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CONTENTS/SOMMAIRE

REVIEWS/COMPTES RENDUS

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Failure to invert is observed when a child uses auxiliaries in questions, but maintains declarative Subject-AUX-Verb order (e.g., **What he is doing? Why he isn't eating? You are going home now?**). We will suggest that despite the centrality - and the longevity - of the auxiliary placement issues, no current syntactic account can explain the acquisition facts. Indeed, the facts themselves are in dispute: for each logically possible pattern of results, there exists not only a theory that predicts it, but data to support it as well.

First, the notion of transformational complexity derived from the Standard Theory (Chomsky 1965) predicts that inversion should be earlier or more accurate in Yes/No questions than in WH questions, and in both types of affirmative questions than in negative questions. This prediction is supported by several studies (Klima & Bellugi 1966; Bellugi 1971; Brown 1968; Kuczaj & Maratsos 1975). Within the Government and Binding model (Chomsky, 1981), however, acquisition difficulty is postulated to derive from markedness considerations, although there seems to be no markedness principle which would account for a Yes/No vs. WH or an affirmative vs. negative difference in inversion. Indeed, one proposal (Hyams 1986:51) implies that for Italian at least, it is necessary to distinguish between a **'verb preposing'** analysis of inversion in the case of WH movement, and a separate **move-INFL** account (an instance of **move alpha**) of the Standard Theory treatment of Subject-AUX inversion.

Secondly, Lexical-Functional Grammar (Pinker 1984) predicts no difference in the emergence of inversion in different question types, and other research supports this prediction (Erreich 1980, 1984; Hecht & Morse 1974 (cited in De Villiers & De Villiers 1978); Ingram & Tyack 1979; Maratsos 1983). Pinker's account does not deal with negation.

Finally, at least one model of markedness, based on the implicational universal that languages with Yes/No inversion also have WH inversion (Eckman, Moravcsik & Wirth 1987), would allow for better performance on inversion in WH questions than in Yes/No questions. Under one interpretation of a study of elicited and spontaneous questions (Erreich 1984 (see below)), this model too is supported. Again, however, this theory makes no predictions concerning the effects of negation.

The experiment to be described below re-examines the inversion claims in the light of previously unreported imitation and elicited production data from children aged 3;0 to 4;6 (Derwing 1979). We will show that the results of this study are not clearly supportive of any account of the syntax of English questions. We will then

argue that pragmatic, discourse, and input effects may be confounded with the syntactic representation issues in all published studies. Finally, we will propose that if one is to understand the inversion issue fully, these confounding effects must be examined separately, then controlled for in more refined acquisition studies.

2. Inversion in Yes/No vs. WH Questions

Klima & Bellugi (1966) and Brown (1968) cited evidence from the longitudinal study of Adam, Eve and Sarah that subject-AUX inversion is mastered in Yes/No questions before it appears in WH questions. That is, they argued that there is a period when children are able to produce Yes/No forms correctly but are still producing WH questions that maintain declarative word order (e.g., **What you are doing?**). They linked the observed acquisition sequence to the fact that the later acquired WH questions were derived through both a WH preposing rule and an inversion rule, while the earlier-acquired Yes/No questions required only an inversion transformation.

Kuczaj & Maratsos (1975) examined the imitation abilities of one child (Abe) who was not yet spontaneously producing any auxiliaries, inverted or otherwise, in Yes/No and WH questions. When asked to imitate both grammatical (inverted) and ungrammatical (uninverted) questions, he did not invert in the WH questions, but did invert in the Yes/No questions, even when the target sentence incorrectly used non-inverted syntax. The child's differential treatment of Yes/No and WH questions was taken as evidence of an acquisition sequence which occurred during a 'pre-organizational' stage preceding the use of auxiliaries in his own productions. This interpretation was further supported by the fact that the child later spontaneously began to use auxiliaries first in Yes/No questions, where inversion was present from the outset. These results would lend a slightly different kind of support to Bellugi's (1971) complexity explanation. Since the study concluded before the child began to use auxiliaries in WH questions, it is not reported whether inversion was present from the outset in that question type.

