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# A FEMINIST CRITIQUE OF SOCIOLINGUISTICS

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## 1. Introduction

Feminist and sociolinguistic scholarship are both very large areas of study—even if, as suggested below, the overlaps could be made considerable. Therefore, a feminist critique of sociolinguistics in short essay form may seem irresponsible, too much content for too little space. (Acknowledging this, my original title was "A Feminist Critique of Sociolinguistics: in which a woman gives an entire world view and provides a basis for understanding language in every area of our lives—political, cultural, economical, and spiritual.") However, my actual attempt here is only to outline some problems and a solution, with details to come from future studies.

Sociolinguistics—as a term and a discipline—provided a label, a home, and resources when, in the early 1970s no one discipline would take feminist language scholars in, and after we insisted we were no longer going to be taken in by traditional language studies. Sociolinguistics provided a place where we could ask questions about the attitudes toward and restrictions on women's speech, when, in the early 1970s, we could find almost no published information on that topic. Under the label of sociolinguistics, ethnography of speaking, conversational analysis, and ethnography, people were doing quite varied language studies. (See John Gumperz and Dell Hymes, eds. [1972] for an indication of that variety).

There seems to have been progress. Some researchers were most interested in linking discrete social and linguistic variables (e.g., tables of frequency use of certain phonemes from speakers of differing social-economic classes). This research, as exemplified by the work of William Labov and Joshua Fishman, was often rigorous and revealing work. Other researchers were doing analyses of short passages of conversation to reveal norms of interaction. Increasingly in the 1970s sociolinguists studied language within some setting or institution—e.g., classroom, courtroom, family.

The field was full of descriptions, and sometimes explanations of the relationship of language and social structure. Feminists were interested in descriptions, explanations and transformation of social life, which always made our work look more suspect than that of those researchers who didn't make it explicit what they wanted from the speech and lives they studied. (I say speech because there has been little attention in sociolinguistics to literacy, writing, and publishing [Muriel Schulz 1984]). However, people identifying themselves as sociolinguists seemed, at least initially, to accept, indeed welcome variation in topics and methodology. (See Barrie Thorne and Nancy Henley, eds. [1975] and the updated Barrie Thorne et al., eds. [1983]).

The field does not seem as exciting these days. While twelve years ago there was general delight about the possibilities of sociolinguistic work, now there is general gloom about its actualities. It now appears that the prevalence and problems of the taxonomical approach, which describes static features of social domains (Philip Smith et al. 1983), and the focus on technical statistical tools bring about a mismatch rather than an alignment of sociolinguistic research and the concerns of individual speakers and the many linguistic problems of our countries.

There are other problems, discussed by many people, including some of the founding mothers and fathers of sociolinguistics. Much of the criticism deals with correlational quantitative studies which set up independent codings of behavior and social class and then try to express relationships by correlation coefficients. As Roger Fowler (1985) argues, there is an illusory egalitarianism in correlation sociolinguistics; the research does not recognize that some speech varieties are associated with prestige and authority and others with relative powerlessness (62). Norbert Dittmar (1983) is one of the critics who think that sociolinguists of the 1980s "are faced with disillusionment and the ruins of original dreams" (226). Concepts which were once fundamental for the aims and methods of sociolinguistics are now called into question. For example, he and others argue that the concept of speech community needs to be replaced by concepts of social and institutional networks. (Lesley Milroy [1980] provides excellent examples of network research). The empirical and theoretical studies on diglossia have proved inadequate. While research approaches such as conversational analysis and ethnomethodology do usefully assume a reciprocal process in the production of daily interaction and social order, they seldom deal with power or social change, of interest to many sociolinguists. Criteria in language study for defining social

class are arbitrary, varying according to the ideological positions of the researchers. (Patricia Nichols [1983, 1984] and Ruth King [1985] have outlined some of the major problems with the way social variables are defined and used). While the researchers in the Ann Arbor Black English case were very conscious of the impact of their studies and statements upon school and children and their families (William Labov 1982; Geneva Smitherman, ed. 1981), too often researchers are oblivious to the questions and needs of the people they call "subjects" or "categories of speakers".

Criticism comes from also from specific fields of sociolinguistics. Writing about research on Chicano bilingualism (which has consisted primarily of "meaningless" descriptive studies of language variation and language shift), Rosaura Sanchez (1983) criticizes the fragmented sociolinguistic studies which tell us very little about linguistic variation in the life of Chicanos; she also stresses the importance of the analyst's interpretive competence. What is needed, she writes, is not more quantitative analysis of variables, but a theoretical framework which can explain the relation between verbal interaction and macrosocietal factors. This requires studies which consider the impact of a changing economy on Mexican immigration, and social mobility, as well as knowledge of interaction in intimate and informal situations, and knowledge of the attitudes of Chicanos and others toward use of the Spanish language (v, vi, 92).

It is not that sociolinguistics is in trouble and all other social studies are doing very well, thanks. (We have, of course, numerous critiques of other social sciences [e.g., Paula Treichler et al. ed. 1985; Angela Miles and Geraldine Finn, eds. 1982]). Geneva Smitherman (1983), while critical of language researchers who are content with studies of transformational deletion or copula deletions, reminds us to consider the importance of the work done with the language of disenfranchised people--Blacks, Native Americans, Chicanos, and women in all other social groups. Sociolinguistics even as it has become an established field of language study--often more interested in methodology than in social structures and inequities--has not yet locked out the more unorthodox scholars looking for a home and support. Because sociolinguists are committed to the study of speech diversity and change, sociolinguistics is at least theoretically open to evidence of cultural differences and disturbances.

Many sociolinguists would argue that the field has experienced progress. They would likely argue that we now know much more about language variety and about ways of studying language variety, that

only a fool would want to go back to the language studies of, say, 1970.  I know too much about the history of women's lives to believe in progress as a general governing principle of our lives. (Dorothy Smith [1978] and Dale Spender [1982] show us that women's lives are governed by repetitions that cycle through men's "progress".) Progress implies advancement.  Certainly changes are made--with differing effects on different social groups--and sometimes we seem to have very useful insights.  But, if one asks for whom they are useful, and for whom they are advancements, then progress seems a much less definitive word.  However, I do treasure, use, and contribute to academic openness where I can find it, in this case by discussing some of the present sociolinguistic problems, and a solution.


2.    Proposal

      From our thosands of studies we have thousands of scattered bits of sociolinguistic data.  The proposal is that we plan for the next decade to use gender as the central, organizing focus for the study of language.  Gender has, as they say, something for everyone.  It has class.  It has sex.  It also has race, age, history, geography, variety of occupations, work experience, linguistic creativity, conversation strategies, institutions, women's studies, men's studies, theoretical frameworks, native speakers, mass movements and social significance. Discussions of gender (the social construction of males and females) don't need to exclude anyone.  (Well, this takes some reconsideration for some people who think of gender as meaning female).  Issues of language and gender are germinal, seminal, and ovular to everyone.

      As Dell Hymes writes,

      The pursuit of the one focus [gender] could illuminate
      the relationships among all the various facets of linguistic
      diversity:  ethnic, regional, occupational, and class.
      In the absence of a clear model of the society as a
      whole, the pursuit of one dimension as far as it can
      take us may be the best strategy for gaining a comprehension
      of the whole.  Every ethnic and racial group, region,
      class, and most occupations have women members; every
      normal woman is a member of some ethnic or racial group,
      a resident of some region, of some class background,
      with experience of some kind of work, and so also is
      every normal man. Such a focus on kinds of person might

>best integrate in comprehensible fashion the attributes
>that measurement and models tend to separate. (Hymes
>1983:198-99)

Hymes makes this suggestion in a wide-ranging critique of sociolin-
guistics in the U.S. and then he moves on to other concerns. But
what happens if we stay here and open up this suggestion? It's a
Pandora Treasury which allows the mingling of some of the problems
of sociolinguists with some of the possibilities in the air.

First, all the present areas of sociolinguistic study could
benefit from such a focus. For example (from a list by M.A.K.
Halliday 1977:14): macrosociology of language, diglossia, language
planning (a focus on gender would help us see all the unofficial
language planning going on all the time--in schools and other
institutions), code switching, language development in children
and adults, functional theories of the linguistic system, educational
sociolinguistics, ethnography of speaking. At present, there are
few connections made between these study areas. If researchers
focused on gender, we could see connections.

But even more importantly, many topics which are dismissed or
unseen now become important theoretical and practical problems if
gender is used as a focus. Here, I suggest only a few of the
benefits of using this focus.


## 2.1  The Inequality of Languages

While most language scholars and anthropologists are fond of
stating that there is no "primitive" language--that every language
is of approximately equal value for the needs of its speakers--
Dell Hymes has written from time to time about the issue of inequality
among speakers. He wrote in 1973,

>Yet every language is an instrument shaped by its history
>and patterns of use, such that for a given speaker and
>setting it can do some things well, some clumsily, and
>others not intelligibly at all. (73)

And more recently, he has written,

>...one of the central tenets of the liberalism of modern
>linguistics has been the essential equivalence in use of

all languages studied by linguists, despite the abundant
empirical evidence to the contrary.  (1983:219)

He asks us to consider the possibility that for many speakers,
much daily speech is not a satisfying, rewarding expression of
experiences and identities, but a kind of verbal passing. A language,
like other social constructions, becomes shaped by history and by
the goals of some of its dominant speakers so that it might come to
present very real handicaps for other speakers who have less control
over who can speak, when and where, with what code and with what
results.  Hymes suggests that linguists refuse to deal with this
issue, by denying that such inequality exists.  Norbert Dittmar
(1983) similarly writes,

> To my knowledge, there are almost no studies on the
> adequacy of codes or subcodes for a set of communicative
> needs.  And I do not know of any studies concerned with
> the "feeling of well-being" in a language or language
> variety. (227)

These statements tells us a great deal about what these socio-
linguists have read and count as studies.  Certainly, a great
deal of language study by men does present language as primarily a
resource for its speakers, while avoiding issues of inequality and
exploitation.  (E.g.:  In a review of A Feminist Dictionary the
novelist Anthony Burgess, criticizing the creation and publication
of a book of women's definitions, writes, "Language is arbitrary
and inert, as Saussure taught us, and is probably bisexual" [The
Observer 28 Nov. 1985].)  But also certainly there is now a large
body of information dealing with the problems that norms of English
structure and use pose for women and minorities.  The large bibli-
ographies in Barrie Thorne et al., eds. (1983) and in issues of
Women and Language [News] tell of the intensity and extent of the
problem.  Hymes says that there is no analysis of costs and benefits
of different forms of communication (1983:220). Many of the people
writing about this topic do not use (for some good reasons) the
economic cost/reward framework he proposes, but they are writing
about the many ways the English language binds them, and about ways
of reducing the restrictions of the language by revising the language.

Women--Black, Hispanic, white, Native American--have spoken about
the problems which standardized language poses, including inadequate
lexicon for expression of experiences, sexist grammar rules, and
rejection of coinages and metaphors used by women.  One way the
diversity of voices is hidden is through the enforcement of a

literary canon.   In chronicling minority writers' struggle for authenticity and authority, Muriel Schulz (1984) writes:

> [The canon] survives not entirely on its own merits, but because an educational establishment accepts it, curries it (translating what is thought worthy, annotating what is thought obscure), and transmits it (teaching subsequent generations what it means and why it is worthy). (207)

Others point out that working-class writers may value different types of literacy than do middle-class writers and speakers in the same geographical area (Shirley Brice Heath 1983).   Judy Grahn (1978) argues that working-class English is less acceptable in modern American literature than are "swearwords, class snobbery, racist and sexist portrayals of people, outright lies...[T]o express workingclass writing as workingclass people do it, that is considered: illiterate.   Not-literate, not able to read and write, with an underlying implication that it also means not able to think." (9)

. Sociolinguists pride themselves on being non-judgmental, on not ruling on the superiority or inferiority of ways of speaking and writing, especially when dealing with Black English.   But if they are not women nor minorities, and if they do not perceive gaps between their own reality and that of others, then they aren't likely to find those differences nor appreciate those which are pointed out to them.

Clearly, speakers' ability and freedom to alter the language they hear and read in order to further their linguistic, cognitive, and social development (and those are not, of course, exclusive categories) are important in determining to what degree language pre-exists its speakers or is open to alterations by speakers.


## 2.2  Developmental Studies of Speech Play

A focus on gender would also encourage developmental studies of female and male linguistic creativity.  (There are some reported sex differences, in English speaking cultures and others, in the use of nursery rhymes, riddling, and games [Barbara Kirshenblatt-Gimblett 1976:186]; however, I am most interested here in word creation).   New words and new definitions are created all the time.   Children create words.   Advertising writers and headline writers create neologisms.   College students create new slang expressions used, for example, to reference and to evaluate drinks,

their courses, and each other.   Some writers complain about the
number of words created by adults and given currency in the mass
media.   One critic, Willard R. Espy, writes:

> The language explosion has become ridiculous....Let
> us begin throwing unwanted words out into the snow to
> perish, as the Spartans did with their girl babies.
>
> Better still, let us carry out a verbal vasectomy on all
> writers.   (1972:83)

This choice of words to describe the corrective surgery he wants
is apt.   Girls and boys, women and men, create new nouns, verbs,
adverbs, and adjectives, and use the old in new ways.   But the
linguistic innovations of girls and boys and of women remain, for
the most part, private--seldom read and heard by more than a few.
If almost all the words in our dictionaries were presented as the
creations of, say, engineers, others would, I hope, call attention
to this phenomenon and its implications for those named by the
engineers as non-engineers.   What are the implications for women
and men that one social group determines the words and concepts
for both social groups?   As we discovered when doing the research
for A Feminist Dictionary (Cheris Kramarae and Paula Treichler
1985), women have been using linguistic skills to create words for
their experiences and to refine definitions pushed on them.   But
their linguistic work has certainly not been recognized by most
grammarians and lexicographers--and therefore it has not been
available to most women and men.   Yet etymologists of the English
language use "we" and "Americans" interchangeably in their texts,
ignoring the institutionalization of only men's uses of language.
Until now it has been the men's contributions that become public
and sometimes part of the standard language, to be learned by
everyone who wants to do well on language tests--those of school
and of business and social interaction.   Now, there are several
books available which discuss, using new terminology, the inadequacy
of the English language for women speakers (e.g., Susan Griffin
1978; Mary Daly 1978; Cherrie Moraga and Gloria Anzaldua, eds.
1981; and see examples in Cheris Kramarae and Paula Treichler
1985).   Insofar as the words and concepts of a language impose a
structure on people's thinking and on their interaction, the English
language has not served equally the needs of women and men.   Until
now, this information has been considered more a part of women's
studies than of men's studies or traditional language studies.

A focus on gender would help us understand what institutions, and whose values and style are involved in determining the shape of the language. We need a polylogue to interrupt the androcentric monologue of centuries. A general focus on gender by many researchers would teach us a lot about speakers' and writers' "feelings of well being" with the languages they use.

## 2.3  The Meaning of Sociolinguistic Variables

Another value of a focus on gender would be to show us how very variable traditional sociolinguistic variables are. In this paper I use _gender_ in the currently accepted way of emphasizing the social aspects of the female/male division. Most sociolinguistic studies use the word _sex_ and consider sex and race as set, at birth, for life. We treat race and gender as pre-cultural, natural divisions. If we focus on gender as our way into language study, we will call into question all the classic sociolinguistic variables. Gender, for example, is man- and woman-made. The divisions and their meanings are constructed through language and other organized social systems. There are, of course, biological differences at birth (often called sex differences), but the divisions (not necessarily as binary as the English language insists) and their meanings are not formed in utero. In much sociolinguistic work, _sex_ is used as a pre-linguistic variable, rather than itself a problematic concept whose meaning is established through cultural conventions and through interaction.

Some of the work focusing on the dynamics of interaction has been done in particular settings. For example, Barrie Thorne (1982), John Edwards and Howard Giles (1984), and many others have found that focusing on language in the classroom makes it possible to study _as social constructs_ class, sex, and race—which are too often considered as god-given features which, possessed of bodies, walk into a sociolinguistic study and later walk out to go, unchanged, into someone else's sociolinguistic study in another setting. None of the gods, nor Marx, has given us an adequate explanation of how gender is constructed. Many feminists have, however, written accessible, theoretical frameworks which can aid us in studying how language interaction in, for example, institutions of education helps construct gender. For example, working with a focus on gender we are more likely to see the connections between what happens in talk in the classroom and what happens to males and females in other situations and locations (See the bibliography in

Paula Treichler and Cheris Kramarae [1983] for a lengthy list of articles and books used in making some of these connections).

There are many references in sociolinguistic work about "everyday talk," which is evidently set aside from talk which occurs in situations or settings not very familiar to the researcher. It is very difficult to understand what language scholars mean by "everyday talk" but it often appears to mean fragments of conversations (out of context) which seem to be familiar to many, middle-class speakers. Focusing on gender (in its many forms and across situations) would change the limiting conception of a term "everyday talk", which sounds deceivingly generalized.

We have no general model of society or of everyday speech in North America cultures. Focusing on gender would help us trace some speech threads woven into and across institutions and events.

## 2.4  Conversation Analysis

Another advantage:  Pursuing language study through a focus on gender-related differences in speech would provide benefits for conversation analysts who do micro studies of interaction passages, usually concentrating on the _shared_ norms in seemingly _private_ social relationships (e.g., family members, clerk and customer, etc.).  This work has told us a lot about rules of conversation. Yet, it seems a mistake to study conversations as if they can be extracted (and all threads cut) from their context.  Failure to deal with the social structure and power relationships in which they are embedded results in inaccurate descriptions of interaction. Power relationships are important components of the rules of conversation.  Noëlle Bisseret Moreau (1984), focusing on gender and class, has shown how they are stated constantly throughout French discourse.  French male and female students mention in a variety of ways--through spatial metaphors, reference to others, verb form-- their class and gender status.  She argues gender is a major facet of social organization in our cultures and thus is a major facet of discourse.

## 2.5  Tyranny in the Classroom

Another advantage:  A focus on gender could encourage discussions of the androcentrism of grammar and linguistic instruction. Mention of androcentrism does not make its way into the most prestigious

publications. Yet, we know that in the analysis of language we can never get away from the meanings and pragmatic implications of who do the studies and what data they used, and we know that issues of gender are involved in who does the study and what data are used.

Julia Penelope Stanley (1978) has described the process and problem of androcentrism in 20th century language studies; she has written of the ways in which men's involvement in and women's exclusion from the development of the lexicon and the grammar have affected the direction of language theory and language change. Androcentrism is also present in the way linguistics is taught. Pat Parker, a student in one of my classes, kept track of the data used in linguistic analysis and argumentation used in the other classes she took. She heard, in linguistics classes, many sentences which spoke of human violence. One series of eleven examples began with the sample sentence pair "Professor Arid must stop assaulting çoeds. Otherwise he'll be arrested." The subsequent series of example sentences all required listeners to retain the same idea of aggression in order to follow the argument. Parker writes that although the student is to pay attention to the syntactic relationships in the series of sentences, in order to do so she must attend to the meaning of the sentence. She asks us to consider an alternative sequence of examples which begin with "Professor Arid must stop castrating male students. Otherwise, she'll be arrested." Such an example might cause male students to shift a bit uneasily in their chairs, no matter what the discourse connectives being illustrated.

The androcentrism extends to whose speech is studied, with what methodology and with whose interpretation. Other problems:

## 2.6 Racial Supremacy, Heterosexism, Ageism

Another advantage of a focus on gender: If done well it will be critical of the racial supremacy, classism, heterosexism, ageism of much masculist and feminist language scholarship. A study of the interaction of these issues in language structure and practice is fundamental if we are truly interested in the creation of a society based on mutual respect and freedom, rather than on contempt for differences (Ann Russo 1985). These should be major issues because we need to understand racism, classism, ageism, and homophobia in order to understand social structure and the meanings of language. Many of us white women who have tried to focus on gender have been learning about how we have been doing it wrong. With women of

color we share a common interest in examining sexist assumptions in language studies. But unlike women and men of color we have not studied well the ways multiple oppressions (let's not label them "variables") of race, class, sexual preference, cultural background, and national origin affect language use. Lorraine Bethel (1979) titles a poem "WHAT CHOU MEAN WE, WHITE GIRL? or THE CULLUD LESBIAN FEMINIST DECLARATION OF INDEPENDENCE (DEDICATED TO THE PROPOSITION THAT ALL WOMEN ARE NOT EQUAL, I.E., IDENTICALLY OPPRESSED)."

Patricia Nichols, studying language of women and men in black and white communities, writes that "women's language" is a myth. Women "make choices in the context of particular social networks rather than as some generalized response to the universal condition of women." Her work tell us what we know if asked, but too often ignore--that the speech and writing of women and men "are always constrained by the options available to them, and these options are available always and only in the context of a group which shares rules for the use and interpretation of language" (1983: 66). Ruth King (1985), reviewing studies of language change in several cultures, shows us just how variable women's (and men's) linguistic behavior is. For example, generalizations, made in the 1960s and 1970s, about women's supposed role in the vanguard of language shift have not been supported by recent studies that pay attention to the context of women's, and men's, linguistic behavior.

Gender doesn't mean the same thing in all speech communities. Researchers of white middle-class U.S. speech communities emphasize a clear asymmetry between men's and women's relationship to language; however, in Black U.S. communities gender differences are not the same, nor as clear-cut. Marsha Stanback (1985) points out that while many white middle class women are struggling for the right to work and to salaries in the public sphere, most Black women have been required to work both in their own homes and in the homes and institutions of whites. She notes that some language scholars have written of the Black women's tendency to "verbally contend" with Black men. Stanback writes that "women who communicate as equals with men may appear contentious, dominant or even 'verbally castrating' to researchers who are accustomed to encountering more submissive female speakers." (182)

Because gender has not been considered the core of language study but, rather, to most, a marginal curiosity, the word has come too often to mean white woman/women, as race has come to mean, in my part of the U.S., Black. If gender becomes the focus of language research, we will radically transform interpretations of speech

and should be on our way to a more inclusive and thus adequate knowledge base for theory-building. At the moment, there is often discussion of which, gender or race, is the more telling, or stronger, variable for study. They are presented as competing variables. Discussion of horizontal comparison and competition has gone on, subterraneously, from relatively few researchers, while most socio-linguistic study has virtually ignored these "token" studies and discussions. Writing about the interconnections between racism, sexism, heterosexism and homophobia, James S. Tinney (1983) notes, "It does no good to compare oppressions for the purpose of proving that one group is more oppressed than another. Every oppression is like some other and unlike some other" (4). Barbara Smith (1983) points out that during the 70s and 80s, political lesbians of color have been astute about the necessity for studying the connections between oppressions and about avoiding building hierarchies. Florynce Kennedy says, "Sure there are differences in degree, but we've got to stop comparing wounds and go after the system that does the wounding" (in Gloria Steinem 1973:89). We need to understand the relationship of all kinds of oppressions, including ageism, which differs for women and men.

If we make gender the focus of language study there is the danger that most white researchers will continue to either ignore the differences among diverse groups of speakers, or to compare the speech of other social groups as deviations from the speech of whites. Yet if gender is taken as the focus of sociolinguistic work, our primary concern could be with illuminating relationship among widespread and persistent hierarchies of wealth, power and speaking rights based on race, ethnicity, region, sexual preference, religion, occupation, and class of speakers. This work should help us see and hear that gender doesn't have a constant salience across situations and social groups.


## 2.7 Connections of private and public

Another example of the value of focusing on gender is that this action encourages us to cross situations and settings and see linkages where divisions have been inserted.

In the illustration I offer, focusing on gender provides links between compliments, and verbal and physical violence. Theoretical and empirical studies of compliments come from researchers in several disciplines. Penelope Brown and Steven Levinson (1978) discuss compliments as politeness strategy. Nessa Wolfson (1984),

and Wolfson and Janes Manes (1980), working with hundreds of examples of reported compliments, define compliments as expressions of admiration, approval and encouragement, and note that people in positions of authority, usually males, have the right to guide and judge the behavior of subordinates, usually females. Wolfson and Manes, and Mark Knapp and his colleagues (1984), find that men are more likely than are women to receive compliments about performance--about how well they've done their job. Women receive more compliments in general, and more compliments about their appearance and attire.

Knapp et al. (who use status of the givers and receivers of the compliments as a variable in their study, but without reporting how status was defined or determined) note that women give other women many compliments on appearance, and suggest females are as responsible as males are for perpetuating a preoccupation with women's appearance and attire.

But there are other considerations here. We need to consider the content, the context, and the meaning women and men assign to the compliments. Men are more likely to have homophobia worries than are women, so men may be hesitant to offer other males compliments on their appearance and attire. Further, what the speaker might call a compliment, that is, an expression of "admiration, approval, or encouragement," might be called that or might be called an insult by the one to whom the words or noises are directed. Women walking in public areas are more likely than are men to get strange compliments (or insults--depending upon who is evaluating the remarks). Most studies of compliments are based on remarks made by acquaintances or at least by people who are talking together. These studies reveal important information about compliment giving. But if we follow a study of gender and language, and look at the types of evaluations which women and men receive from people in the office and factory and home, and those they receive when in public areas (all the while gathering information on behavior and speakers' explanations of behavior) we find the links between compliments, street remarks and physical assaults. For each, there are elements of the unexpected. They are more likely to come from males to females than vice versa. They can occur at any time in an office conversation; we cannot control or anticipate the timing. The remarks often make the receiver feel uneasy, unsure of how to respond (Cheris Kramarae in press). They can not be returned as easily, and safely, by women.

Many men and women disagree about their meanings. In a study of the meaning of the street remarks (Elizabeth Kissling and Cheris

Kramarae 1985), we found that some white women and many white men think of street remarks as compliments. But most recognized that these compliments hold the hint of physical violence. Clothing is thought by some to be a major cause of compliments at work and of street remarks. (E.g., "If you dress like a whore, expect to be treated as a whore.") Some people think street remarks an invasion of privacy, others as pragmatic action. (E.g., "Whistling at somebody can be viewed as an act of admiration. How else would you show your admiration for some magnificently gorgeous female who is a stranger to you?") Many comments point to women's fear of assault and rape. Even males who encourage women to accept whistles and street remarks as compliments offer cautions. For example, the same man who argues that men have a right to whistle also states, "If the dude does anything more than that, I say floor the guy." Another says, "If being whistled at in broad daylight makes a woman afraid then it's her problem," but later says that he would find whistling offensive if it happened when a woman could legitimately feel threatened. What makes a threat or a woman's fear "legitimate"? Is it the time of day? The location? Does it matter if it happens at a busy intersection or in a quiet park? (One woman whose words we quote in our study stated, initially, that she had learned not to let street remarks bother her. However, several months later, she was physically attacked and in her comments about that horrible experience, she clearly tied together street remarks about her appearance and the attack, adding "And before somebody asks--no, I wasn't dressed provocatively in any way, nor was I wiggling my hips to attract random strangers" [Kissling and Kramarae 1985]).

The point is that many women and some men hear street remarks as connected to other experiences in women's lives which threaten their dignity, privacy and safety. Some men mentioned, with resentment, receiving street remarks about their appearances from men they thought were gay. Heterosexuals called those remarks bothersome and nasty speech violations. Focusing on gender can help us understand the functions of compliments throughout society.

3.    A Tentative Set of Guidelines

Gender in sociolinguistic work has usually meant mention of white women. What is proposed here for the study of sociolinguistics is a general study of gender, meaning the study of the speech and writing of all women and men in the culture. For my own use--to help make the kinds of revisions of methodology and questions

discussed above——I have set down a series of questions to ask of any study.

1.  How do the women/men identify themselves?  What are their social alliances, identities, goals?

2.  What do I know about the political and economic inequalities of the women/men?  What are their social, political, and economic resources?  What do I know about the norms and expectations of speakers?  What are the constraints for researchers, in this particular situation?

3.  What are the traditional attitudes toward the speech of the women/men studied?

4.  What has the feminist literature said about this or about related topics?  (Feminist theory is the only theoretical tradition to consider gender a basic category of analysis).  What is the applicable Black, Latin, lesbian, and gay literature?

5.  How am I related to the women and/or men whose speech/writing I'm studying?  Why have I chosen these speakers in this situation?

6.  What are the implications of my study results for women's language use?  For men's language use?  (Many researchers who study Black English are already practiced in asking questions about implications of their study results.  We need to do the same when we discuss other oppressed groups).

7.  What sex stereotypes, and class, race and age assumptions are involved?  How were the perspectives of white women and men, and women and men of color incorporated?

8.  How would this project be different if it involved only women/only men, or both women and men?

I mentioned in the introduction my unease with the male concept of progress.  Of course, there is change in our lives and in our studies.  We have some valuable new methods and techniques for studying speech and writing. For example, the refinement of statistical techniques, the tape recorder, the video recorder, and the concern with naturally occurring speech mean our language studies can include details with more accuracy than ever before.  However, we have not necessarily made great changes in what kind of speech and writing is thought worthy of attention. Men's street remarks to

women have been discussed for years, by women.  (I have found discussion of this "vexation" which is "a matter of great importance to all women" in 19th and 20th century "women's magazines.") But they are not discussed, as problems, in sociolinguistic literature. (Some sociolinguists <u>have</u> been interested in documenting the street talk of Black males, particularly the ways they define and categorize their mothers during rap sessions, but while these researchers try to be sensitive to racist attitudes, they do not seem to be sensitive to the sexist attitudes displayed in the <u>games</u>).

In <u>A Feminist Dictionary</u> we quote several women who have discussed the concept of progress. Dale Spender (1982) writes, "If it has any meaning it applies only to men" (30). Virginia Woolf (1938) writes that our lives are governed more by repetition than by progress:

> Almost the same daughters ask almost the same brothers for almost the same privileges. Almost the same gentlemen intone almost the same refusals for almost the same reasons. It seems as if there were no progress in the human race, but only repetition. (66)

Alice Walker, sceptical of the uses made of the concept progress, writes that "'White' progress is connected to centuries of unpaid labor of slaves" (163). She also writes that "'Progress' affects few. Only revolution can affect many" (1983:371).

With the written and voiced support of many, I encourage a focused use of gender in sociolinguistic work--not for the sake of progress, but for the health of sociolinguistics.  It would be a linguistic revolution which could affect many women and men.


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# SEX DIFFERENCES IN CONVERSATIONAL INTERRUPTIONS BY PRESCHOOLERS

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## ABSTRACT

Interruptions of a conversational partner was assessed in both same-sex and cross-sex dyads of preschoolers; half of the children were 3 years old and the remainder were 4 years old. Each child was successively paired in counterbalanced order with a same-sex and an opposite-sex peer of the same age, and frequency of interruptions was tabulated. In same-sex pairings, both boys and girls interrupted each other equivalently. However, in cross-sex pairings, boys significantly increased and girls significantly decreased interruption frequency; this was equally true for both ages. Thus, children learn at least some aspects of sex-differentiated conversational patterns at a very early age.

## 1. Introduction

Conversation is a complex verbal interaction that requires an extensive knowledge of discourse rules in order to be managed successfully. One set of rules involves turn-taking, i.e., how the discourse participants pass the role of speaker back and forth between them. These rules have been described by Sacks, Schegloff and Jefferson (1974) and more recently by Wilson, Wiemann, and Zimmerman (1984). Children learn them surprisingly early, and have been found to be proficient at conversational turn-taking in the preschool years (Garvey and Berninger 1981).

Recently, attention has been focused on a violation of smooth turn-taking in conversation: instances in which one speaker interrupts the other before he or she has finished. In particular, interruption patterns seem to reflect our cultural sex role attitudes. Zimmerman and West (1975) tape-recorded both cross-sex and same-sex conversations in various public places such as in drug stores or coffee shops, and they found that 96% of the interruptions occurring in cross-sex interaction were by men. When they compared same-sex conversations, they found that frequency of interruptions did not differ between men and women when they were talking to another person of the same sex. This imbalance in frequency of interruption was replicated in

a later study in which pairs of unacquainted adults were placed together and instructed to "get acquainted" (West and Zimmerman 1983). In this study, 75% of the interruptions in cross-sex conversations were made by men. Interruptions in conversation do not seem to reflect a lack of knowledge about the rules of good conversational management; rather, they are a social tool that can be used to indicate status, dominance, confidence, anxiety, and a host of other variables (Beattie 1981; Rogers and Jones 1975). Men are much more likely to interrupt women than vice versa.

When does this sex-differentiation in interruption patterns become acquired? To date, Esposito (1979) has been the only researcher to study the incidence of interruptions in the speech of young children. She placed preschoolers (age range: 3.5 years to 4.8 years) together in either same sex or opposite sex pairs and tabulated the frequencies of interruptions that occurred. Her results are comparable to those of researchers studying adults: she found no differences between girls and boys when they were conversing with a same-sex peer, but boys interrupted girls at the rate of 2 to 1.

This study is a partial replication and an extension of Esposito's study. The sample is chosen from a preschool operated by a University for its students and staff, and thus the parents of the children are likely to be among the least sex-stereotyped in our society. Two groups of preschool children are studied, 3-year-olds and 4-year-olds, to see if there is an acquisition during the preschool years of the sex difference found by Esposito; in her study, such a developmental shift might have been missed by starting at age 3.5 and combining the data from all ages. Furthermore, the present study is a within-subjects design, i.e., the same children are assessed during conversation with a same-sex peer and a cross sex peer. In Esposito's study, different children were chosen for each conversational partner.

2.    Method

2.1  Subjects

Twenty 3-year-olds and twenty 4-year-olds, half girls and half boys in each age group participated (mean ages, 3.3 and 4.3 years respectively, ranges 3.0 - 3.10 and 4.0 - 4.7). All were children of University students or staff and attended a University preschool.

## 2.2  Procedure

After an initial period of getting acquainted, the children were twice taken in pairs to a separate room and encouraged to talk with an experimenter who was female.  She prompted them to talk about activities in the preschool, holidays, etc., and then played the part of listener.  They were audio-recorded for 15 minutes, of which the last 10 was used for data analysis.  The order of partners (same sex or cross-sex) was counterbalanced across children.  An interruption was defined as one member of a pair beginning his or her turn before the other child had finished.

## 3.  Results

The mean number of interruptions tabulated in each group of conversational pairs is shown in Table 1.  The data were analyzed by means of an analysis of variance calculation with Age and Sex the between factors and Partner (same-sex or cross-sex) the within factor.  There was a significant Sex X Partner interaction, $F(1,36) = 14.46$, $p < .001$, as well as a main effect of Sex, $F(1,36) = 9.47$, $p < .01$.  Girls interrupted less frequently than did boys, but this main effect must be interpreted within the context of the interaction between sex and partner.  According to post-hoc Newman-Keuls calculations, there were no differences between any of the groups when they were conversing with a same-sex partner.  Thus, both boys and girls interrupt each other fairly frequently when they are with conversational partners of the same gender.  The story is quite different however when they are with conversational partners of the opposite sex.  Girls (both 3- and 4-year-olds) significantly decrease the number of times they interrupt when their partners are boys (this difference is significant at the .01 and the .05 level for the younger and older girls respectively).  In contrast, boys significantly increase the number of times they interrupt when they are talking with girls (this difference is significant at the .01 level for both ages).  Thus, when the conversational dyad consists of a girl and a boy, 71% of the interruptions on average are by the boy.

| | Same-Sex | | Cross-Sex | |
|---|---|---|---|---|
| 3-year-olds | M | SD | M | SD |
| Girls | 5.3 | 3.4 | 3.0 | 1.9 |
| Boys | 5.2 | 3.3 | 7.5 | 3.3 |
| 4-year-olds | | | | |
| Girls | 4.5 | 2.9 | 2.9 | 1.6 |
| Boys | 3.9 | 2.6 | 6.7 | 3.1 |

TABLE 1. Interruptions per Conversational Pair Group
(M = Mean, SD = Standard Deviation)

## 4. Discussion

Interrupting a conversational partner is not just a matter of ignorance about the rules of speaker exchange and turn-taking in conversation. The children in this study know these rules, although children may well interrupt their conversational partners more than do adults. Of more interest, boys and girls are equally proficient at using these rules, as shown by equal frequencies of interruption when talking to a same-sex partner. But children have also learned that interruption is more than an indication of poor conversational management; it is also a conversational tool or strategy that has become sex-differentiated in its use. Boys have come to believe that interrupting a girl is more appropriate than interrupting another boy, and girls have come to believe that interrupting boys is a behavior that should be minimized. Appallingly, these interruption strategies are learned before children turn 3, since the 3-year-olds (mean age 3.3 years) exhibited the same sex-differentiated pattern as did the 4-year-olds. For these differences in conversational strategies to be evident to 1- and 2-year-olds, they must be powerful and pervasive indeed in our culture.

The current study replicates the sex differentiation of interruptions found in adults by Zimmerman and West (1975), and West and Zimmerman 1983); although both found men to interrupt women more

frequently, the first study found differences of 24 to 1 and the second of 3 to 1. The two studies differed in a number of ways, including degree of acquaintance of the conversational participants, formality of the setting, and topic of conversation. In the present study, boys interrupted girls at about the rate of two and a half to one--less than in either of the other studies, even though the children were well-acquainted, as in Zimmerman and West (1975). Perhaps preschoolers are not yet as sex-differentiated as are adults in their conversational management strategies. The results of the current study also closely replicate those of Esposito (1979) even though both subject population and task differ; in her study, boys interrupted girls at the rate of two to one.

This lesson of who interrupts whom may not be learned equally by all children. A within-subjects design allows one to look at individual differences in patterns of response to same-sex versus cross-sex peers, and approximately a third of the children at both ages did not conform to the pattern of boys increasing their interruption rate when talking to girls or girls decreasing it when talking to boys. A fruitful area of further research is an investigation of these individual differences and factors that may be related to a child conforming less to these stereotyped patterns of conversational management.

Zimmerman and West (1975) suggest that interruptions operate as "topic-control mechanisms", i.e., they allow males to subtly exert dominance and control over females in conversation. Children as young as three have already learned these mechanisms.

