. For this reason, I utilize 'move' as a descriptive unit of discourse within the following definition and framework: a 'move' is a minimum functional unit of speech. It may be coextensive with utterances in some cases, but basically it is a unit to describe speech according to the different intentions and functions manifested during the flow of conversation.

7. Similarities and differences in sales talk in the U.S. and Japan. Study of the data of various types of sales events shows certain overall patterns of sales transactions as typical of both speech communities. Regardless of social characteristics of the salespeople (e.g., age, experience, sex, etc.), their different cultural backgrounds and the different types of sales transaction, the procedures for selling are composed of three principal stages in each of the two speech communities: (1) opening, (2) middle, and (3) closing. Each of these stages consists of standard subcomponents, not all of which are necessarily part of each sales transaction. The first stage includes greeting and identification. The middle stage, the actual business transaction, is usually composed of approach and negotiation. Finally, the closing stage contains pre-closing and leave-taking.

In the first stage, participants exchange greetings and the salesperson identifies himself/herself if he or she is not already known to the customer. The middle stage, composed of approach and negotiation, is a transition between the initial exchange of greetings and the actual business transaction. In the approach stage, by employing either the 'may-I-serve-you' approach or the 'merchandise' approach, the salesperson or the customer initiates the transaction. In the negotiation stage, both participants discuss and bargain

about the merchandise or service in question. In pre-closing, either the customer or the salesperson or both manifest the desire to terminate the transaction. The transaction ends with leave-taking.

Fundamental to the ethnographic point of view is the belief that communication is culture-specific and that each individual speech event is governed by the social and cultural norms and values of a particular speech community. An analysis of the data reveals that sales transactions within the American speech community are typically egalitarian. The basic equality of salesperson and customer can be shown by various features: level of informality (e.g., use of personal names); more balanced number of moves during sales conversation; reciprocal patterns in greeting, pre-closing, and leave-taking; absence of formal speech patterns except for titles such as Dr., Mr., Mrs., etc., and flexibility in forms of address.

The fact that a Japanese sales transaction reflects a relationship of relative power between salesperson and customer can be shown by the following features:

(1) Each sales event (except street-hawking and market sales) is characterized by the frequent use of honorifics, polite expressions, and humble forms in a formal style on the part of the salesperson, and by nonuse of honorifics, humble forms, and polite expressions on the part of the customer, who always speaks in an informal style.

(2) Varying degrees of politeness and respect can be expressed on different levels of formality, e.g., low formal, plain formal, and high formal, each of which carries special functions and is composed of different internal structure (e.g., morphological changes in verb ending and addition of honorific prefixes to nouns and verbs). This verbal repertoire of the salesperson is closely related to the following factors: (1) physical distance from the customer, (2) number of customers, and (3) the invisibility of the customers.

(3) The salesperson's formal politeness to the customer is also manifested by the conventionalized use of specific vocabulary, especially in his manner of refusing a customer's request and emphasizing his apology to the customer.

(4) There are abundant conventionalized patterns of greetings, apologies, and expressions of gratitude for salespersons which are more ornate and ritualistic than those used in the American speech community. Each conventional pattern is self-contained and nonreciprocal.

(5) Since Japanese has an established pattern of different lexical items to signify kinship terms used for family members versus those used for outsiders, the salespersons are always careful to use the terms reserved for outsiders which are accompanied by honorific suffixes.

(6) As protocol for carrying out sales transactions in a more polite and courteous manner, the salesperson uses specific signals (e.g., chiming in with the customer's remark by adding [ha] in a low pitch once or twice, making the formal [ss] noise of respect before asking questions of the customer). This ritualistic behavior is usually accompanied by nonverbal facial expressions and gestures, e.g., frequent bows and nodding, etc.

(7) Address terms from the salesperson to the customer are always used with honorific suffixes or titles, and all the address forms are used nonreciprocally.

(8) When salespersons identify themselves, they are inclined to give precedence to the company or institution for which they work. Likewise, the customer addresses salespersons by category terms such as names of company or institution rather than by personal names. This method stresses role relationship rather than communication between individuals.