Despite this initial correspondence between data and theoretical predictions, later cross-sectional studies indicated that some children do not master subject-auxiliary placement in Yes/No questions prior to WH questions. Hecht & Morse (cited in de Villiers & de Villiers 1978), Ingram & Tyack (1979), and Erreich (1984) claimed that their subjects made similar inversion errors in both sentence types. However, it is not clear whether variation in

results across studies should be attributed to differences among subjects, differences in methodology, or perhaps both.

For example, the Harvard data are based on only three children, with naturalistic observation by trained researchers, while Ingram & Tyack had parents collect the data cross-sectionally. Surprisingly, the lack of Yes/No vs. WH effects in the latter case was caused by the fact that only 2 of the 21 children made any inversion errors at all; surely this runs counter to the general finding that inversion errors are a common feature of early English syntax.

Techniques for data analysis also vary. For example, one potential source of the divergence of Erreich's (1984) results from other work is the fact that she scored her results according to a productivity criterion (counting only utterance types rather than tokens) which had not been applied in other studies. Erreich also failed to report significance tests on the differences between error rates, stating only that 'Non-inversion was...common in both **yes-no** AND **wh-questions**' (p. 585). On closer examination, however, one finds that performance was numerically better on WH inversion (36% vs. 51%).

Finally, there is a lexical parameter to the acquisition of inversion: Labov & Labov (1978), Kuczaj & Brannick (1979), and Bloom, Merkin & Wootten (1982) have noted that the appearance of inversion is not consistent across WH words. One important consequence of this finding is that the amount of inversion found in studies of spontaneous speech will differ from that found in elicited production or imitation tasks, in which the number of tokens per lexical item is under the control of the experimenter.

3. Inversion in Affirmative vs. Negative WH Questions

Bellugi (1971) reported a developmental difference in the acquisition of affirmative and negative WH questions. In an elicitation task that was undertaken after her analysis of the Harvard corpus, she noted that her subject, Adam, inverted all affirmative WH forms, but none of the negative forms (e.g., **Why you can't sit down?**). Despite her declared unwillingness to invoke the Derivational Theory of Complexity, Bellugi attributed this to the greater transformational complexity of the negative sentences. She was not, however, able to compare this result with spontaneous production data on Yes/No questions, since, in accordance with the developmental sequence discussed above, Adam made only seven inversion errors in a total of 205 positive Yes/No questions and

produced only three negative Yes/No questions (less than 1.5 % of the total for that type).

It should be noted that a similar problem of interpretation arises with Erreich's (1984) analysis of spontaneous WH questions: only 1.5% of the children's 982 questions were negative, and negative questions were not collected in the elicitation task. The only other study which examines the effects of negation on inversion accuracy in WH questions is Labov & Labov's (1978) analysis of a large sample of their daughter Jessie's spontaneous production of WH questions over a period of nearly three years. They found only 194 negatives (6.5%) in their sample of 2976 WH questions, and of these only 21 (10.8%) were inverted, compared with 57% of positive WH questions. Thus, fewer than one per cent of Jessie's WH questions were inverted negatives. Although these data support their claim that inversion accuracy was a variable rule for their child, they offered no further explanation as to why negation should be associated with more inversion errors.

Since other studies do not provide a breakdown of results in terms of affirmative vs. negative forms, it is difficult to comment on the importance of negation to the acquisition of subject-auxiliary inversion. In fact, most researchers have ignored the issue. For example, Pinker (1984: 276) mentions Bellugi's (1971) findings in his discussion of arguments against the transformational explanation, devoting considerable attention to Yes/No vs. WH inversion. However, he never returns to the issue of negative vs. affirmative WH questions in relation to his own theory. Maratsos (1983), McLaughlin (1984) and Reich (1986) also sidestep the problem: in their surveys of the inversion controversy they ignore the possibility of a distinction between positive and negative WH questions, yet all cite some negative WH questions as examples of evidence for the later acquisition of inversion in WH questions. This gives the misleading impression that lack of inversion in negative WH questions is typical of WH questions in general.