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# SOCIOLINGUISTIC PATTERNS IN AN UNSTRATIFIED SOCIETY: THE PATRILECTS OF KUGU NGANHCARA

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## ABSTRACT

Considerable sociolinguistic work has been carried out in socially stratified literate societies, where social organization is typically reflected in language by sociolectal stratification oriented towards a standard. Unstratified societies are therefore interesting as potential sources of new types of sociolinguistic data and as testing grounds for sociolinguistic theory and techniques of analysis. Here different principles of social and linguistic organization are found; in particular the lack of an "upper" group means that there is no upper lect to exert a gravitational influence on linguistic organization. This paper reports on the linguistic correlates of social organization among the Nganhcara (Cape York Peninsula, Australia). The Nganhcara are organized into unstratified, generally exogamous, patrilineal clans (PATRICLANS). Actual land-using groups, however, consist of individuals from several different clans. Patriclan membership is marked by, among other things, language. Each patriclan is associated with a clan-lect, or PATRILECT in our terminology. The patrilects share a common syntax and are differentiated primarily at the lexical level; a few phonological and morphological differences are also found. Despite the linguistic diversity of the land-using groups, children growing up in them identify with and learn their father's patrilect. Most speakers are receptively multi-lectal. There is considerable community agreement as to which features belong to which patrilect. Thus the patrilects are a sociolinguistic as well as a linguistic reality. Nganhcara patrilects differ from traditional sociolects in their lack of stratification and their clear boundaries. Although the patriclans are associated with the particular lands they own, patrilects are not geographical dialects in either origin or current distribution. A comparison with the sociolinguistic situation in Sheshatshiu Montagnais (Clarke 1984, 1985) leads to the conclusion that the degree and type of differentiation among the Nganhcara patrilects are attributable to the social importance of the groups they mark and to the linguistically complex environment in which acquisition takes place.

1.  Introduction

    A great deal of sociolinguistic work has been carried out in
large-scale socially stratified literate societies, where social
organization is typically reflected in language by sociolectal
stratification oriented towards a standard variety.   To be sure,
other social parameters may also play an important role--e.g. the
degree of integration into local social networks (Milroy 1980,
Labov 1972: ch 7) or orientation towards local values (Labov 1963)--but
the overarching social stratification provides a constant background
theme.   Consequently, as Clarke (1984:54) has pointed out, the
sociolinguistic study of unstratified societies is potentially of great
theoretical interest.   Here different principles of social and
linguistic organization are found; in particular the lack of an
"upper" group means that there is no upper lect to exert a gravitational
influence on linguistic organization.   This paper reports on the
linguistic correlates of social organization in such a society.

    The Nganhcara are an Australian aboriginal group whose language,
Kugu Nganhcara, belongs to the middle Paman subgroup of the Australian
family.   The traditional territory of the Nganhcara lies roughly
between Kendall River and Moonkan Creek on the west coast of the
Cape York Peninsula in northern Queensland.   (See map on p. 43.)
Since the 1950's the majority have associated themselves with one
of the two government-run (formerly church-run) settlements in the
area:   Edward River to the south of the traditional lands and
Aurukun to the north.   Most have also continued to spend time on
their own land for at least part of the year.   In addition to being
unstratified, non-literate and non-urban, Nganhcara society differs
from the typical object of sociolinguistic studies in one other
significant aspect:   it is very small-scale, having a population of
only 250-300.

    Despite its small size, Nganhcara society is highly complex.
There are two main units of social organization: the PATRICLAN
(patrilineal clan) and the LOCAL BAND (actual on-the-ground land
using camp group).  Neither of these groupings involves stratification.

    Patriclan membership is marked by, among other things, language.
Each patriclan is associated with a clan-lect, which we shall call
a PATRILECT.  There are six patrilects: Kugu Muminh, Kugu Uwanh, Kugu
Ugbanh, Kugu Mu'inh, Kugu Yi'anh and Wik Iyanh, and these are the focus
of this paper.  (A further name, Kugu Mangk, is probably an alternative
label for Kugu Yi'anh.)  In each instance, kugu or wik 'language' is
followed by the verbal noun for 'go' in the particular patrilect (except

for <u>mangk</u>, which is obscure).  We shall generally drop <u>kugu / wik</u>
in referring to the patrilects; however, we shall distinguish
between THE NGANHCARA (the people) and KUGU NGANHCARA (the language).
Wik Iyanh speakers are inland rather than coastal people and are
somewhat peripheral to the Nganhcara group.  On linguistic grounds,
however, Wik Iyanh is clearly a Kugu Nganhcara patrilect (see
section 3).

It is not possible to state with accuracy the population
figures for each patrilect.  Kilham (1974:70) gives the Nganhcara
population at Aurukun in 1972 as shown in Table 1.  For Edward
River we obtained in 1979 the approximate figures in Table 2.

| Iyanh | 40 | Mu'inh | 7 |
|-------|----|--------|---|
| Uwanh | 40 | Ugbanh | 6 |
| Muminh | 31 | Mangk | 1 |

TABLE 1.  Nganhcara Population at Aurukun

| Iyanh | 41 | Yi'anh | 10 |
|-------|----|--------|----|
| Mu'inh | 35 | Uwanh | 3 |
| Muminh | 10 | Ugbanh | 2 |

TABLE 2.  Nganhcara Population at Edward River

These figures are only an approximation, as they cannot take into
account fluctuations in population caused by the constant arrivals
and departures to and from other settlements and towns, but it can
be seen that Iyanh, Muminh, Uwanh and Mu'inh have relatively large
numbers of speakers, while Ugbanh and Mangk/Yi'anh are poorly
represented.

The relationship between land, language and land-users among the
Nganhcara, and in the Cape York Peninsula in general, is a complex
one.  Our discussion here draws heavily on Sutton 1978, Sutton and
Rigsby 1979, 1982, and dealing with a similar situation on the east
coast of the peninsula, Rigsby 1980.  In theory, land ownership
(and, of course, patriclan membership and language) is inherited
from one's father (strictly father's father).  However, the land
owned by any one group may consist of non-contiguous stretches of

territory surrounded by land owned by other groups. For example,
Uwanh speakers owned some land near the South Kendall River, which
was separated from their other territory near the Holroyd River by
land owned by Muminh speakers who in their turn had holdings as far
south as the Edward River. Local bands are more fluid in their
membership and may contain individuals of several different patriclans
(hence different patrilects, and sometimes even other languages)
associated by kinship, marriage, or even friendship to a 'focal'
adult male. Although patriclans are much more stable entities than
local bands, over a long period they too may change. Clans may
become extinct due to losses in battle, or to lack of male children,
as is now happening to speakers of Ugbanh. A larger clan may split
into several subsections; a smaller clan may join forces with
another on a permanent basis and the two may come to be considered
one clan. These long-term political changes are mediated by the
shifting alliances and schisms at the level of the local band.

The fieldwork on which this study is based was carried out at
Edward River in January 1974 by Steve Johnson and at Edward River
and Aurukun in the first three months of 1979 by both authors. In
addition to the usual phonological and grammatical study, the 1979
investigation involved the systematic elicitation of about two
thousand lexical items from one or two informants for each patrilect.
We also worked with half a dozen other speakers of various patrilects
and carried out participant-observation. Informants for a particular
patrilect were in all but one case identified with that patrilect
by virtue of their clan membership. With Yi'anh no such speaker
was available and we had to settle for an informant whose mother's
clan was associated with Yi'anh. Informants were chosen on the
basis of four factors: age, availability, willingness to work with
us, and aptitude for linguistic work. The last factor proved quite
important, given the vast cultural differences between Nganhcara
and white Australian societies. The majority of our informants
were middle-aged; none were younger than 25. This was to ensure
that they had adequate linguistic and sociolinguistic competence.
We made no attempt to get a random representative sample: this
would have been absurd, given the small population and the complex
relationships between kinship and language. The only way to get
a really representative sample in this community would be to interview
all its members. Nor did our field projects have the resources to
study variation in the usage of individual speakers. One would
expect that such variation might occur, particularly as a result of
shifting political alliances. Consequently, what we have recorded
as the characteristics of patrilect X represents more a stereotype,
than observation of contextual use. Although our results must be

regarded as preliminary, they are worth presenting now, since a large scale sociolinguistic study of the Nganhcara community is unlikely to take place in the forseeable future.

In the two sections below we will show that the Nganhcara patrilects constitute both social and linguistic realities. In the final section we discuss their theoretical status and compare the sociolinguistic situation among the Nganhcara to that of a similar native Canadian group, the Sheshatshiu Montagnais.

## 2.  Patrilect as Social Reality

Despite the linguistic diversity of the local bands, patrilects are extremely important as markers of patriclan membership, which is a major factor in the organization of social and economic life. Patriclan membership brings with it ownership of land, which is of prime importance as a means of survival, as well as ownership of sacred places, rights to perform certain ceremonies, ownership of songs and dances, etc. All of these factors enhance the personal prestige and political power of the individual. Patrilect as a marker of patriclan membership is thus an important symbol of social identity.

A clear indication of the significance of patriclans and patrilects is the fact that the Nganhcara do not have a single generally recognized name for themselves as a people or for their language. What they use are terms referring to patriclans and local bands and the names of the patrilects mentioned above. The term Kugu Nganhcara was first used by the anthropologist John von Sturmer (as Kugu-Nganychara) to refer to the peoples between Kendall River and Moonkan Creek, who share many cultural features, and have a high degree of interaction (see von Sturmer 1980:169ff). (Nganhcara is the first person plural exclusive pronoun in the dative case. The name therefore means 'Our (exclusive) Language'.)

The social heterogeneity of the local band is reflected in language use. It is common to hear conversations between people each speaking their own patrilect, but fully competent in the other patrilects being spoken. Speakers of Kugu Nganhcara sometimes marry outside the orbit of their own language and are often multilingual in Munkan, Thaayorre, Ngathanh or other languages of the region. A further dimension to this complexity is added by RESPECT vocabulary, a parallel lexicon (which also differs from patrilect to patrilect) used in certain social situations, such as in the recounting of

myths or when speaking to people in mourning or to certain categories
of kin.[1]   The fact that the patrilects remain distinct in such an
environment is a further testimony to their social importance.

Marriage among the Nganhcara is most frequent between speakers
of different patrilects.   Children grow up first speaking the
language of their mother, and then switching to that of their
father as they become adults.   It is their father's language that
they regard as theirs, but all speakers of Nganhcara are at least
bilectal.   Many have also learnt the language of their mother's
mother, or other people who have been present in the local band.
Despite the existence of some variation (see section 3), there
appears to be general community agreement on the linguistic features
of each patrilect, and considerable trouble is taken to make sure that
children acquire the appropriate patrilect.   For example, one widow
in the community has even begun speaking her deceased husband's
patrilect at home in order to provide the correct model for her
children.   In our 1979 fieldwork we found that we each became
associated with the patrilects of our first informants (Smith with
Uwanh, Johnson with Muminh) and were often corrected by speakers of
various patrilects for using words inappropriate to "our" patrilects.
These corrections were generally consonant with the vocabulary we
elicited from our main Uwanh and Muminh informants.

In this section we have surveyed a number of facts which
attest to the social importance of the patrilects to the Nganhcara:
their significance as a badge of identity, the evidence of local
language names, the maintenance of distinct patrilects in a polylectal
and multilingual environment, the general awareness of the linguistic
characteristics of each patrilect, and the care taken to insure
that children learn their father's patrilect.   In the following
section we look at the linguistic features which distinguish one
patrilect from another.

## 3.  Patrilect as Linguistic Reality

The six patrilects spoken in this region are all very closely
related and are mutually intelligible.   They are identical in
syntax and differ in only minor aspects of their morphology and
phonology.   Lexicon is thus their main distinguishing feature.

There are several other languages spoken nearby, the most closely
related of which is Wik Munkan, spoken to the north of the Nganhcara

territory. Unlike Wik Munkan and the other more distantly related
neighbouring languages, all Nganhcara patrilects display:

      (a)   phonetic labio-velars
      (b)   voice contrasts in the stops
      (c)   a five-vowel contrast in final open syllables
      (d)   vowel alternation in thematic high vowels in verb stems

In addition, Nganhcara has preverbal pronominal enclitics, which
Wik Munkan lacks (Smith and Johnson 1985, Smith 1986).


3.1. Phonology

    The phonological inventory of Kugu Nganhcara is outlined in
Table 3. We employ a practical orthography based partly on Aus-
tralianist conventions. For homorganic nasal-stop clusters, all
nasals except m̲ and ng̲ are written as n̲ ; ń̠ is used before velars
to indicate an alveolar rather than velar nasal.


Consonants:

| bilabial | lamino-<br>dental | apico-<br>alveolar | lamino-<br>palatal | velar |
|---|---|---|---|---|
| p | th | t | c | k |
| b | dh | d | j | g |
| m | nh | n | ny | ng |

glides:  y, w      lateral:  l    tap:  r      glottal stop:  ?

Vowels:

  i e a o u, both short and long (written doubled)


        TABLE 3. Kugu Nganhcara Phonological Inventory

There are three types of phonological differences among the patrilects: systematic, semi-systematic and idiosyncratic. Only a few systematic phonological differences are found, and these are all quite minor. For example, alveolar obstruents are pronounced as retroflexes in Mu'inh and Iyanh. In Muminh the contrast between long and short vowels (generally restricted to initial syllables) is neutralized to a long vowel before /g/; thus Muminh kaagi 'play', yaagi 'tendon' kiiga 'back' cf. Uwanh  kaagi, yagi, kiga. There are a few semi-systematic phonological differences: for example in certain words some patrilects have an intervocalic /r/ following a long vowel where others have an /n/ following a short vowel, for example Uwanh, Ugbanh, Muminh iiru 'this', aara 'that', versus Mu'inh, Iyanh, Yi'anh inu, ana; Uwanh, Muminh thaaranamu 'from/of them' (3rd pl Ablative) versus Yi'anh thananamu, Iyanh thananam (corresponding forms in other patrilects unattested). Yi'anh has lost a nasal before [-cor] voiced stops in some words; thus Yi'anh wojeńnga 'gather', muga 'eat', kaagu 'bandicoot', pibeńnga 'float'; Uwanh wonje mungga, kaanggu, pimbi, but also Yi'anh, Uwanh kumbi 'shift', nhumba 'rub', yinjenga 'wet',  wangga·amba  'fine fishing net'. Finally, there are a great many idiosyncratic differences in the phonemic make-up of the same lexical item in different patrilects. Examples follow (in some items not all patrilects have words from the same root):

'ego's mother's sister'  Uwanh, Ugbanh, Mu'inh ngathidhe; Muminh
        ngathadhe; Yi'anh ngathidha; Iyanh ngatha
'small' Uwanh mepen; Muminh mapan; Ugbanh madhadhi; Mu'inh mangaya
        Yi'anh mangengkon; Iyanh wayaya
'hairy round yam (dioscoria sativa var. rotunda)'
        Uwanh, Ugbanh kungba; Muminh kungkuwa; Mu'inh kungguwa;
        Iyanh ka'ara; Yi'anh wanci
'knife spear'  Uwanh, Ugbanh, Yi'anh, Mu'inh cawara; Muminh, Iyanh
        thawara
'cry'  Uwanh, Ugbanh, Yi'anh, Mu'inh paabi; Muminh paawi; Iyanh
        paayi


## 3.2.  Morphology

Wik Iyanh has a number of morphological features that isolate it somewhat from the other patrilects of Kugu Nganhcara, in particular:

    (a)  It lacks a distinction between dual and plural third
         person exclusive: in all other patrilects ngana 'we
         (dual excl)' contrasts with nganhca 'we (pl excl)', while

Iyanh has the one form ngana 'we (excl)' for dual and plural.

(b) There is only one conjugation for all verbs, compared with two in the other patrilects.

(c) Many of the oblique pronoun forms have a unique structure, and show greater regularity than in the other patrilects.

These differences are in keeping with the fact that, as mentioned above, Iyanh speakers are somewhat peripheral to the Nganhcara group. We have not found any morphological differences between any of the other patrilects.

## 3.3. Lexicon

It is in the lexicon that the majority of differences among the patrilects are to be found. To illustrate, comparative vocabulary for one semantic field—terms for mammals-is presented in Table 4 (p. 38).

A great deal of work still needs to be done on the lexical affiliations of the six patrilects, but impressionistically Table 4 seems fairly typical of the kind and extent of differences which may occur. It will be noted that there are a large number of shared terms. Figures on cognate lexicon among several of the Nganhcara patrilects are given in Sutton (1978:178) and presented here in Table 5 (p. 38). The figures, based on a list of 100 common items attributed to Kenneth Hale, indicate that interlectal differences are on the order of 15% - 25%. Note, however, that these figures would be higher if phonological differences in cognate items were also taken into account. It is also clear from the data in Table 5 that the greatest lexical differences are between Iyanh and the other patrilects, an observation born out by Sutton's data and by our general impressions. This is in keeping with Iyanh's peripheral status. Without further study it is not possible to say whether some areas of the lexicon are more differentiated than others. We may note that no area seems to be immune from differentiation. For example even grammatical morphemes are involved; thus the comitative suffix appears in Mu'inh, Iyanh, and Muminh as -nhja, in Uwanh as -ra and in Yi'anh and Ugbanh as -la; the most common causative suffix is -nha in Iyanh and -nga in the other patrilects.

| Gloss | Uwanh | Yi'anh | Ugbanh | Muminh | Mu'inh | Iyanh |
|---|---|---|---|---|---|---|
| bandicoot | kaanggu | kaagu | kaanggu | moñke | koyondo | moñke |
| native cat | cingka | cingka | cingka | cingka | cingka | cingka |
| glider possum | kaanam | kaanam | waga | mañgan | manggan | woyanang |
| spiny anteater | ngincam kigande | kompo kigande | ngincam kigande | ngincam kiigande | muthcu kigandhe | kekuyuwa |
| possum sp. | yome | yome | cwaa | cawanha | yome | kanjulu |
| small spotted possum | waga | waga | waga | othogo | waga | waga |
| rat-tailed possum | kepenme | kapadbe | kengkonhnye |  | kengkonhnye | kengkonhnye |
| white-tailed possum | muduwa | muduwa | muduwa | muduwa | mudhuwa |  |
| cuscus | pukawanh | pukawanh | pukawanh | konomuntho | pukawanh | pukawanh |
| wallaby | pangku | pangku | pangku | thuthamba | pangku | pangku |
| red kangaroo | yakalba | yakalba | yakalba | yakalbi | yakalwa | yakalba |
| grey kangaroo | kuja | kuja | kuja | kuja | kujang | kujang |
| yellow fruit bat | woole | kopome | wuki | monthe | matan | wuki |
| black fruit bat | mukum | ngototon | mukum | mukum | puntilang | mukumbang |
| insectivorous bat | mali | mali | mali |  | mali | mali |
| rat | kupatha | kupatha | ciici | ciici | kalu | kalu |
| little rat | munpa | munpa | munpa | munpa |  | munpa |
| water rat | watha | watha | watha | watha | watha | thaara |
| dugong |  | thinhanmala | thinhanmala | thinhanbala | thinhanmala | thinhanmala |
| dolphin | wanhadhji | kaapunpi | wanhadhji | wanhadhji | wanhadhji | wanhadhji |
| long-nosed dolphin | waala | kuga | waala | kuga | thandhi | wunthu |
| whale | yewo | yewo | yewo | yewo |  | yewo |

TABLE 4.  Lexical Items for Mammals

| Iyanh | | | |
|---|---|---|---|
| 88 | Mu'inh | | |
| 74 | 87 | Uwanh | |
| 74 | 81 | 84 | Muminh |

TABLE 5.  Percentages of Close Cognates Shared by
Wik Munkan and some Nganhcara Patrilects

## 3.4. Intralectal variation

We have noticed that within some patrilects different groups display differences in vocabulary. Iyanh in particular can probably be subdivided. We also were often told, or noted ourselves, that a particular speaker's Muminh, Mu'inh, etc. was somewhat different from that of our main consultants. Von Sturmer (1980:172) makes similar observations. These differences may well reflect different political groupings, but we do not have sufficient linguistic or anthropological data to show this.

## 4. <u>Discussion</u>

In the above two sections we have shown that the Nganhcara patrilects are significant social categories, and we have outlined their linguistic characteristics.

It should not come as any surprise to find that social groups as important as the Nganhcara patriclans should be marked linguistically. The fact that in such a linguistically heterogeneous environment the lexicon plays by far the greatest role in distinguishing among the patrilects is quite reminiscent of the example of Urdu/Marathi/Kannada contact discussed by Gumperz and Wilson (1971). The main difference seems to be that the latter is clearly a product of convergence and diffusion, while there is no evidence of prior convergence among the Nganhcara patrilects.

We have used the term PATRILECT to describe the different socially significant language varieties in Kugu Nganhcara primarily because existing terms--in particular the terms SOCIOLECT and DIALECT--seem to be inappropriate.

The term SOCIOLECT denotes the speech variety of a social group; however, it cannot be appropriately applied to the Nganhcara patrilects, since it implies a hierarchy of groups not present here; in addition the group hierarchy is matched by a prestige ranking among the speech varieties which is also lacking. Finally, the Nganhcara patrilects are more clearly delineated than typical sociolects, which generally grade into one another seamlessly, though this difference is probably a function of the fact that most studies have been carried out in modern urban environments where stratified groups are not discrete.

The term DIALECT can be differentiated from PATRILECT on two counts. First, it implies a close nexus between on-the-ground land using group and language using group, which does not obtain here. Second, dialect affiliation is generally derived from the region in which one lives or has lived, and the dialect affiliation of an individual may change over time; patrilect affiliation on the other hand is ascribed on the basis of lineage and cannot generally be changed. Finally dialect differences arise through linguistic changes which do not spread through the entire territory in which a language is spoken. Such a mechanism clearly cannot underlie the differentiation of the Nganhcara patrilects given the heterogeneous nature of the local bands.

It is instructive to compare the results of this Australian study with those of Clarke et al's work on Montagnais in Sheshatshiu (Clarke 1984, 1985). The Sheshatshiu Montagnais are similar to the Nganhcara in several social characteristics: they are small in number (less than 600); they are unstratified; they gave up the bush life only in the 1950's, and they are largely illiterate. In addition Clarke reports the existence of a "folk taxonomy" according to which 'individuals were associated with one of four basic groups, determined loosely on the basis of kinship and hunting territory affiliations' (1984:57). While these four groups were also marked linguistically, especially among older speakers, the linguistic delineation appears to be fairly subtle, and indeed reminiscent of the type of sociolectal differences found in urban studies (though again stratification is lacking). The prime linguistic markers which Clarke mentions are phonological variables; some lexical differences are also found, but there is a strong tendency for these to be levelled.

Why do two fairly similar communities yield such different results? One reason is probably that the territorial/hunting/kinship groups are not nearly as important to the Montagnais as their patriclans are to the Nganhcara. The significance of the latter means that their linguistic marking must be prominent and that there should be general community agreement regarding the characteristics of each patrilect. Why is lexical marking of social groups found extensively in Nganhcara, but not in Montagnais? Two factors are probably at work here. First lexical differences may simply be more salient than syntactic or phonological differences. This is certainly suggested by convergence studies, such as those of Gumperz and Wilson (1971) or Pandit (1972a, 1972b), in which syntax and phonology converge leaving lexicon as the main marker of group identity. Second, lexicon is more subject to conscious control than phonology

or syntax and thus a more suitable source of sociolinguistic markers in the learning situation of Nganhcara children, who must consciously learn to use their father's patrilect in a polyglot environment.

As a general conclusion we may say that the absence of social stratification in a society provides an opportunity to observe more clearly the relationship between other social factors and language. The diversity of unstratified societies, especially those which prima facie look similar, provides an opportunity to make comparisons and thus bring into sharper focus the effects of individual social parameters.

## ACKNOWLEDGEMENTS

## FOOTNOTES

[1]For a discussion of similar phenomena, often called AVOIDANCE LANGUAGE, in other Australian languages, see Dixon 1980:58-65.

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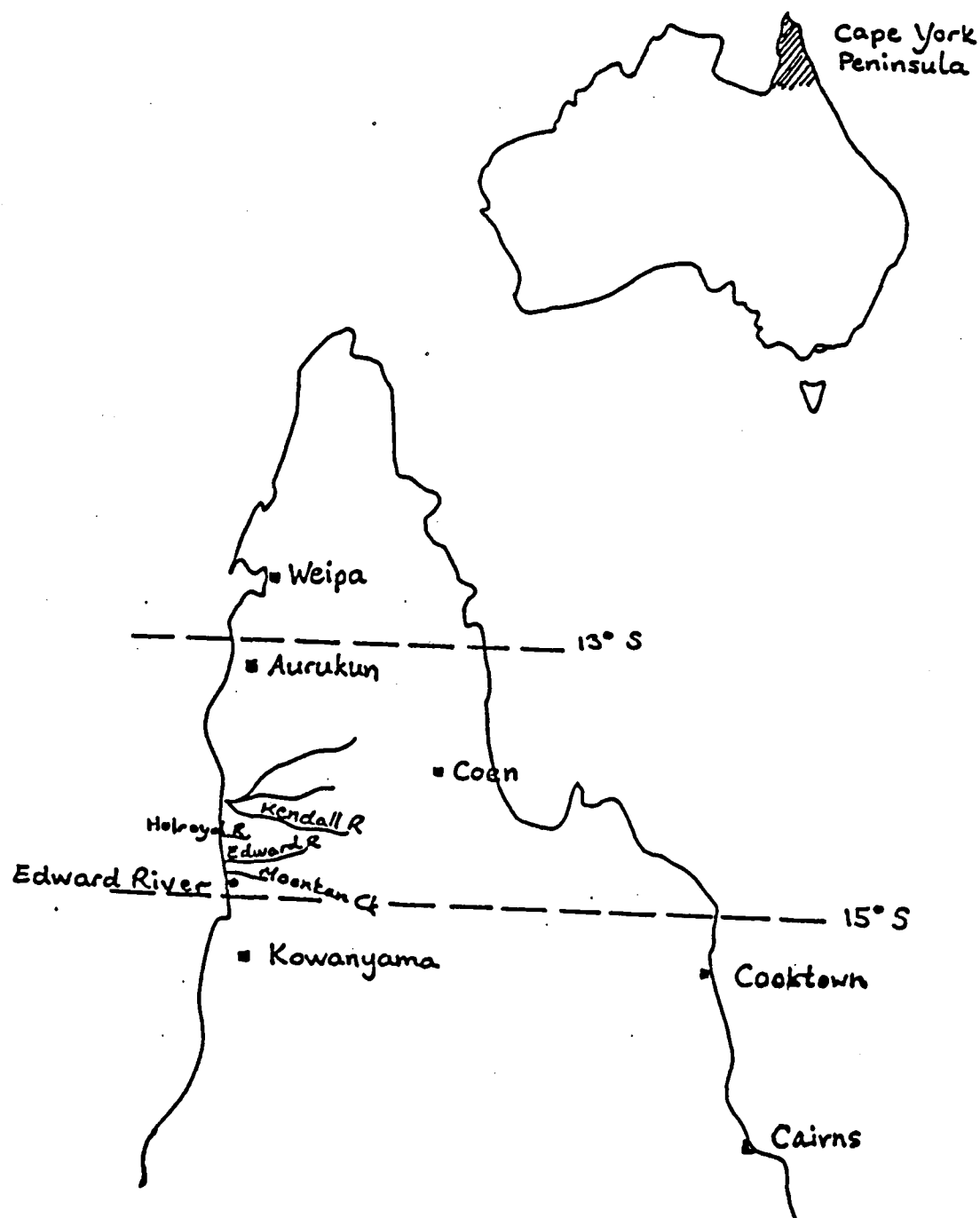


FIGURE 1.   The Territory of the Nganhcara,
Cape York Peninsula, Australia

# CASE ASSIGNMENT IN BASQUE

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## ABSTRACT

This study undertakes an analysis of how ergative/absolutive Case marking takes place in Basque, in a structure which appears to be similar to that of an accusative language. Case marking of argument NP's is argued to occur under government by independent AGR elements which surface as agreement affixes on the auxiliary and which may occupy different structural positions in different sentences, resulting in the disparity between syntactic structure and Case marking which Basque presents. This analysis is shown to have important consequences for the analysis of impersonal and reflexive constructions, where an argument position is left unmarked for Case. Impersonal or reflexive interpretations are obtained depending on whether the subject or the object position is Caseless. The analysis also extends naturally to certain sentences which do not contain Case assigners and where the Case filter is shown to force restructuring.

## 1.  Introduction

In recent years, two assumptions have been used successfully to account for the distribution of NP's at different levels of representation in a number of languages. The first is that Case is relational, establishing a relation between a Case assigner and a Case assignee, in a certain configuration; the second is the Case Filter, which posits that lexical NP's must receive Case (cf. Chomsky 1981).

In languages with an impoverished Case morphology such as English, Chinese (cf. Li 1985) or the Kru languages (cf. Koopman 1984), Case must necessarily be considered an abstract feature, the assignment of which is detectable only from its effects on the distribution of constituents. Case assigners can also be purely abstract entities, as with AGR in INFL, which assigns nominative case to the subject of tensed clauses in languages like English or Chinese, even though this element is morphologically null in most instances in English and generally in Chinese.

Basque is, in contrast, a language with very rich and consistent Case morphology. The direct arguments of the verb are overtly marked in the verb or auxiliary as agreement affixes and the Case of every NP is also morphologically visible. It is my position that in such a language, Case morphology and syntactic Case assignment must be reconciled. This approach is, however, not problem-free, given the discrepancy between morphology and syntactic behavior that Basque presents. Basque morphology is consistently ergative both in the marking of NP's and in agreement markers in the verb or auxiliary. Agents in transitive clauses receive one Case, ergative, and both objects of transitive verbs and the single argument of intransitive verbs receive another Case, absolutive.

On the other hand, however, Basque does not behave syntactically like an ergative language. Syntactic tests of ergativity/accusativity give similar results for Basque and for languages like English (cf. Eguzkitza 1986, Levin 1983, Ortiz de Urbina in prep., Rotaetxe 1978). If, in accordance with the results of these studies, we propose a configuration for Basque similar to the generally assumed configuration for an accusative language such as English (abstracting from word order), the problem arises of how ergative Case assignment takes place in such a structure.

In languages such as English and the Romance languages, which are accusative in both their syntax and their morphology, it is assumed that the subject of the sentence receives nominative Case from a Case assigner in its governing category: AGR in INFL (Chomsky 1981:259). In these languages, the object of the verb receives Case from the verb, which governs it. If the structure of Basque is similar to that of these other languages, we obtain the unexpected result that certain subjects show ergative Case, while other subjects show absolutive Case, the same Case that objects receive.

In view of these facts, a possible position would be to disregard the morphological data, and argue that abstract Case must be assigned in Basque in a way similar to Case assignment in English, since we are assuming parallel structures for both languages. AGR in INFL would then assign Case to the subject NP, which it governs, and the verb to the object NP. Morphological Case would only be the result of a late PF rule and would not take into account structural factors.

A second position would be to argue that those subjects which in the surface receive absolutive Case are d-structure objects, following the unaccusative hypothesis (Perlmutter 1978, Burzio 1981, Levin 1983). Then we would have to conclude that Case morphology

in Basque reflects the d-structure position of the NP's. But this would require us to consider Basque as highly marked with respect to basic principles of Universal Grammar, since it is generally assumed that the assignment of Case to certain structural positions determines the distribution of NP's at s-structure, NP-movement taking place from non-Case-marked to Case-marked positions.

The line that I will follow in this paper is to establish a close relationship between morphology and syntax. I intend to show that ergative/absolutive Case assignment can indeed take place in Basque under government at s-structure, even if we assume a syntactic configuration for this language similar to that of languages with nominative/accusative Case marking.

I will propose an analysis whereby certain agreement elements which accompany the verb in tensed clauses assign the required Case to the different argument NP's under government. These elements are cliticized to the verb or auxiliary at PF and surface as affixes. I will postulate that agreement elements (Case assigners) may appear in more than one structural position and that there is a movement rule affecting these Case-assigning elements. This analysis will be shown to shed light in an important way on the interpretation of impersonal and reflexive constructions in Basque, which on the surface are identical to intransitive sentences. Our analysis will also lead us to propose the existence of a restructuring rule in certain sentences where a verb is used without an auxiliary carrying agreement. The arguments of these verbs must receive Case from the agreement features in the main clause in order to satisfy the Case filter. Our analysis thus forces restructuring in these cases. I will show that independent evidence exists which confirms the restructuring analysis in these sentences.


## 2.    Morphological Ergativity and Syntactic Accusativity

### 2.1. Morphological ergativity of Basque

The claim that Basque is ergative in its morphology would seem difficult to counter. In neutral sentences, the patient of a transitive verb and the single argument of an intransitive verb are marked with one Case, absolutive (phonologically unmarked). Agents of transitive verbs receive a different Case, ergative. Thus in both (1) and (2) below mutil-a 'the boy' receives absolutive Case. Neska 'the girl' is the experiencer of the transitive verb ikusi 'to see' in (2) and is marked for ergative Case:

(1)  mutil-a-∅      etorri  da     eskola-ra
     boy-Det-ABS    come    AUX    school-to
     'the boy came to school'

(2)  neska-k     mutil-a-∅     ikusi  du
     girl-ERG    boy-Det-ABS   see    AUX
     'the girl saw the boy'

     This Case marking affects all NP's. Basque does not show any
of the splits in Case marking of NP's that affect other ergative
languages. In Dyirbal, for instance, even though Case marking is
done generally in an ergative fashion, pronominal NP's are Case
marked following accusative principles. Other languages illustrate
different types of splits among NP's in Case marking (see Comrie
1981). As has often been pointed out, Basque would seem to be
rather exceptional in not presenting any of these splits and being
consistently ergative in this respect (Bossong 1984, Rebuschi 1984).

     Basque is also ergative in the way agreement with different
arguments is marked in the verb or auxiliary in tensed clauses.

(3)  n-a-tor
     'I come'

     n-    : 1s
     -a-   : - past
     -tor  : verbal root 'to come'

(4)  n-a-rama-te
     'they are taking me'

     n-      : 1s
     -a-     : - past
     -rama-  : verbal root 'to take'
     -te-    : 3p

(5)  d-a-rama-t
     'I am taking it/him/her'

     d-      : 3s
     -a-     : - past
     -rama-  : verbal root 'to take'
     -t      : 1s

In (3) and (4) the first person singular agreement of 'I
come' and 'they are taking me' is marked in exactly the same fashion,
by means of a prefix n-. In contrast, this same first person
singular is marked by means of a suffix -t in (5) 'I am taking
it'. NP- verb agreement, thus, also works in an ergative manner.[1]

## 2.2. Syntactic ergativity

In spite of the exemplarity of the ergative morphology of
Basque, several authors working mainly within the framework of
generative grammar have shown, rather convincingly in my opinion,
that the formal ergativity of Basque does not extend to its syntax.

Heath (1974) has argued that Basque has a syntactic notion of
subject identical to that of morphologically accusative languages
and that there is no evidence that the morphological ergativity of
Basque has any repercussions in its syntax. Heath shows that
rules such as Equi-NP deletion (control), which work under identity
of subjects, single out the same arguments in Basque and in English,
regardless of whether the deleted subject would have been marked
ergative or absolutive in Basque.

Rotaetxe (1978:657-671) applied to Basque the main criteria
of subjecthood identified in Keenan (1976) and Li and Thompson
(1976), concluding that these criteria define as subjects the
ergative argument in transitive clauses and the absolutive argument
in intransitive clauses.

Levin (1983) examines Basque in the light of Marantz's Ergativity
Hypothesis. Marantz postulates that the association between semantic
roles and grammatical relations is different in ergative and accusative
languages. Levin shows these associations by means of the following
table:

(A)-Accusative            (E)-Ergative

    agent-subject             agent-object

    patient-object            patient-subject

Levin, who examines Warlpiri, Dyirbal and Basque at length,
concludes that Basque is an accusative language as defined by the
Ergativity Hypothesis.[2]

In this paper I will not review all the arguments for the syntactic accusativity of Basque offered by these authors above. Here I will only briefly sketch two arguments which in my view clearly show that in Basque ergative arguments of transitive clauses and absolutive arguments of intransitive clauses are grouped together as subjects of their clauses, in spite of different Case marking. The first argument is from Binding Theory. The second argument, the test of subject deletion in coordinate structures, has repeatedly been used as a test of subjecthood and ergativity outside of the Generative tradition (Keenan 1976, Comrie 1978, 1981, 1984). I refer the reader to the above cited works for further arguments.

## 2.2.1. Distribution of lexical anaphors

It follows from Binding Theory (Chomsky 1981) that anaphors cannot occur in subject position of tensed clauses, since they would be necessarily A-free in that position, violating principle A. In an accusative language with accusative Case marking, such as English, this means that an anaphor cannot appear in contexts of nominative Case assignment.

In Basque, anaphors cannot appear either as ergative arguments of transitive clauses or as absolutive arguments of intransitive clauses, suggesting that both these are in subject position of their respective sentences, in spite of different Case marking. This can be illustrated with the reciprocal anaphor <u>elkar</u> 'each other':

(6)  a.  *elkar      etorri  dira
         e.o. ABS  come     AGRabs-3p
         'each other came'

     b.  elkarr-ekin etorri dira
         '(they) came with e.o.' (= 'they came together')

(7)  a.  *elkarr-ek  mutil-ak  ikusi  ditu(zte)
         e.o. ERG    boys-ABS  see    AGRabs-3p AGRerg3s/p
         'each other saw the boys'

     b.  mutil-ek  elkar  ikusi  dute
            ERG     ABS           AGRabs-3s,AGRerg-sp
         'the boys saw each other'

## 2.2.2. Subject deletion in coordinate structures

There is an interesting difference between an accusative language like English and an ergative language such as Dyirbal with respect to conjunction reduction (see Comrie 1978, 1981, 1984).

If you coordinate a transitive clause and an intransitive clause in that order, leaving the single argument of the second clause unexpressed, in English this argument is unequivocally understood as coreferential with the nominative argument of the first clause:

(8)   The man hit the woman and came here

The reverse situation obtains in Dyirbal.  In (9) the deleted argument is understood as coreferential with the absolutive argument (patient) (example from Comrie 1981:109):

(9)   Balan d$^y$ugumbil bangul yarangu balgan, banin$^y$u
          woman-ABS                man-ERG hit       came
      'The man hit the woman and she/*he came here'

In Basque, the interpretation is analogous to the one that obtains in English.  The deleted, absolutive, subject of the intransitive clause is understood as coreferential with the ergative (agent) argument of the transitive clause:

(10) Gizonak emakumea  jo du eta etorri da hona
     man-ERG woman-ABS hit    and came        here
     'The man hit the woman and he/*she came here'

In the absence of a context, the interpretation of a sentence like (10) in Basque is unambiguous.[3]

We can, thus, conclude that both the distribution of anaphors and the test of conjunction reduction clearly show the syntactic accusativity of Basque.