Although the speech pattern of sales events in the Japanese speech community is characterized by the relative power relationship in the sense that it is always the salesperson who should show respect for the customer, the data indicate that in specific instances when the salesperson and the customer have the same status, the role relationship between two participants becomes ambiguous and hence their speech patterns also deviate from the usual salesperson-customer pattern. The data also manifest that this deviation in the speech pattern of the salesperson is due to deliberate violation of discourse rules by street-hawkers and market salespeople. In these two specific types of transactions, the relative power in the relationship between street-hawkers and market salespeople and their customers is reversed and it is the salespeople who appear to dominate in the power relationship. For their speech does not utilize honorifics, polite expressions, or formal styles, but instead includes such features as commands.

Analysis of the data and information obtained from questionnaires and interviews demonstrates that salespeople as well as customers in the American speech community tend to exchange opinions more personally and more directly by offering personal comment freely and forthrightly. On the other hand, one can observe that both salespersons and customers in the Japanese community are more concerned with using appropriate standard forms in the appropriate contexts and render their desired image more indirectly.

In sales events another cultural difference between the Japanese and American speech communities becomes apparent when one considers the salesperson's verbal behavior toward the customer in a face-to-face situation. Although he or she is interested in the outcome of the sale, the typical American salesperson never subordinates his or her personal individuality to his or her role as salesperson. In the Japanese speech community, however, roles and expectations are much more pronounced. Consequently, Japanese salespeople suspend their individuality in order to fulfill their occupational role and to meet fully the expectations imposed by their society.

The difference between the American and Japanese speech communities described in detail throughout this study and summarized here must be rooted in underlying norms and beliefs peculiar to each of the two speech communities. The final section of this study is devoted to identifying these norms. I offer these findings as a Japanese who is also a very interested observer of the American speech community. My discussion of social and cultural norms is therefore directed principally to the analysis of my own speech community, with which I am, naturally, more familiar.

A Japanese anthropologist explains:

In everyday affairs, a man who has no awareness of relative rank is not able to speak or even sit and eat. When speaking, he is expected always to be ready with differentiated, delicate degree of honorific expressions

appropriate to the rank order between himself and the person he addresses. (Nakane 1970:31)

Nakane's statement underlines the fact that in the Japanese speech community, the identity of the interlocutor is the essential factor in determining how one speaks. Commenting on how Japanese people define rank, Nakane notes that status is a dominant factor. My entire study strongly supports Nakane's hypothesis. The analysis of data, questionnaires, and interviews indicates that when Japanese salespeople identify themselves and when Japanese customers identify Japanese salespeople, both salespeople and customers are inclined to give precedence to company or institution over the salespeople's personal attributes by referring to or asking the names of the salespeople's companies rather than asking their personal names.

Another characteristic of this necessity to rank in Japanese society is that once the specific relationships of the Japanese interpersonal pairs are defined according to status and role of each member (e.g., student-teacher, employer-employee, senior-junior, etc.), the participants are required to play their fixed roles in all places where they meet. Furthermore, these fixed roles of interpersonal pairs are virtually immune to changes in time.

Another social and cultural norm which is unique to Japanese society is the mode of verbal interaction in the communication procedure. Suzuki has pointed out that while Western culture is based on the distinction between the observer and the observed, Japanese show a strong tendency to overcome this distinction by immersing the self in the other. Suzuki's statement can be reaffirmed in this study: In the negotiation stage, the vast majority of Japanese salespersons try to convince their customers to buy by inviting the purchase indirectly and politely. Likewise, Japanese customers have a tendency to refuse unwanted merchandise circuitously rather than directly. This underlying norm of other-oriented, indirect communication helps to explain why we Japanese often refer to our own culture as *sasshi no bunka* 'guessing culture'.

8. Conclusion. This study investigates sales events in the American and Japanese speech communities. In agreement with the ethnographic assumption that communication processes are culture-specific, the study aims at investigating overall patterns of sales transactions by taking two particular speech communities as a frame of reference, and identifying the social and cultural norms and values which distinguish the sales event in each of these communities.