We would like to point out that the lack of inversion in negative questions is not their most remarkable characteristic. Rather, the fact that they comprise such a small portion of the spontaneous speech corpora suggests that they pose difficulties that differ in kind from those involved in the Yes/No vs. WH comparison. The frequency data suggest to us that functional constraints such as presuppositional markedness may limit children's attempted use of negative questions; the apparent lack of inversion may arise from planning difficulties for sentences which are outside the child's pragmatic repertoire. This issue will be discussed in greater detail below. Such an explanation is compatible with evidence (Hamburger & Crain 1982; Nakayama 1987) that the frequency

of other auxiliary errors is correlated with sentence complexity. For example, Nakayama found that auxiliary overmarking (e.g., **Whose is that is?**) was more common (1) in sentences containing relative clauses; (2) when the relative clause was long; and (3) when the relative clause had an object gap. Thus, a prompt such as **Ask Jabba if the girl is tall** is less likely to yield double auxiliaries than a prompt such as **Ask Jabba if the boy who is watching Mickey Mouse is happy**. We would claim that Nakayama's subjects used double marking when artificially constructing sentences which were beyond their productive capacity, and that analogous results should appear for inversion when children attempt to construct pragmatically difficult sentences in any imitation or elicited production task. Such effects are reminiscent of the early adult sentence-transformation studies (see Fodor, Bever & Garrett 1974), in which processing difficulty was associated with transformational complexity only in certain sentence manipulation tasks.

To summarize, the current consensus is that claims for a universal order of acquisition for Yes/No and WH questions are unjustified (de Villiers & de Villiers 1978: 107; Maratsos 1983: 753; Reich 1986: 121). Pinker (1984: 287) goes so far as to say that 'the supposed syndrome of inverting in Yes/No questions but not in WH questions either does not exist or exists only rarely. The common error pattern is to invert optionally in all questions.' Furthermore, little is known - or predicted by other linguists - about the effects of negation on inversion.

We concur with Pinker's (1984:261) frustration over the need to consult '**experimental** studies of auxiliary development when such studies exist (all too rarely, alas).' Thus, we present here an extended, cross-sectional version of Bellugi's (1971) work with Adam, since this is the most often cited work which supports the claim that Yes/No inversion precedes WH inversion. By using methodologies (imitation and prompted production) which are similar in essential respects to Bellugi's, we will test the generality of the findings reported for Adam. Given the complexity of the issues, we can make no **a priori** predictions at this point concerning the outcome of the Yes/No vs. WH analysis. However, we do predict that inversion will be less frequent in negative than in affirmative questions.

4. Experiment

4.1 Subjects

The subjects were 24 monolingual English speakers; all were middle class children who attended daycare in Edmonton. They fell into three age groups: 3;0 - 3;6 (Group 1); 3;7 - 3;11 (Group 2); and 4;0 - 4;6 (Group 3). Each group consisted of four females and four males.

4.2 Procedure

The experiment consisted of an imitation task and a production task. Since the presence or absence of correct subject and AUX placement in negative WH questions was the focus of Bellugi's study, six of the stimuli were questions of that type (e.g., **Why isn't the boy happy?**). There were three affirmative WH inverted sentences (e.g., **Why is the dog barking?**); one affirmative WH non-inverted question (**Who is hiding?**), two negative WH non-inverted questions (e.g., **Who won't run away?**) and one affirmative and one negative Yes/No question (**Is the dog black?** and **Isn't the boy singing?**). Although it would have been desirable to have an equal number of each question type, the attention span of the very young subjects was thought to be too short to accommodate a larger stimulus set.

The first task required subjects to imitate the set of 14 sentences, whose presentation order was randomized. The children were asked to repeat each sentence after the experimenter and were given up to three opportunities to do so.