## 3.   Case Assignment in Transitive and Intransitive Clauses

I will, then, assume that Basque is a language whose syntax is accusative, but whose morphology is ergative.[4]  What needs to be explained is how Case assignment takes place under those circumstances; that is, how subjects get different Cases in different

tensed sentences and how objects receive the same Case as certain
subjects. I will make Case assignment in Basque follow from the
government of argument NP's by agreement features in the verb or
auxiliary.

In Basque, the presence of subjects, objects, and indirect
objects is marked in the verb or auxiliary by affixes that agree
with those arguments in person and number.[5] If an NP bearing one
of those grammatical functions is not marked in the verb, the
result is an ungrammatical sentence. This can be seen in (11)
where the auxiliary shows agreement with the absolutive object NP,
but not with the ergative subject:

(11) *Jon-(ek) sagarr-a-k        jan dira
        ERG     apple-Det-pl-ABS eat AGRabs 3p
      'Jon ate the apples'

Subject, object, and indirect object pronouns can be dropped,
since their features can be retrieved from the agreement features
in the auxiliary:

(12)   a. gu-k   hai-ei   haiek     eman dizkiegu
          we-ERG they-DAT they-ABS give AUX

       b. pro pro pro eman dizkiegu
                      give AGRabs 3p+AGRerg 1p+AGRdat 3p
          'we gave them to them'

The empty arguments in (12b), represented as pro, have the
same definite referential interpretation as the lexical pronouns
in (12a). I will assume that the agreement elements are Case
assigners and that they assign Case under government to the different
arguments of the verb, being collapsed at PF in the auxiliary
(which also carries tense and mood features) or in the verb, in
the case of a few verbs that have synthetic conjugation in some
tenses.[6] If a Case-assigned position is left empty, the EC receives
a pronominal interpretation.

This hypothesis entails that the ergative agreement element
(AGRerg) must appear in INFL, directly under the S node in order
for it to assign Case to the subject of a transitive verb. In
transitive sentences, another agreement element, AGRabs, must
assign Case to the object of the verb. For AGRabs to be able to
govern the object, it must be the case that there is a position
under the VP where it can and must appear in these sentences. The

structure of a transitive sentence such as (2) above is, thus, as
follows:

(13)

```
                                    S
                    _____|_____
                   |                |                |
                 NPerg             VP              INFL
                   |          _____|_____          |
                   |         |      |      |          |
                   |       NPabs    V    AGRabs     AGRerg
                   |         |      |
                   |         |      |
                neska-k   mutila  ikusi
```
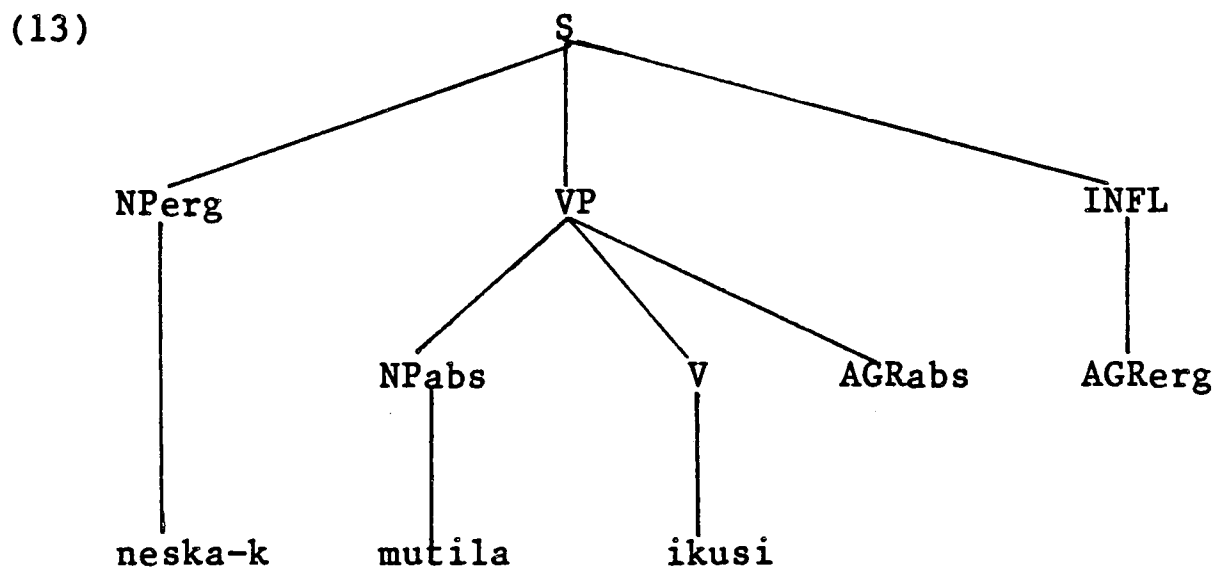
In this structure each NP receives the correct Case under
government.

In an intransitive sentence such as (1) above there is no
AGRerg in INFL and AGRabs can therefore appear in this position
and assign Case to an NP in subject position:

(14)

```
                                    S
                    _____|_____
                   |                |                |
                 NPabs             VP              INFL
                   |                |                |
                   |                |                |
                   |                V             AGRabs
                   |                |
                mutila            etorri
```
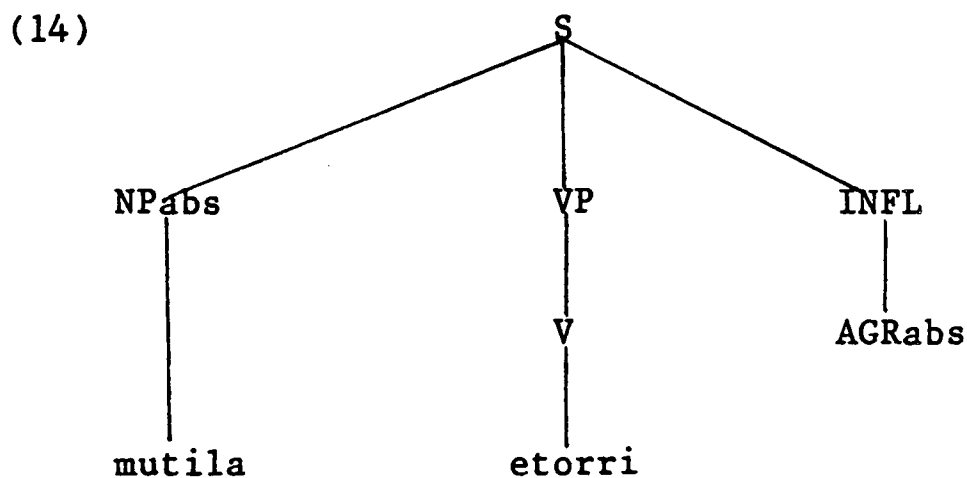
With an intransitive verb, the subject can thus receive absolutive
Case under government. We will see in the next section that it is
reasonable to assume that AGR abs is always base generated under
the VP and can optionally move to INFL, if no AGRerg is in this
position. This optional movement rule must be postulated to account
for constructions affecting both transitive and intransitive verbs.

## 4.   Case Assignment in Reflexive and Impersonal Constructions

Reflexive and impersonal constructions have in common that an argument which is assigned a theta-role is not assigned Case. Here I will be concerned with sentences such as (15), which have the two interpretations indicated in the English glosses:  impersonal and reflexive.  In (15) we have a verb _ikusi_ 'to see' which assigns two theta-roles.  In (15), however, the morphology of the auxiliary corresponds to an intransitive sentence; only one argument, absolutive, is marked in the auxiliary.  In both interpretations in (15) there is an experiencer (argument with the external theta-role) and a theme (internal theta role), but only one argument can be expressed lexically, since only one Case is assigned.  The two interpretations of (15) result from the two possible structural positions of the lexical argument:

(15) Reagan ikusi da
     ABS see    AGRabs-3s

     a.   'one saw Reagan'
     b.   'Reagan saw himself'              .

I will maintain that these two interpretations correspond respectively to the structures in (16):

(16) a.   PROarb Reagan ikusi da
     b.   Reagan$_i$ PRO$_i$ ikusi da

PRO will appear in either subject or object position, depending on which position is not assigned Case.  The interpretation of PRO as arbitrary or coindexed with another NP in its clause will depend on its structural position.  I will assume that a rule of Basque grammar allows the suppression of the Case-assigner which in the most basic sentence would assign Case to the subject, in the same way that the Case that the object would receive is assumed not to be assigned in the passive in languages such as English.

### 4.1.   Impersonal constructions

In this section I analyze sentences like (16a) above (and repeated below) and (17) below.  In these sentences there is an implied arbitrary human actor.  I will claim that in impersonal sentences an empty category which receives arbitrary interpretation

appears in subject position. This EC takes the external theta-role assigned by the VP.

We have seen that an EC in a Case-marked position receives a pronominal, definite interpretation. I will thus claim that in impersonal sentences that subject position is not assigned Case. This excludes lexical NP's or pro from this position.

As shown in the examples, if the verb is transitive, the NP which receives the internal theta-role is assigned absolutive Case if it is a third person, and dative Case otherwise. The auxiliary contains no AGRerg affix:

(16) a.  PROabs Reagan ikusi da
                          ABS see    AGR abs 3s
          'PROarb ("one") saw Reagan'

(17)  PROarb gu-ri  ikusi zaigu
              we-DAT see    AGRabs 3s, AGRdat 1p
          'PROarb ("one") saw us'

If we posit that in impersonal sentences there simply is no AGR element in INFL and, therefore, the subject position is left without Case, we will be able to account for (16a), where the single AGRabs would assign Case to the object and PRO appears in the non-Case-marked subject position. Sentences like (17), i.e. sentences with a non-third person argument, present some problems, since here the auxiliary contains two agreement affixes and the object NP is marked for dative Case. Why dative agreement with a non-third person object takes place in these sentences is left unexplained in this hypothesis.

These Case-marking facts can be explained, however, if we posit that an arbitrary PRO subject is identified by means of a non-Case-assigning element in INFL. This element in INFL prevents the Case-assigning AGRabs from rising up from under the VP. The difference between impersonal and transitive sentences is, thus, that in the former a non-Case-marker occupies the agreement slot in INFL, leaving the subject position unmarked for Case; in the latter, this position is occupied by AGRerg, which assigns ergative Case to the subject. In both, AGRabs appears under the VP.

A non-Case marker in an agreement position surfaces as a third person singular AGRabs affix. As we will see below, there is abundant evidence that this affix, besides being a Case-marking

agreement element, is also a default form which can signal a non-referential EC in argument position. The difference in the Case assigned to different object NP's in impersonal constructions (third vs. first and second persons) is due to a morphological rule affecting Case-assigning affixes in the auxiliary. The auxiliary can contain only one marker for each Case. The possibility of an AGRabs affix marking the non-referential subject and another AGRabs marking an object is, therefore, ruled out for morphological reasons. If the auxiliary contains a default third person singular AGRabs and also must contain another third person AGRabs to identify and assign Case to a third person object, both third person AGRabs elements collapse at PF. The result is a phonetic form of the auxiliary which is identical to one containing only one AGRabs and whose number is that needed to agree with the object. The monovalent forms <u>da</u> and <u>dira</u>, which overtly mark only AGRabs-3s and AGRabs-3p respectively, are thus ambiguous. They can contain one or two third person AGRabs (a Case-assigner and a non-Case-assigner default marker. I mark the non-Case-assigner as AGR-3s (NA)):

AGRabs-3s: <u>da</u>
AGRabs-3s (NA) + AGRabs-3s: <u>da</u>
AGRabs-3p: <u>dira</u>
AGRabs-3s (NA) + AGRabs-3p: <u>dira</u>

These facts are captured by the following morphological rule:

(R1) AGRabs-3s (NA)+AGRabs-3 alpha s  $\rightarrow$  AGRabs-3 alpha s

The ambiguity of these forms of the auxiliary can be seen in the following examples, illustrating an intransitive and an impersonal transitive sentence respectively:

(18) neskak     etorri dira        eskolara
     girls-ABS come    AGRabs 3p school-to
     'the girls came to school'

(19) PROabs neskak     ikusi dira
            girls-ABS see    AGRabs 3s, AGRabs 3p
     'PROabs saw the girls'

When the sentence must contain two AGRabs elements of different number, one, NA, to identify an arbitrary subject and another one to assign Case to a first or second person object, a different morphological rule applies. The AGRabs which assigns Case to the

object is phonetically realized as a dative marker, as in the following example:

AGRabs-3s + AGRabs-1p  —→   AGRabs-3s + AGRdat-1p:  <u>zaigu</u>

On the surface an object of the verb receives dative Case in this instance.  There is, thus, a second rule:

(R2) AGRabs-3s(NA) + AGRabs-non3 alpha s  —→   AGR abs-3s +
                                                    AGRdat-non3 alpha s

A form like <u>zaigu</u> which overtly contains a third person singular absolutive affix <u>z-</u> and a first person plural dative affix <u>-igu</u>, will be predictably three ways ambiguous, representing the collapsing of different AGR elements:

a.  AGRabs-3s + AGRdat-1p

example:

(20) neska    gu-ri  etorri zaigu
     girl-ABS we-DAT come
     'the girl came to us'

b.  AGRabs-3s (NA) + AGRabs-1p

example:

(21) PROarb gu-ri  ikusi zaigu
            we-DAT see
     'PROarb saw us' (= 'One saw us/we were seen')

c.  AGRabs-3s(NA) + AGRabs-3s + AGRdat-1p

example:

(22) PROarb dirua     gu-ri  eman zaigu
            money-ABS we-DAT give
     'PROarb gave us the money' (= 'We were given the money')

In <u>zaigu</u> the dative suffix <u>-igu</u> can thus reflect a real underlying AGRdat as in Cases a and c, illustrated in sentences (20) and (22), or an underlying AGRabs as in Case b, illustrated in sentence (21), which surfaces as dative as a consequence of the application of rule (R2) above.  The <u>z-</u> absolutive prefix, for its part, may

reflect one underlying AGRabs as in case a, illustrated in sentence (20), or two underlying AGRabs which merge in the phonology as predicted by rule (R1), as in case c.

Further evidence that AGRabs-3s is a default marker which indicates a non-referential argument can be gathered from other constructions.

If this is the case, we would expect intransitive sentences with a phonologically empty subject to be ambiguous between a reading in which the third person singular agreement marker in the auxiliary identifies a referential EC, pro, and another reading in which this is a default marker which identifies an arbitrary subject (impersonal reading). This is indeed the situation. In (23), the subject EC is ambiguous between a referential pronominal interpretation (pro) and an arbitrary interpretation (PRO):

(23) EC etorri da        ·      poliki
         come    AGRabs-3s slowly

    a.   pro etorri da poliki
        'he/she came slowly'
           cf. Spanish 'vino despacio'

    b.   PROarb etorri da poliki
        'PROarb (One/"we"/"they") came slowly'
           cf. Spanish 'se vino despacio'

The use of AGRabs-3s as a default marker can also be observed in transitive sentences where the verb does not take an object. A transitive sentence whose auxiliary shows an ergative suffix and an absolutive third person singular prefix, and where the object is not expressed, has two interpretations. In one interpretation there is an object pro; in the other interpretation there is no object:

(24) neskek       edan    dute
         girls-ERG drink AGRabs-3s, AGRerg-3p

    a.   neskek pro edan dute
        'the girls drank it'

    b.   neskek Ø edan dute
        'the girls drank'

To sum up: in this section I have shown that in Basque impersonal sentences there is a default element in INFL which impedes the assignment of Case to the subject. Only PRO is possible, therefore, in subject position in these sentences. This element in INFL is identical in surface shape to a third person singular Case assigning AGRabs. If there is an object in an impersonal sentence, it is assigned Case by AGRabs under the VP, as in any other transitive sentence. This Case assigner may surface as a dative affix, affecting the surface Case assigned to the direct object, or may merge with the default marker, depending on certain morphological rules.

## 4.2. Reflexive constructions

In Basque there are two reflexive/reciprocal constructions. The first one simply involves the appearance of a lexical anaphor as object of a transitive verb. Case assignment and theta-role assignment take place in these sentences in the same way as in any other transitive sentence with a non-anaphorical object. The subject NP receives ergative Case from AGRerg in INFL and the external theta-role. The lexical anaphor in NP,VP receives the internal theta-role and Case from AGRabs under the VP. The reflexive anaphor is illustrated in (25). Morphologically it consists of a form of the possessive pronoun and the noun <u>buru</u> 'head'. The reciprocal anaphor is <u>elkar</u> 'each other' and its use is illustrated in (26). The reciprocal and reflexive anaphora are treated as third person singular NP's:[7]

(25)  (ni-k)  neu-re  buru-a           ikusi  dut
      I-ERG   I-GEN   head-Det-ABS  see    AGRabs-3s AGRerg-1s
      'I saw myself'

(26)  (gu-k)  elkar  ikusi  dugu
      we-ERG  e.o.   see    AGRabs-3s+AGRerg-1p
      'we saw each other'

This construction has the same properties as a transitive sentence. There is, however, another reflexive/reciprocal construction which requires greater attention. This construction was illustrated in (16b) above and is characterized by the presence of a single absolutive argument and the absence of an ergative marker in the auxiliary accompanying a transitive verb. Unlike impersonal constructions, the expressed absolutive NP is interpreted as receiving the external theta-role. This NP appears in the absolutive Case, regardless of person.

I will assume that in these sentences AGRerg is not generated. AGRabs moves to INFL, as in an intransitive sentence, and assigns absolutive Case to an NP appearing in subject position. The object position will, thus, be left ungoverned. An EC in the non-Case-marked object position is necessarily understood as coreferential with the subject, which c-commands it. The absolutive subject NP receives the external theta-role. The internal theta-role is assigned to the object EC:

(27) (gu)i PROi ikusi gara
      we-ABS     see      AGRabs-ip
      'we saw each other'

No lexical anaphor (or any other NP) can occur in object position in sentences of this type, since Case is not assigned to this position:

(28) *(gu) elkar ikusi gara
        'we saw each other'

If a sentence contains a transitive verb (i.e. two theta roles are assigned), an animate third person argument marked for absolutive Case, and no ergative agreement marker, the sentence will be predictably ambiguous between an impersonal and a reflexive/reciprocal interpretation. This follows from our analysis. Consider for instance (29=15) and (30):

(29) Reagan ikusi da
      ABS      saw    AGRabs-3s
      'One saw Reagan/Reagan saw himself'

(30) neskak ikusi dira
      ABS      see    AGRabs-3p
      'One saw the girls/The girls saw themselves/each other'

For (30) the two interpretations correspond to the following two configurations:

(31) a.  Impersonal:  PROarb neskak ikusi dira
                       'PRO saw the girls'

```
                               S
              _____
             |                 |                         |
            NP                 VP                       INFL
             |          _____|_____                 |
            PRO        |        |        |               NA  (=AGRabs-3s)
          θ-agent     NP        V      AGRabs
                       |        |       3p
                     neskak   ikusi
                      ABS
                    θ-patient
```
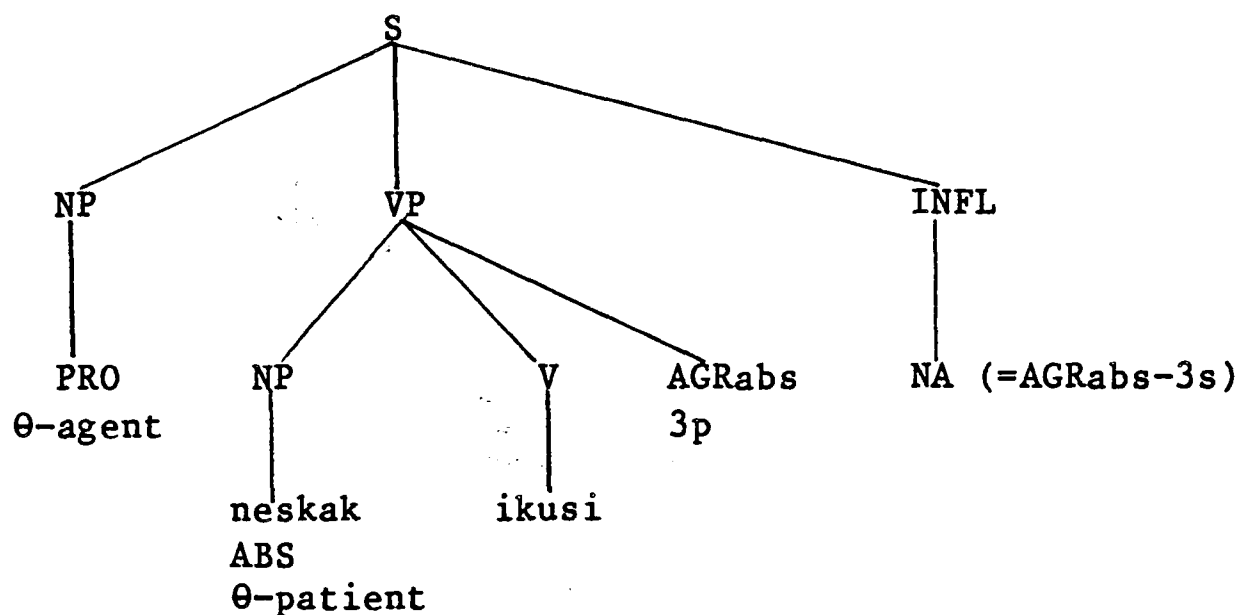
Morphological rule (R1):   AGRabs-3s(NA) + AGRabs-3p= AGRabs-3p (dira)

      b.    Reflexive/reciprocal:   neskak$_i$ PRO$_i$ ikusi dira

                        'the girls saw e.o./themselves'

```
                               S
              _____
             |                 |                         |
            NP                 VP                       INFL
             |          _____|_____                 |
          neskak       |        |        |             AGRabs-3p
           ABS        NP        V
         θ-agent       |        |
                      PRO     ikusi    ∅
                   θ-patient
```
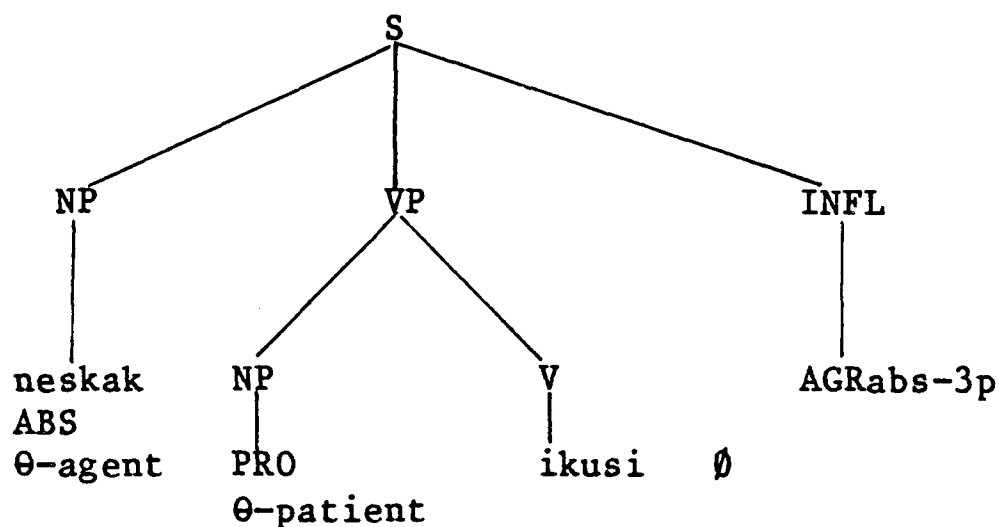
Reflexive  and  impersonal  constructions  are  different  in  the
surface  if  they  contain  non-third  person  arguments  (compare  (17)
with (27), due to the abs --→  dat rule (R2)).  Rules (R1) and (R2)
operate  in  impersonal  sentences,  but  not  in  reflexive  sentences,
since  in  the  latter  there  is  a  single  AGRabs  element  at  all  levels.

To  summarize,  in  both  impersonal  and  reflexive  sentences,  the
number of Cases assigned is one less than the number of theta-roles.

There is thus an argument position which does not receive Case. If the position which is not assigned Case is the subject position, any empty category in this slot, which necessarily will lack an antecedent within the clause, is interpreted as arbitrary and the sentence has an impersonal reading. If the Caseless position is the object position, the object EC has a c-commanding antecedent in the subject of the clause and must be coindexed with it. The result is a reflexive sentence.

This Caseless EC is interpreted as an arbitrary pronoun when it does not have an antecedent, but it behaves like an anaphor, obligatorily bound to a c-commanding antecedent when it does have one. Therefore I identify this EC as PRO.

A problem with this identification is that this EC cannot search for an antecedent outside of its clause. This EC always receives an arbitrary interpretation when in subject position and can never be controlled. But nothing crucial hinges on this point. This EC is reminiscent of PRO in that it is Caseless and has both pronominal and anaphoric properties. On the other hand, however, an argument can be made that it is governed both when in object position (by the verb) and when in subject position (by the tense). Let us call this element governed-PRO.

Now, we may define governing category as the minimal complete functional complex containing alpha and a governor of alpha, where a complete functional complex is the domain in which all grammatical functions compatible with its head are realized (Chomsky 1986:169). It follows that the minimal S containing governed-PRO will be the governing category for it. Having a governing category, this element cannot be controlled from outside of it. If it has a c-commanding antecedent within its governing category, governed-PRO behaves like an anaphor (as in reflexive sentences). If it does not have an antecedent within its governing category, governed-PRO behaves like an arbitrary pronoun (as in impersonal sentences).

## 5.   Restructuring

I have claimed that for a lexical or pro NP argument of a verb to be licensed, it must be the case that there is an AGR element which governs and assigns Case to it. In this light, consider sentence (32):

(32) Jon-ek joan nahi du
        ERG go    want AGRabs-3s+AGRerg-3s
     'Jon wants to go'

In sentence (32) the embedded verb joan 'to go' is not accompanied
by an auxiliary; the only auxiliary, carrying agreement affixes,
is du, which accompanies the main verb nahi 'to want'. Verbs in
the complement of nahi 'to want' and behar 'to need' appear in the
perfective form without an auxiliary if the subjects of both clauses
are coreferential.

Heath (1974) analyses sentences of the type illustrated in
(32) as cases of Equi-NP deletion, and remarks that this structure
is used independently of whether the embedded clause would have an
absolutive or an ergative subject. Heath takes this fact as evidence
for the syntactic accusativity of Basque.

The construction in (32) would not be used if the subjects of
both clauses were not coreferential. Instead a subjunctive clause,
as in (33a) or a nominalized (gerundival) clause, as in (33b)
would be used, depending on the dialect:

(33) a.   Jon-ek [Mikel joan dadin]   nahi du
          ERG      ABS go   AUX-SUBJ want AUX
          'Jon wants that Mikel go' (= 'Jon wants Mikel to go.')

     b.   Jon-ek [Mikel joate-a-∅] nahi du
          ERG      ABS go-Det-ABS want AUX
          'Jon wants Mikel to go'

Going back to (32), accepting Heath's analysis as basically
correct, we would have a structure:

(34) Jon-ek [PRO joan] nahi du
        ERG       go    want AUX
     'Jon wants to go'

In this structure, arguments of the embedded clause would not
be assigned Case within the clause, since the embedded verb does
not have agreement features. Take a sentence where the embedded
clause has an object:

(35) Jon-ek liburu-a      irakurri nahi du
        ERG book-DET-ABS read      want AUX
     'Jon wants to read the book'

In (35) <u>liburua</u> 'the book' does not have a possible Case-assigner within the embedded clause. However, the sentence is grammatical. The object of the embedded clause could be assigned Case if restructuring took place and the absolutive agreement element in the main clause could function as a Case assigner for the object of the embedded verb. This is exactly what happens in this case. Restructuring is not immediately apparent in (32) or (35), but becomes obvious once we have a non-third person singular absolutive and/or a dative argument of the embedded verb. Consider the following example:

(36) Jon-ek gu-ri   liburu-a-k eman nahi dizkigu
        ERG we-DAT books-ABS   give want AGRabs-3p
                       │      └──────────────────────┘
                       │
                       │                    AGRdat-1p
             └───────────────────────────────────┘

                                            AGRerg-3s
        └──────────────────────────────────────────┘

'Jon wants to give us the books'
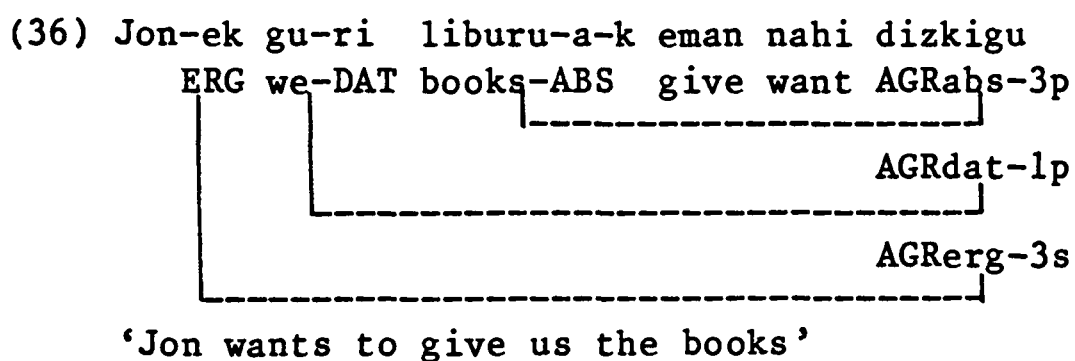
In (36) if the AUX of the main verb <u>nahi</u> 'want' were·marked for agreement only with its own arguments, it would show 3s absolutive and 3s ergative agreement. However, it shows agreement with the arguments of the subordinate verb <u>eman</u> 'give', <u>guri</u> 'to us' and <u>liburuak</u> 'the books'. This indicates that there is only one verb <u>eman-nahi</u> and, therefore only one clause and one subject <u>Jonek</u> 'Jon'.

Sentence (36) can be compared with (37), which shows that the arguments of each clause must be encoded in the respective auxiliary. If there are two clauses, the arguments of the embedded clause are encoded in the embedded auxiliary:

(37) a. Jon-ek [gu-k   zu-ri    liburuak   eman diezazkizugun] nahi.du
         ERG we-ERG you-Dat books-ABS give AUX-SUBJ          want.AUX
                                              AGRabs-3p          AGRabs-3s

                                              AGRdat-2s          AGRerg-1s

                                              AGRerg-1p
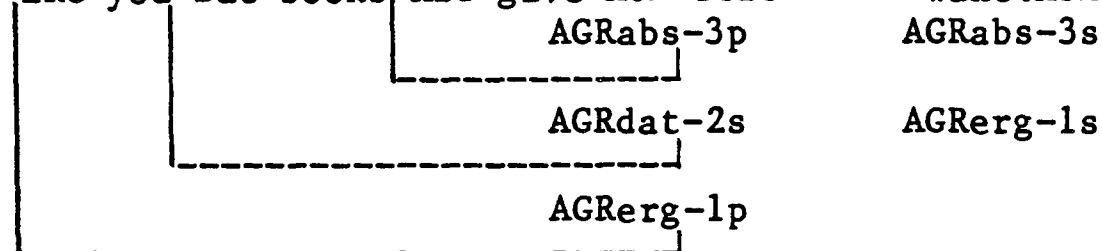
   b. *Jon-ek [guk zu-ri liburuak eman dezagun] nahi dizkizu
                                                     AGRabs-3p

                                                     AGRdat-2s

                                                     AGRerg-3s

      'Jon wants that we give you the books'

In (37b) arguments of the embedded clause are marked in the
matrix auxiliary and the sentence is ungrammatical. Ungrammatical
results are also produced when the embedded clause is a nominalized
clause (with no AUX) if its arguments are marked in the matrix AUX:[8]

(38) a.  Jon-ek gu-k    zu-ri    liburuak  ematea       nahi du
         ERG we-ERG you-DAT books-ABS give-DET-ABS want AGRabs-3s
                                                          AGRerg-3s

   b. *Jon-ek gu-k zu-ri liburuak ematea nahi dizkizu
                                         AGRabs-3p+AGRerg-3s
                                         AGRdat-2s
      'Jon wants that we give you the books' (= 'Jon wants us
        to give you the books')

The situation that we observe in (36) is strikingly similar
to clitic raising in Spanish:

(39) quiero dárselos   ---＞   se los quiero dar
     (I) want to give-him-them  ---＞   him them (I) want to give
     'I want to give them to him'

Here also, the arguments of the subordinate verb are encoded
as arguments of the main verb.

Aissen and Perlmutter (1976) argue that clitic climbing in
Spanish takes place as a consequence of clause union. In fact,

they go on further to postulate that clitic climbing, moving clitics
from one clause to another, is not a possible rule of human language.
Languages that show the phenomenon of clitic climbing, they claim,
have a rule of clause union. The Basque phenomenon presented here
falls well within the spirit of this proposal, if not within the
letter since we are not dealing with clitics here, but rather with
affixes fused in the auxiliary.

Nahi 'want' is a transitive verb. A verb in its complement,
in restructuring contexts, can be either transitive or intransitive.
If the embedded verb is transitive, the only auxiliary will show
transitive agreement, the arguments of the embedded verb being
marked on it, as shown in (36). If the embedded verb is intransitive,
we find dialectal variation in agreement and Case marking. In the
central dialects there is transitive agreement, the subject taking
the ergative Case. In dialects both to the East and to the West
(Souletin and Bizcayan) there is only absolutive marking. This
variation is shown in (40a-b):

(40) a.  Jon-ek etorri nahi du
           ERG  come    want AGRabs-3s+AGRerg-3s

     b.  Jon-∅ etorri nahi da
           ABS  come    want AGRabs-3s

'Jon wants to come'

If the subordinate verb is not an unequivocally intransitive
verb, the result is ambiguous in the central dialects between a
transitive and an intransitive reading:

(41) Jon-ek sartu nahi du
        ERG              AGRabs-3s+AGRerg-3s
     'Jon wants to get in/to put it in'

In Souletin and Bizcayan, Case marking would be different for
each of the two readings.

The state of affairs observed in (40a-b) is reminiscent of a
similar situation in Italian, discussed by Rizzi (1978):

(42) a.  Mario ha voluto tornare a casa
     b.  Mario è voluto tornare a casa
     'Mario has/'is' wanted to come back home'

Rizzi argues that in (42b) a restructuring rule has applied. In this way he accounts for the fact that the modal verb in this sentence takes the auxiliary _essere_ 'to be' instead of _avere_ which modal verbs take in general in Italian.

In Basque, on the other hand, the fact that embedded arguments appear marked as arguments of the main clause (cf. 36) shows that restructuring applies also when the auxiliary is transitive, and not only when _nahi_ appears with an intransitive auxiliary. In both (40a) and (40b) we would then have restructuring. The appearance of intransitive Case marking in (40b) indicates that in those dialects the embedded intransitive verb is reinterpreted as the main verb of the compound verb that results after restructuring; the modal verb becomes some sort of auxiliary. The appearance of transitive marking in (40a), on the other hand, shows that in the central dialects the resulting compound verb is analyzed as a transitive verb, whose head is _nahi_, analogous to lexical compounds with _egin_ 'to do/make', which also take transitive marking, e.g. _lo-egin_ 'to sleep' (lit. 'make sleep'), _korrika-egin_ 'to run' (lit. 'make at running').[9]

We thus see that independent evidence confirms the existence of a restructuring rule, which would be forced by Case requirements, in these constructions with modal verbs.


6.    Conclusion

In this paper I have argued that in Basque there are three Case-assigning AGR elements:  AGRerg, AGRabs and AGRdat.  The elements are organized hierarchically:  ARGerg > AGRabs > AGRdat. If there is an AGRerg, it occupies the position in INFL under S and assigns ergative Case to the subject; the other Case-assigning elements would remain under the VP.  If there is no AGRerg, AGRabs can move to the upper position (intransitive and reflexive sentences). There is in addition a non-Case-assigning element, which surfaces as a third person singular absolutive affix.  This non-Case-assigner can appear in INFL impeding the presence of a lexical or pro subject (impersonal sentences).  Case assignment and thematic roles determine the different reading of intransitive, reflexive and impersonal sentences, which often present identical phonological shapes. Finally, we have shown how in clauses with no Case assigning features, restructuring takes place to allow the embedded arguments to receive Case from the Case assigners in the matrix clause.

ACKNOWLEDGEMENTS

FOOTNOTES

[1]Bossong (1984) explains certain irregularities in the morphology of the auxiliary for some combinations of absolutive and ergative marking in the past tense. These irregularities do not affect the marking of the arguments.

[2]Levin (1983) actually goes further and claims that Basque is not ergative either in its syntax or in its morphology. With regard to the morphology, Levin identifies the ergative marking with nominative Case and absolutive with accusative. According to this hypothesis, Basque verbs such as etorri 'to come' which are usually considered intransitive, would actually be unaccusative; that is, verbs that take an object but not a subject in deep structure. This analysis is reminiscent of the analysis of sentences with intransitive verbs of the arrivare type that Burzio (1981) proposes for Italian. Levin's proposal for extending this treatment to Basque encounters the obstacle that, while the single argument of Italian arrivare-type verbs is marked for nominative Case, the argument of Basque etorri-type verbs would be marked for accusative Case. This is an important point, since Burzio makes crucial use of Case Theory in his analysis.

Burzio assumes that in Italian, verbs like arrivare do not assign either an external theta-role or Case to their object. An NP can thus appear in object position at d-structure and will receive a patient role. But this NP must move to subject position at s-structure, in order to receive Case from AGR in INFL and thus avoid a violation of the Case Filter.

In the case of Basque, Levin assumes that these verbs do not assign an external theta-role, but do assign Case (accusative) to their object. Movement of the single argument NP of these verbs to subject position will, therefore, not be forced by the Case Filter. The problem is then to account for the subject properties that the single argument of verbs like etorri display. As pointed out in the text (p. 46) to maintain this position we would also

need to consider Basque highly exceptional in that Case would be assigned at d-structure in this language. For these reasons I will not follow Levin's unaccusative hypothesis in this paper, although I believe that most of my analysis could be recast within it without great difficulty.