In conclusion, I would like to point out three challenges for the future:

(1) This kind of study relies upon good data. Collecting data especially in cross-cultural situations requires methodological principles and field-work strategy. However, one should also keep in mind that there is no ready-made method to be applied in all situations. In some circumstances, sampling may be through a social network approach or by the random method, or combining these with other methods. Depending on the type of community to be studied and its relations with the fieldworker, the nature of the method should be decided flexibly. Here, the fieldworker's discernment becomes essential.

(2) The theoretical goal of the ethnographic research is to formalize a descriptive theory of language use and the social meanings attached to

different linguistic styles or codes. The speech event remains the basic unit of analysis and Hymes (1972) provides eight components. However, a clearly defined framework to describe the relationship between various individual components and to recognize hierarchies of precedence among them has yet to be devised. Also, definite ways of describing nonverbal behavior such as eye contact, facial expressions, body movement, gesture, and posture have not yet been established.

(3) Finally, how to present the findings in the ethnographic analysis is also a troublesome task. If each investigator tends to summarize findings according to his own categories, there is no common ground for the general discussion and hence no way to compare the findings from the various studies of communicative norms. Therefore, it is a great challenge for ethnographers to construct a systematic typology of findings in which the results of each study can be located within a general framework.

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LANGUAGE PLANNING AS AN INITIATOR OF LINGUISTIC CHANGE

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0. It is obvious that traditional language planning measures entail linguistic change in the language or languages concerned. I want to discuss a less traditional type of language planning affecting language varieties in a less obvious way. In this paper language planning is to be understood as the conscious effort of a relatively small portion of a linguistic community to change the linguistic habits of that community both internally and externally in a particular direction. As an example I shall take the Dutch-speaking community of Belgium, in which efforts of the kind mentioned have a very long tradition.¹ Although the portion of the population trying to impose its view on the others changed in the course of history, and the ways in which this imposition was done varied, the direction always remained identical, viz. to change the linguistic output of the community in the direction of the variety of Dutch used in the Netherlands, the other part of the Dutch-language community, situated in another country. The underlying motivation has always been of a language-political nature and, though globally successful, the results have been quite surprising at times. Let me first give you an historical overview of language planning efforts and then discuss the present situation characterized by both 'normal' features and rather unexpected consequences.

1. The fate of Dutch in Belgium has been directly influenced by the following three historical events: (a) the splitting up of the Dutch-language community in the early seventeenth century, politically separating present-day Holland and Belgium; (b) the fact that the latter has been occupied and governed by foreign rulers (Spanish, Austrian, and French, successively) from the early seventeenth to the early nineteenth century; (c) the emergence of an independent Belgian state in 1830. Present-day Belgium is a bilingual country comprising a Dutch- and a French-speaking community, but in the course of history there have always existed institutional bonds between both communities, a fact that accounts for language contact also being an important factor in language development as well as in language planning matters.

1.1 The period directly preceding the political split of the Dutch language territory (second half of the sixteenth century) was the period in which language standardization gradually took shape (Van den Branden 1956) and it could, therefore, be expected that the division into two politically separate

entities would have dramatic consequences, the more so since the direction of ongoing standardization also changed as a result of the political evolution. The center of gravity of standardization passed from the south to the north, mainly because the north (more or less the present-day Netherlands) came out victoriously and as an independent nation from the war against the Spanish rulers. The south (present-day Belgium) remained under Spanish rule, underwent an economic and cultural decline, and was soon excluded from influence on the evolution of Standard Dutch (Willemyns 1984).