The production task was patterned after Bellugi's (1971) experiment and took the form of a puppet show. Subjects asked questions of three hand puppets (representing a woman, a dog and a boy), while two experimenters manipulated the puppets and responded to the questions. One of the experimenters also acted as narrator and prompted the children with a series of indirect questions.

The sentences in the elicited production task corresponded to those in the imitation task, although the presentation order was altered so that a coherent story could be developed and acted out by the puppets and the children.

All responses were audio-taped and subsequently transcribed and scored as correct or incorrect with respect to three syntactic features only: 1) double negation or lack of negation; 2) presence or absence of the verb or WH marker; and 3) inversion. Other errors

or irregularities due to articulatory difficulties were ignored. As a check on the adequacy of the global scoring method, a separate tabulation was made of the inversion errors alone for the three sentence types; the same error pattern emerged.

4.3 Results

A five-factor ANOVA was performed in order to determine the effects of Sentence Type (Yes/No, WH inverted, WH non-inverted), Task (imitation or production), Modality (affirmative or negative), Age, and Sex. With the exception of Sex, each main effect was significant ($p<.01$). In addition, there were three significant first order interactions: Sentence Type by Task, Sentence Type by Modality, and Age by Sex. Pairwise comparisons of the cell means for each significant effect were made using the Newman-Keuls procedure (Winer 1971). For additional details on the findings reported here, see Derwing (1979).

The Sentence Type by Task interaction indicated that both WH inverted and Yes/No questions were significantly more difficult to produce than to imitate. Success in the production of non-inverted WH questions was not significantly different from imitation, with a high level of performance evident on both.

The Sentence Type by Modality interaction paralleled the previous case very closely. Each sentence type attained a relatively high level of success in the affirmative, but both WH inverted and Yes/No questions were more difficult in the negative. The non-inverted WH results were essentially the same for both affirmative and negative sentences.

The Sex by Age interaction was caused by the superior performance of the females in Group 2 when compared to the males in the same group; in fact, these girls performed at essentially the same level as both sexes in Group 3. Although this finding shows that age is not the sole predictor of inversion accuracy, performance did improve with age: an analysis performed on the age groups revealed a highly significant linear trend ($F(1,216)=58.88$, $p<.001$), and the quadratic trend was also significant ($F(1,216)=5.19$, $p<.05$). The youngest group of children found the task significantly more difficult than the older children, but an age-dependent ceiling effect was operative as the older children approached mastery of the structures.

The relevant findings, then, are (1) negative questions, both Yes/No and WH, were more difficult than affirmatives; (2) there was no difference in performance for Yes/No and WH questions of the same modality; and (3) inverted structures, again both Yes/No and WH questions, were more difficult than non-inverted structures.

4.4 Discussion

Perhaps the most important point to be made is that no current theory of syntactic representation can account for the inversion effects due to negation, while at the same time predicting no differences across question types. For this reason, we believe that one should look elsewhere for an explanation not only of our results, but of previous research as well.

4.4.1. Negative vs. affirmative

First, let us consider Bellugi's claim that inversion is mastered later in negative WH questions than in their affirmative counterparts. This finding has been strengthened by the broader data base of the present study. How can the lag be explained?

Bellugi accounted for her results in terms of a performance limitation related to the syntactic complexity of negative WH questions (1971: 101 ff.), within the framework of an additive, syntax-based model similar to the Derivational Theory of Complexity (see Fodor, Bever & Garrett 1974) - a theory which she specifically rejected. According to this view, the relative difficulty of negative WH questions is a consequence of bringing together two syntactic processes, negation and inversion, which the child must initially master in isolation. Since other researchers have not addressed the auxiliary placement problem associated with modality, there is no alternative explanation in the linguistic literature for this result.