[3]Bossong (1984) argues against the force of the conjunction reduction facts, offering examples of long texts where a topic is established and deleted arguments are interpreted as coreferential with the topic, regardless of grammatical function. The facts adduced by Bossong, however, do not argue against the validity of the test of conjunction reduction, in my opinion. In Basque, as in other pro-drop languages, the coindexation of empty pronouns with a topic, a discourse-level phenomenon, may indeed blur the effects of subject-deletion in conjunction reduction. This, however, does not weaken the fact that sentence (10) in isolation has only one possible interpretation, which is opposite to the interpretation of the Dyirbal sentence (9).

[4]This position is, however, not completely general in the literature. That Basque is syntactically "neutral" or non-configurational has been argued for by Azkarate et al. (1983), Bossong (1984) and Rebuschi (1982, 1984).

To my knowledge, nobody has maintained that Basque is syntactically ergative in recent years, although this is the position of Schuchardt (1923), for instance (known as theory of the passivity of the Basque verb).

[5]In Eastern dialects (cf. Salaburu 1984:218) dative marking in the auxiliary is optional or impossible if there is a lexical dative argument in the sentence. I interpret these dialectal facts as showing that in these dialects the dative ending in the NP has become a postposition able to assign Case to the NP that it governs.

[6]In today's Basque only a handful of verbs present synthetic conjugation, and then only in some tenses; some examples are the forms given in (3-5). With the vast majority of verbs, an auxiliary must accompany the main verb, which is solely inflected for aspect. The auxiliary contains tense (past or non-past) and mood information, as well as agreement affixes. The forms of the auxiliary can also be used as main verbs with the meaning of 'to be/to have'.

[7]The reflexive anaphor can appear in plural form when the antecedent is plural, in some dialects (cf. Euskaltzaindia 1985:106).

[8]How Case is assigned in a nominalized clause, such as the embedded clause in (38), remains unclear. Notice that the embedded verb is a nominal; _ematea_ is 'the giving-ABS'. In Northern dialects, absolutive arguments in nominalized clauses may appear in the genitive Case instead. Case assignment in nominals must make use of different mechanisms from the ones that operate in non-nominalized sentences.

[9]That the verbs _nahi_ and _behar_ form a sort of compound with the subordinate verb has been intuited by Alvarez Enparantza (1978:352), who observes that these modal verbs seem to act like affixes attached to the embedded verbs. Levin (1983:343, fn. 52) also points out the existence of a form of clause union in these instances. Ortiz de Urbina (in prep.) develops an analysis that presents some similarities with mine, although it is not presented in the context of Case-marking.

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# CLAIMS ABOUT SYNTACTIC CHANGE AND FINNISH HISTORICAL SYNTAX

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## ABSTRACT

This paper examines a number of important claims that have recently been made concerning syntactic change. These include the role of surface structure reanalysis and the thesis of the autonomy of syntax (e.g., Lightfoot 1979, Muysken 1977); the claims that syntactic change precedes morphological change (e.g., Givón 1971, Lightfoot 1979), and that syntactic change affects main clauses prior to subordinate clauses (e.g., Givón 1984); the role of grammaticalization of lexical elements in syntactic change (e.g., Givón 1984, Langacker 1977); and the principle of synonymy, or the extent to which synonymous lexical items are subject to the same rules of diachronic syntax (e.g., Ard 1975). These claims are tested by application to several well-known developments in Finnish historical syntax.

## 1. Introduction

Recent years have witnessed immense growth in the enthusiasm for diachronic syntax. In this literature, proposals for the explanation of syntactic change abound, but with little agreement. This is illustrated at the broadest level by the following quotes from one of the most recent books on syntactic change (Fisiak 1984):

> the longer I deal with linguistics the more certain I am that language is a simple phenomenon and that all true explanations of language phenomena are equally simple. (Mańczak 1984:242)

> nowadays it is often questioned whether explanation of linguistic change, and particularly syntactic change, is possible at all. (Gerritsen 1984:114)

My purposes in this paper are to consider a few important claims
about syntactic change and to test their explanatory value against
several documented, well-understood syntactic changes in Finnish
grammar.  It is hoped that understanding of historical syntax will
be advanced by examining how explanatory claims fare against actual
cases, and also that the discussion will help explain some aspects
of Finnish historical syntax.

## 2.    Reanalysis

Syntactic reanalysis based on misunderstanding or reinterpretation
of surface structure similarities and ambiguities has received
much attention, often discussed in connection with transparency/opacity
(cf. Allen 1977, Breckenridge and Hakulinen 1976, Langacker 1977,
Lightfoot 1979, Muysken 1977, Timberlake 1977, among others).  The
following Finnish example illustrates this most commonly proposed
kind of explanation of syntactic changes.

Finnish (and its close relatives) underwent the sound change
of final *-m to -n.  Formerly, the accusative singular (*-m) and
genitive singular (*-n) had been distinct, but after the sound
change these were left homophonous, both -n.  Thus, for example,
the distinct pronouns, e.g. *minu-m I-ACC and *minu-n I-GEN ('my'),
were no longer distinguishable, both minu-n.  This 'opacity' led
to reanalyses.  The partitive case already functioned to signal
objects in many instances, e.g. partial (not totally affected)
objects, and objects of negative verbs.  Since humans, whom the
pronominal forms represent, are not normally acted upon in parts
or pieces, either the partitive or the accusative case could be
employed in compensation for the now ambiguous accusative form in
order to signal a full pronominal object.  Thus, in Old Finnish
(and in Estonian and Votic, as well), the partitive (e.g. minu-a
I-PARTITIVE) took the place of the accusative in pronouns in order
to prevent misunderstanding with the genitive case, which had
become identical in shape with the accusative.  Old Finnish texts
have examples of pronominal objects in both the partitive case and
in the ambiguous genitive-like accusative.  However, in time Finnish
stabilized its accusative singular for pronouns with yet another
alternative reanalysis; namely, it called upon the plural accusative
ending (-t) to signal the singular accusative of pronouns.  This
would occasion no misunderstandings, since there is no plural/
singular contrast for these pronominal objects.  Thus today Finnish
pronouns bear the following endings, as illustrated for 'I':

```
minä        NOMINATIVE
minu-t      ACCUSATIVE (cf. miehe-t [man-PL.ACC] 'men',
               miehe-n [man-ACC.SG, GEN.SG] 'man, man's')
minu-a      PARTITIVE
minu-n      GENITIVE
```

Given the surface-structure ambiguity of the genitive and accusative singular cases, Finnish reanalyzed cases for pronouns, first by employing the partitive case in place of the ambiguous accusative, and then later by employing the plural accusative (cf. Hakulinen 1968, Ikola 1968).

While this example is relatively straightforward, other reanalyses in the history of Finnish grammar bear on the validity of several theoretical claims. The following case will prove instructive for a number of such claims, to be considered presently.

A reanalysis involving Finnish participial constructions has been much written about (cf. Anttila 1972, Breckenridge and Hakulinen 1976, Hakulinen and Leino 1985, Ikola 1959, Svensson 1983, Timberlake 1977, etc.). In one construction with verbs of perceiving and saying, the participial phrase functions as the surface object of the main verb, with the participle's surface (as well as its logical) subject in the genitive case, e.g.:

1)    näe-n miehe-n tule-va-n
      see-I man-GEN.SG come-PRES.PRT-ACC.SG

      'I see the man coming/I see that the man is coming'

2)    huomas-i-n miehe-n juo-nee-n vet-tä
      notice-PAST-I man-GEN.SG drink-PAST.PRT-ACC.SG water-PART.SG

      'I noticed that the man drank/had drunk water'

Today the whole participial phrase (with the genitive surface/logical subject as one of its modifiers) functions as a sentential object of the main verb. Originally, the construction had a different form and a different analysis. Corresponding to (1), Proto-Finnic had (3):

3)    *näe-n miehe-m tule-va-m
      see-I man-ACC.SG come-PRES.PRT-ACC.SG

      (same meaning as 1)

The constituent structure did not represent a sentential object
phrase, as in Modern Finnish. Rather, the NP in the accusative
case was the surface object of the main verb, while the participle
was its adjectivial modifier or complement. The reanalysis was
triggered by the same sound change as seen above, where final *-m
changed to -n, leading the accusative singular and the genitive
singular to be homophonous, both -n. This syncretism of case
endings led to the reanalysis in which the former accusative case
of the NP, the former surface object of the main verb, was mis-
identified as a genitive, as the surface (as well as logical)
subject of the participle, with the participle itself being taken
to be the object of the main verb. This reinterpretation is partic-
ularly clear from plural nouns, where the accusative and genitive
were not homophonous. Thus Old Finnish had examples such as:

4)    nä-i-n venee-t purjehti-va-n
      see-PAST-I boat-ACC.PL sail-PRES.PRT-ACC.SG

      'I saw the boats sailing/I saw the boats sail'

This corresponds to the Modern Finnish:

5)    nä-i-n vene-i-den purjehti-va-n
      see-PAST-I boat-PL-GEN sail-PRES.PRT-ACC

      (same meaning as 4)

(For detailed arguments, see Breckenridge and Hakulinen 1976, Hakulinen
1968, Ikola 1959, Timberlake 1977). I now turn to the several
implications of this example.


2.1. Surface structure continuity

     It is often repeated that one constraint on syntactic change
is surface structure continuity from one generation to the next.
Some have suggested that reanalysis can involve only reinterpretaion
of the structure, but that the actual surface configurations must
remain unchanged (cf. for example, Muysken 1977:169). This claim,
however, clearly cannot be maintained, given the abundant counter-
examples. In the Finnish participial construction, for example,
with the reanalysis of the former accusative surface object of the
main clause as a genitive surface (and logical) object of the
participial phrase, the surface forms did not all remain unchanged.
The accusative plural (-t), as in (4) above was replaced by the

very different genitive plural (-i-den), as in (5) above, showing
lack of surface structure continuity in plural forms.  As Allen
(1977:386) aptly puts it:

> morphological identity of lexical items plays an important
> role in generalization and reanalysis.  Even when two
> constructions still have distinct analyses...reanalysis
> may come about even when there is evidence in the language
> learner's data against the new analysis of a construction.
> While one might propose a theory of syntactic reanalysis
> which stipulated that a construction would be reanalyzed
> only when the evidence for the earlier analysis had
> disappeared, such a theory fails...  How much of the
> evidence for the older construction needs to be depleted
> before a new analysis may appear is an open question.

Clearly, the existence of obvious distinctions between the accusative
and the genitive in the plural was not sufficient to prevent the
reanalysis of the Finnish participial construction.


## 2.2. Autonomous reanalysis

Related to the proposed surface-structure continuity constraint
is another claim, also apparently false.  This claim maintains that
syntactic change (and indeed syntax in general) is autonomous, and
therefore reinterpretion of certain categories takes place exclusively
on the basis of the surface structure configurations, independently
of underlying semantic relations (cf. Muysken 1977:171).  Lightfoot
(1979:153) stakes a large portion of his theory on this claim:

> I have argued for a notion of pure syntactic change
> within the framework of an autonomy thesis, but claiming
> that such changes are consequences of opacity...and of a
> principle of grammar requiring transparent derivations.

The autonomy thesis has been heavily criticized (cf. Romaine 1981).
For our purposes here, it is sufficient to point out that syntactic
rules cannot be assumed to operate independently of meaning and
use; even Lightfoot admits therapeutic changes and perceptual
strategies (both involving meaning and language use), in spite of
his pretentions toward total autonomy.  In reanalysis of the Finnish
participles, the change in interpretation of the surface (accusative)
object of the main verb to the surface/logical (genitive) subject
of the embedded verb (participle) is quite natural.  The genitive

case functions to mark subjects of several other constructions, e.g. of verbs of obligation and of other nominalizations and embedded constructions. Thus, the shifted interpretation of the ambiguous surface case endings is unsurprising. However, it is not to be expected that just anything could be reinterpreted as anything else based on surface structure identity alone. For example, it seems highly doubtful that the surface structure identity of, say, an article and a subjunctive marker in some language would lead to one being reinterpreted as the other. Thus, meaning and function play some role. For example, the identity in Finnish of the accusative singular and first person pronominal suffixes (both -n) evidences no tendency for reinterpretation, not would anyone expect them to, since they share no meaning. (For discussion, see Lightfoot 1979, Muysken 1977:171, Romaine 1981).

## 2.3. The necessity of reanalysis

Another related claim is that reanalyses happen only when necessary:

> re-analyses take place only when necessary and not randomly.
> That is, they occur only when provoked by some principle
> of grammar such as Transparency. (Lightfoot 1979:124)

To assess this claim, I turn to new Finnish examples. In the colloquial language of the younger generation in Helsinki, infinitives have changed considerably. These are best presented by first considering the concomitant changes which brought the infinitival differences between Standard Finnish (henceforth SF) and colloquial Helsinki into existence.

The regional dialects from which colloquial Helsinki speech was formed (cf. Mielikäinen 1984) underwent a phonological change in which Vowel-a and Vowel-ä sequences monophthongized. Later, analogy operated on the results of this sound change. To begin with, the 3rd pers sg pres of verbs is signalled by a copy of the final root vowel, e.g. anta-a 'gives', tule-e 'comes'. For verbs in -aa (a very large class), 3rd pers sg pres is very similar to the so-called first infinitive, e.g. antaa 'gives', antaaX 'to give' (X represents the so-called 'final-aspiration', which has no phonetic content of its own, but results in a copy of the initial sound of a following word, e.g. /antaaX tänne/ [antaat tänne] 'to

give (it) here'.  This (near) identity, together with the monoph-
thongization, led to the analogical extension in which other phoneti-
cally appropriate first infinitives became more similar to the
third pers sg forms.  For example:

sanoo 'says': sanoaX 'to say' > sanoo : sanooX

This produced a morphological change; first -VVX in roots of this
type was reinterpreted as the marker of first infinitives, e.g.:
anta-aX (SF antaaX 'to give'), luke-eX (SF lukeaX 'to read'),
sano-oX (SF sanoaX 'to say'), leikki-iX (SF leikkiäX 'to play'),
puhu-uX (SF puhuaX 'to speak').  Then this pattern was extended to
other verb classes which originally did not involve vowel clusters
(and hence no potential for monophthongization) in the infinitive,
e.g. vasatataX > vastaaX 'to answer'.  These new forms came to be
used as infinitival verb complements; compare hän antaa 'he gives' :
hänen pitää antaaX 'he must give', with hän uppoo 'he sinks' : hänen
pitää uppooX 'he must sink' (SF hän uppoo, hänen pitää upotaX).

Another infinitive construction, the so-called 'third infinitive
in the illative case', is required in SF in certain contexts,
particularly after verbs of motion.  It is formed with the suffix
-ma/-mä plus the illative case, -Vn, where the vowel matches the
immediately preceding vowel, e.g. tulee anta-ma-an 'comes to give'.
In this dialect, however, this third infinitive construction has
changed to -Vn, where the V is a copy of the root vowel, resulting
in long V + n, e.g. tulee antaan 'comes to give'.  Subsequent
sandhi changes make the first and third infinitives phonologically
identical in certain contexts.  That is, in the dialect the -n of
the third infinitive assimilates fully to a following h, n, m, l,
r, j, v, V and #, e.g. tulee antaan lääkettä > tulee antaal lääkettä
'comes to give medicine' (cf. SF tulee antamaan läkettä).  Since
the 'final-aspiration' (X) of first infinitives always assimilates
to the following sound, the two infinitives became homophonous in
the overlapping contexts, e.g. /pitää antaaX lääkettä/ > [pitää
antaal lääkettä] 'must give medicine'.  Based on this phonetic
identity with the first infinitive in these contexts, assimilation
of final -n in the third infinitive illative is often extended by
analogy to instances before words beginning in p, t, k, and s,
also.  This led to a third infinitive illative which is no longer
phonologically distinct from the first infinitive, e.g. antaaX ('to
give') for both.

This phonological identity between first infinitive and third
infinitive in the illative case in most verb classes led to a

grammatical reanalysis. In SF, verbs of motion govern third infinitive illative (-maan/-mään), and this is still the case in colloquial Helsinki dialect with clear motion verbs, mennä 'go', tulla 'come', etc. This is seen in the class of verbs whose conjugation maintains a phonetic difference in first infinitives and third infinitives in the illative case, e.g. menee tekeeX 'go do', and pitää tehdäX 'must do', but not *menee tehdäX (cf. SF menee tekemään 'go to do', pitää tehdä 'must do', not *menee tehdä). The reanalysis involves those verbs which in SF govern third infinitive illative, but in the modern language no longer show clear, concrete motion, e.g. joutua 'to be involved in, to end up in', kyetä 'to be able, to be capable of', pakottaa 'to force, to compel', pystyä 'to be able', and sattua 'to happen, occur'. Since these no longer involve clear semantic motion, they have shifted to take first infinitives in colloquial Helsinki: joutuu tehdä 'is involved in going, falls into doing' (cf. SF joutuu tekemään). Colloquial Helsinki has restructured so that only concrete motion verbs get third infinitives in the illative case, and other, more abstract verbs take first infinitives. (For details, see Sorsakivi 1982; cf. also Mielikäinen 1984).

Since first infinitive and third infinitive illative became homophonous in many contexts, one might take the change to first infinitive except for verbs of concrete motion as an instance of reanalysis for the sake of transparency, due to surface structure ambiguity. It should be pointed out, however, that some verbs in other dialects have also undergone related changes, usually from third infinitives in the illative case to first infinitives. The explanation in these instances, however, is not phonetic similarity and surface structure ambiguity, as in the case of the wholesale shift in colloquial Helsinki, but rather, analogy with other verbs in the same semantic class. For example, some dialects have pyrkiä tehdä 'strive to do' (SF pyrkiä tekemään), on the model of such verbs as SF yrittää tehdä 'try to do'. For details, see below. These verbs are quite different from colloquial Helsinki, since phonologically their first and third infinitives are still quite distinct; they merely changed analogically to have grammatical patterns more like semantically related verbs. (See below for a discussion of the principle of synonymy).

These further analogical changes are not counter-examples to Lightfoot's 'transparency' explanations, but they do show that similar results require no motivating opacity from surface structure identity. Thus, the claim that reanalysis happens only when necessary is called into question. This is confirmed in other examples.

In SF and nearly all regional dialects the verbs of obligation
(<u>pitää</u>, <u>täytyy</u>, <u>tulee</u> 'must', <u>pitäisi</u>, <u>tulisi</u> 'should', etc.) are
a special class, with subjects in the genitive case, e.g.:

6)    minu-n pitää tulla
      I-GEN must come

      'I must come'

In Western Finnish, however, due to analogy with 'regular' (non-
obligational) verbs (and to Swedish influence), these verbs have
shifted, no longer taking genitive, but rather nominative subjects,
with which the verb agrees, e.g.:

7)    (minä) täydy-n tehdä
      (I-NOM) must-I do

      'I must do (it)'

8)    (sinä) pidä-t mennä
      (you) must-YOU go

      'you must go'

In certain western Finnish dialects there has been an additional
analogical change based on these forms.  SF has another, rarer,
obligation construction with nominative subjects, but with its
non-finite verb in the so-called 'third infinitive accusative
case', e.g.:

9)    minä pidä-n mene-mä-n
      I.NOM must-I go-3RD.INF-ACC

      'I must go'

However, in a few dialects this form has changed to bear a genitive
subject, e.g.:

10)   minu-n pitää mene-mä-n
      I-GEN must go-3RD.INF-ACC

      'I must go'

This change is the result of an analogical blending of the two
constructions, of <u>minä pidän menemän</u> + <u>minun pitää mennä</u> (cf. Saukkonen

1984:184). The cause is quite simply surface structure analogy, but without signs of being driven by opacity. These cases of reanalysis seem to violate Lightfoot's (1979:124, 375) assumption that "reanalyses take place only when necessary". Given that the transparency principle operates 'abductively' (i.e. analogically) to resolve surface ambiguity or opacity, it fits the colloquial Helsinki reanalysis of infinitives, but has nothing to say about 'abductive' and analogical reanalyses of these last two cases where no surface ambiguity was in question. Reanalysis, then, is not limited to cases only where it is necessary. Indeed, if renalysis were necessary in these cases, then Standard Finnish would not have maintained its different forms from which these dialects have departed.

## 2.4. Does syntactic change precede morphological change?

One additional related claim, repeated in a variety of guises, maintains in its basic form that syntactic change precedes morphological change. Givón's (1971) slogan, yesterday's syntax is today's morphology, is related and is the inspiration for some versions of the claim. More directly, it is believed that "morphology is notoriously slow to adapt to changing syntax and may reflect syntactic patterns of...antiquity" (Lightfoot 1979:160). Changes in structure may affect syntactic relations before the morphology that encodes them, with the result that morphology may reflect a previous syntactic situation (cf. Comrie 1980, Givón 1971, 1984, etc.). In an absolute sense, this claim is false. While in some cases, syntactic change may precede, with morphological marking lagging behind, this is by no means always the case. In fact, it is often just the opposite, that morphological change comes before syntactic change, triggering syntactic reanalysis. The reanalysis of Finnish participles is a case in point. It was the morphological reinterpretation of ambiguous surface -n from original 'accusative singular' to 'genitive singular' which triggered the syntactic reanalysis whereby the former surface object of the main verb (in the accusative case, with its modifying participial verb form) was reanalyzed as the surface subject (in the genitive case) of the participle, now held to be a sentential object of the main verb.

## 3.   Change in Main vs. Subordinate Clauses

A variety of related and overlapping but nearly identical claims has been made about change in main clauses as opposed to subordinate structures. We might expect main and subordinate

clauses to be roughly equal in susceptibility to grammatical change, but many have not thought so. In the recent literature on discourse analysis and pragmatics (cf. for example Hopper and Thompson 1980, 1984, Givón 1984) it is claimed that subordinate clauses are typically background material in a discourse, not normally part of the foreground or salient part of the temporal sequences of a discourse. It is claimed that nouns and verbs not salient to the discourse are reduced in the number and kind of morphosyntactic trappings they can exhibit, the full range often being limited only to the introduction of full participant nouns into a discourse and to verbs that report discourse (foregrounded) events. Accordingly, it is thought that subordinate clauses, exhibiting a more restricted range of morpho-syntactic trappings for nouns and verbs due to their backgrounding function in discourse, are more conservative and less subject to syntactic change than main clauses. While several Finnish changes may be relevant to these claims, I will consider only word-order changes here.

It is claimed that in general subordinate (complex) clauses tend to preserve earlier word orders which have become 'frozen', although the opposite (conservatism in main clauses) has also been reported (cf., for example, Givón 1984:212). This proves to be true of Finnish relative clauses in two ways. First, one of the two types of relative clause constructions in Finnish preserves the type of relative clause (RC) found in its ancestor, Proto-Uralic, an SOV language. Second, it preserves SOV order in this RC, although Finnish (or better said, Proto-Finnic) changed to SVO basic order in main clauses (Korhonen 1981a). While syntactic reconstruction via supposed consistency among different word-order patterns has been heavily criticized (cf. Hawkins 1983), there are some aspects of the tendency for different orders to cluster which hold up after careful scrutiny; these prove useful in explaining the Finnic changes.

Finnish, for example, exhibits the basic word-order patterns:

S-V-O
Adjective-Noun
Genitive-Noun
Noun-Postposition
Relative Clause-Head/Head-Relative Clause (RC-H/H-RC)
Adj-Marker-Standard/Standard+PART-Adjective (AMS/SMA)

While SVO languages show much greater variation across these patterns than do, for example, SOV or VSO languages, these data are significant because only in SOV languages can RC-H (preposed relative clauses)

arise naturally. That is, verb-initial languages tend to have H-RC in harmony with their typical Head-Modifier orders within the NP. SOV may have RC-H in accord with the tendency towards Modifier-Head orders. Nevertheless, the 'heaviness principle' is also involved, that heavier constituents tend to be placed to the right of their heads to avoid the perceptual difficulty of processing the roles of nominal arguments (Hawkins 1983:90). In effect, then, only some SOV languages naturally contain RC-H, in harmony with their preferred Modifier-Head orders, while others may conform to the heaviness principle with RCs after their head Nouns (H-RC). With all this taken together, only in an SOV language could RC-H arise naturally. The Finno-Ugric languages are mostly SOV with preposed relative clauses (though a few have also developed postposed relatives under foreign influence). Moreover, as in many SOV languages (Keenan 1985), these preposed relative clauses do not contain finite verb forms, but rather are made of nominalized or participial constructions which bear case markings, and contain no relative pronouns (Korhonen 1981a). While Finnic also has postposed relative clauses (consistent with its SVO order, as well as with the heaviness principle), the alternative with preposed relatives preserves an aspect of its former SOV structure, since only in SOV languages does RC-Head arise naturally. These two relative-clause orders are illustrated in the following Finnish examples:

RC-Head:

11)  huomas-i-n kova-lla ääne-llä puhu-va-n miehe-n
     notice-PAST-I hard-BY voice-BY speak-PRES.PRT-ACC man-ACC

     'I heard the man who speaks with a loud voice'

12)  nä-i-n jok-een aja-nee-n miehe-n
     see-PAST-I river-INTO drive-PAST.PRT-ACC man-ACC

     'I saw the man who drove/has driven into the river'

Head-RC:

11')  huomas-i-n miehe-n joka puhu-u kova-lla ääne-llä
      notice-PAST-I man-ACC REL.PRON.NOM speak-3RD.PRES hard-BY
          voice-BY

      (same meaning as 11)

12') nä-i-n miehe-n joka ajo-i jok-een
     see-PAST-I man-ACC REL.PRON.NOM drive-PAST river-INTO

(same meaning as 12)

These preposed RCs are conservative in another way as well;
they preserve OV word order in spite of the SVO of main clauses,
as seen in the following examples:

13)   vet-tä juo-va mies läht-i pois
      water-PART.SG drink-PRES.PRT.NOM man.NOM.SG. leave-PAST away

      'the man who drinks water went away'

14)   nä-i-n vet-tä juo-nee-n miehe-n
                    O          V
      see-PAST-I water-PART-SG drink-PAST-PRT-ACC.SG man-ACC.SG

      'I saw the man who drank/had drunk water'

15)   nä-i-n naise-n näh-nee-n miehe-n
                    O        V
      see-PAST-I woman-ACC.SG see-PAST.PRT-ACC.SG man-ACC.SG

      'I saw the man who saw/had seen the woman'

Thus, while Finnish has innovated the postposed relatives
with relative pronouns and finite verb forms consistent with its
SVO basic word order, it is conservative in both maintaining the
alternative RC construction, which could only originate in an SOV
language, and in retaining OV order within that RC.


## 4.    Grammaticalization

It is frequently claimed that a (if not the) major mechanism
of syntactic change is the bleaching of lexical items and pragmatic
devices, pressing them into full and conventionalized grammatical
services, hence the name 'grammaticalization'. I will consider a
few examples of related claims.

## 4.1. The source of 'futures'

Bybee and Pagliuca (1985) claim that grammatical 'futures' in the world's languages arise always from limited sources, from verbs of 'desire' (e.g. will), 'movement' (e.g. going to), and from 'possession' ('have/become', not grammaticalized in English). Finnish may be well on its way to conforming to their claim. Thus while Finnish has no real 'future' tense, a construction in which the verb tulla 'to come' plus another verb in the third infinitive illative case signals 'future', e.g.:

16)   eräänä päivänä tule-n osta-ma-an uude-n talo-n
      some day come-I buy-3RD.INF-ILLATIVE new-ACC.SG house-ACC.SG

      'some day I will buy a new house'

## 4.2. Other grammatical morphemes

Givón (1984:48), among others, claims that the general process by which grammatical morphemes come about is:  grammatical morphemes eventually arise out of lexical words, by a parallel process of semantic bleaching and phonological reduction.  Thus, in the instance of the 'future' just seen, the semantic meaning of 'to come' is being bleached in this construction, leaving the grammatical morpheme meaning 'future'.  Other Finnish cases seem to conform to this claim.  For example the verbs of obligation (modals in English, 'must, should, ought to') in Finnish are also from former main verbs whose semantic content is bleached, leaving them in a grammatical function unlike their original senses.  Some examples are (all require subjects to be in the genitive case, direct objects (if present) in the nominative or partitive case):

    tulee      'must' (otherwise 'come')
    pitää      'must' (otherwise 'hold')
    täytyy     'must' (originally but no longer 'to be filled')
    tulisi     'should' (otherwise 'would come')
    pitäisi    'should' (otherwise 'would hold')

## 4.3. Boundary loss and 'morphologization'

Another kind of 'grammaticalization' involves the change by which independent words become bound morphemes. Langacker's (1977:102) 'signal simplicity' includes such frequent changes whereby word

boundaries are reduced, resulting in former words becoming clitics or bound morphemes.  He says:

> I think the tendency toward signal simplicity is an undeniable aspect of the evolution of natural language. Not only are all these kinds of change massively attested, but also they are largely unidirectional.  Boundary loss is very common, for instance, but boundary creation is quite uncommon by comparison.  Words are frequently incorporated as affixes, but affixes show no great tendency to break away and become independent words.  (Langacker 1977:104) (Cf. also Givón 1971, 1984:19, 93).

Finnish and related languages have abundant examples illustrating this grammaticalization by loss of word boundary.  I will consider only the development of case morphemes from postpositions.

In several instances, unstressed postpositions became cliticized to a preceding nominal form, eventually losing their independent status, and ultimately becoming case suffixes.  Status as a case suffix is shown unequivocably when they come to be borne by adjectives as markers of case agreement with the case of head nouns, and when their vowels harmonize with the vowels of the root to which they have become attached.

The full trajectory from independent (ungrammaticalized) noun phrases to postpositions and on ultimately to case suffixes is well documented in Finnish developments.  The postpositions developed from a constituent containing a noun 'head' (usually in the genitive case) with a noun modifier or attribute (often bearing locative case endings) used adverbially, e.g. Finnish talo-n ede-ssä [house-GEN front-IN] 'in front of the house'.  Postpositions developed out of the relationship between the main word and its nominal attribute, as seen in the still ambiguous Finnish example: lapse-n rinna-lla [child-GEN chest-ON], meaning either 'on the chest of the child', the literal reading with 'child-GEN' as an attribute to the head noun 'chest-ON', or 'beside the child/side by side with the child' (cf. Eng. 'abreast of'), where 'chest-ON' has been reinterpreted as a locative postpositional governing genitive case, with 'child-GEN' as the object of the postposition.  The development from noun to postposition is evident with pronominal attributes, which are signalled by possessive pronominal endings suffixed to the etymological noun root + locative case endings, e.g. rinna-lla-ni [beside-ON-MY] 'beside me'.

Cases develop from postpositions when the postposition is felt to be so closely connected to its attribute noun that together they are reinterpreted as one word; semantic and morphophonemic changes often take place which conceal the word boundary and change the status of the elements, resulting in new case suffixes. This is especially clear in Finnish dialects, where some show the development to cases while others preserve the postpositions. Standard Finnish has the postposition kanssa 'with' (with dialect shapes of kans, ka:s, kah, etc.), e.g. lapse-n kanssa [child-GEN with] 'with the child'. In several Upper Satakunta and Savo dialects, however, this has developed into a 'comitative/instrumental' case, -ka(h), -ka:n, e.g. isänka 'with father' (isä 'father'; koiranka:n 'with the dog', koira 'dog') (Kettunen 1930:29, Oinas 1961; cf. also Comrie 1980, Givón 1971, 1984, Langacker 1977).

It is important to point out that while such 'grammaticalizations' are typically unidirectional and irreversible (as so often is pointed out, cf. Langacker .1977:104, Vincent 1980:58), this is by no means absolute. Cases exist where bound morphemes come to be segmented and become independent words. One example is found in Lapp dialects (Northern, Itä-Enontekio, and Kola Lapp), where the suffix -taga 'without' has become an independent word (Nevis 1985).


5.   Lexical Diffusion

Many syntactic changes described in recent literature are relatively 'localistic', i.e. have to do with changes in the syntactic properties of individual lexical items, for example, a verb changing the kind of complements it permits (cf. Langacker 1977 for several examples). It is claimed that some syntactic changes occur primarily by gradual diffusion through the lexicon (cf. Naro and Lemle 1976). This is comparable to Givón's (1984:57) iconicity principle: semantic, propositional and/or discourse-pragmatic features that are closely associated with each other also tend to co-lexicalize.

A subvariety of this claim is the 'principle of synonymy' (Ard 1975:75): synonymous lexical items tend to have the same syntactic privileges of occurrence. That is, they tend to occur in the same underlying structural configurations and be subject to the same syntactic rules. Finnish presents examples which fall into this class of change. As seen above, Standard Finnish grammar requires the so-called 'third infinitive' in the illative case with main verbs of motion, the first infinitive otherwise, e.g.:

17)  tulee puhu-ma-an
     comes speak-3RD.INF-ILLATIVE

     'come to speak'

18)  haluaa puhu-a
     wants speak-1ST.INF

     'wants to speak'

There is also a sizable number of verbs with no concrete meaning
of motion, but which nevertheless govern 'third infinitives', e.g.:

19)  rupeaa puhu-maan        'begins to speak'
     pyrkii puhu-maan        'strives to speak'
     pystyy puhu-maan        'is able to speak'

In Vermland and Häme dialects some of these have shifted to govern
'first infinitives', based on analogy with other verbs of similar
meaning which have the first-infinitive pattern, for example:
rupeaa puhu-a (cf. alkaa puhu-a 'begins to speak'), pyrkii puhu-a
(cf. yrittää puhu-a 'tries to speak'), while others have remained
with 'third infinitive' complements (Saukkonen 1984:182-3). The
pattern is clear, but the change is sporadic, involving lexical
diffusion one verb at a time, based on synonymy.

     One can wonder, naturally, about the explanatory strength of
the synonymy principle, since, presumably if it were very powerful,
Standard Finnish would not maintain its different syntactic patterns
for synonymous verbs, the dialects' (piecemeal) elimination of
which the principle is supposed to explain.


6.   Syllable and Morpheme Boundary Coincidence

     Part of Langacker's notion of transparency is 'boundary coinci-
dence', the claim that changes will follow the tendency for boundaries
to coincide--in particular, for morpheme boundaries to occur at
syllable boundaries rather than in the middle of a syllable (Langacker
1977:66, 111). While this claim, as a tendency, may have considerable
merit, changes in Finnish have frequently gone against it. For
example, several Finnish cases have evolved by amalgamating formerly
distinct locative endings, e.g.:

-ltA      'from (external)',    (< -1 'locative', -tA 'ablative')
-stA      'from (internal)',    (< -s 'locative', -tA 'ablative')
-llA      'on, by (external)'   (< -1 'locative', -nA 'in, on')
-ssA      'in (internal)'       (< -s 'locative', -nA 'in, on')
(cf. Hakulinen 1968, Korhonen 1981a, 1981b).

These morphemes were formed in spite of the fact that their boundaries
do not coincide with syllable boundaries. For example, in _talo-sta_
'from the house', with syllable boundaries (shown with a 'dot')
[ta.los.ta], the syllable boundary falls inside the morpheme (-_s.ta_),
and the morpheme boundary comes inside a syllable (_lo-s_).


## 7.   Conclusions

It is clear for the discussion of syntactic changes in Finnish
that several theoretical claims are not well founded at all, given
Finnish counter-examples. Other claims, on the other hand, while
perhaps at times imprecisely formulated, prove useful for an under-
standing of certain Finnish changes. Future research might well
occupy itself with the issue of determining to what extent these
uncontroverted claims are explanatory as opposed to being merely
descriptive metaphors.


### ABBREVIATIONS

| | |
|---|---|
| ACC | accusative |
| ADJ | adjective |
| ADV | adverb |
| AMS | Adjective-Marker-Standard (comparisons) |
| GEN | genitive |
| H-RC | Head-Relative Clause |
| INF | infinitive |
| NOM | nominative |
| PART | partitive |
| pas, PASS | passive |
| PPP | past passive participle |
| PL | plural |
| PRES | present |
| PRT | participle |
| RC | relative clause |
| RC-H | Relative Clause-Head |
| REL.PRON | relative pronoun |
| SG | singular |
| SMA | Standard-Marker-Adjective (comparisons) |

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# SUBJECTIVE AND OBJECTIVE RELATIVE CLAUSES IN WARAO

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## ABSTRACT

Warao is a basically O-initial, solidly V-final language, which does not case-mark nominal constituents (Romero-Figueroa 1985a, 1985b). As a result of such typological characteristics, this language offers complex syntactic constructions very difficult to process. However, Warao has developed mechanisms intended for alleviating the burden in message encoding and decoding tasks. Its relative clauses provide an example of sophisticated, yet clear-cut, disambiguating operations. They involve a network of morphophonological and syntactic clues that leads to unequivocal semantic interpretations, and that allows the speaker of the language ° to know which particular language item is taking part in relativization within any string of discourse. Part of this paper is devoted to the description and explanation of these phenomena. Further, the strategy of relativization used by the language, and the noun phrase accessibility to relative clause formation are discussed. Finally, a brief analysis of free relative nouns (or relative clause-based nominalizations), constructions that seem peculiar to this language, is presented.

## 1. Introduction

As a language which is basically O-initial, V-final and does not case-mark nominal constituents (Romero-Figueroa 1985a, 1985b), Warao offers complex constructions which are very difficult to process. The language processes however some mechanisms which alleviate the burden in the task of encoding and decoding messages. The relative clauses of Warao provide an example of sophisticated, yet clear-cut, disambiguating operations. They involve a network of morphophonological and ·syntactic clues leading to unequivocal semantic interpretations. Part of this paper is devoted to the description and explanation of these phenomena. We further discuss the strategy of relativization used by this language, and the noun phrase accessibility to relative clause formation. Finally, we

present a brief analysis of free relative nouns (or relative clause-based nominalizations), constructions that seem peculiar to this language.