An important part of the political and cultural elite fled to the north, and so the Dutch community in Belgium was deprived of its leaders and its language variety could only survive on a dialectal level, the more so since the affairs of state were conducted, by the successive foreign governors, in French, which definitely became the prestige language at the very time when the nation was in economic and cultural decline. Dutch remained the vehicular language of the majority of the population but only in its dialectal form and under a superstructure of French as the language of culture. Yet, this predominance of French also disturbed native supraregional tendencies and prevented the elaboration of a separate southern standard language based on the living domestic dialects. Although some unification of Flemish Dutch did nevertheless occur, it was limited to the written language; it also began to differ from the standard Dutch which had been developing meanwhile in the north.

I shall now highlight some of the efforts made in both parts of the community to minimize the consequences of centrifugal tendencies.

1.2 These efforts toward cultural integration can be exemplified by three interesting developments in terms of language planning efforts.

1.2.1 The north, having become a Protestant state, was badly in need of an appropriate translation of the Bible. The commission appointed to this end was carefully composed of members representing all dialect regions from the south as well as from the north. The resulting *Statenbijbel* (Bible of the States, 1637) was a masterpiece in both the religious and literary sense and its language, actually created for the purpose, carefully combined northern and southern characteristics. The language of this Bible became the basis of the northern written language and writing tradition, thus preventing northern and southern varieties of the language from growing too far apart.

1.2.2 From the beginning of the eighteenth century onward, there appeared to be great need for a comprehensive dictionary of Dutch; here also we witness constant negotiations between northern and southern scholars on how to undertake this project. Yet, the real work only started some 100 years later and was sponsored by the Linguistic and Literary Congress, regularly bringing together writers and scholars from the Netherlands and Belgium. Serious editing began in 1851 and the *Woordenboek der Nederlandsche Taal* can be considered the second major project aiming at closer cultural integration of both parts of the Dutch-language community.

1.2.3 A third initiative, essential to language unity, is mutual concern for orthography. The Dutch-speaking people have a tradition of regular orthographic reforms. From the beginning of the nineteenth century, it was acknowledged that reforms needed administrative approval and reinforcement, and one sees governmental action to maintain orthographical uniformity in both countries. Three or four official reforms and almost as many attempts made it a difficult task to secure this uniformity, which was nevertheless always maintained. This, by the way, was the first mutual language-planning action taken by official bodies on both sides of the border.

These three examples show that there has been a constant desire for cooperation and integration in spite of political separation. Yet language planning from 1830 onward was going to be completely different, viz. much more unilateral, due to the fact that the integrational effort was always stronger in the south than in the north.

1.3 In 1830, Belgium became an independent constitutional monarchy with a parliamentary system dominated by the bourgeois elite, for whom French was a natural choice. Although the constitution proclaimed that the choice of language was to be free (Lorwin 1972), in reality French was the only language used in administration and indeed in public life in general in both the French and the Dutch-speaking parts of the country. Yet, this had been preceded by a short reunion of Belgium and Holland as one 'United Kingdom of the Netherlands.' This union, although short-lived, was of the utmost importance to the Flemings, who suddenly rediscovered their language for administration, politics, court, and education, areas where it had not been used for almost two centuries. A small group of Flemish cultural leaders and intellectuals was strongly influenced by both the Dutch standard language and the new linguistic opportunities. After 1830, they were to form the hard nucleus of the so-called 'Flemish Movement,' a cultural pressure group trying to secure linguistic and cultural rights for the Dutch language in the young Belgian state entirely dominated by French. Their views on language evolution and possible ways for planning it were entirely dominated by the political goals the movement wanted to achieve. Language planning was not indeed an aim in itself but only a means in a much broader plan. It soon became apparent that obtaining linguistic rights for Dutch-speakers was only possible through linguistic legislation, which could be brought about only by enhancing the prestige of the language. At the same time Dutch-speakers needed broader linguistic rights if they were to have any hope of influencing language development. As Mattheier (1988) correctly observes, direct influence in these matters can only be exerted by those who succeed in gaining enough power and prestige in the community they want to influence.