Our explanation of the negation effects invokes the restricted pragmatic functions of negative questions. Although negative **why** and **who** questions are perhaps less obviously presuppositionally loaded (e.g., **Why aren't you laughing? Who doesn't like licorice?**), the other negative WH forms are used largely to express irony (e.g., **What aren't you going to do when you grow up?**) or to request confirmation (e.g., **Where aren't you going?**). (Notice that WH questions of the latter type must carry contrastive stress on the AUX; we take this to be a further indication of the distinctiveness

of these forms.) Since questions marking such pragmatic functions are nearly absent from the diary study data, we may assume that our subjects had rarely, if ever, attempted to produce such forms on their own. WH affirmative questions, on the other hand, represent the pragmatically unmarked case (e.g., **What are you going to do when you grow up? Where are you going?**), and are well represented in the diary study corpora. We therefore suggest that our subjects, like others before them, responded to the imitation and production tasks by producing negative WH questions on the basis of task-specific sentence construction strategies.

A secondary finding of this study was that inversion was also more difficult in Yes/No negatives than in Yes/No affirmatives. Because the Yes/No questions were chosen to provide a control measure of inversion in non-WH forms, only one example of each was used in the study. Nonetheless, the results do suggest that the factors governing inversion accuracy in WH questions may also be involved in Yes/No inversion. Again, there is a difference in the distribution of negative and affirmative Yes/No questions: negative inversion involves a presupposition (**Aren't you sleepy yet?**) which is absent in the affirmative form (**Are you sleepy yet?**).

4.4.2 Yes/no vs. Wh

Our experiment has failed to replicate the results reported by Bellugi (1971) concerning the relative lack of inversion in WH questions as compared to Yes/No questions, and no evidence was found to support Erreich's (1984) data, which suggest that inversion may be more accurate in WH questions. It does, however, support the larger number of studies cited above which find no difference in inversion accuracy for these question types.

Neither transformational complexity nor syntactic markedness can account for these results. However, it must be acknowledged that few conclusions can be drawn from a negative result, no matter how consistent it may be across studies. The similarity of inversion accuracy for the two types may reflect a common process of inversion in Yes/No and WH questions, but one must also consider the possibility that inversion is learned separately for these question types, and that extra-syntactic factors determine when inversion will be acquired by each child.

We find it implausible (and unparsimonious as an initial assumption) that children such as Adam and Abe, who quite evidently did invert much more readily in Yes/No questions, constructed grammars which were of an essentially different nature from those

of other children. We will therefore attempt to provide a functional account of both the common finding of no difference in inversion, and the less common finding of a developmental sequence. In order to do so, we must focus on similarities between these types with respect to the acquisition problems they pose for the child.

One such similarity involves the existence of competing uninverted forms in the adult input. Clearly, the existence of intonation questions alongside inverted questions with the same intonation contour provides the child with positive evidence that inversion is optional in Yes/No questions. Since by any account Subject-AUX order is unmarked, one should not be surprised to find children retaining this form, even as they begin to invert.

With respect to WH forms, Prideaux (1976) points out that clause-initial WH+NP sequences are also a structural feature of non-inverted relative clauses and WH complements. Additional structural interference may arise from the fact that **who** and **what** questions do not exhibit inversion when the WH word is the subject of the sentence (e.g., **Who doesn't want dessert? What didn't scare the boy?**), and thus compete with the inverted forms with who as the object (e.g., **Who doesn't she like?**). To further complicate matters, non-inverted **how come** and **what if** questions (e.g., **How come <u>you aren't</u> putting your toys away? What if <u>Ted doesn't</u> bring the car?**) may serve as misleading evidence that inversion is optional in WH negative questions. Again, this would account for the retention of the unmarked uninverted form.

With respect to the occasional finding of a clear advantage for inversion in Yes/No questions, we will tentatively suggest that this may be related to input factors, notably the frequency of uninverted Yes/No intonation questions and **how come** or **what if** questions in the child's main caregivers' speech. On this account, one could even predict earlier acquisition of inversion in WH questions in the case of a child who hears many uninverted Yes/No questions but few instances of uninverted WH questions.