2.  Warao Basic Syntax

    A review of the syntax of the basic sentence of Warao provided in this section will facilitate the understanding of how relativization works in the language.  Warao is an OSV (Object[1], Subject, Verb) language, this syntactic arrangement being found in major sentence types such as those illustrated in (1) to (3) below:

    TRANSITIVE OSV
(1)  a.    erike hube  abanae
           Henry snake bit
           'A snake bit Henry'
           (Romero-Figueroa 1985a)

     b.    hu     tira  konae
           basket woman brought
           'The woman brought the basket'

     c.    ma wa    ine nonate
           my canoe I   will dig out
           'I will dig out my canoe'

    (TRANSITIVE) DATIVE OSV
(2)  a.    ma saba tai  rieko dibunae
           me to    that Diego said
           'Diego said that to me'
           (Romero-Figueroa 1985a)

     b.    wauta          saba domu mokomoko haburi          moae
           Wauta (myth.) to   bird little    Haburi (myth.) gave
           'Haburi gave the little birds to Wauta'

    OBLIQUE OSV
(3)  a.    ma hanoko atamo ine naoya
           my house  from  I   come
           'I come from my house'
           (Romero-Figuero 1985a)

b.   daka     aiamo hebu   Kahiro hakabuae
     brother after spirit Kahiro ran
     'Spirit Kahiro ran after (his) brother'

Nevertheless, structural arrangements different from OSV are
also often found in the language.  It is common in Warao discourse
to leave out O's whose referents have been established earlier.
Since the person of the object of transitive verbs may be marked
in the verb, transitive sentences occur frequently with the verb
and the subject only.  For instance, (4a) below may be reduced as
in (4b):

TRANSITIVE OSV
(4)   a.   ma hi    rakoi   ahiae
           me your sister hit
           'Your sister hit me'
           (Romero-Figueroa 1985a)


TRANSITIVE SV
b.    Ø hi     rakoi   m- ahiae
         your sister me hit
      'Your sister hit me'
      (Romero-Figueroa 1985a)

Additionally, stative sentences in Warao nearly always are subject
initial, showing mostly S-COMPL.(ement)-COP.(ula) order.  Further,
ta-kitane and ha-kitane (lit.) 'be-INFINITIVE' to 'to be', the two
items denoting COP., may be deleted giving rise to S-COMPL. order.
The example below illustrates the case:

STATIVE S-COMPL.-COP.
(5)   a.   tai  tira  burebaka  ha/ta
           that woman insane     is
           'That woman is insane'

STATIVE COMPL.
b.    tai  tira  burebaka  Ø
      that woman insane
      'That woman is insane'
      (Romero-Figueroa 1985a)

Warao permits further variations from the basic OSV.  Such
variations are sometimes syntactically, at other times stylistically
motivated.  For instance, the fronting of any questioned constituent

is a dominant device for question formation in the language. If
the questioned constituent is the subject, then the sentence will
show SOV order. The fronting of the subject is also a resource
often used for stylistic purposes--for example, to highlight infor-
mation. Thus, it is frequent to find sentences having SOV order,
such an order being of course marked since it is intended for
requesting (questioning) or providing by highlighting "new information"
(focusing). Frequently, given a kind of "staging relationship"
that operates in discourse (Grimes 1975) (constituents of sentences,
paragraphs, and episodes are re-arranged once a particular constituent
has been focused by fronting), other constituents of the sentence
may be also moved. In Warao, this is particularly true of the most
peripheral obliques within a sentence. Thus, a sentence such as
(6a) below may undergo subject fronting (focusing of the subject)
as in (6b):

(6) a.    ho    amukoho dau    arai warao isaka tobotiayata
          water by        trunk on          one   was sitting
          'A certain Warao was sitting on a tree trunk by the river'
          (Vaquero 1965)

    b.    warao isaka dau    arai tobotiayata ho      amukoho
               one    trunk on   was sitting water by
          '(It was) a certain Warao (who) was sitting on a trunk
          by the river'

In (6b), ho amukoho 'by the river', one of the obliques, has been
relocated in sentence final position probably because as one of
the packages of "old information" in the sentence (as opposed to
warao isaka 'a certain Warao' which is the highlighted new infor-
mation), the speaker has considered it as secondary or unimportant
enough as to be side-staged or placed far from the center of the
stage now occupied by warao isaka 'a certain Warao'. (See Romero-
Figueroa 1985a).


3. Relatives in Warao

     From a cross-linguistic perspective, the distinction between
restrictive (henceforth rc) and non-restrictive (henceforth n-rc)
clauses within relative clauses (henceforth RC) appears to be
irrelevant. Such a distinction seems to represent, above all, a
trait of the Indo-European family of languages. In some Indo-
European languages such as English, Spanish, Farsi, etc., rc's and
n-rc's are not very different from a syntactic point of view; in

most cases n-rc's are just set off from main clauses by intonational
breaks, indicated orthographically by commas; in a few instances
n-rc's are marked by inflections on the head noun (henceforth head
N), as in Farsi and other western Iranian languages. Nevertheless,
in all these languages, rc's and n-rc's signal important differences
in meaning. Comrie (1981:132) points out that

> they are radically different in semantic ... terms,
> in particular in that the restrictive clause uses presupposed
> information to identify the referent of a noun phrase,
> while the non-restrictive relative is a way of presenting
> new information on the basis of the assumption that the
> referent can already be identified.

Comrie notes (1981:132) that the semantic values associated
with rc's and n-rc's in the Indo-European languages are absent in
most languages of the world. Despite the scarcity of languages·
having rc/n-rc distinction, Comrie finds that most definitions of
RC in the current typological literature are Indo-European biased
since they have been formulated to accommodate such a distinction.
As a result, RC research in languages of other families necessarily
has to contend with such an alien factor. In order to avoid incon-
veniences that definitions based upon language-specific syntax add
to the investigation of RC patterns, and to cover as many RC types
across languages as possible, Comrie (1981:136) gives a characteri-
zation of the prototypical RC rather than a definition of it based
on a set of necessary and sufficient conditions for its identification.
Assuming that rc's are more central to the notion of RC than are
n-rc's, Comrie (1981:136) argues that an RC consists necessarily
of a head N and a rc. He adds that N in itself has a certain
potential range of referents, but the rc restricts this set by
giving a proposition that must be true of the actual referent of
the overall construction.

The analysis of Warao RC's which follows adopts Comrie's
characterization of RC. Sentences (7-8) below contain two sets of
RC's. The first set illustrates RC in the OSV sentence, the basic
order of the language (Romero-Figueroa 1985a); the second set
exemplifies RC in the stative sentence, which consistently exhibits
S-COMPLEMENT-COPULA order:

OSV

(7) a.  yatu     [tai      <sub>N</sub>] [náo  -ya  HAKOTÁI      <sub>rc</sub>] na   -te
        you.PL   that(one)      come PRES. RELATIVIZER         kill FUT.
                                (coming)

        'That one (that) comes will kill you (pl.)'
        'The coming one will kill you (pl.)'
        (Barral 1979:176)

    b.  [tai      <sub>N</sub>] [nao -yá  -HA KOTÁI      <sub>rc</sub>] na   -kotu
        that (one)     come PRES. RELATIVIZER         kill IMP.2p.PL
                       (coming)

        'You (pl.), kill that one (that) comes'
        'You (pl.), kill the coming one'
        (Barral 1979:176)

    c.  [hotarao                 <sub>N</sub>] [erehisá   -HA  KOTÁI  <sub>rc</sub>] tatuma
        non-Warao person              steal        RELATIVIZER      they
        (Venezuelan criollo)        (stealing)

        yewere  -ae
        punish  PAST

        'They punished the criollo (that) stole'
        'They punished the stealing criollo'

    d.  [warao <sub>N</sub>] [boyabá    -HA  KOTÁI  <sub>rc</sub>] dosiarao    konaru
                   get drunk RELATIVIZER       authority   take away
                   (drunk)                     (policeman)

        -ae
        PAST

        'The policeman took away the Warao (that) got drunk'
        'The policeman took away the drunken Warao'
        (Barral 1979:176)

e.    ma saba [tai    <sub>N</sub>] [yaot    -aé   -HA KOTÁI    <sub>rc</sub>]
      me for    that (one)      work       PAST  RELATIVIZER
                                (working)

      ma isiko noa  -kunarae
      me with   come IMP.3p.PL

      'Let those who worked for me come with me'
      'They, come with me the working ones'
      (SP.) 'Que vengan conmigo los que trabajaron para mi'
      (Vaquero 1965:157)

S-COMPLEMENT-COPULA

(8) a.    [tai  waniku <sub>N</sub>] [nahamutu arai oko mí  -ya
          that moon            clouds    over we  see PRES.
                                                    seen
                                                    (visible)

      HAKOTÁI    <sub>rc</sub>] wabu  ha      yama
      RELATIVIZER    mouse COPULA HEARSAY

      'It is said that that moon (that) we see over the clouds
      is a mouse'
      'It is said that the seen (visible) moon over the clouds
      is a mouse'

b.    [tai    <sub>N</sub>] [wa    -eku nabaká -ya   HAKOTÁI    <sub>rc</sub>]
      that (one)      canoe  in   arrive PRES. RELATIVIZER
                                  (arriving)

      ma- rahe          ha
      my  older brother COPULA

      'That one (that) arrives in the canoe is my older brother'
      'The canoe-arriving one is my older brother'

c.    [tai  tahiramo <sub>N</sub>] [hiaka sekohé -ya   HAKOTÁI <sub>rc</sub>]
      that old woman       dress sew    PRES.
                                        (sewing)

      ma- natu        ha
      my  grandmother COPULA

      'That old woman (that) sews the dress is my grandmother'
      'That dress-sewing woman is my grandmother'

(7-8) show that HAKOTAI is the relative marker in Warao. HAKOTAI is essentially a free morpheme. It must be noted, though, that in some contexts part of it becomes a bound morpheme; this matter will be discussed shortly. (7-8) also show that HAKOTAI consistently appears at the end of rc's within RC's. Given that consistent rc-final position, I have assigned HAKOTAI the status of a "post-verbal particle". It is a well documented fact that Warao is solidly V-final, and rc's and RC's are no exception. The behavior of HAKOTAI within rc's lends support to the post-verbal particle status assigned to it: the interaction of HAKOTAI and the corresponding verb within the rc has important phonological, morphosyntactic and semantic implications for Warao relativization.

## 4. Subjective and Objective RC's

By comparing the sentences in (7) to one another, we note morphological changes affecting the relative particle. In (7a), HAKOTAI is a morphemic unit bearing heavy stress on the penultimate syllable [the canonical syllable pattern in Warao is (C)V]. However, in (7b-e), HAKOTAI no longer appears as a morphemic unit. For example, in (7b), HAKOTAI has split into -HA and KOTAI, the -HA portion then becoming suffixed to the verb stem. As a result of the splitting, a shift of stress has taken place in (7b): the heavy stress has moved from the root náo (as shown in (7a) in which -HA suffixation does not occur) to the present tense inflectional morpheme ya, giving rise to the form nao -yá -HA. In (7b), the remaining portion of the relative particle, i.e., KOTAI, has not upset its stress pattern, continuing to bear heavy penultimate stress. Also, in (7a-e), HATOKAI has experienced morphemic splitting and the verb stems have undergone stress shift. Before extending the present discussion to the syntactic and semantic consequences of the morphemic splitting and stress shift operations described in the preceding, some aspects of the suprasegmental phonology of Warao need to be examined.

According to Osborn (1965:114), the predominant pattern of heavy stress in Warao is on the penultimate vowel, antepenultimate heavy stress remaining confined to some onomatopoeic words and ultimate heavy stress to Spanish loans which are heavily stressed in the ultimate syllable in that language. In conformity with Osborn's observation above, I have found that heavy stress almost without exception falls on the second syllable from the end in disyllables, trisyllables and polysyllables. Monosyllables generally bear heavy stress if their syllable pattern is CV, and weak stress if

the syllable pattern is V.  In some cases monosyllables are completely
unstressed.   Further, I have noticed that heavy stress in Warao
often shifts to the right in search of penultimate syllables once
roots take inflections.  This displacement obviously occurs across
morphemic boundaries.  An example of Warao stress shift is provided
in (9) below:

(9)   nahóro-

    nàhoró   -ya             'you eat'
    nahòro   -náha           'you do not eat'
    nàhorò   -nahá   -ra     'don't you eat?'

The marking of weak stress in (9) is based on Osborn's (1965:115)
account:   in Warao words, alternate syllables are stressed with
weaker secondary stress, counting back from the heavily stressed
syllable, and syllables not stressed with heavy stress or weak
stress are unstressed.

In view of these phonological patterns, the two possible
morphological realizations of the Warao relative particle, namely
HAKOTAI and -HA KOTAI, are recognizable on the basis of the stress
shift that the latter realization provokes on verb stems within
rc's.  Let us now return to the syntactic and semantic consequences
of the splitting and shifting operations.

Close examination of (7-8) reveals that the HAKOTAI realization
occurs in rc's with RC's which have head N's acting as subjects of
main clauses, whereas the -HA KOTAI realization takes place in
rc's within RC's which have head N's performing as objects of main
clauses.  This syntactic distinction between subjective and objective
RC's in Warao is exclusively dependent upon the morphophonological
phenomena of relative particle morphemic splitting and verb stem
stress shifting already described.

It may be logical for Warao, which is O-initial, V-final and
does not case-mark nominal constituents, to have developed the
above-mentioned network of morphophonological and syntactic clues
to reduce message processing difficulties in complex constructions
such as those containing RC's.  It is my contention that in the
absence of such a network of clues RC's would be extremely hard to
encode and decode in the language.  I have found that the HAKOTAI/-HA
KOTAI dichotomy is the only factor making unequivocal a message
such as that conveyed in (10) below:

(10) [ [muana        -tuma a    mehokohi ~N~] [ha      HAKOTÁI ~rc~] ~N~]
         dead people PL    GEN. soul                COPULA
                                                    (being)

     [rapo ekirá -ya   HAKOTÁI ~rc~] hebu    karibe kuba    -komoni
      knife lack PRES.                goblin Carib  murder MOD. NEG
             (lacking)

'Those (that) are the souls of the dead people (that) lack knives
cannot murder Carib goblins' (Mythol.)
'Those being the souls of the dead people lacking knives cannot
murder Carib goblins'

(10) is a transitive sentence showing SOV order because S has been
fronted possibly to avoid the O hebu karibe 'Carib goblins' losing
relevance by becoming isolated before the lengthy and complex
sequence of RC's muanatuma a mehokohi ha hakotái rapo ekiráya
hakotái 'those (that) are the souls of the dead people (that) lack
knives'. Here, S fronting may be thought to have acted as a meaning-
preserving mechanism, though it might have been also intended for
highlighting the information contained in the RC's since FOCUS
FRONTING is a very common movement in Warao (Romero-Figueroa 1985a).
Irrespective of the reason for S fronting in (10), its RC's show
the HAKOTAI realization in accordance with the subject roles of
muanatuma a mehokohi 'the souls of the dead people' and muanatwma a
mehokohi ha hakotái 'those (that) are the souls of the dead people'.
In (10), we cannot consider hebu karibe 'Carib goblins' as the
sentential S so that the sentence might express such a meaning as
'the Carib goblins cannot murder those (that) are the souls of the
dead people (that) lack knives'. For such a meaning, in (10), the
rc's rapo ekiráya hakotái and ha hakotái would have been arranged
as ekirayáha kotái and háha kotái.

Although Warao is a language in which O is placed before V (V
is final) in basic sentences, RC's in Warao are not prenominal as
typological classifications would predict.  (7-8) and (10) show
that in Warao rc's follow their head N's; hence, RC's are postnominal.
The existence of postnominal RC's in the language may be attributed
to the fact that the verb stem and the relative particle within
the rc integrate theselves into a unit that behaves as a participle[2].
Participles as extended forms of adjectives are placed.after their
head N's in participial phrases in Warao, as are all other types of
adjectives (numeral, indefinite, possessive, etc.) in other kinds

of phrases in the language. The resulting <u>head N/participle</u> con-
struction holds together in a paratactic relationship. It seems
that this is the only strategy of relativization in Warao.

From the above it follows that Warao RC's underlie participial
phrases. This argument parallels Bach's (1968) concerning English
noun phrases. Bach and Harms (1968:102) point out that noun phrases
in English derive from RC's, particularly if such noun phrases
contain attributive adjectives which, according to them, originate
from the predicates of the RC's. The two glosses offered for each
of the examples so far examined reflect the RC/participial derivational
relationship indicated in the preceding lines. In this regard,
Vaquero (1965:66) points out in his discussion of RC's that "the
relative <u>kotai</u> is placed immediately after the secondary verb [the
verb or the rc], constituting together with it an <u>adjectival form</u>
that modifies the antecedent [noun]". Vaquero illustrates his
point of view with the example in (11) below:

(11) domu naria hakotai mikitane naokotu
     bird flies          to see   come
     (Vaquero 1965:66)

Vaquero indicates that (11) means 'Come to see the bird that flies'
or 'Come to see the flying bird'. Since Vaquero is not concerned
with <u>morphemic splitting</u> and <u>stress shifting</u>, his orthographic
representations of RC's do not allow us to capture the HAKOTAI/-HA
KOTAI distinction established in my treatment of the matter.

Furthermore, in objective RC's in Warao, there is a possibility
of relativizer reduction by leaving out KOTAI once -HA has been
suffixed to a verb stem. For example, (12) and (13) may be reduced
as in (14) and (15), respectively:

(12) [tai  kuba   -mo $_N$] [naru -yá   -HA KOTÁI $_{rc}$] warao monuka
       that hunter PL.       go    PRES.                        like
                                   (going)

     kuba -kitane    naru -te
     hunt INFINITIVE go   FUT.

     'The Warao will go to hunt like those hunters (that) (have) gone'
     'The Warao will go to hunt like those already gone hunters'

(13)  [wahibaka ~~N~~]  [nabakan -aé  -HA KOTÁI ~~rc~~] naba baribari ebe
       canoe                arrive PAST                wave rocking   because
                           arriving

      wanari  -ae
      flood   PAST

      'Because of the rocking, the waves flooded the canoe (that)
      arrived'
      'Because of the rocking, the waves flooded the arriving canoe'
      (Vaquero 1965:67)

(14)  [tai  kubamo ~~N~~]  [naru          -yá -HA ∅ ~~rc~~] warao monuka
       that hunters         (that) (have) gone                       like
                            (already gone)

      kubakitane narute
      to hunt    will go

      'The Warao will go to hunt like those hunters (that) (have) gone'
      'The Warao will go to hunt like those already gone hunters'

(15)  [wahibaka ~~N~~]  [nabakan       -aé -HA ∅ ~~rc~~] naba baribari
       canoe             (that) arrived                  wave rocking
                         (arriving)

      ebe      wanariae
      because  flooded

      'Because of the rocking, the waves flooded the canoe (that)
      arrived'
      'Because of the rocking, the waves flooded the arriving canoe'

      Turning now to the matter of noun phrase (NP) accessibility to
RC-formation, my data, as well as Barral's and Vaquero's, reveals
that only NP's acting as S and O within rc's are relativizable.
(7a-d) and (8b-c) are examples of relativization upon S within
rc's, (8a) is an instance of relativization upon O within rc's.
Let us illustrate the point with a sentence showing a relativized
S-NP, (7c) for instance, and one having a relativized O-NP, (8a).
A fully expressed surface configuration for (7c) and (8a) would be
as shown respectively in (16) and (17):

(16) [hotarao            $_N$] [∅ erehisá -HA KOTÁI $_{rc}$] tatuma yewerae
     Venezuelan criollo         steal                   they    punished
                                (stealing)


'They punished the criollo (that) stole'
'They punished the stealing criollo'

(17) [tai waniku $_N$] [nahamutu arai ∅ oko miya HAKOTÁI $_{rc}$] wabu  ha
     that moon          clouds   over    we  see                mouse is
                                                 seen
                                                 (visible)

yama
it is said that

'It is said that that moon (that) we see over the clouds is a
mouse'
'It is said that that seen (visible) moon over the clouds is
a mouse'

In (16), the deleted constituent within the rc is S of its clause.
In (17), the deleted constituent within the rc is O of its clause.
During RC formation, at some underlying stage, the empty slots in
(16-17) (identified by ∅) were filled in by hotarao 'criollo' and
tai waniku 'that moon' respectively.  These disappeared from the
RC's at the moment that the rc's adjoined to their referent head
N's.  It is a condition of identity between a particular constituent
NP of the rc and the head N of the RC which makes possible such a
deletion in the relativization process in Warao.


## 5.  Free Relative Nouns

In addition to the classes of RC's so far reviewed, there are
in Warao some relative constructions that function as nominalizations.
I have called them free-relative nouns (henceforth F-rN).  Examples
are provided in (18) to (20) below:

(18) kuabu            (ha)   HAKOTÁI
     pregnant woman   COPULA

'That one (that) is a pregnant women'
'That pregnant woman'

(19) wahabu     -tu      (ha)   HAKOTÁI
     roast    (V) PERFORM. COPULA
     roaster

     'That one (that) is a roaster'
     'That roaster'

(20) kwa  basa       (ha)   HAKOTÁI
     head square     COPULA
     square-headed

     'That one (that) is square-headed'
     'That square-headed one'

     R-rN's as those above are often used by Warao speakers to identify
absent third persons.  This particular usage of F-rN's has a social
correlate.  Warao communities generally consist of a small number
of related individuals.  Thus, two speakers· always address one
another by the kinship term that holds between them.  The use of
kinship terms to address one another·in actual conversational
exchanges is the sole alternative in view of the Warao taboo that
no one may be called by his/her name.  The Warao believe that
calling the name of someone may bring into the caller the spirit
of any dead Warao who may have happened to have borne the same
name.  The Warao fear the spirits of the dead because they believe
that these are destructive and trigger illnesses and death.   In
the case of a third person not within talking distance, or not related,
this person is identified by indicating one of his/her physical
features, either temporary or permanent, or one of his/her commonly-
performed activities within the community.

     A characteristic common to all F-rN's in (18-20) is that they
involve the copula ha, to which such a wide variety of meanings as
'be', 'have', 'become', 'appear', etc., may be assigned.  Also,
all the F-rN's in (18-20) are characterized by the optionality of
the copula.  In Warao statives, which always show S-COMPLEMENT-
COPULA order, the copula is often deleted, giving rise to S-COMPLEMENT
arrangements.  See for example (5) above, or (21) below:

Stative S-COMPLEMENT-COPULA
(21) homakaba yakera ha/ta
     fish     good   is
     'The fish is good (fresh)'

(21) may be reduced as in (22):·

Stative S-COMPLEMENT
(22) homakaba yakera  ∅
     fish       good
     'This fish is good (fresh)'

(21-22) may be thought to be different only in social terms.  The
absence of the copula in (22) may be a feature of informal speech
(but this remains to be verified).  In stative rc's, it is very
likely that the presence or absence of the copula in (18-20) has a
social motivation such as the one suggested for (21-22).  The data
strongly suggest that only stative-based RC's may function as
F-rN's.  F-rN's with deleted copulas are also much more common than
those with overtly expressed ones.  Some examples of F-rN's in
context are given below:

(23) [ [nibora   N] [∅ HAKOTAI  rc] F-rN] hisanika du         -ya
       husband                           alone    look for food PRES.

     'The one (that) is a husband looks for food alone'
     'That husband looks for food alone'

(24) noko   -kore      ayamo      [ [hebu   N] [∅ HAKOTAI  rc] F-rN]
     listen SUBJUNCT.  in back of    spirit

     nao  -ya
     come PRES.

     'Once (it) listens in the back, the one (that) is a spirit comes'
     'Once (it) listens in the back, that spirit comes'

In the F-rN's (18-20) and (23-24) that have been interpreted
here, HAKOTAI acts as a demonstrative adjective that follows its
head.  The overall construction behaves syntactically as any NP in
the language, or perhaps in most languages.

Finally, (23-24) as well as all the other examples in the data
indicate that only subjective RC's underlie F-rN's.  This seems to
be an expected pattern because subjective RC's do not involve the
morphophonological phenomena (morphemic splitting and stress shift)
that have been shown to occur in objective RC's.  It appears that
it is HAKOTAI, and not KOTAI, which may function as a demonstrative
adjective.  Barral in his dictionary (1979:176) enters both jakotai
(HAKOTAI) and -ja kotai (-HA KOTAI), the former as the form to be
used when the relative construction is the subject in the main
clause, the latter when the relative construction is non-subject in

the main clause. Further, Barral (1979:176) enters <u>jakotai</u> (HAKOTAI)
again, as a demonstrative adjective meaning 'that' and 'those'.
Nevertheless, Barral (1979:268) cites <u>kotai</u> (KOTAI) only as the
Warao relative pronoun meaning 'that', 'that one that' and 'those
ones that'; he does not give KOTAI as a demonstrative adjective.


6. <u>Conclusions</u>

It appears possible to set up an inverse relationship between
the degree of explicit case-marking and the degree to which languages
develop mechanisms that allow speakers to recover grammatical
functions: the less highly developed the case system of a language,
the more increased the likelihood that alternative disambiguating
devices will be found. In the case of Warao, the interpretive
difficulties brought about by the lack of subjective and accusative
markers are overcome in RC's by means of such a clue as <u>morphemic
splitting</u> and <u>stress shift</u> within rc's. These relativization
clues unmistakably identify the RC subject and/or object in any
overall construction, thus ensuring accurate decoding.

On the other hand, in addition to the RC's of Warao the cases
of RC's in some other O-initial languages spoken in northeastern South
America (for example OVS Hixkaryana, and OSV Apurinà and Urubú)
strongly suggest that <u>head N/rc</u> paratactic adjoining is the only
relativization strategy found in this group of languages having initial
objects:

> <u>OVS</u> (Hixkaryana)
> (25) nomokno harha [(xofrye) $_N$] [kanihnohnyenhiyamo                 $_{rc}$]
>      he-came back    (sloth)       one-who-destroyed-us (incl.)
>
> 'The sloth who was destroying us all has come back'
> 'The one who was destroying us all has come back'
> (Derbyshire 1979)
>
> <u>OSV</u> (Apurinà)
> (26) pixena anakory ny-syka-ro  -ko [atakoro $_N$] [nota nyrekaka-na
>      cat    litter I give her  will girl           I    want       them
>
> sakiretakaro $_{rc}$]
> said-who
>
> 'I will give the kittens to her, the girl who said "I want them"'
> (Pickering 1973)

<u>OSV</u> (Urubú)
(27) [pira $_N$] [muka'e $_{rc}$] ihe a'u
     fish      he-roast       I   ate

'I ate the fish that he roasted'
(Kakumasu 1976)

In O-initial languages, moreover, the presence of postnominal
RC's appears to be a common trait that cuts across both genetic
affiliations and basic work order typology.  All these trends, of
course, need to be further investigated.


## ABBREVIATIONS

| | |
|---|---|
| PRES. | PRESENT |
| FUT. | FUTURE |
| 2.p. | SECOND PERSON |
| 3.p. | THIRD PERSON |
| PL. | PLURAL |
| IMP. | IMPERATIVE |
| SUBJUNCT. | SUBJUNCTIVE |
| GEN. | GENITIVE |
| MOD. | MODAL |
| NEG. | NEGATIVE |
| PERFORM. | PERFORMATIVE |
| HEARSAY | BY HEARSAYING |


## ACKNOWLEDGEMENTS

Dakota) who, based upon his experiences with several northern South American O-initial languages, gave me valuable advice. All mistakes are my own.

## FOOTNOTES

[1] Most linguists assume without question that all languages have objects. As in the majority of studies concerning word order, I have considered that the entity that looks like an object is semantically patient. Starosta (1978:472) defines patient in the following way:

> 'I will define patient as the fundamental case relation. Depending on the verb class with which it co-occurs, this in turn can mean (a) the entity which is viewed as affected by the action of the verb (b) the entity which is viewed as moving or as being located in (abstract or concrete) space, or (c) the entity which is viewed as existing, in a state...'

[2] -ha is the past participle marker in Warao. Generally, -ha is added after -ya, the present tense marker. In some cases, however, -ha may be found attached to verb stems directly. These two different morphological configurations seem to correlate respectively with the adjectival and verbal functions which may be attributed to passives in the language. It is my conclusion that the rc relates to its head N within the RC in the same way as a participial adjective ending in -ha does to its N within any NP. Participles in Warao may behave as true adjectival verb forms (similar to those of English or Spanish).

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VERS UNE PHONOLOGIE LEXICALE NON-LINEAIRE:  UN EXPOSE
DES DEVELOPPEMENTS RECENTS EN PHONOLOGIE GENERATIVE

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RESUME


        Cet article se penchera sur les remaniements théoriques survenus
entre 1975 et 1985 qui ont fait évoluer la phonologie générative
linéaire des années 1970 en une phonologie non-linéaire ou tri-
dimensionnelle, représentative des travaux récents en phonologie.
Du côté "représentations phonologiques", nous traiterons parti-
culièrement de l'avènement de la théorie autosegmentale et des
diverses approches proposées pour l'intégration de la syllable en
phonologie.  Finalement, nous nous pencherons sur l'interaction
morphologie/phonologie en présentant un remaniement au niveau des
composantes grammaticales, le développement de la Phonologie Lexicale.
Nous concluerons en notant l'état actuel des recherches en 1986.

1.    Introduction

        Dans cet article nous ferons l'historique des développements qui
ont fait évoluer la phonologie générative linéaire des années 1970
en une phonologie non-linéaire, représentative des travaux récents
en phonologie[1].  Ces modifications à la théorie "standard" de la
phonologie, telle qu'exposée principalement dans The Sound Pattern
of English (Chomsky et Halle 1968) (dorénavant SPE), seront présentées
dans l'ordre suivant:  la section 2 traitera du changement dans la
conception des représentations phonologiques et du développement de
la théorie autosegmentale; dans la section 3, nous nous pencherons
sur le statut théorique de la syllabe en explorant quelques questions
soulevées par la théorie syllabique et diverses réponses proposées;
la section 4 étudiera la nature, le rôle et la justification empirique
du squelette, élément central des représentations tri-dimensionnelles;
dans la section 5, nous bifurquerons vers un autre aspect des
modifications théoriques récentes qui ne concerne pas la nature des
représentations en tant que telle mais plutôt l'organisation de la
grammaire et présenterons le modèle de la phonologie lexicale.

## 2.   La théorie autosegmentale

Depuis Jakobson, le phonème n'est pas l'élément distinctif minimal,
il est plutôt une agglomération d'unités distinctives plus petites:
les traits phonologiques. Dans SPE, cette agglomération est représentée
formellement par un ensemble de traits contenus à l'intérieur de
matrices qui sont placées les unes à côté des autres dans un arrangement
linéaire.

Au début des années 70, des études sur les langues à tons (Leben
1971; Williams 1971) ont révélé que le modèle linéaire de SPE ne peut
exprimer de façon adéquate certaines généralisations quant aux
phénomènes prosodiques comme la distribution des tons.  Le modèle
linéaire de SPE, où chaque trait, y compris les traits tonals, est
enfermé dans une matrice voisine d'une frontière ou d'une autre
matrice, se transforme en un autre modèle, dit autosegmental (Goldsmith
1976; Clements 1976).  Dans ce modèle, la représentation linéaire
de SPE est divisée en paliers parallèles contenant chacun un sous-
ensemble des traits phonologiques. Le premier palier, dit segmental
(parfois appelé "coeur" ("core" en anglais)), contient tous les
traits sauf ceux nécessaires aux réalisations tonales, c'est-à-dire
les traits suivants, pour en nommer quelques uns:  cons, syll, son,
ant, haut, post, cont, strid, nas, etc.  Le deuxième palier, dit
autosegmental, contient les traits autosegmentalisés, traits tonals
ou autres. En effet, d'autres phénomènes prosodiques comme l'harmonie
vocalique (Clements 1976) ou la propagation de nasalité (Goldsmith
1976) ont été traités fructueusement dans un modèle autosegmental.

Le type de représentation auquel on arrive dans ce modèle est
tel qu'en (1) et (2) pour les langues à tons et (3) pour les langues
où la nasalité est autosegmentalisée.

Les représentations données en (1) (2) et (3) proviennent de
travaux récents en phonologie autosegmentale. Elles ne correspondent
pas nécessairement aux vues des auteurs qui ont proposé le modèle.
Pour une discussion des différences impliquées, voir Pulleyblank
(1983).

(1)   Tons en japonais (Archangeli and Pulleyblank 1984)

     a)   Représentation sous-jacente

          a ta ma          "tête"               ga         "nominatif"
                |
                H

b)    Représentation de surface

       a  ta  ma  ga          "tête"/nominatif
       |    \/    |
       B    H     B
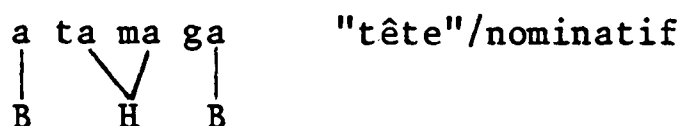
La représentation de (1b) est dérivée de (1a) par diverses règles. On remarque qu'en japonais le ton Haut sous-jacent est lié dans la représentation sous-jacente[2].

(2)   <u>Tons en Margi</u> (Pulleyblank 1983)

      a)    Représentation sous-jacente

            1)   nu    "mouler"        2)   nu + na    "mouler"/affixe

                 B H                        B H

      b)    Représentation de surface

      .     1)   nu                    2)   nəna
                 /\                          |  |
                 B H                         B  H
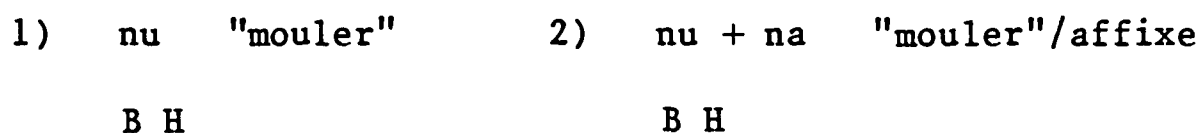
En Margi, la représentation sous-jacente d'un morphème peut consister en segments sans tons, segments et tons ou tons seuls. Ces unités de paliers parallèles ne sont pas liées dans les représentations sous-jacentes. Elles sont associées par Conventions Universelles et par règles.

(3)   <u>Nasalité en Gokana</u> (Hyman 1982)

      a)    Représentation sous-jacente

            dεb          "langue"

            +N

      b)    Représentation de surface

            dε̃b      =      [dε̃m]
              |/
            +N
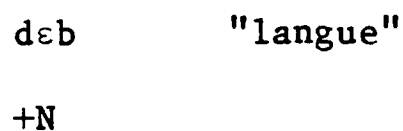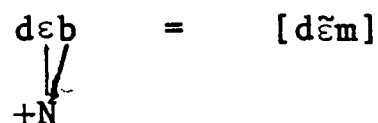
3.    La syllabe

       Dans SPE, il n'y avait aucun moyen de représenter la notion de
syllabe qui n'avait donc aucun statut théorique. Les entrées lexicales
consistaient en suites de segments (matrices de traits), lesquelles
suites pouvaient être délimitées par des frontières encodant des
démarcations de constituants morphologiques ou syntaxiques.

       Dan sons analyse de l'anglais, Kahn (1976) a démontré la nécessité
de pouvoir faire référence à un "domaine" syllabique pour exprimer
plusieurs règles phonologiques. Ceci permet en effet d'unifier le
contexte qui devait, dans le cadre de SPE, être spécifié par un
disjonction $\left\{ \begin{matrix} C \\ \# \end{matrix} \right\}$. L'utilisation d'un modèle où la syllabe est une
entité autosegmentalisée permet d'y faire référence sans avoir
recours à des frontières de syllables ($).

       Une fois la syllabe admise en phonologie générative, les
recherches sur différents aspects de la 'théorie syllabique' ont
foisonné. Nous en exposons quelques-unes ci-après.


3.1  Configuration

       La syllabe n'est-elle qu'un regroupement de segments tous
attachés à un noeud appartenant à un palier différent (approche
autosegmentale de Kahn 1976 et Clements et Keyser 1981), ou a-t-elle
une structure interne?  Cette conception opposée prend racine dans
les travaux pré-générativistes de Pike et Pike (1947) et Fudge (1969).

       Selon cette approche, la syllabe possède deux constituants internes
étiquetés:  l'attaque et la rime (Halle et Vergnaud 1978; Harris 1983;
Steriade 1982).

       Dans d'autres travaux il est proposé que la rime possède également
deux constituants:  le noyau et la coda. Parmi les tenants de cette
approche il y a Kaye et Lowenstamm (1981 et après); Piggott et Singh
(1984) et Selkirk (1982).

       Les constituants de la rime sont controversés:  Harris démontre
qu'ils sont superflus en espagnol et dans Grignon (1985) j'ai argumenté
contre de tels constituants en japonais.  Piggott et Singh (1984)
proposent que cette différence peut constituer un paramètre de la
grammaire universelle (GU):  ne pas les avoir serait le choix le

moins marqué. Cairns et Feinstein (1982) étendent la notion de constituant étiqueté à tout noeud dominant deux branches.


## 3.2  Syllabification

Comment procède-t-on pour syllabifier les segments? On distingue en gros deux approches: la syllabification exhaustive directionnelle et la syllabification par étapes. La première approche conduit à la syllabification de toute la suite de segments en une seule étape. La deuxième approche procède non pas par les extrémités des mots mais plutôt par le centre des syllabes.

En 3.3 je ferai d'abord une description des procédures de syllabification du premier type en exposant les travaux de Kiparsky (1979), Kaye et Lowenstamm (1981 et 1984) et Piggott et Singh (1984), et en 3.4 je passerai au deuximème type où les travaux de Kahn (1976), Harris (1983) et Steriade (1982) seront exposés.


## 3.3        Syllabification exhaustive directionnelle

## 3.3.1      Kiparsky (1979)

Universellement une syllabe est un domaine dans lequel les segments sont organisés en ordre de sonorité croissante jusqu'au sommet syllabique et décroissante après.[3]

Pour obtenir cet effet culminatif, l'algorithme de syllabification procède de gauche à droite en comparant les segments deux à deux et en les étiquetant 'faible' (W) (pour angl. "weak") et 'fort' (S) (pour angl. "strong"). Le segment fort est le segment le plus sonore des deux en se basant sur la hiérarchie de sonorité suivante:

(4)  Hiérarchie de sonorité (Kiparsky 1979)

    moins sonore -------------------------------------> plus sonore

    occlusives, fricatives, nasales, liquides, glissantes, i, u, e, o, a

    Illustrons la procédure en syllabifiant "flasque" au numéro (5). La notation < veut dire 'est moins sonore que', et >, 'est plus sonore que'.