Several problems emerged simultaneously, one being that the Dutch language as it had been preserved in nineteenth-century Belgium was not at all prepared to assume the functions its advocates had in mind. It needed standardization; it needed to be transformed into a tool fit to perform all the functions a language has to perform in a modern industrialized state. The situation, therefore, was theoretically favorable for language planning activities, because linguistic systems apparently have a tendency to adapt to evolving communicative needs, brought about by societal change. Since, however,

similar adaptations usually occur with some retardation (Mattheier 1988), there is plenty of room and time for language planners to try to interfere.

Among those who displayed this willingness two factions may be discerned: Those advocating standard-language development on the basis of the local varieties, i.e., domestic standardization, were called 'particularists'; while those insisting that the northern model should be followed and that Flemings should adopt the standard language as it already existed in the north were called 'integrationists.' After a few decades of struggle, it seemed clear that the integrationist solution was victorious, a victory that was never to be challenged afterward. It would take us too far to discuss the reasons for this victory but one reason was undoubtedly political: The only possibility for successfully repelling the competition of French--it was felt--was the elaboration of a language that could be accepted as identical to the one used in the Netherlands; this was the only way, indeed, to profit domestically from the prestige the language had acquired abroad!

2. The strategy used to convince the population was quite simple and straightforward, and was, in fact, the same one that had been used before to defeat the particularist adversaries: If you want rights for your language (and for those who speak it), you should use the prestige variety which, in the course of centuries, has been preserved only in Holland. To adopt it now is tantamount to reclaiming the heritage which has always been there for you to embrace!

2.1 It is obvious that this action was essentially ideological, appealing to political feelings which, as years went on, grew more and more intense in large sections of the population. The results of this first period of language planning in modern Belgium are, therefore, essentially attitudinal. Up to 1930, hardly any corpus planning publications are to be found and we observe a rather surprising procedure: For almost a century language users were brought to the conviction that they had to speak and then actually spoke the same language as their northern neighbors. Attempts to bring actual performance into line with convictions and attitudes started in about 1930, the year the first Dutch-language university in Belgium opened its doors.

2.2 Dutch in Belgium had, obviously, been used in writing before 1930 and, therefore, a partial domestic standardization had occurred, drawing essentially on three resources: the written language as handed down from the Middle Ages, the local dialects, and French, the language with which all Belgians were permanently in contact. In the eyes of the second generation of language planners Flemings had to forget about most of that and preferably in the reverse order of what I just mentioned. French influence had to be banned and was ultimately stigmatized. It is no coincidence that the first major corpus planning publication in Flanders, Peeters' *Nederlandsche Taalgids* was subtitled *Lexicon of Belgicisms*, since it was meant to provide language users with 'good,' i.e., northern, equivalents for the countless gallicisms, i.e., French-influenced, words and expressions the Flemings had adopted in their language over the course of many centuries. Yet, the lack of direct and frequent contact with the Netherlands made the implementation of the northern norm a

precarious and difficult problem. Although popular attitudes were not unfavorable, the practical obstacles were so huge that it was only after World War II that substantial success could be expected and actually occurred. The popularization of radio and, later, television was undoubtedly the first major means of overcoming practical problems. Another one was the massive 'entrance into battle' of almost all Flemish linguists. In the sixties and seventies, the Flemings were not only constantly exposed to the northern norm in the media, but the Flemish media also contributed directly by giving linguists the opportunity of addressing the public and of spreading their views. All radio and television channels and almost every newspaper had a daily column or prime time program to help Flemings gain proficiency in the standard language which was, as was constantly repeated, their language. Most of these programs adopted the format 'do not say...but say...'. Following the column title of one of the prestigious newspapers, all of these activities were called 'language gardening' and the gardeners were largely established linguists and university professors. The results of this combined effort were quite startling, with considerable success achieved in what is a very tough and unusual task, viz. to provide almost an entire population in a couple of decades with a more or less new language or, to put it more correctly, with a barely known variety of their own language. The books that were published to that end occupy yards and yards of bookshelves.

2.3 Before we start analyzing the mechanism in itself as well as its real impact, another unusual factor should be stressed, viz. that this massive language-planning effort was performed with almost no official government backing. Although this integrational policy was morally supported by the entire cultural establishment, one could hardly mention a single governmental action to endorse officially what was going on; the main efforts resulted from private initiative.

One of these, the Organization for Civilized Language (*Vereniging voor Beschaafde Omgangstaal*) started back in the thirties and its main objective was to ban regional and dialectal interference from the vehicular (both spoken and written) language. It was thought that the most appropriate way to achieve these goals was by launching a campaign to abandon dialect and to encourage people to use standard language instead in all communicative situations.

2.4 As a result of the historical evolution mentioned above, the use of regional dialects in Flanders was, and to a certain extent still is, very popular. Banning dialects, then, meant to persuade over 90% of the population to give up the language variety they were used to speaking in all informal and even in many more or less formal situations (Willemyns 1981).

Recent investigations have established that, although the use of the standard variety has progressed remarkably both quantitatively and qualitatively, knowledge and use of regional dialects has not diminished accordingly (Willemyns 1988). This leads to the remarkable conclusion that the aim was reached although the strategy devised for its implementation has to be considered (at least partly) a failure. In fact, the language planning approach discussed gave rise to a new and rather unexpected problem. There can be no doubt that the aim was to provide all classes of the population with

a standardized variety (Suffeleers 1979). What emerged instead was a socially determined diffusion of standard and nonstandard varieties, with the standard language not only being better known and diffused in the socially and intellectually privileged classes, but even proceeding to become a social marker (Deprez 1981, Willemyns 1981). Language planners, consequently, seem to have solved a political problem by creating a social one. Yet, it has to be conceded that the actual situation, characterized by a more complicated distribution of dialect and standard, may be a 'normal,' i.e. inevitable, intermediate stage in a process of dialect loss, a situation, therefore, which might have arisen sooner or later anyway.

2.5 Unexpected consequences of language planning on the macrological level are definitely matched on the micrological one. Let me remind you that, to adapt his performance to the northern norm as urged in the massive campaign described above, the Flemish standard language learner had to come to grips with pronunciation, lexical differences, and morphosyntactic problems.

2.5.1 Pronunciation is undoubtedly the aspect which caused the least trouble. Flemings are progressively abandoning their habit of regarding spelling as the ultimate norm of pronunciation and convergence toward the northern norm is almost complete (Goossens 1973, 1985; Cassier-Van de Craen 1986), except for certain prosodic features whose suppression has never been advocated (Willemyns 1987).

2.5.2 In the lexical sphere a similar convergence is underway, although this evolution has not been as smooth. Lexical standardization being one of the prominent sociolinguistic issues investigated during the past decades (Deprez-Geerts 1977; Willemyns forthcoming), we know that tenacious and often bitter discussions have been and are being held on the amount of southern vocabulary that ought to be retained or even introduced into the general norm. Vocabulary is undoubtedly what appeals most of all to the imagination of the public and lexical change hardly ever passes unnoticed. In general, there is a very strong tendency toward stigmatizing French influence, so much so that language planners advocating the northern norm have quite a problem in dealing with the 'excès de zèle' resulting in hypercorrection. Southern dialects have retained numerous French loanwords and so has Standard Dutch. The problem is that they are not always the same and so zealous 'dutchifiers' have established a habit of finding a Dutch alternative for most loans. Yet in some cases where southern dialects and the northern standard have the same French loanword, it appears that the southern variety of the standard has a number of 'dutchified' equivalents (so-called 'purisms') which exist neither in the dialects nor in the northern standard (Deprez-Geerts 1976; Willemyns forthcoming). Hypercorrection in general is a symptom of linguistic insecurity, which is itself a hardly avoidable characteristic of rapid change.

2.5.3 Another interesting example of linguistic insecurity is to be found in the morphological field. Morphological and syntactic problems created by language planning have hardly been investigated so far and the same goes for north-south variation in this field in general (Braecke 1985).