(5)  Flasque

    a)    Etiquetage par comparaison de sonorité

        f < l     donc     w s

        l > a     donc      w s

        a < s     donc        s w

        s > k     donc         s w

    b)    Structure branchante
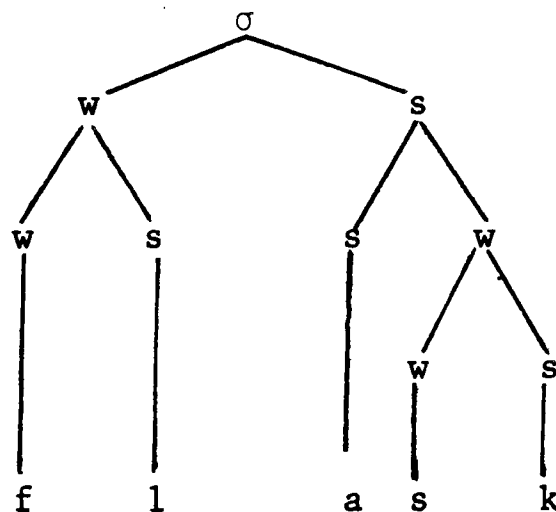


       A cet algorithme universel doit cependant s'ajouter de l'information spécifique à chaque langue.  Kiparsky mentionne deux types:

1)    Permission de violer (localement) la hiérarchie de sonorité.

2)    Procédure à suivre pour les groupements consonantiques internes.

La permission de 1) est nécessaire pour pouvoir rendre compte du grand nombre de mots commençant par une fricative (plus souvent 's') suivie d'une occlusive, comme dans le mot "ski".  Ce mot aura donc la syllabification donnée en (6).  La suite encadrée constitue une violation permise par la grammaire d'une langue spécifique.

(6)   "<u>ski</u>"
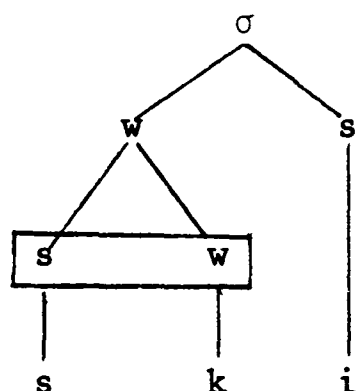


Si on considère un mot comme "pascal" on voit que l'algorithme universel, une fois doté d'une provision spéciale permettant une suite fricative-occlusive en début de syllabe,. peut maintenant syllabifier "pascal" de deux façons, soit tel qu'en (7a) et (7b).

(7)   "<u>pascal</u>"
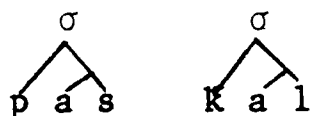
a)                                              b)
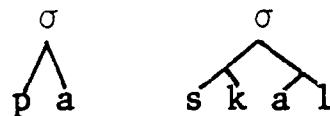


Pour résoudre ce problème, Kiparsky propose que les langues individuelles aient une des deux consignes suivantes:

1)   maximiser l'attaque,

2)   maximiser la rime.

Une langue où les groupements sont syllabifiés comme en (7a) maximise la rime. Le finlandais et le klamath en sont des exemples. Une langue où on syllabifie comme (7b) maximise l'attaque:   l'anglais est un cas typique.


3.3.2     Kaye et Lowenstamm[4]

Dans ce modèle, la syllabe est universellement (et à tous les niveaux de représentation) une <u>structure</u> branchante  $\bigwedge$ , où la branche de gauche (l'attaque) peut dominer ou non du matériel segmental.

L'arborescence syllabique contient donc un minimum de deux branches qui peuvent elles-mêmes se subdiviser davantage. Kaye et Lowenstamm (dorénavant K&L) observent que le nombre de branches permises sous l'attaque et la rime est contraint d'une manière précise qui est la suivante:  pour toute langue, l'expansion maximale de l'attaque ne peut inclure un nombre supérieur de branchements par rapport à l'expansion maximale de la rime.[5] Les langues peuvent donc différer par la géométrie de leurs syllabes, c'est-à-dire par le nombre maximal de branches dans l'attaque et la rime, mais aussi par le contenu segmental permis sous les branches. Ainsi, l'anglais et le français ont-ils tous deux une configuration syllabique permettant une attaque branchante, mais l'anglais est plus restrictif quant aux types de segments permis sous ces branches. En effet, il ne permet pas de consonnes autres que les liquides après une obstruante, tandis que le français permet toutes les consonnes de sonorité supérieure. On peut voir ces restrictions en (8).

(8)    Attaque en anglais et français

a)    Anglais:                                b)    Français:



1)      p    r    voyelle                           p    r    voyelle

2)      p    l                                      p    l

3) *    p    n                                      p    n

4) *    p    s                                      p    s

5) *    p    t                                      p    t
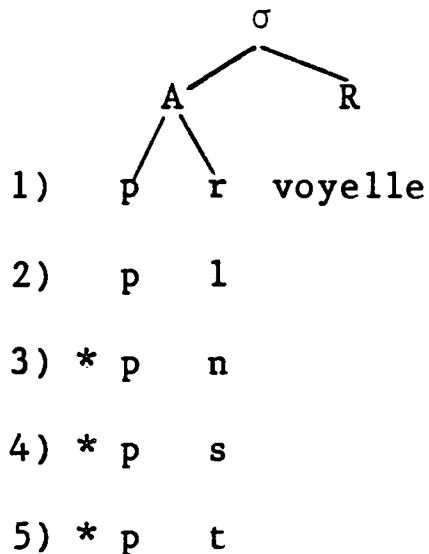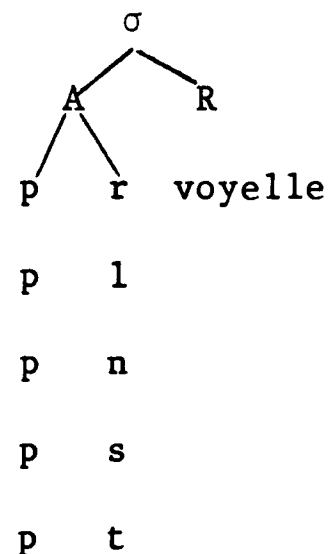

Exemples:

1)    prey                                    pré

2)    plea                                    pli

3)    pneumonia                               pneumonie
      prononcé [numónįə]

4) psychology                              psychologie
   prononcé [səikɔ́lədži]

5) pterodactyl                             ptérodactyle
   prononcé [terodǽktil]

Une autre différence entre les langues provient du type de segments pouvant figurer sous le noyau syllabique. Encore ici, l'anglais et le français diffèrent en ce que l'anglais admet les sonantes en général quand le français n'admet que les voyelles, comme on le voit en (9).
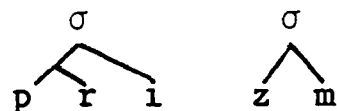
(9) <u>Contenu segmental du noyau</u>
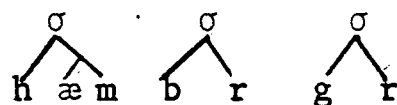
a)    Anglais                     b)    Français

   1.   hamburger                    1.   hamburger



   2.   prism                        2.   prisme
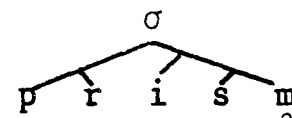


Ces différences, dites substantielles, entre les langues sont encore une fois contraintes par la grammaire universelle qui dicte la marge de liberté des langues individuelles en imposant le schéma suivant:

(10) <u>Moule syllabique universel</u> (K&L 1981)
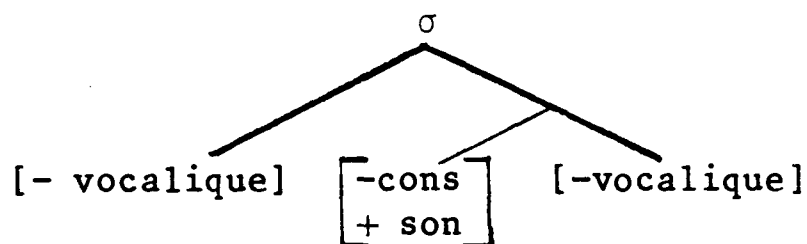


Passons maintenant à la syllabification proprement dite dans le modèle K&L.

Tout comme chez Kiparsky, l'approche de K&L est exhaustive, c'est-à-dire que tous les segments d'une suite doivent être incorporés dans des syllabes bien formées de la langue, c'est-à-dire qu'elles

doivent respecter les contraintes formelles (que l'attaque ne puisse brancher, par exemple) et les contraintes substantielles de leur langue (voir en (8) par exemple).

Pour résoudre le dilemme de la syllabification des groupements consonantiques à l'intérieur des mots dans les langues possédant attaque et rime branchante, K&L proposent que les langues peuvent différer par un paramètre de directionalité. Le cas non-marqué est que l'algorithme de syllabification s'applique en partant du début des mots, soit en allant de gauche à droite. L'autre option possible, bien que marquée, veut que la syllabification se fasse de droite à gauche. Cette directionalité rend compte des faits traités dans Kiparsky par la maximisation de l'attaque ou de la rime.

Jusqu'à date, j'ai plutôt fait voir la similarité entre les modèles de Kiparsky et de K&L. Je désire maintenant passer au point crucial où leurs recherches diffèrent.

Kiparsky (1979) étudie la syllabification des segments dans le but de faire ressortir la composante universelle et les particularités spécifiques des langues.

Quant aux travaux de K&L, ils ont un double but dont le premier est de découvrir la part de la grammaire universelle et des grammaires particulières. Leur deuxième but est de faire ressortir les effets de la syllabification sur la dérivation phonologique. Pour ne fournir qu'un exemple, un de leurs intérêts est de montrer le pouvoir explicatif de la syllabification pour rendre compte de l'épenthèse.

Dans leur approche, le point de départ d'une dérivation phono-logique étant la représentation sous-jacente, le premier domaine d'application de la syllabification est le morphème (l'entrée lexicale). Comme la syllabification est exhaustive dans leur théorie et puisqu'elle doit se faire en respectant les contraintes formelles et substantielles de la langue, K&L sont obligés d'introduire des éléments nuls au palier segmental dans les représentations sous-jacentes, lesquels éléments nuls sont déterminés par la syllabi-fication. En (11) on trouve comme exemple de cette procédure de syllabification et de détermination de zéros (éléments nuls) un exemple du yawelmani. Cette langue ne possède que des syllabes 'CV' et 'CVC' en surface. Cependant ses radicaux verbaux dans leur représentation au dictionnaire peuvent avoir la forme 'CVCC'. On a donc la procédure suivante:

(11) <u>Yawelmani</u> (K&L)

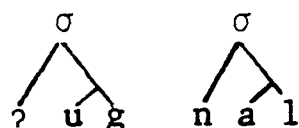|     | Radical | affixe | affixe |
|-----|---------|--------|--------|
| RSJ | /ʔugn/ | /al/ | /hin/ |

Syllabification:
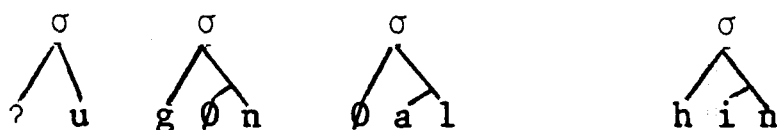


Par la syllabification exhaustive du radical et des affixes (séparé-
ment), on détermine des éléments nuls qui doivent être éliminés au
cours de la dérivation.

Concaténation:



Resyllabification:                                      non-applicable



Epenthèse:          non-applicable



On voit dans cette dérivation deux stratégies d'élimination de
zéros:  la resyllabification et l'épenthèse.


3.3.3     Piggott et Singh (1984)

     Chez Piggott et Singh (dorénavant P&S) la syllabification se fait
après concaténation, selon une procédure directionnelle et exhaustive.
La première différence avec le modèle de K&L est que la syllabification
initiale ne se fait qu'après concaténation morphologique et la deuxième
est que cette syllabification initiale n'est pas tenue de respecter
acune contrainte de la langue.   La consigne est la suivante:
'Syllabifier tous les segments en maximisant l'attaque'.   Aucune
coda n'est donc créée dans ce premier temps et P&S éliminent la

nécessité de syllabifier avec l'aide d'éléments nuls au niveau du
morphème, comme le font K&L.

Comme la première syllabification a incorporé tous les segments
dans l'attaque, il arrive que les attaques ainsi créées contiennent
des séquences de segments ne pouvant coexister sous ce constituant.[6]

En un deuxième temps, une resyllabification s'applique donc créant
des codas là où l'attaque était trop remplie.  La resyllabification
est sensible aux contraintes phonotactiques de la langue.

Il y a cependant des cas où la resyllabification ne peut
régler la violation.  Cette situation déclenche une troisième
stratégie appelée dislocation.  Cette dislocation vient déloger les
segments dont la séquence crée une violation, et une nouvelle
syllabe est formée à partir de ces segments.  Dans cette syllabe
nouvelle, les segments sont logés l'un dans l'attaque et l'autre
dans la rime de façon à ce qu'ils ne soient plus adjacents.  Cette
création de syllabe détermine un noyau vide qui est rempli par une
voyelle épenthétique.

Ainsi, P&S obtiennent des éléments nuls au cours de la dérivation
mais, comme la syllabification se fait après concaténation, aucun ∅
n'est éliminé par la resyllabification; ils sont toujours éliminés
par l'épenthèse (à part les ∅ sous l'attaque en initiale de mot).[7]

## 3.4   La syllabification par étapes

On a vu que dans les approches exhaustives, une langue syllabifie
tous les segments d'un seul coup et en procédant dans une direction
prédéterminée, plutôt de gauche à droite que l'inverse.

Dans le deuxième type d'approche, on procède non pas par les
extrémités des mots (donc des syllabes), mais plutôt par le "centre"
des syllabes.  Bien que la procédure varie considérablement d'un
ouvrage à l'autre, j'aimerais présenter cette approche en exposant
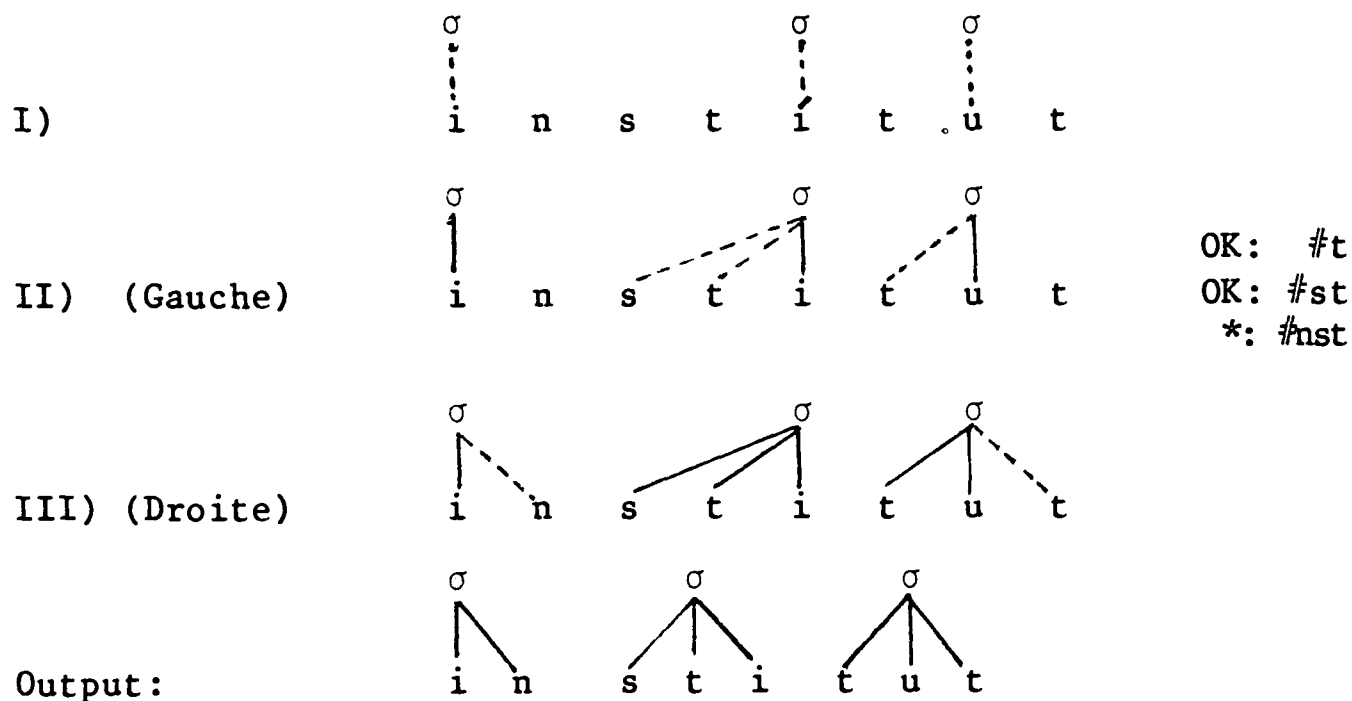les travaux de Kahn (1976), Steriade (1982) et Harris (1983).

## 3.4.1    Kahn (1976)

Dans les travaux précurseurs de Kahn, la syllabe ne posssède aucun
constituant:  elle n'est qu'un regroupement de segments attachés
autosegmentalement à des étiquettes  σ .  Contrairement à K&L qui

utilisent la syllabification pour rendre compte d'alternances
morphonologiques, Kahn est intéressé à déterminer un domaine d'appli-
cation pour certaines règles tardives de l'anglais comme l'aspiration
et le "flapping".

Sa procédure de syllabification consiste à chercher les éléments
[+syll, -cons] et à ériger une syllabe σ au-dessus. Dans la deuxième
étape, on associe autant de consonnes que possible à gauche de ce
V, la limite étant déterminée en examinant les suites consonantiques
permises en initiale de mot. Dans une troisième étape, on associe
les éléments consonantiques à droite de V, ce qui complète la
syllabification. Les étapes sont schématisées en (12).

(12) <u>Syllabification de l'anglais</u> (Kahn 1976)

I)        σ                    σ        σ
          ⋮                    ⋮        ⋮
          i   n   s   t   i    t   ₒu   t

II) (Gauche)
          σ                    σ        σ
          |                    |        |
          i   n   s   t   i    t   u    t        OK:  #t
                                                  OK:  #st
                                                  *:   #nst

III) (Droite)
          σ                    σ        σ
          i  ⸝n   s   t   i    t   u  ⸍t

Output:
          σ                    σ        σ
          i   n   s   t   i    t   u   t

### 3.4.2    Steriade (1982)

Chez Steriade la première étape consiste en la création d'une
syllabe universellement non-marquée σ  sur toute suite CV dans un
mot. Cette première étape est suivie par des règles d'incorporation
de segments dans la syllabe, règles qui servent à créer des attaques
et des rimes complexes. Ces règles sont spécifiques aux langues et
elles sont intercalées parmi d'autres règles phonologiques.

Chez Steriade, la syllabification primaire procède de gauche à droite. Comme la syllabification n'est pas exhaustive, cette directionalité n'a aucune conséquence.

Pour obtenir l'effet de maximisation d'attaque ou de rime, Steriade utilise l'ordonnance dans les règles d'incorporation de segments. Une langue spécifiera que la règle d'attaque s'applique avant la règle de rime ou vice-versa.
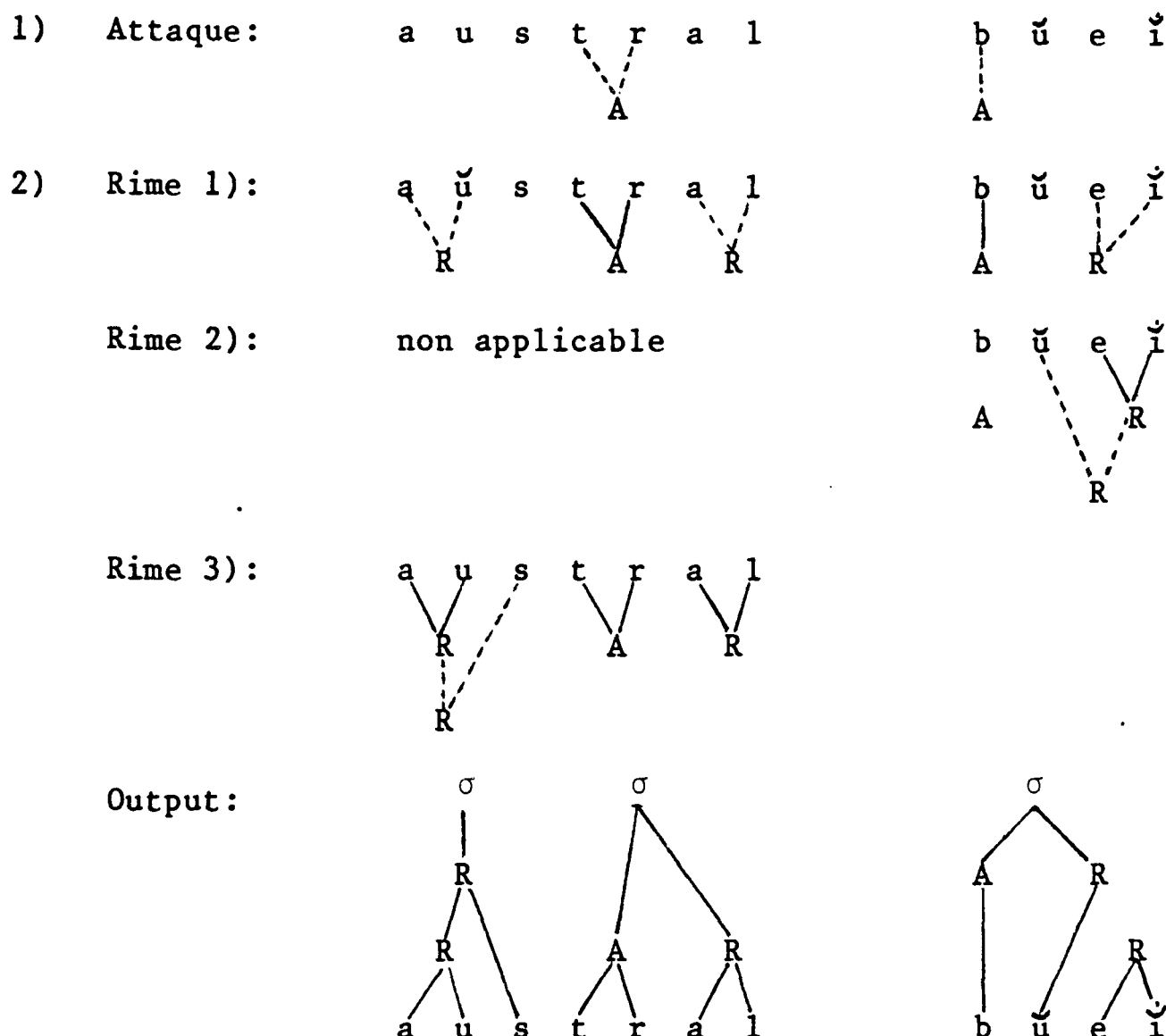
### 3.4.3    Harris (1983)

On a vu que Steriade crée une syllabe basique 'CV' dans un premier temps et adjoint ensuite les segments adjacents à cette base pour former des attaques ou des rimes qui sont complexes. Harris, pour sa part, forme successivement l'attaque et la rime, indépendamment l'une de l'autre. L'attaque, qui peut être absente, est formée instantanément sur une ou deux consonnes. S'il y a deux consonnes, ce doit être une séquence d'obstruante et de liquide. Par contre, la rime, constituant dont la géométrie est plus complexe, est formée en deux étapes. On crée d'abord un arbre maximalement binaire, étiqueté Rime, dont la branche gauche obligatoire domine un segment $\begin{bmatrix} +syll \\ -cons \end{bmatrix}$ et dont la branche droite facultative domine un segment [-syll], c'est-à-dire une semi-voyelle ou une consonne. De cette manière, on n'autorise donc qu'une voyelle comme sommet syllabique et on permet une glissante ou toute consonne dans la branche droite de la rime.

La rime espagnole peut cependant contenir un troisieme segment, lequel segment est soit une glissante pré-vocalique ou le segment /s/ adjoint à droite de la première rime construite. Ainsi, la rime espagnole contient un maximum de trois positions remplies par une des deux séquences suivantes:

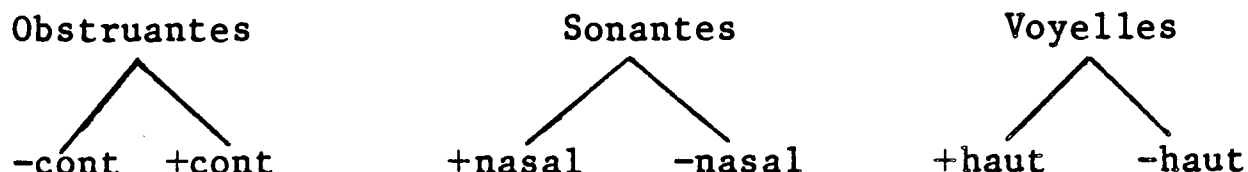1)    -cons,   +syll,   -syll

2)    +syll,   -syll,   /s/.

En position finale de mot, une rime à trois positions peut être suivie d'un /s/ (qui est extra-métrique). On obtient donc la syllabification par étapes suivantes:

(13) <u>Syllabification chez Harris</u>

1)  Attaque:        a   u   s   t   r   a   l          b   ŭ   e   ĭ

2)  Rime 1):        a   ŭ   s   t   r   a   l          b   ŭ   e   ĭ

    Rime 2):        non applicable                     b   ŭ   e   ĭ

    Rime 3):        a   u   s   t   r   a   l

    Output:

Pour conclure cette section sur la syllabe, je tiens à faire
remarquer le fait suivant, qui aura de l'importance lorsque nous
parlerons de sous-spécification. On remarque que dans ces premiers
travaux sur la syllabe, indépendamment de la procédure utilisée
pour syllabifier les segments, la syllabe s'érige selon des principes
universaux et propres aux langues, mais toujours <u>en lisant le
contenu des matrices de traits</u>. Chez Harris, les traits importants
pour la construction de syllabes sont 'cons, syll' ainsi que le
segment 's' représenté par la matrice suivante; [ +cons, -syll,
-son, +cont, -voix, +coronal, etc.]

Chez Kiparsky, on doit pouvoir déterminer, par la lecture des
matrices, l'appartenance aux classes suivantes:

```
   Obstruantes              Sonantes               Voyelles
        /\                     /\                      /\
       /  \                   /  \                    /  \
   -cont   +cont         +nasal   -nasal         +haut   -haut
```

de façon à déterminer la sonorité relative de chaque segment.


## 4.   Le squelette

### 4.1   Théorie autosegmentale et morphologie

La théorie autosegmentale s'est d'abord développée pour traiter de phénomènes phonologiques où certains traits semblent avoir un arrangement qui leur est propre et qui ne dépend pas des autres traits distinctifs à l'intérieur des matrices.

Jusqu'en 1979, les travaux faits en morphologie générative avaient surtout traité d'un type de morphologie qu'on appelle concaténative. Par ce terme, j'entends toute opération par laquelle un mot est formé en mettant des "morphèmes"[8] bout à bout, par préfixation, suffixation ou composition.

Dans les langues utilisant strictement la morphologie concaténative, ces morphèmes ont une représentation sousjacente en terme de segments consonantiques et vocaliques arrangés linéairement comme on le voit en (14), où je donne la représentation de l'adjectif japonais 'kowa' "épeurant" et des suffixes 'gar' (verbalisateur) et 'sase' (causatif). (La forme japonaise 'kowagarase' est le radical verbal non-fléchi ayant le sens de "faire peur").

(14) Morphologie concaténative

   a)    Articles lexicaux (RSJ entre //)

```
   ┌                ┐      ┌             ┐      ┌              ┐
   │  /kowa/        │      │ /gar/       │      │ /sase/       │
   │     Adj        │      │    Verbe    │      │    Verbe     │
   │                │      │             │      │              │
   │                │      │  ]  ___     │      │  ]  ___      │
   │                │      │             │      │              │
   │                │      │    Adj      │      │    Verbe     │
   │                │      │             │      │              │
   │  "épeurant"    │      │             │      │ 'CAUSER'     │
   └                ┘      └             ┘      └              ┘
```

b)    Suffixation

$$\begin{bmatrix} \begin{bmatrix} \text{[kowa] gar} \\ A \end{bmatrix}_V & \text{sase} \end{bmatrix}_V$$
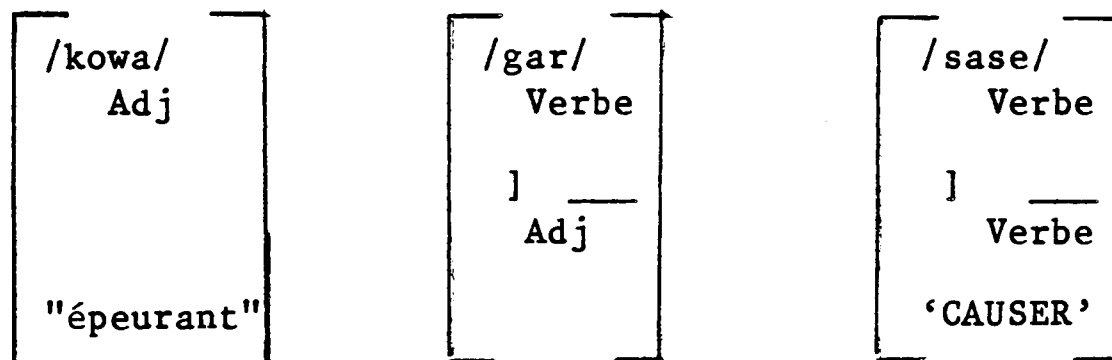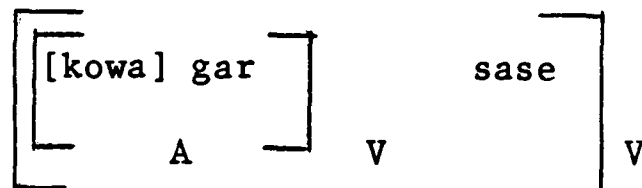
Les règles de formation de mot concaténatives comme en (14.b) ne sont cependant pas les seules règles morphologiques possibles. En effet certaines langues possèdent des processus morphologiques qui ne s'expriment pas en utilisant la simple concaténation. Les langues sémitiques en sont un exemple typique. Dans ces langues, on discerne des racines composées au niveau phonologique de deux ou trois consonnes qui sont dotées d'un sens basique.

Les opérations morphologiques sont de deux natures: concaténative (affixation) et non-concaténative.

Les opérations non-concaténatives consistent à insérer des voyelles qui déterminent différents aspects sémantico-syntaxiques du lexème comme la catégorie syntaxique (verbe ou nom), le temps, le mode, etc., au sein de ces racines tri-consonantiques.

En plus du changement dans le vocalisme, les mots dérivés à partir de ces racines diffèrent quant à l'arrangement des consonnes et des voyelles.

Ainsi la racine 'ktb' dont le sens est "écrire" peut avoir plusieurs arrangements de ses consonnes et voyelles. Par exemple, plusieurs formes comprenant les mêmes trois consonnes et le même vocalisme se distinguent par la distribution consonne-voyelle. On en voit quelques exemples en (15).

(15) Morphologie non-concaténative:  Racine 'ktb'

|    | Vocalisme 'a' | Vocalisme 'u-i' |
|----|----------------|------------------|
| 1. | katab          | kutib            |
| 2. | kattab         | kuttib           |
| 3. | kaatab         | kuutib           |

McCarthy (1979) propose de rendre compte de ces faits en utilisant un modèle de morphologie autosegmentale.

Ainsi, les mots de (15) seront composés de trois morphèmes agencés de façon non-linéaire et dont les lois d'agencement sont les principes généraux de la théorie autosegmentale. Les morphèmes sont ainsi:

(16) <u>Morphologie non-concaténative:  sémitique</u> (McCarthy 1979)

Morphème consonantique:   /ktb/      "écrire"

Morphèmes vocaliques:     /a/        "actif"

                          /u,i/      "passif"

Morphèmes prosodiques:    CVCVC      "indicatif"

                          CVCCVC     "causatif"

                          CVVCVC     "réciproque"

Le morphème prosodique est celui sur lequel vient s'attacher les consonnes et les voyelles. Cette position centrale lui a mérité le nom de squelette, ou de "coeur" (angl. "core"). J'utiliserai le terme squelette ou squelette prosodique dans cet article.

L'analyse de McCarthy est donc la suivante (je donne en premier lieu la représentation avant l'association en (17) et la représentation attachée en (17')):

(17) <u>Représentation de 'katab' avant association</u>

Palier consonantique:    k    t    b

Palier prosodique:       C  V  C  V  C

Palier vocalique:                 a

L'association des autosegments consonantiques et vocaliques se fait selon les conventions d'association d'abord proposées pour les autosegments tonals.[9]

La représentation associée est donc la suivante:

(17')        Representation associée de 'katab' et 'kuttib'

                'katab'                          'kuttib'
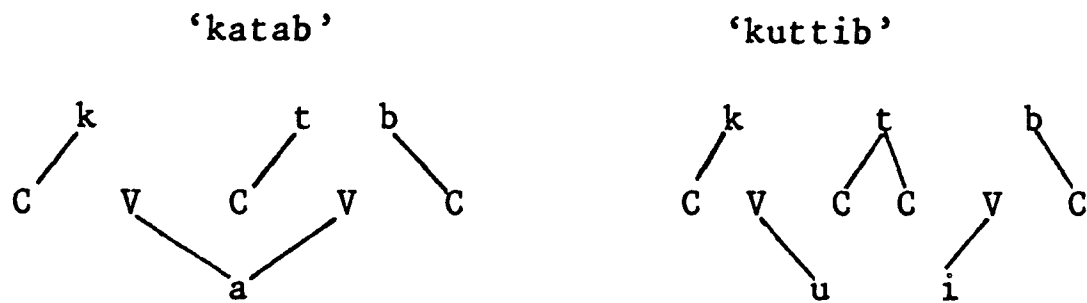


4.2  Le squelette et la phonologie

Indépendamment de la morphologie non-concaténative, pour la phonologie de langues où les consonnes et les voyelles alternent sur un même palier dans la représentation des morphèmes comme en (14), Clements et Keyser (1981) ont démontré qu'il est nécessaire d'avoir un squelette dans la représentation sous-jacente.

Ainsi le nombre d'éléments aux paliers squelettique et segmental peuvent différer.  Dans leur analyse du turc, ces auteurs proposent donc qu'une certaine classe de noms, qui se terminent en voyelle en surface mais se comportent comme s'ils se terminaient en consonne du point de vue morphologique, soit analysée comme ayant la représentation suivante:

(18) Noms turcs (Clements et Keyser 1981)

        plan squelettique:   C   V   C
                             |   |
        plan segmental:      d   a
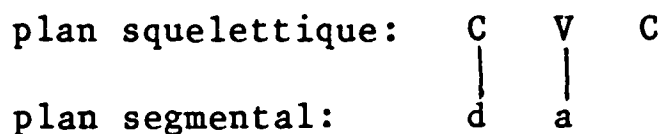
Les autres noms ne faisant pas partie de cette classe auront une représentation où squelette et segments comprennent le même nombre d'éléments.  On peut voir cette représentation en (19):

(19) Noms turcs (Clements et Keyser 1981)

    a)  C   V   C          b)  C   V   C   V
        |   |   |              |   |   |   |
        s   a   p              d   e   r   e
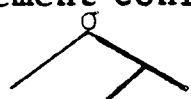
L'avantage d'une telle analyse est qu'on peut expliquer le comportement des noms de (18), qui suivent le modèle des noms de (19a), sans pour autant avoir à spécifier d'une manière ad hoc la
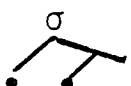
nature exacte du segment au niveau segmental.  Une approche comme
celle de SPE, où les représentations ne sont qu'une suite de matrices
complètement spécifiées, devra forcément postuler un tel segment
spécifié arbitrairement.


4.3  La relation entre le squelette et la syllabe

Dans leur article "Compensatory lengthening in Tiberian Hebrew:
theoretical implications", Kaye et Lowenstamm argumentent contre
l'utilisation d'un morphème prosodique défini en terme de C et V
comme le fait McCarthy.  Ils démontrent que le morphème prosodique
doit être analysé comme étant fait de configurations géométriques
(syllabes) et que les unités du palier squelettique (C et V chez
McCarthy) ne sont en fait que les noeuds terminaux de ces morphèmes
composés de syllabes.  Ainsi les morphèmes prosodiques que McCarthy
représente CVCVC; CVCCVC et CVVCVC sont représentés comme en (20)
par Kaye et Lowenstamm.

(20)



Comme les syllabes faites de voyelles longues ou de voyelle suivie
de consonne sont identiques configurationnellement et diffèrent
uniquement par le noeud sons lequel il y a branchement (rime ou
noyau), ces auteurs proposent qu'on spécifie l'étiquetage du noeud,
mais seulement dans le cas le plus marqué.[10]  Ainsi, la syllabe
fermée par un C est-elle exprimée en termes purement configurationnels
alors que la syllabe CVV est exprimée par       N, dans cette
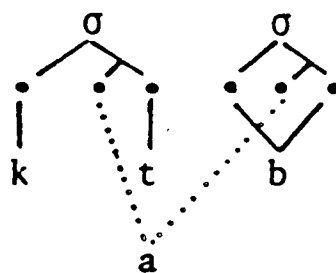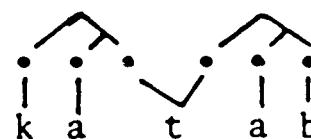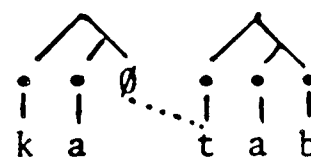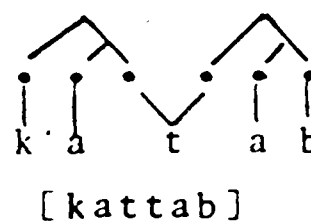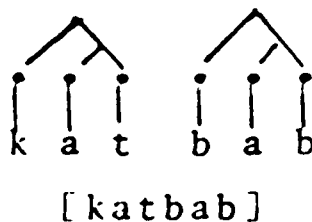approche.