A notorious exception, though, is the discussion on the pronominal system with respect to forms of address. Most southern dialects have a one-pronoun system of address, as opposed to the T-V (i.e., familiar vs. polite) distinction in Standard Dutch. For a long time and in spite of corpus planning efforts, this one-pronoun system remained characteristic in the standard language of many southerners, to the extent that it was sometimes considered to be a core feature of southern language use (Pauwels 1954). Yet, the campaign of the sixties and seventies succeeded in taking even this well-defended stronghold. Yet, replacing a one-pronoun system by a T-V system is not only a matter of attitude and goodwill but may lead to practical problems even for those who made the theoretical decision to adopt the northern system (cf. Deprez-Geerts 1977). We should be aware of the fact that several problems converge at this point. Let me name a few:

(a) Almost everyone knows and acknowledges the fact that the T-V system is the only one that can be used in standard language. Yet, since for many speakers standard language is reserved for formal discourse, it is not obvious where the T-form is supposed to be used.

(b) On the other hand, the social rules of address are rapidly changing in all of Western Europe (cf. Scandinavia, where the V-form has completely disappeared in just a few decades). This is an additional complication for those trying to internalize a new system and another reason for many lapses.

(c) The existence of two systems in one individual, a one-pronoun system in dialect and *Umgangssprache* and a T-V system in the standard, inevitably leads to interference, especially in those who display a lack of confidence and security in their use of the standard language.

Switching from one system to another and especially using familiar and polite forms in inappropriate conditions (even in very formal and guarded circumstances) are some of the characteristics of what I have described as a pronominal chaos (Willemyns 1987), another sign of linguistic insecurity in a transitional period.

3. Let me conclude. We have seen that a specific type of language planning (of an unofficial nature) trying to make southern language habits conform to northern standards has a long tradition in Dutch-speaking Belgium. After a period of status planning with mainly attitudinal purposes, there has been a relatively short, but nonetheless massive, campaign in the field of corpus planning. From the viewpoint of its advocates, it may be regarded as highly successful in spite of the emergence of unexpected, yet arresting problems: a socially determined diffusion of standard and nonstandard varieties, hypercorrection and linguistic insecurity in the average Fleming, who distrusts endogenous elements as much as exogenic ones, but is still strongly influenced by a number of languages-in-contact phenomena deriving from French. It can hardly be doubted, however, that most of these are inevitable and concomitant features of a transitional period. The increasing self-consciousness of the younger generation is there to prove the transitional nature of the present evolution and there can be no doubt that language standardization, as a continuous movement toward the northern norm (Van de Craen-Willemyns forthcoming) is proceeding steadily, though often also unconsciously.

Since the case discussed is obviously not a unique one, it may be legitimate to try to fit it into a theory or at least a typology of language-changing factors. Yet, as Mattheier (1988) observes, theories of language change hardly ever consider 'intentional language changing acts.' In his recent paper just quoted from, he explicitly considers the research of 'intentional change' and 'language politics' as part of 'historical sociolinguistics,' i.e. a theory of language change. Yet, even in his own typological proposal he only leaves room for 'language-political and language-planning measures consciously taken by authorized institutions in order to eventually change linguistic situations.'⁴

It should be clear, however, that unofficial and 'unauthorized' yet highly efficient measures such as those discussed in this paper can also result in considerable linguistic variation and subsequent change and must, therefore, be taken into account in typologies and general theories of linguistic change.

Notes

1. Dutch in Belgium (spoken by more than 60% of the country's population) differs from Dutch in the Netherlands as German in Austria differs from that in Germany, French in Quebec from that in France, and English in America from that in Great Britain.

2. The small German-speaking community is not dealt with in this paper since it is in no way concerned with what is discussed here.

3. 'Aktiv sprachverändernd wirken kann nur, wer eine entsprechende Machtposition in der Gesellschaft, bzw. in einer Subgesellschaft hat, in der die Neuerung durchgesetzt werden soll.'

4. 'Sprachpolitische und sprachplanerische Massnahmen...werden von dazu autorisierten Institutionen in der Gesellschaft...bewusst getroffen mit dem Ziel, die Sprache an dieser Stelle auf die Dauer zu ändern.'

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