Un autre morphème prosodique utilisé par K&L est le suivant:
      ∅.  L'élément nul ∅ sert à empêcher une consonne de la
racine consonantique d'aller s'attacher à cette position syllabique
en un premier temps.  En un deuxième temps, cet élément nul sera
réanalysé comme une copie de la consonne à sa droite, le résultat
phonétique étant une géminée.  En (21), on trouve la dérivation de
'katbab' et 'kattab':

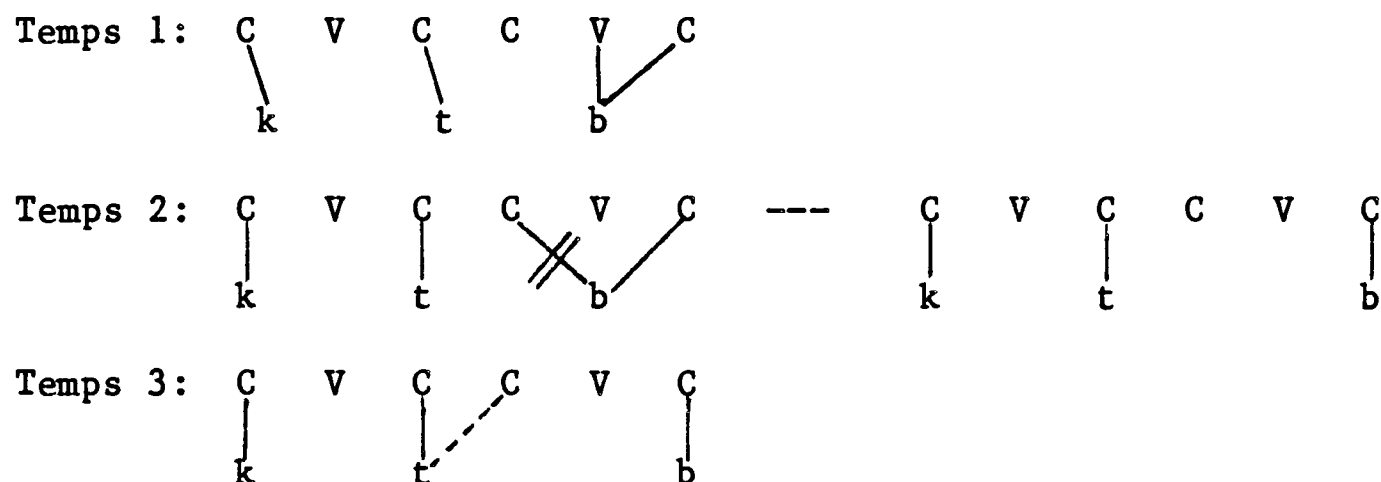(21a) Représentation après association

palier prosodique :

palier consonantique :     k     t     b          k     t     b

palier vocalique :                    a                    a

(21b) Réanalyse de Ø

k  a     t  a  b

k  a  t  a  b

(21c) Output

k  a  t  b  a  b          k  a  t  a  b

[katbab]                  [kattab]
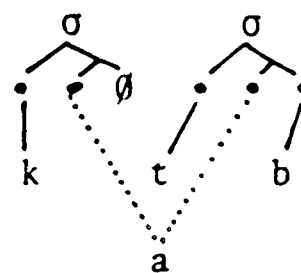
Dans l'analyse de McCarthy les deux formes sont d'abord dérivées comme 'katbab' (par association de gauche à droit automatique, ce qui explique que 'b' s'attache à deux C). Ensuite une règle morphologique de désassociation du premier 'b', qui force la réassociation automatique d'un autre segment disponible, se produit. La dérivation est donnée en (22).
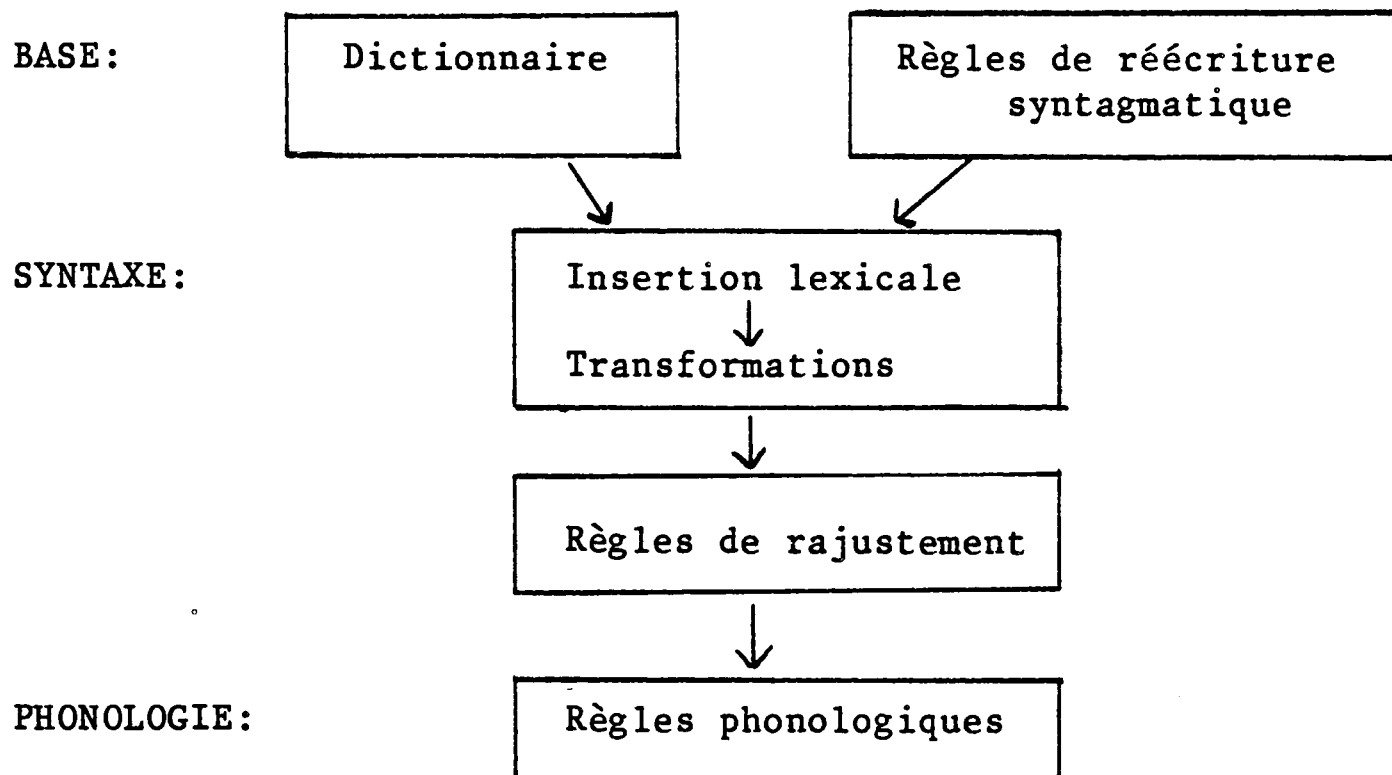
(22) <u>Dérivation</u> (McCarthy)

Temps 1:   C   V   C   C   V   C
               \       \       |/
                k       t      b

Temps 2:   C   V   C   C   V   C   ---   C   V   C   C   V   C
               |       |   \ /|/                |       |               |
               k       t    b                   k       t               b

Temps 3:   C   V   C   C   V   C
               |       |  /        |
               k       t           b

Pour conclure cette section, j'aimerais résumer l'aspect que prennent les représentations étant données les modifications théoriques exposées. Ces représentations sont maintenant vues comme contenant un squelette auquel viennent s'accrocher les éléments des différents paliers. Le squelette a d'abord été conçu comme une suite de C et V (McCarthy) pour ensuite se vider davantage de contenu et devenir une suite de points qui sont les noeuds terminaux des configurations syllabiques. Le squelette est présent dans la représentation indépendamment du type de langue. Une langue où voyelles et consonnes sont autosegmentalisées aura au moins trois paliers (anglais: 'tier', appelés aussi <u>plan</u>) médiés par le squelette. Dans une langue où tous les segments sont sur le même palier on aura au moins 2 plans médiés par le squelette. On trouve la représentation tridimensionnelle schématisée en (23). Le mot 'kattab', représenté avec son plan vocalique contenant 'a', son plan consonantique contenant 'k,t,b,' et son plan syllabique contenant deux syllabes fermées, est donné en exemple. Le tout est co-ordonné par le squelette au coeur de la représentation.

(23) <u>Représentation multi-plane en phonologie tridimensionnelle</u>
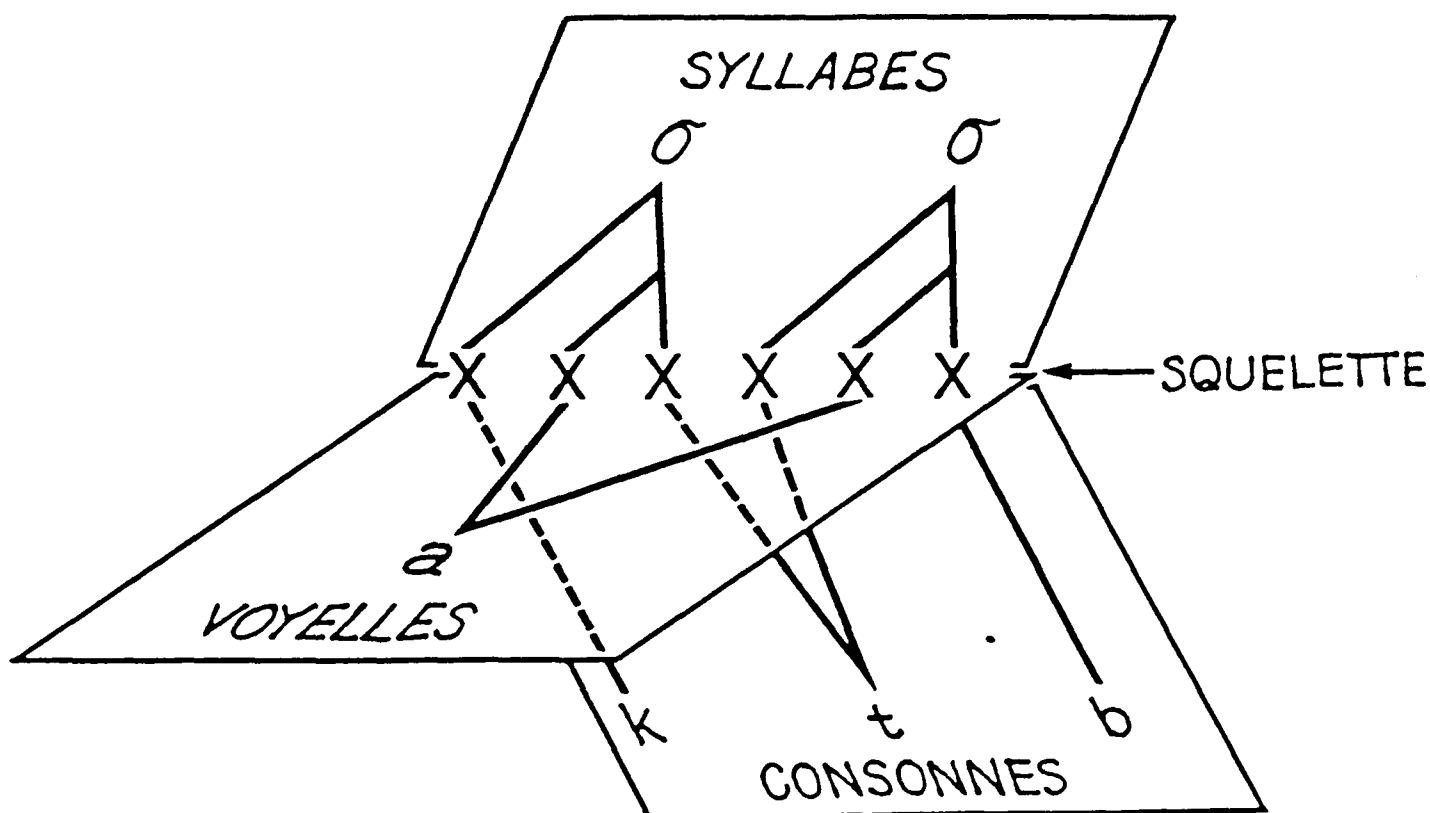


## 5.   <u>Le remaniement de la grammaire:   la phonologie lexicale</u>

Le quatrième développement que je veux exposer n'a pas trait directement à l'aspect des représentations comme les trois développements précédents.   Cependant il a des répercussions importantes pour ces représentations.   Il s'agit d'un remaniement dans l'aspect de la grammaire, plus particulièrement dans la place qu'occupe la composante phonologique par rapport à la morphologie et à la syntaxe.

Pour mieux comprendre la nature de ce remaniement, examinons d'abord la place qu'occupait la phonologie dans le modèle de la phonologie générative standard.

Dans ce modèle, la grammaire a l'aspect donné en (24).

(24) <u>Grammaire en phonologie générative standard</u>

BASE:          | Dictionnaire |          | Règles de réécriture syntagmatique |

SYNTAXE:       | Insertion lexicale
                 ↓
                 Transformations |

               | Règles de rajustement |

PHONOLOGIE:    | Règles phonologiques |

On voit que toutes les règles phonologiques sont concentrées
dans la composante phonologique qui est post-syntaxique. De plus
il n'y a pas de composante morphologique. L'information morphologique
provient de sources disparates. Premièrement, certains mots du
dictionnaire sont subdivisibles en éléments plus petits et ont une
représentation comprenant segments phonologiques et frontières.
Par exemple, pour l'anglais, les mots d'origine gréco-latine ont la
représentation suivante:

(25) <u>Mots gréco-latins dans SPE</u>

        'transfer':    /trans=fer/
        'permit':      /per=mit/
        'pavillion':   /pavil+ion/

Les mots de (25) ne sont pas dérivés mais ont une analyse morphologique.

Deuxièment, une grande partie de la morphologie productive,
flexionnelle et dérivationnelle, est effectuée par transformations
syntaxiques. Finalement, la troisième source morphologique possible
vient de la composante de rajustement qui contient des instructions

de type /go/ → /went/ au passé. Cette composante traite donc des cas de formes supplétives.

Ce modèle est essentiellement celui de Chomsky et Halle (1968) pour l'anglais et de McCawley (1968) pour le japonais.

La décennie qui a suivi a vu naître la morphologie générative (Aronoff 1976). L'enrichissement de la composante morphologique a résulté en l'appauvrissement de la composante transformationnelle (syntaxique) jusqu'à exclure toute formation de mot par transformation syntaxique.

Ces développements en morphologie n'ont cependant encore aucune répercussion sur la place de la phonologie, qui est toujours post-syntaxique.

Au début des années '80, suite aux développements morphologiques, la place de la phonologie est remise en question et le modèle de la Phonologie lexicale est proposé dans les travaux précurseurs de Mohanan (1982) et de Kiparsky (1982). D'après ce modèle, la phonologie s'applique pré-syntaxiquement au niveau du lexique lors de la concaténation morphonlogique, et post-syntaxiquement après que les mots ont été insérés dans les indicateurs syntagmatiques.

Le lexique est lui même divisé en strates qui sont ordonnées extrinsèquement, selon un modèle originalement proposé par Siegel (1974) et Allen (1978). Ainsi chaque processus morphologique (affixation ou composition) se voit attribuer une strate d'application. Les processus d'une strate quelconque ne sont pas ordonnés extrinsèquement entre eux mais, étant donné l'ordre extrinsèque des strates entre elles, les processus de la strate I précéderont ceux de la strate II et ceux de la strate II précéderont, à leur tour, ceux d'une strate subséquente.

Après concaténation morphologique, les mots sont soumis aux règles phonologiques. Les règles phonologiques sont également marquées pour leur domaine d'application, qui peut être une seule ou plusieurs strates, incluant la strate post-lexicale, c'est-à-dire l'étape venant après l'insertion syntaxique.
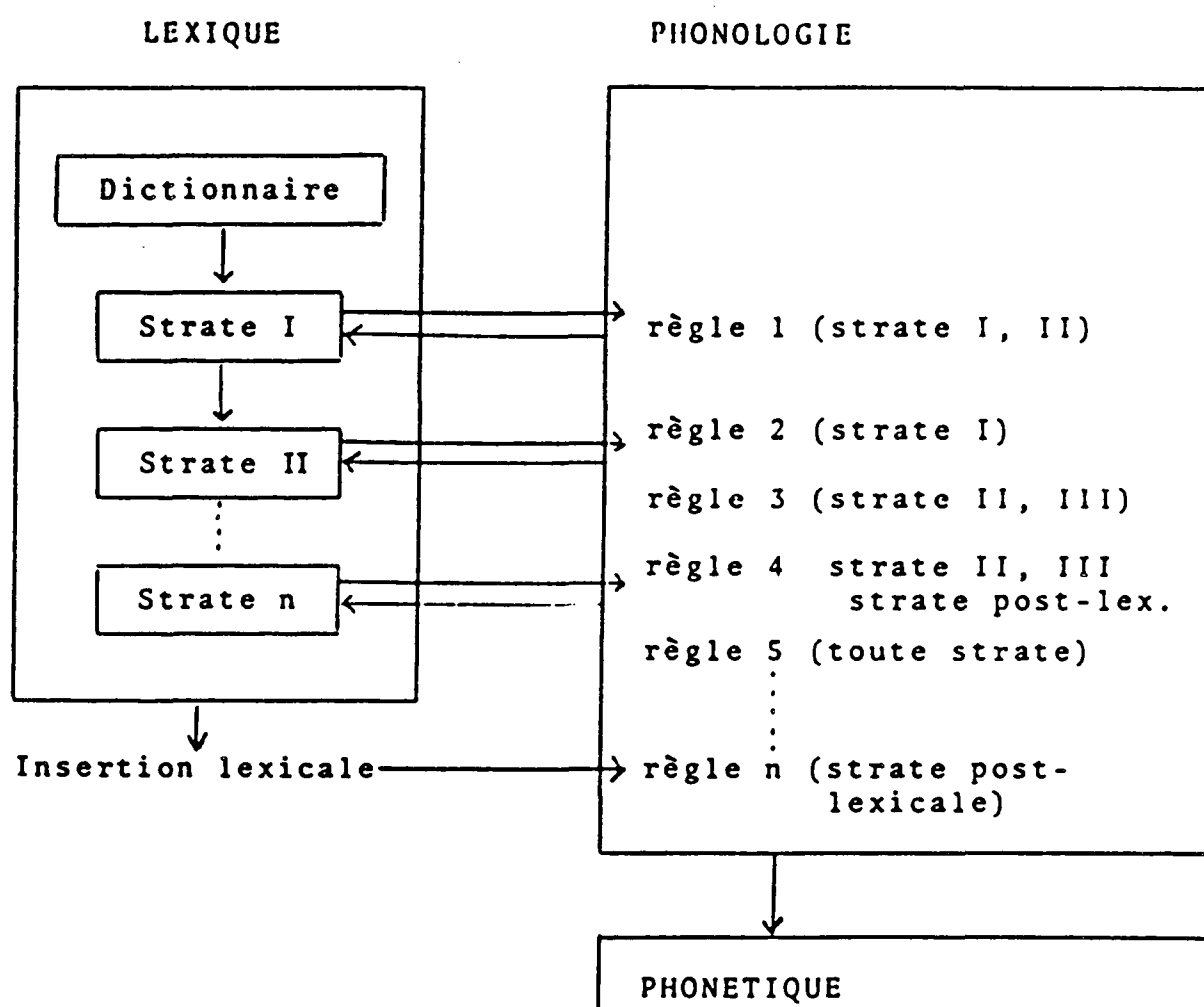
Les mots étant soumis et resoumis aux règles phonologiques du domaine approprié après chaque opération morphologique, la propriété de cyclicité, qui devait être stipulée dans un modèle comme SPE, découle de ce va-et-vient entre morphologie et phonologie, dans ce modèle.

En passant, un tel modèle où les règles phonologiques s'appliquent immédiatement après concaténation morphologique rend l'utilisation de frontières superflues. Dans SPE, l'application cyclique procédait en partant du constituant le plus enchâssé, délimité par une paire de crochets, et en allant vers l'extérieur. Toutes les règles cycliques sont répétées à chaque paire de crochets jusqu'à ce qu'on arrive aux crochets externes. Dans ce modèle, les crochets internes s'effaçaient dès que le cycle entreprenait le domaine suivant.

En phonologie lexicale, les crochets délimitant les catégories syntaxiques ne sont pas effacés au fur et à mesure que les règles lexicales sont reprises par un nouveau cycle. Les crochets internes, délimitant les couches successives d'affixation, sont éliminés en fin de strate plutôt qu'après chaque passage dans la phonologie lexicale. Ainsi, au niveau d'une strate S, il est possible de faire référence à la structure interne d'un mot complexe, mais à la strate suivante S', toute référence à la structure interne d'un mot formé à la strate S est impossible.

Ce modèle de phonologie lexicale peut donc être schématisé de la façon suivante:

(26) <u>Phonologie et morphologie lexicale</u>

LEXIQUE                          PHONOLOGIE

Dictionnaire

Strate I                règle 1 (strate I, II)

Strate II               règle 2 (strate I)

                        règle 3 (strate II, III)

                        règle 4   strate II, III
Strate n                          strate post-lex.

                        règle 5 (toute strate)

Insertion lexicale      règle n (strate post-
                                 lexicale)

PHONETIQUE

On peut voir une autre différence entre le modèle de SPE et de la phonologie lexicale. Dans SPE, on ne distinguait que deux niveaux de représentations: les niveaux "phonémique systématique" et "phonétique systématique". Toutes les règles phonologiques venaient convertir le niveau phonémique (souvent appelé représentation sous-jacente ou lexicale) en niveau phonétique systématique (représentation de surface). Toutes ces règles phonologiques fonctionnaient avec un système de traits binaires.

Dans la phonologie lexicale, étant donné l'organisation grammaticale, on distingue trois niveaux de représentation: la représentation au niveau du dictionnaire ou "représentation sous-jacente"; la représentation au moment de l'insertion lexicale, c'est-à-dire après application des règles phonologiques lexicales, ou "représentation lexicale"; et la représentation avant la composante phonétique ou "représentation post-lexicale".

## 6. Conclusion

Dans cet article nous avons voulu faire le point sur un certain nombre de remaniements théoriques survenus entre 1975 et 1985 et par lesquels les représentations phonologiques sont passées d'une séquence linéaire d'unités en une représentation multiplane (tridimensionnelle) où tous les plans sont théoriquement indépendants des autres et sujets à des principes régulateurs différents.

Une partie des recherches actuelles en phonologie générative se penche plus spécifiquement sur la nature du plan segmental. On distingue deux courants:

i)    Sous-spécification

Dans cette approche, le plan segmental est défini en terme des traits distinctifs classiques (SPE). Cette approche se caractérise par une absence de redondance au niveau de ce plan. On se penche donc sur les principes gouvernant la présence de traits à fonction distinctive (phonémique) et l'introduction de traits conditionnés (allophonie) ou redondants. Ces recherches sont faites dans le cadre de la phonologie lexicale. Je réfère le lecteur à Archangeli (1984), Béland (1985) et Grignon (1984).

ii)   Réévaluation des traits distinctifs

Une autre ligne de recherche remet en question la nature
même des traits distinctifs. On pourra consulter Walli (1984),
où il est proposé que les traits phonologiques soient reliés
plus directement à leur implémentation phonétique par le biais
d'une représentation tri-dimensionnelle notant chaque articulateur.

Deux équipes distinctes ont aussi proposé une réévaluation
encore plus drastique des traits distinctifs et de leurs principes
de combinaison. Il s'agit de Schane (1984) et de Kaye, Lowenstamm
et Vergnaud (1985). Schane vise à relier la notion de marque à la
notion de complexité segmentale. Sa théorie est fondée sur l'étude
de systèmes vocaliques. Elle n'est pas inscrite dans le cadre
d'une phonologie tri-dimensionnelle, ni même "syllabique". Les
objectifs de Kaye, Lowenstamm et Vergnaud sont semblables en ce
qui a trait à l'intégration d'une théorie de la marque. Par contre
leurs recherches sur les systèmes segmentaux est l'aboutissement de
plusieurs années de recherches sur les processus supra-segmentaux
et, en ce sens, cette théorie s'inscrit très bien dans le cadre de
la phonologie tri-dimensionnelle.

NOTES

[1]L'élaboration de la théorie métrique de l'accentuation (Hayes
1980) ainsi que de son extension pour rendre compte de phénomènes
harmoniques ou de certaines alternances segmentales n'est pas
traitée ici. Nous référons le lecteur à Van der Hulst et Smith
(1982) pour un exposé de cette théorie en anglais et à Dell et
Vergnaud (1984) pour une introduction à cette théorie en français.

[2]Dans les travaux de Haraguchi (1976) et de Goldsmith (1976),
la place idiosyncratique d'un tel ton n'était pas indiquée par la

présence d'un ton pré-associé dans le lexique, mais par un diacritique 'étoile'. Ainsi la RSJ de 'atama' chez Haraguchi est 'atamā́'. Pour une critique du diacritique 'étoile', voir Pulleyblank (1983).

[3]Le sommet syllabique est une voyelle dans la majorité des langues, ou une sonante autre (nasale, liquide) dans des langues comme le tchèque et l'anglais.

[4]Kaye et Lowenstamm développent leur théorie depuis 1979 (cf. 1981 dans leur liste de publications). Il y a donc plusieurs versions de leur modèle. Ici, je me concentrerai sur la syllabification en faisant ressortir les différences entre Kiparsky et eux.

[5]Je fais ici une simplification car K&L parlent du "niveau de marque" de l'attaque et de la rime. Ainsi, une attaque ne contenant pas de segment est plus marquée qu'une attaque contenant un segment, bien qu'au niveau de leur géométrie syllabique, une syllabe contenant une séquence 'CV' et une autre ne contenant qu'une voyelle auront la même géométrie.

[6]La· notion de co-existence possible ou impossible sous un constituant est donnée par une liste de Conditions de Bonne Formation qui ont la forme de filtres négatifs excluant certaines suites de segments sous certains constituants.

[7]P&S traitent d'épenthèse vocalique et consonantique. L'épenthèse consonantique est plutôt un phénomène diachronique qui se produit lorsqu'une sonante en initiale de syllabe subit la règle de "Mouvement vers le noyau". Ce mouvement laisse une "trace" ∅, qui se remplit par une épenthèse consonantique.

[8]J'utilise ici le mot 'morphème' au sens large, sans entrer dans le débat du type de morphologie utilisée, c'est-à-dire, basée sur le mot (Aronoff 1976) ou basée sur une unité plus petite que le mot (Halle 1973; Lieber 1980).

[9]Il y a plusieurs problèmes avec les conventions d'association: certains sont spécifiques à leur utilisation dans l'ouvrage de McCarthy (à ce sujet, voir K&L à paraître) et d'autres sont propres aux conventions elles-mêmes. Pour une étude détaillée et une revision de ces conventions, voir Pulleyblank (1983).

[10]K&L justifient leur approche en notant que d'après les études de Greenberg, les langues ayant des voyelles longues (noyau

branchant) ont aussi des syllabes fermées, mais pas nécessairement l'inverse. Donc $\overset{\sigma}{\underset{\wedge}{\diagup_N}}$ est plus marqué que $\overset{\sigma}{\underset{\wedge}{\diagup_R}}$

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# A NEW LOOK AT FRENCH LIAISON

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## ABSTRACT

The phonology of French has attracted a great deal of attention from the theoreticians, especially for the phenomena connected with what is known as liaison (Trager 1944; Schane 1968; Hooper 1976; Klausenburger 1978; Gaatone 1979; Clements and Keyser 1983, Stemberger 1985, to mention only a selected few). What has largely been ignored, however, is that a given liaison may be either (a) obligatory, (b) optional or (c) forbidden. The purpose of this paper is to examine under what circumstances the requirement for liaison varies, and the probable underlying reason for this variation.

## 1. Introduction

It has often been commented that there is in French a very strong preference for open syllables, and that, wherever possible, syllables begin with a consonant and end with a vowel. This leads, in fact, to what is called enchaînement whereby the last consonant of one word and the first vowel of a following word will form a separate syllable of their own. Because of the phenomenon of enchaînement and because there is no word stress in French, but only phrase stress, words are run together into phrases, normally coinciding with breath groups, with a single stressed syllable at the end of each phrase.

It can be seen, in fact, that liaison is a special case of enchaînement, since if the following word begins with a consonant, the final consonant of the proceeding word is dropped: petit pain. But if, by contrast, the following word begins with a vowel, the final consonant of the preceeding word will be pronounced thereby forming a syllable to bridge the two words: petit animal [p(ə)-ti-ta-ni-mál].

Many linguists who are familiar with the phonological data of liaison are however unaware of the constraints that govern its functioning. There are many cases (i) where a liaison is

forbidden, (ii) where it is only optional, and (iii) where it is required.

These three sets of data will be examined in what follows, and observations made on the syntactic and grammatical formations that give rise to this tripartite division.


## 2.  Obligatory Liaisons

2.1.  Between article or other definer and following noun, adjective, or adverb; between common adjectives and following noun; between common adverbs and following adjective.  Included in the definers are the so called possessive adjectives, which function exactly as do articles, and also the numerals.  (Liaison is marked by = between words).

> les=amis, les=uns et les=autres, les=Européens;
> des=enfants, des=heures, des=hommes;
> un=artiste, un=enfant, un=article;
> ces=attitudes, ces=anciens=amis;
> un bon=ami, un grand=ami, de beaux=enfants;
> mon=auto, mes=avis, mon=ancien professeur;
> certains=hommes, aucun=ami;
> trois=heures, six=enfants, dix=animaux;
> un très=amical souvenir

These examples of obligatory liaison all underline the fact that the order of words between a definer and its following noun is quite rigid, there being a tightly ordered relationship between all the words that occupy this space.  Normally, nothing can be moved in such a group of words without causing significant differences of meaning, and if the noun itself is moved, everything must be moved with it without disturbing the order of words, a requirement that did not apply to Classical Latin, for example.  For this reason, we shall limit the term Noun Phrase to that group of words which starts with the definer and ends with the noun.  This means that in the present discussion we shall consider adjectives that follow the noun to be attributes separate from the noun phrase.

The noun phrase thus defined is in fact a single syntactic unit, which will serve in one of several functions: (i) subject, (ii) object, (iii) in apposition, (iv) object of a preposition (which will in turn permit various adjectival and adverbial functions).

The rigid ordering of the noun phrase indicates that there are close sequential relationships between its components, and it is these close relationships that are marked by the obligatory liaisons. In short the NP (i) functions as a single syntactic unit, (ii) has rigid ordering, (iii) is phonologically cemented by obligatory liaisons.

If this rigid ordering of the NP is in turn the product of an ordered sequence of stages, this sequence must begin with the noun, since the noun determines the gender of the preposed adjective and the article. The fact that the preposed adjective is contiguous to the noun and dependent upon it (and attached where possible by liaison) indicates that the adjective is the next stage, followed by its own dependent adverb, and that the last stage is the article. This means that in a phrase such as un très grand livre the ordering runs, as Valin has proposed (1981), from right to left, in contradistinction to the notional genesis of the sentence which necessarily runs from left to right (in terms of our writing convention). Presenting the NP in this inverse sequence, therefore, easily identifies or marks it as a separate syntactic unit with its own internal coherence (an endocentric construction in traditional terms), marked at least in part by the use of liaison.

2.2. Between personal and other pronouns that are subjects and the immediately following or preceding verb:

> ils=ont, elles=auront, nous=avons, vous=avez;
> on=a, ils=aiment, tout=est prêt;
> ont=ils? sont=elles? est=il?

These examples underline the fact that French subject pronouns are clitics, (except that nous and vous have also other functions). Because they are clitics, for example, they are unable to undertake any other syntactic relationship; even a simple linking with the conjunction et is impossible, for example: *il et elle sont partis, whereas this is a perfectly feasible strategy in English: He and I went for a walk. This liaison therefore marks the very close syntactic relationship between a main word and its cliticized elements.

2.3. Between the object pronouns and the verb which follows them:

> il vous=envoie, vous les=avez lus, il les=aura, il nous=aime.

Here again we are dealing with cliticized elements, which may
only be used with the verb (except for <u>nous</u> and <u>vous</u>). The ordering
is strict, and when the verb is moved to a different position
in the sentence the so-called conjunct pronouns must be moved
with it without altering the order. These pronouns, like the
subject pronouns, are not able to enter into any other syntactic
relationshp: they may not be conjoined with <u>et</u>, and they may
not be modified by any other element. Once again the obligatory
liaison marks the very close dependency relationships of these
clitics to their verb.

2.4. Between certain prepositions and the following noun phrase:

<u>dans=une heure</u>, <u>sans=espoir</u>, <u>en=allant</u>, <u>sous=une table</u>;
<u>avant=eux</u>, <u>devant=elle</u>.

Once again we note that the order of words in a prepositional
phrase is very rigid. In traditional grammars it was normally
said that a preposition governed the following noun phrase or
pronoun, and in languages with cases it is normal to have a case
agreement with a particular preposition. In a modern dependency
grammar, the noun phrase or pronoun is considered to be dependent
upon the preposition (Hudson 1980), and in languages like French
and English, which have no case marking in the noun, it is the
rigid ordering of the prepositional phrase that marks this depen-
dency. It is also clear from the data of Modern French that there
are varying degrees of closeness of relationship between preposition
and following noun phrase. In some cases, for example, the prepo-
sition can exist independently as an adverb, without its following
noun phrase. The following two sentences, for example, are inter-
changeable.

<u>Je ne l'ai pas vu depuis dix heures</u>
<u>Je ne l'ai pas vu depuis</u>

Here it is obvious that the NP <u>dix heures</u> is an optional extension
of <u>depuis</u>, which is otherwise quite capable of standing on its
own. In this instance, therefore, the relationship between the
noun phrase and the preposition is loose and optional.

With the prepositions <u>à</u> and <u>de</u>, on the other hand, (which
are probably the underlying basic elements of the whole prepositional
system) the relationship between the preposition and the following
noun phrase is so close that the preposition and the article amalgamate

and the preposition thereby becomes integrated within the noun
phrase; that is, it becomes a part of that sequence of words which
starts with the definer and ends with the substantive:

   du livre, aux=amis, au lit, des=enfants.

The more a preposition belongs to the fundamental set of prepositions
that relate closely to nouns (because they represent the fundamental
contrastive functions in which nouns may be employed), the greater
the requirement for a liaison between preposition and following
noun phrase. The looser the relationship between preposition
and noun phrase, the less likely is the need of a liaison, and
with many of the less common prepositions the liaison becomes
optional. There are, in fact, some uncommon prepositions (selon,
vers, hors, moyennant, nonobstant) with which there is never a
liaison with the following noun phrase.


2.5. Between the parts of fixed expressions:

   mot=à mot, deux=à deux, de temps=en temps, un pis=aller;
   plus=ou moins

Here again we are confronted with the necessity of processing
these items as a single unit in the sentence: their internal coherence
is cemented phonologically by liaison. The total function of de
temps en temps, for example, is adverbial, equivalent to English
every now and then; it would be a fundamental strategic error to
treat it as two prepositional phrases, from time, to time. Once
again we see obligatory liaison used as a syntactic marker of the
internal coherence of a phrase.

   In light of the above it is interesting to note that one
never hears the s of the plural of such compound nouns as des
salles à manger, des pots à eau, and des arcs-en-ciel. It is
obvious that the whole compound is treated as a single unit and
that one may not pluralize a component part, even if the traditional
spelling still adds an s to a component within the compound.
With other hyphenated words this integrity of the compound is
recognized, so that pot-au-four is listed in the dictionary as
invariable.

   It is also noteworthy that the liaison is made in Comment=
allez-vous, emphasizing that this is a ritual formula, not to be
analyzed as a normal sentence (compare English How do you do).

Liaison is never made with <u>comment</u> except in this typical social formula.


2.6.  Between the copula and the following predicate:

> <u>c'est=utile</u>, <u>il est=impossible</u>, <u>c'est=une fille</u>;
> <u>il est=avocat</u>.

This liaison emphasizes the role of the copula as a necessary part of the predicate.


3.  <u>Liaisons That Are Not Made</u>

Some linguists who have looked at the question of liaison in French have not realized that there are certain instances of grammatically related words where a liaison is not made, in spite of the fact that the first word in a sequence ends in a silent final consonant and the next word begins with a vowel.  The following are examples of syntactic relationships where liaison is not allowed.


3.1.  Between a singular noun and a following adjective, or following complement:

> <u>l'esprit / humain</u>, <u>un lit / immense</u>, <u>un enfant / étourdi</u>;
> <u>appartement / à louer</u>.

Much has been written on the meaningful difference between preposed and postposed adjectives in all the Romance languages.  There are further interesting comments to be added to this topic, but they lie outside the range of the present discussion.  Suffice it to say, for present purposes, that the attribute, the adjective which follows the noun, is contrastive in force, is felt to be a separate entity, whereas the epithet, the adjective that is preposed to the noun, is not.  It is for reasons such as this that the complementary adjectives in such phrases as <u>votre charmante fille</u> and <u>un magnifique repas</u> are preposed, since if they were postposed, they would produce invidious contrasts with daughters who were not charming or meals that were less than magnificent. Normal human politeness suggests that such comparisons are to be avoided.  We may conclude therefore that the adjective which is preposed is felt to be a quality inseparable from the noun, whereas the adjective that is postposed is felt to be separable:

it is quite conceivable that the entity described by the noun
might not have this quality. A preposed adjective conveying the
inseparable quality normally carries a required liaison; the postposed
adjective marking an unquestionably separable quality is considered
syntactically separate to the point where a liaison may not be made.


3.2. Between a subject pronoun placed after the auxiliary or
the verb in the interrogative form, and the past participle or
direct object which follows:

> sont-ils / entrés, sont-elles / arrivées, avez-vous / osé,
> a-t-on / amené les enfants, ont-ils / aperçu quelque chose;
> ont-ils / une voiture, font-ils / un voyage?

In these cases the immediate dependency relationship is between
past participle and auxiliary, or else between direct object and
verb. There is no immediate syntactic link, by way of contrast,
between subject and past participle, and between subject and object.
We must conclude, therefore, that it is the syntactic gulf between
the subject on the one hand, and the past participle and direct
object on the other hand, that prevents the liaison from being made
in these cases. If there is no immediate syntactic link of dependency
between two sequential elements in the sentence, they may not be
connected phonologically by liaison.


3.3. Between noun subject and following verb:

> le chat / est dans la cuisine, les enfants / ont mangé;
> le fermier / est au champ; chanter / est un bonheur pour
>     elle;
> trois / est le nombre que je préfère, le tout / est de ne
>     rien dire

It may seem surprising at first sight that liaison between noun
subject and verb is not allowed, whereas liaison between pronoun
subject and verb is required. One notes, however, that because
the pronoun subject is a clitic, it may not be separated from
the verb except by other elements of the verb phrase such as the
negative marker and the pronoun objects. The noun subject on the
other hand can be separated by a whole clause, as in the following
example:

<u>Les plantes [qui ont les fleurs mâles et les fleurs femelles
 sur des pieds separés] sont appellées dioïques</u>.

One concludes therefore that between noun subject and verb there
is not, in fact, a close syntactic relationship.  This is borne
out by the fact that linguists, in trying to establish syntactic
dependencies, have disagreed as to whether the noun subject is
dependent on the verb, or the verb dependent on the noun subject.
The traditional view, supported by the dependency relationships
proposed by linguists such as Jespersen (1924:96ff) and Guillaume
(1971:145), is that the verb is dependent on the subject, and
that this dependency is shown by the agreement of the verb.  The
opposite point of view is that of Tesnière (1959), who proposed
that both subject and object were dependent on what he called
the "valency" of the verb.  Again, there is much that is interesting
to be said on the nature of this, the major syntactic relationship
of the sentence, but for our purposes here we note only that not
allowing liaison between a noun subject and its verb simply underlines
the fact that this is an exocentric construction, different from
such endocentric constructions as adjective-and-noun, where the
dependency relationship is clear, both morphologically and seman-
tically.

3.4.  Before words that have undergone a major recycling:

   <u>des / oui! des / oh! et des / ah! d'admiration</u>

Words such as <u>oui</u> and <u>oh</u>, <u>ah</u> are not ordinarily nouns.  In order
to become nouns, they must undergo some kind of morphological
recycling.  No liaison is made between the article and such recycled
nouns; such a liaison is, after all, an ordinary syntactic marker
of the normal relationship between article and noun.  Since these
items are not by nature nouns, the lack of liaison is a marker
of the normal syntactic distance between such elements and the
articles that precede them when they have become nouns.  It is
probable that we should include in this category the numerals
when they are treated as nouns, since one says:

   <u>le / huit octobre</u>, <u>le / onze novembre</u>;
   <u>j'envoyais / un</u>, <u>ils seront / huit</u>, <u>vous serez / onze</u>,

whereas it is normal to have a liaison in compound numerals such
as <u>dix-huit</u>.

**3.5** Between an interrogative adverb and the following clause to which it belongs:

<u>quand / arrivez-vous</u>? <u>comment / acceptez-vous</u>?
<u>combien / en ont-ils</u>?

This usage contrasts with that of the conjunction, which regularly forms a liaison with its following clause:

<u>quand=il arrive</u>

The relationship between a conjunction and its clause, however, is similar to that between a preposition and its noun phrase: by means of the conjunction the whole clause is recycled as an adverb, requiring a close syntactic dependency of clause to conjunction. The sentence adverb, by contrast, has but a loose connection to its clause, reflected its mobility: <u>vous arrivez quand</u>?

## 4.  Optional Liaisons

**4.1.** Between a plural noun and following adjective or following verb:

<u>activités=intenses</u>, <u>des=enfants=adorables</u>, <u>des femmes=âgées</u>;
<u>mes parents=insistent</u>.

Since the liaison between a noun and following adjective is forbidden in the singular, the obvious conclusion to be drawn from these examples is that an otherwise forbidden liaison may be made in order to distinguish the plural from the singular.

**4.2.** Between the auxiliary verb and the following past participle:

<u>vous=êtes=allés</u>, <u>nous=avons=eu</u>, <u>j'aurais=été</u>.

One would expect a close syntactic relationship between auxiliary verb and past participle, since these two elements together form the verb phrase, and together make a single verb in which the auxiliary carries all the grammatical marking of person, mood and tense, whereas the past participle presents the lexical element of the verb.  It is noteworthy, however, that many elements can come between auxiliary and past participle in both French and English.  One notes, for example, that in French the <u>pas</u> of the negative goes between auxiliary and past participle, whereas if

there were a close syntactic cohesion between the two elements, one would expect the <u>pas</u> to follow the past participle. A variety of adverbial elements may also be introduced between auxiliary and past participle, as we can see in such English examples as "he <u>had</u> [from time to time unsuccessfully] attempted to communicate." The fact that there is a definite relationship of dependency between auxiliary and past participle allows this liaison to be made, but because the relationship is not considered to be syntactically close, the liaison is not required. The past participle, in fact, as the following section will show, is treated in similar fashion to the complements of the verb, almost as if it were the complement of the auxiliary.

4.3. Between the verb and its direct object or other verbal complement. This encompasses also the past participle when used by itself with its own complements:

<u>vous=avez=un livre</u>, <u>nous chantons=une chanson;</u>
<u>remis=à neuf</u>, <u>mis=en demeure</u>, <u>pris=en flagrant délit</u>.

Here again we are dealing with a syntactic relationship where a following element is dependent on a prior element. A frequently used test of dependency relationships is the noting of the element that can stand alone without the other. In the dependency relationship between verb and direct object, the verb can stand alone without the direct object, but the direct object cannot stand alone without the verb. This test is diagnostic for establishing that the direct object is the dependent element. Likewise the adverbial complements, being tertiaries in the sense of Jespersen, are dependent on the verb, which in Jespersen's terms is a secondary (1924:96). Stemming from this observation, a pattern may be observed: a word that is followed by words or expressions that are syntactically dependent on it may be linked to these following elements by liaison. This general rule, for example, is true of the adjective:

<u>heureux=au jeu</u>, <u>malheureux=en amour</u>.

The same kind of liaison may be also found between the present participle and its following complements as the following examples will show:
<u>en allant=à Paris</u>, <u>en parlant=avec ma mère;</u>
<u>ployant=et déployant</u>, <u>regardant=et rêvant</u>.

For the most part, however, these liaisons are no longer made in ordinary conversation or informal style, and some of them would only be encountered in very formal style, such as formal readings and recitations. It is generally agreed that the traditional forms of liaison are gradually disappearing from contemporary French usage.

## 5. The Phonology of Liaison

The phenomena of liaison, of deletion of final schwa, and of the so-called aspirated h form a complex that has attracted a great deal of attention in phonological theory in recent years. One of the earliest attempts to deal with these problematic elements was that of Schane (1968) who, following the fashion set by Chomsky and Halle (1967), simply presented fundamental features of the phonological history as an operative synchronic phonology. Using details of the historical phonology as an "abstract" synchronic phonology gave rise to the abstractness controversy and the eventual charge that such abstract phonology, having no empirical base, was of doubtful value. The last ten years in particular have seen a movement toward more concrete underlying representations, and under the banner of Natural Generative Phonology a movement towards a phonology that may be considered realistic, a working model of natural processes.

Further progress has been made in recent years in the development of a phonology that recognizes the syllable as a different level from the phoneme. This move is to be welcomed, since there are many problems that are either insoluble or else lead to false conclusions if one takes a purely segmental approach. Within the framework of CV phonology, for example, we have had interesting and persuasive analyses of these problematical elements of French phonology, including liaison. Thus Clements and Keyser (1983) represent the silent final consonant of an adjective such as petit as being extra-syllabic, that is, as not belonging to the fundamental CVCV structure of the base word. This extrasyllabic consonant may, however, make use of the initial vowel of the following word to form a syllable that bridges the two words. French phonologists of all kinds are generally agreed that liaison consitutes such a syllable.

The phonologists, however, neglected to consider the constraints that we have examined: the obligatory liaisons, the forbidden liaisons, and the liaisons that are optional. Many of them apparently

take it for granted that liaison is a regular phonological phenomenon:
Klausenburger, for example, cites <u>Jean est ici</u> as an example of the
maintenance of nasalization (of <u>Jean</u>) when liaison occurs (1978:34),
seemingly unaware that liaison between <u>Jean</u> and the following verb
is not permitted in the first case, so that the possibility of
affecting the nasalization never arises.

From the data of our brief survey, however, we may note the
interlacing relationship of phonology and syntax:  where there is a
very tight dependency relationship between two words, the phonology
allows us to build the bridge of a syllable between them, thus
phonologically marking their close syntactic relationship.  When
there is no immediate relationship between the two words, and when
the dependency relationship is at one remove or more, the possibility
of building this syllabic bridge is rejected.  And thirdly, when
there is a syntactic relationship of dependency between the two
elements, but this is not a tightly knit or rigid one, the possibility
of building this syllabic bridge remains an option for the speaker.

## 6.  Conclusion

The phenomenon of liaison in French is not easy to describe,
and still more difficult to explain.  Many linguists have attempted
phonological explanations, with varying degrees of success, but
few have realized that liaison is not only a phonological, but
also a syntactic phenomenon.  We have attempted to show that liaison
is in fact a phonological marker of a close syntactic relationship
between words, and that where this close syntactic relationship
does not exist, liaison will not be made, even if the phonological
conditions exist for it.  From these observations it follows that
liaison is an important phenomenon for the study of syntax, since
it marks the degree of syntactic relationship between adjoining
words, thereby presenting a variety of interesting evidence on the
nature of syntactic dependencies.

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# LINGUISTIC INSECURITY AMONG THE ELDERLY

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## ABSTRACT

The research reported here is a replication of Owens and Baker's (1984) study, which validated a Canadian Index of Linguistic Insecurity modelled closely on Labov's (1966) original study of linguistic insecurity. Because Owens and Baker conclude that age might have a strong influence on scores of linguistic insecurity, the present study was undertaken, using a convenience sample of 201 older respondents ranging from .45 to 92 years of age. As expected, the sample showed little sign of linguistic insecurity. Approximately 68% of the sample had scores of zero, indicating no linguistic insecurity. Tests on the data also indicated that the characteristics of age, sex, socio-economic status, and feelings of educational inadequacy were not related to the scores on the index of linguistic insecurity. Possible explanations for the low scores are offered with reference to factors such as cessation of linguistic insecurity with advancing age, cohort or generational effect, and methodological problems in experimental design.

## 1. Background

Linguistic insecurity is a subjective attitude held by a speaker who feels that his or her use of language is erroneous and inadequate relative to the established norms. Standardization of language usage by its very nature engenders notions of correct and incorrect usage. Sterling Leonard (1962) traced the doctrine of correctness back to the seventeenth and eighteenth centuries in England, a period which witnessed an active process of subjecting English to classical regularizing, with Latin grammar serving as a model. This particular form of standardization had the effect of widening an already existing gap in linguistic behaviour between the privileged, well-educated class and the lower social classes with little or no formal education. The conditions fostering linguistic insecurity arose when members of the middle class aspired to higher social status. In his classic study of New York English, William Labov

(1966:475) notes that the desire for upward social mobility created
a need for the doctrine of correctness. This, in turn, designated
all non-standard speech patterns as vulgar and unbecoming. Labov
holds the view that linguistic insecurity is an inevitable corollary
of social mobility and the development of upward aspirations.
Inasmuch as this characterizes American society, most of its members
experience some measure of linguistic insecurity.

One of the most obvious manifestations of linguistic insecurity
is said to be hypercorrection. Hypercorrections consist of over-
generalization or misapplication of the linguistic rules which the
speaker is seeking to acquire. Labov cites two examples: "Whom did
you say was calling?" and "He is looking for you and I". Labov
points out that such hypercorrections can become so pervasive as to
lead to language change. Closely related to hypercorrection is the
inappropriate selection of formal stylistic variants in an informal
situation; e.g., "He commenced to laugh".

One of the dominant themes of Labov's 1966 study was linguistic
insecurity which he believed to be deeply rooted in the New York speech
community. In addition to observing hypercorrections, Labov developed
the Index of Linguistic Insecurity test (ILI), designed to obtain
measurements of manifest insecurity for individual subjects.
Phonological variables were illustrated by word-pairs, each member
of the pair representing the prestigious and non-prestigious pro-
nunciations, respectively. The subjects were instructed to identify
what they considered to be the correct forms and the forms they
actually used. Each instance in which these differed constituted a
point-score of insecurity. In this way, only overtly acknowledged
insecurity was being measured.

The results of the ILI test were congruent with those obtained
from the analysis of speech samples. The lower middle class had
the highest index scores, indicating a high degree of linguistic
insecurity. Approximately half of the lower class had scores of
zero, showing no overt linguistic insecurity; and the remaining
half had very low scores. Labov found that the upper middle class
displayed the least manifest insecurity. He concluded that, since
upper middle class speakers have acquired and internalized the
prestige linguistic traits, their general linguistic security would
tend to diminish the likelihood of any future shift in their speech
patterns.

Labov also reported that women scored higher than men on the Index.
He found no immediate pattern of sex differences by socio-economic

class. Women displayed a greater range of stylistic variation than men which resulted in a much higher degree of correction in the formal styles. In each category, men and women followed the same stylistic variation, but the total shift of the female speakers was much greater (Labov 1966:312).

Since Labov's study, there has been relatively little research subjecting linguistic insecurity to empirical testing. Richard Bailey (1973) modified Labov's ILI and tested elementary and high-school students in a small town near Detroit. He found that at the sixth grade level, girls had index scores that were slightly lower than the boys. When the test was administered to twelfth grade students, the situation was reversed. The girls' scores on the index were twice as high as the boys'. Bailey suggested that at the elementary level, the girls felt themselves to be in greater harmony with the external standard, but by the time they were finishing high school, the socialization process had been imposed on women and encouraged linguistic insecurity along with other uncertainties about the proper role of educated women. Bailey (1973:390) concluded that high linguistic insecurity accompanied individuals' awareness of themselves as remote from the sources of power and authority. He found the same connection between aspirations, self-assuredness and language as Labov reported in his study.

In a study of overt language attitudes, Dennis Baron (1976) found that many Americans felt linguistically insecure. They felt that their language was "inferior", "out of control", "riddled with errors", "unskilled" and "gauche" (Baron 1976:2). This left speakers feeling guilty about their speech. Hypercorrection was found to occur when speakers felt their speech to be inadequate, and over-compensated for this supposed inadequacy by using the most formal styles of speech. Baron (1976:2) suggested the result of these insecure feelings would be a devastating state of silence, inhibiting communications between individuals and groups. He stated that there were two major forces operating in our culture that produced linguistic insecurity: a) stereotyping of social and geographic dialects, and b) an educational system based on a doctrine of correctness and purity in language.

Alison D'Anglejan and Richard Tucker (1973) investigated feelings of insecurity among French Canadians with respect to their own language. They found that a majority of the respondents stated they would be willing to accept correction and try to adjust their speech habits when the errors were pointed out to them by another Quebecer. However, the percentage decreased to just less than half

if the corrections were pointed out by Europeans. D'Anglejan and
Tucker (1973:19) concluded that the data showed French Canadians
were aware of the phonological differences between their dialect
and standard French, but unaware of the extent to which their
syntax diverges from the standard patterns. In another study of
language attitudes in French Canada, Laberge and Chiasson-Lavoie
(1971) administered a questionnaire to five samples of French
speaking students, from different socio-economic groups, to examine
their attitude towards "joual". They found that the students from
the higher socio-economic groups displayed more linguistic security
than the students from the lower groups.

Gary Underwood (1974) has been the only researcher to challenge
Labov's claim that linguistic insecurity is a trait common to all
Americans to some degree. In the Arkansas Language Survey, Underwood
used a semantic differential technique to test Labov's hypothesis
of linguistic insecurity. He discovered (Underwood 1974:214) that
the respondents did not exhibit any of the linguistic "self-hatred"
that outsiders might expect them to feel. Underwood concluded that
the universal language trait of "self-hatred" was not found in
Arkansas. Rather, his subjects displayed self-confidence and pride
and showed no signs of linguistic insecurity.

Thompson Owens and Paul Baker (1984), on whose work our study
is based, devised a Canadian equivalent of Labov's ILI. Using the
Canadian Index of Linguistic Insecurity (CILI), they tested a
random sample of 80 adult Winnipeggers. Except for the word items
used in the test, Owens and Baker followed Labov's methodology as
closely as possible. For the ILI test, Labov selected items with
variable pronunciations in New York contrasting prestigious and
non-prestigious forms; e.g. catch /kætʃ/ vs. /kɛtʃ/ and length
/lɛŋθ/ vs. /lɛnθ/ (see Table 1, p. 164). For the CILI test on the
other hand, Owens and Baker selected items from the 1972 Survey of
Canadian English (Scargill and Warkentyne 1972) in each of which
two pronunciations are given (see Table 2, p. 165). In the majority
of cases these dual pronunciations reflect a morphophonemic patterning
of British and American English usage, respectively; e.g., lever
/livər/ vs. /lɛvər/ and progress /prougrɛs/ vs. /pragrɛs/. The
CILI test also includes some items in which the pronunciations vary
in respect of standard and non-standard usage; e.g. genuine /dʒɛnjuɪn/
vs. /dʒɛnjuaɪn/ and bury /bɛri/ vs. /buri/. For the purpose of
comparison, they administered both CILI and ILI.

Owens and Baker (1984:343) found that the results of their study
were remarkably similar to Labov's original findings. However,

they did report one major difference between the two studies. In the Owens and Baker study, a greater percentage of the respondents scored zero on the index, indicating more respondents in their study were linguistically secure than were the respondents in Labov's study. Owens and Baker accounted for this difference by suggesting that Winnipeggers and perhaps other anglophone Canadians were much less linguistically insecure than New Yorkers. An alternative explanation presented was that there had been a decline in linguistic insecurity since 1966 in both New York and Winnipeg.

Owens and Baker (1984:344) concluded that there were two main factors which contributed to linguistic insecurity amongst Winnipeggers: first, use of American versus British forms, and second, use of a pronunciation which deviated from the orthographic form of the word as in arctic /ɑrtɪk/ vs. /arktɪk/. Among the respondents, there was an overwhelming feeling that the British pronunciation was "correct" and the American pronunciation was "sloppy".

Owens and Baker were able to validate the Canadian index, as the scores on the two indexes were highly correlated. They were able to replicate Labov's results in terms of social class and sex differences. In their discussion, they noted further research was required and suggested that chronological age might have an influence on the scores on the index, in that older individuals might have outgrown any linguistic insecurity they once had possessed.


2.   Methodology

This study is a replication of Owens and Baker's cross-sectional study of linguistic insecurity. A convenience sample of 201 older respondents was obtained from the Victoria area. The procedures for selecting the sample differed somewhat from the procedures used by Owens and Baker. Because of the type of respondents being sought, the random sample process used by Owens and Baker could not be replicated. Also, since this was the first time CILI had been administered solely to an older sample, and also because the elderly are a unique and specific subgroup of the overall population, different sampling procedures were employed.

A snowball sampling technique most appropriately describes the procedure used in this study. Respondents were contacted through Victoria area senior's organizations and associations, through posters, by word of mouth and through television advertisements. The organizations approached were located in different socio-economic

areas of Victoria so as to reflect the different socio-economic classes of people living in Victoria.[1] The respondents ranged in age from 45 to 92. The data were gathered by means of face-to-face structured interviews, which took approximately 20 minutes to complete. Statistical analysis was performed by either conducting T-tests or one-way ANOVA, with the probability level set at 0.05.[2] The only requirements for the respondents were that they be English speaking. There was no residence requirement as there was in Owens and Baker's study. Because Victoria is known as Canada's retirement capital, a large percentage of older Victoria residents have either moved to Victoria later in their lives or following retirement.

This study involved one minor difference in the interviewing procedure. Unlike Owens and Baker's study, a tape recorder was used to present the CILI words to the respondents. Labov (1968:250) stated that the use of a tape recorder was a practical method of administering linguistic material. The tape guaranteed consistent pronunciation of each item. Other than this difference, the scoring of pronunciations was identical to those used by Owens and Baker.

| | |
|---|---|
| 1. Joseph /dʒouzɪf, dʒousɪf/ | 10. length /lɛŋθ, lɛnθ/ |
| 2. catch /kætʃ, kɛtʃ/ | 11. February /fɛbrueri, fɛbjueri/ |
| 3. tomato /təmeɪtou, təmɑtou/ | 12. ketchup /kætʃəp, kɛtʃəp/ |
| 4. diapers /daipərz, daiəpərz/ | 13. escalator /ɛskəleitər, ɛskjuleitər/ |
| 5. aunt /ænt, ɑnt/ | 14. new /nu, nju/ |
| 6. often /ɔfən, ɔftən/ | 15. tune /tun, tjun/ |
| 7. garage /gəraʒ, gərɑdʒ/ | 16. avenue /ævənu, ævənju/ |
| 8. humorous /hjumərəs, jumərəs/ | 17. because /bikɔz, bikɔs/ |
| 9. vase /veiz, vɑz/ | 18. half /hæf, hɑf/ |

TABLE 1.  Items on the ILI Test

1. lever /livər, lɛvər/          12. leisure /lɛʒər, liʒər/

2. student /stjudənt, studənt/   13. either /aiðər, iðər/

3. apricot /eiprikɒt, æprikɒt/   14. cot /kɒt, kɑt/

4. schedule /ʃɛdjʊl, skɛdʒəl/    15. missile /misail, misəl/

5. genuine /dʒɛnjʊin, dʒɛnjuain/ 16. film /film, filəm/

6. anti /ænti, æntai/            17. almond /amənd, almənd/

7. bury /bɛri, bʊri/             18. progress /prougrɛs, prɑgrɛs/

8. arctic /ɑrktik, ɑrtik/        19. route /rut, raut/

9. butter /bʌtər, bʌdər/         20. congratulate /kəngrætʃəleit, kəngrædʒəleit/

10. caramel /kærəməl, karməl/    21. ration /ræʃən, reiʃən/

11. lieutenant /lɛftɛnənt, lutɛnənt/  22. whine /wain, hwain/

TABLE 2.  Items on the CILI Test

## 3.  Results

The first hypothesis of this study predicted that the sample of older people, as a group, would score lower on the CILI than the sample studied by Owens and Baker.  In order to compare the distribution of the Victoria and Winnipeg scores on the CILI test, the test scores of each study were divided into the same four categories of linguistic insecurity:  none, low, moderate and high (see Table 3 below).  This allowed for a valid comparison of the two test scores.

When the percentage distributions of the scores from the two studies were compared, they were found to be dissimilar.  The results suggest that this older sample as a group was less linguistically insecure than the general population of Winnipeggers studied by Owens and Baker.

In the present study, there were proportionately 1.3 times as many respondents with a zero score (i.e., no linguistic insecurity) as in Owens and Baker's study.  The range of test scores obtained here was also much lower than the range of test scores obtained in

Owens and Baker's study.  In fact, the highest test score in the
present study was 6, which falls only into the third category of
moderate linguistic insecurity.

|                       | SCORE | FREQUENCY | | PERCENTAGE | |
|                       |       | VICT. | WINN. | VICT. | WINN. |
|-----------------------|-------|-------|-------|-------|-------|
| No Ling. Insec.       | 0     | 136   | 39    | 67.7  | 48.8  |
| Low Ling. Insec.      | 1-3   | 53    | 17    | 26.4  | 21.3  |
| Moderate Ling. Insec. | 4-8   | 12    | 17    | 6.0   | 21.3  |
| High Ling. Insec.     | 9+    | nil   | 7     | nil   | 8.8   |
|                       |       | 201   | 80    | 100   | 100   |

TABLE 3.  Division of Scores on the Victoria
CILI and the Winnipeg CILI with Resultant
Frequencies and Percentages

In the Victoria study, several respondents made comments that
indicated they were linguistically secure. Many of the respondents
stated throughout the interview process that they did not feel
their pronunciations were incorrect.  One woman remarked, "I don't
think much about word use or the word—I just use what comes naturally."
Several respondents made this comment, "Why would I continue to use
a wrong pronunciation if I knew it was wrong?"  Another comment
that was quite common was, "It depends on what part of the country
you are in, as to how you pronounce a word."  And finally, other
respondents said something along the lines of, "I use the pronunciation
that I was taught in school.  It should be right and if it is not,
then I cannot be blamed for a wrong pronunciation, the blame lies
with the school system."  These and other comments suggested that
most of the respondents thought their pronunciations were correct
and that they did not exhibit any feelings of linguistic insecurity.

Our second hypothesis predicted that linguistic insecurity would decrease with age. Age was divided into five categories so that changes in the index could be pinpointed to a fairly narrow age range. As it turned out, the means were not significantly different from one another at the 0.05 level. However, it is interesting to note that the oldest group, 75 and over, had the lowest mean score ($\bar{x}$ = 1.27) on the CILI. The highest mean score ($\bar{x}$ = 1.45) was obtained from the second age-group, 70 to 74, whilst the youngest age-group, 45 to 59, had the second highest score ($\bar{x}$ = 1.43). The remaining two age-groups, 60 to 64 and 65-69, had the second lowest score ($\bar{x}$ = 1.34).

| AGE CATEGORIES | MEAN VICTORIA CILI SCORE | N |
|---|---|---|
| 45 - 59 years | 1.43 | 51 |
| 60 - 64 | 1.34 | 32 |
| 65 - 69 | 1.34 | 39 |
| 70 - 74 | 1.45 | 42 |
| 75 and over | 1.27 | 37 |

F-ratio = 0.583   df = 4, 206   p = NS

TABLE 4. Mean Scores on the Victoria CILI
by Age Categories

In line with the Owens and Baker studies we hypothesized that females would score higher than males. In Labov's New York study, females scored 50% higher than males on the ILI (Labov 1966:478). In Owens and Baker's study, females scored 36% higher than the males on the Winnipeg CILI. The results from our study did not show this trend. The mean test scores of the male and female respondents were almost the same.

|          | MEAN CILI SCORE | N   |
|----------|-----------------|-----|
| MALES    | 1.40            | 55  |
| FEMALES  | 1.37            | 146 |

T–value = 0.25   df = 199   p = NS

TABLE 5.   Mean Scores on the Victoria
CILI by Sex

The male respondents had a mean test score that was only slightly higher ($\bar{x}$ = 1.40) than the female mean test score ($\bar{x}$ = 1.37); these scores were not found to be significantly different from each other at a 0.05 level of significance.

Perhaps the most striking result of our experiment is that the mean score obtained for female subjects is about the same as that for males.  This certainly conflicts with the widely held view that women, by nature, strive to acquire prestigious language forms more than men do.  Patricia C. Nichols (1983) argues that women, no differently from men, use language in ways that are demanded by circumstances in which they find themselves.  In her study of black women in the South, Nichols has found that every instance of a female subject's acquisition and use of standard–prestige forms is relatable to the career that she is pursuing.  There is no reason to believe that her finding is not applicable to North American society in general.  The indexes of insecurity for women found by Labov and Owens and Baker may perhaps be accounted for by the possibility that women in the work force tend to concentrate, more than men, in professions in which the use of standard language is perceived to be more important for career success.  Traditionally, women have predominantly sought careers in the teaching, health, sales, and secretarial professions, all of which demand a high level of communication with the public. Relating this to linguistic insecurity, one might suggest that in the formative stages of their careers these women may have experienced considerable degrees of anxiety over language usage.  However, as their careers progressed, so did their linguistic confidence.  Later, upon approaching retirement when opportunities for career advancement diminish, feelings of

linguistic insecurity would further abate. Assuming that the scenario sketched above has validity, the sharp lowering of female linguistic insecurity shown in our study may be seen as a function of two independent variables, a progressive rise in the level of confidence regarding language use and the cessation of upward social mobility in later years.

Our fourth hypothesis predicted that those respondents who belonged to the lower middle class would score higher than the respondents from the other socio-economic classes on the CILI.[3]

| Socio-economic Class | Mean CILI Score | n |
|---|---|---|
| Lower SEC | 1.33 | 15 |
| Working SEC | 1.37 | 64 |
| Lower-mid SEC | 1.37 | 89 |
| Upper-mid SEC | 1.30 | 20 |
| F-Ratio = 0.104    df = 3,184    p = NS | | |

TABLE 6. Victoria CILI Mean Scores
for SES Groups

Even though Owens and Baker (1984:384) tested this same hypothesis, they did not provide the mean scores on the CILI for each class separately. Instead, they collapsed the mean test scores of the lower class, working class, and the upper middle class, and then compared the mean test score of these groups with the mean test score of the lower middle class. In their study, the lower middle class ($\bar{x}$ = 4.80) had a higher mean test score than the other socio-economic classes ($\bar{x}$ = 1.90) combined. As Owens and Baker reported, the difference between these two means was found to be significant at the 0.01 level.

For the Victoria CILI, the lower middle class score ($\bar{x}$ = 1.37) is not significantly higher (at the 0.05 level) than the combined score ($\bar{x}$ = 1.35) for the other three classes combined. However, it

will be seen from Table 6 that the working class score is the same
as that of the lower middle class. To the extent that the uppermost
and lowest classes score lower than the two middle classes our
results agree with those of Owens and Baker. Even so, the class
differences on the CILI amongst the elderly in Victoria are not
statistically significant and, therefore, the hypothesis is not
supported by this study.

Our fifth hypothesis predicted that those respondents who indicated
that they felt they had insufficient education would also have a greater
degree of linguistic insecurity than those who felt their educational
experience to be adequate. As was predicted, those who stated they
had insufficient education scored higher ($\bar{x}$ = 1.46) on the CILI
than those who reported they had sufficient education ($\bar{x}$ = 1.33).
Here again, the difference is not statistically significant at the
0.05 level and the hypothesis thereby is not supported.

The final discussion of the results deals with the comparison
of scores of the respondents with British accents and those without
British accents. As was predicted, respondents with British accents
scored lower on the CILI ($\bar{x}$ = 1.18) than the respondents without
British accents ($\bar{x}$ = 1.41).[4] The difference of the mean scores was
found to be significant at the .05 level (p = 0.047). Comments
made by the British respondents provided additional support for
this hypothesis. The British respondents realized that of the two
pronunciations they were presented with, one was the British pro-
nunciation and the other the American pronunciation. One respondent
after hearing the two pronunciations of the first item (lever)
said, "Which pronunciation do you want me to say is correct--the
BBC or the American?" Several respondents said, "It depends where
I am, if I'm in Canada or the States I use the North American
pronunciation and if I'm in Britain I use the British pronunciation."
Since many respondents with British accents stated that they considered
both pronunciations to be correct and that they used either one
depending upon situation, this might explain why the British respondents
scored lower on the CILI than did the respondents with no British
accent.

An interesting phenomenon also emerged during the interviewing
process. It was thought that respondents with hearing deficiencies
would have greater difficulty in understanding the pronunciations
from the tape recorder than from the interviewer. However the
reverse occurred; despite the lack of visual cues such as lip
reading, the respondents with hearing deficiencies had little
problem understanding the tape. Atchley (1980:45) points out that

age-related changes in ability to discriminate among sounds make speech more difficult to hear, especially when people talk fast, when there is background noise and when there is distortion or reverberation of sound (Corso 1977:550). The most plausible explanation of why the respondents could hear the tape so clearly may have been the lack of background noise, the slow clear pronunciation, the constant volume and especially the deep voice used on the tape.

## 4.  Conclusion

Of the four hypotheses based on Owens and Baker only the first was substantiated; i.e., the sample of elderly people produced a much lower CILI score than the general sample in Winnipeg. On that basis, we might tentatively conclude that feelings of linguistic insecurity tend to disappear with aging. Assuming, as Labov did, that linguistic insecurity is closely associated with aspirations for higher social status, older people may stop concerning themselves with problems of "correct" usage largely because they are no longer in a position to improve their social standing. However, since this study was the first to use a large number of older respondents exclusively and since it was cross-sectional in design, there is no way to know if this indeed is the case. Further research employing a longitudinal research design should be used to study when and how linguistic insecurity develops throughout the lifespan and what variables are associated with it.

A different explanation for the discrepancy between these findings and previous findings may center around methodological problems that were uncovered during the interview process. This study has revealed two major methodological problems with the CILI. The first problem revolves around the items used to make up the CILI. Labov's ILI was composed of eighteen items and the two pronunciations accompanying each item consisted of a standard pronunciation and a non-standard pronunciation. The selection process of items for the CILI resulted in about eighteen of the twenty-two items having both a "British" and an "American" pronunciation. Because of this, the respondents were not given the choice between a "correct" or "incorrect" pronunciation. One subject said, "Well, it depends. For example, for lieutenant, /lɛftɛnənt/ is more commonly used in Canada and /lutɛnənt/ is used in the U.S., but they are both correct." This suggests that the items used in the CILI test may not be tapping manifest insecurity reliably.

A second methodological problem that was uncovered has to do with how the pronunciations were presented to the respondents. In the first sixteen interviews of this study, the researcher, after being coached by a linguist on the two pronunciations, followed the same procedures as in the two other studies mentioned. However, the better to ensure that all respondents were presented with the appropriate pronunciations (according to the CILI) and also to ensure that there was no variation in pronunciations from one respondent to the next, tape recorded pronunciations were used for the remaining respondents. The results indicated that the group of respondents who did not have the tape played had a mean test score of ($\bar{x}$ = 1.93) while the respondents who had the tape played had a mean test score of ($\bar{x}$ = 1.33). The difference in mean test scores was found to be statistically significant. In other words, when the tape recorder was used, the scores on the CILI were significantly lower than when the tape recorder was not used.

Another problem that this study may have encountered is that of accommodation. The accommodation model as presented by Giles and Powesland (1975) and Giles and Smith (1979), hypothesizes that speakers accommodate their speech style to their addressee in order to win approval. This was particularly noticeable in first generation Canadians born in the U.K. who indicated that when they were in Canada or the U.S., they tried to use American pronunciation so as not to seem out of place. Consequently, they were not about to show preference for the "British" pronunciation in the presence of the Canadian-born interviewer.

It may be argued that the sample used in this study was biased which, in turn, had an effect on the outcome of the results. This would certainly be a fair criticism if we claimed that this represented older respondents in general. Rather, this research sought only to examine linguistic insecurity among a small sample of older people residing in Victoria.

## ACKNOWLEDGEMENTS

## FOOTNOTES

[1]It is commonly recognized that in Greater Victoria high-income groups reside in the municipalities of Oak Bay and parts of Saanich and that low-income groups are concentrated in Esquimalt.

[2]T-tests were used to determine if the difference between the means of two subsamples was statistically significant and the one-way ANOVA was used to make a simultaneous comparison of more than two group means.

[3]The method of determining the SES index followed that used by Labov (1966:213-217) and Owens and Baker (1984), being based on occupation, education and income. The main difference lay in the treatment of income. For retired subjects, the peak income, usually that immediately preceding retirement, was used and adjusted to 1981 constant dollars.

[4]Census figures decennially from 1881 show a consistently dominant British element in the population of British Columbia. A comparison of 1961 population statistics shows a significantly higher proportion of both British born and British descended in Victoria than in British Columbia as a whole. 1961 percentages for British born are as follows: Canada 5.3%, British Columbia 11.4%, and Victoria 19.0%. Percentages for those of British ethnic origin are: Canada 43.8%, British Columbia 59.4%, and Victoria 77.7%. This would account for the frequency of British accents in Victoria, especially amongst the elderly.

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Language, the Sexes and Society, by Philip M. Smith (Series: Language in Society, 8), Oxford: Basil Blackwell, 1985, paper, vi, 211 pages, $16.25, ISBN 0 631 12735 4.


The title of this book suggests that it could have been a valuable addition to what has in the past been a somewhat neglected area of sociolinguistics. Of all the possible groups in western society, the only one to which an individual is assigned without exception, and usually without choice, is that of sex. Even if gender identity is regarded as merely a social identification, and one which may vary considerably from individual to individual, nevertheless a specific gender identity is assigned to each individual, Smith's own doubts about the physiological basis for a straightforward dichotomous division notwithstanding. The examination of sex-related language traits, and the attempt to discover whether there is any inherent differentiation between the sexes in language, is of interest not merely for its own sake but in terms of future planning in fields such as education, employment, and so on.

Unfortunately, the work scarcely lives up to the promise of its title. The limitation of most of the discussion to the results of experiments carried out in English-speaking communities, and therefore to the possible relationship between sex and the English language, rather than language in general, cannot be considered a serious flaw, since the scope of the book must obviously be limited in any case by its size. However, there are so many other problems in the text that it is difficult for the reader to decide just what the intentions of the author were in writing this book, or where, if anywhere, its conclusions are supposed to lead.

The first few chapters are largely taken up by a survey of recent research in the general field, and some discussion of the implications of this research. Such a survey is, of course, useful to the general reader, or would be, if it were actually written for such a reader. But the tone of the discourse varies from formal to informal, occasionally descending to the patronizing. More significantly, while some elementary aspects of sociolinguistic methodology are explained in detail, in other cases no explanation is given at all, and the reader is apparently presumed to possess already whatever knowledge is required for an understanding of these passages. Yet for a reader with such knowledge, the elementary explanations appearing elsewhere are surely unnecessary. It does not seem that this is a problem merely of editorial carelessness, for much of the

evidence suggests a more fundamental weakness than inefficient copy-editing.

Not that there is any dearth of evidence indicative of poor proofreading. There are far too many errors in spelling and punctuation for the text to be acceptable as a work of scholarship. More seriously, however, necessary information is sometimes omitted from tables, and there is a general inconsistency of presentation between different sections of the book, with subdivisions being titled in different ways and data sometimes being presented in varying forms. The summary of the author's own earlier work, given in Chapter 1, is an almost immediate indication of the extent and severity of the textual problems, for while similarities of phrasing suggest that the present passage is indeed a direct summary of the earlier publication, the summary itself is so careless that it is impossible to follow it clearly without recourse to the earlier work.

The pity of all this is that the central thesis·of Language, the Sexes and Society, at least in so far as it relates to the reports given in Chapter 6 of experiments conducted by the author in Bristol, England, is of considerable interest, although even here the quality of reporting leaves much to be desired. While Smith tends to generalize without much regard for the limitations of the experiments themselves--the smallness of the samples, the restriction to a particular region, social class, and even age group--and also fails to give sufficient information concerning some of the selection processes used in the experiments, these weaknesses do no necessarily invalidate the results. Indeed, the small but significant correlation found between gender identity in listeners and the extent (and nature) of their discrimination on the basis of sex may be enough to make the book worth reading despite its many faults:

> the results of these analyses suggest that
> listeners discriminate less between male and
> female speakers, perceive members of their own
> sex as less uniform, and members of the opposite
> sex as more uniform, as the strength of ingroup
> identity increases. (p. 134)

Whether this is in itself a sufficient reason for reading this book is perhaps debatable. The advice to Smith is that he should pay a great deal more attention in the future to editing and proofreading than he has apparently done in this volume. As far as Language, the Sexes and Society is concerned, it would

perhaps have made an acceptable monograph, if confined to Smith's own experiments; as a full-length book, it is merely confused.


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