5. <u>Conclusion</u>

In summary, our findings confirm those of Bellugi for negative WH questions, and show similar results for Yes/No questions: in both question types, the negatives are more difficult and appear to be acquired later. For reasons already indicated, it seems unlikely that the results can be explained by a purely syntactic account, nor does the existence of individual differences in inversion accuracy necessarily imply optionality. We have proposed

two alternative vehicles of explanation, namely, differences in input (such as exposure to competing WH forms without inversion), and variation in presuppositional function across question types. However, since the modality and input issues have been almost completely ignored in prior research, the findings cited here are far from definitive. Further naturalistic and experimental investigations are required in order to isolate the roles of question type (Yes/No vs. WH) and modality (affirmative vs. negative) in inversion, and to relate these to the input the child receives.

It has often been suggested that variables other than purely syntactic development affect acquisition patterns. Wells (1979), for example, noted that social functions play a role in the emergence of auxiliaries in children's speech, and Newport, Gleitman & Gleitman (1977) found that auxiliary development is correlated with the mother's use of Yes/No questions. We suggest that explanations which admit relevant functional information will be needed to resolve the seemingly intractable issues surrounding the development of inversion in children's questions.

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TWO PRAYERS IN 17TH-CENTURY MONTAGNAIS

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ABSTRACT

Two prayers in Montagnais included in Père Paul Le Jeune's Jesuit Relation of 1634 have been reprinted four times in the past hundred and thirty years. An investigation of the various editions reveals differences in the rendering of the Montagnais text, some due to misreading, some due to misprints, and some due to the use of both a printed original and a contemporary manuscript version. A correct reading is presented here, along with some philological and linguistic comment.[1]

In 1635 Sébastien Cramoisy, the royal printer in Paris, published the Relation de ce qvi s'est passé en la novvelle France, en l'année 1634, better known as the 'Jesuit Relation of 1634,' written by Père Paul Le Jeune, the superior of the missions at the time (Le Jeune 1635). This was one of a long-running series of reports written by the Jesuits in Canada to their superiors in France and published annually in Paris, reports which began in 1632 and continued until 1673. In it, Père Le Jeune describes at 342-page length[2] all his activities and those of his colleagues during the year 1634. Because he was a Jesuit and knew Montagnais, a central Algonquian language closely related to Cree, spoken then as now in Québec and Labrador in a variety of dialects, he included a respectable number of examples of words, phrases, and even whole sentences in this language in his various accounts. His most notable contribution was a chapter specifically entitled 'De la langue des sauuages montagnais,' in which he discussed a number of points of pronunciation, vocabulary, grammar and discourse (cf. Cowan 1984).

His second most notable contribution was the inclusion of two prayers in 17th-century Montagnais of some 16 lines each with interlinear French translation. These are among the earliest continuous texts in that language, the only known earlier texts being some prayers and other liturgical material collected by Père Enemond Massé and published in 1632 in the works of Samuel de Champlain under the title 'L'Oraison dominicale, tradvite en langage des montagnars de Canada, par le R.P. Massé de la Compagnie de Iesvs' (Champlain 1870:16-20). Le Jeune's prayers, then, constitute a valuable record of the stage that Montagnais had reached in the

early 17th century, a stage that can be compared with both the Proto-Algonquian that preceded it and the modern Montagnais that has followed it.

Although scattered comments have been made about the Montagnais material found in the Jesuit Relations, no further analysis of the material contained in these two prayers appears to have been published before now. And although the present analysis is far from complete itself, it is appropriate to make some comments of a philological nature here as a preliminary to a more extended treatment projected for a later date.

According to Le Jeune's account, the prayers were first written in French by himself, then translated into Montagnais by a native speaker dubbed 'The Apostate' by Le Jeune. The occasion was Christmas Eve, 1634. Le Jeune and a group of Montagnais Indians were on a hunting expedition. It was freezing cold and they had had very poor luck in their hunting. Le Jeune, who spent a good deal of his time complaining about how cold and hungry he was, not only on this trip, but seemingly throughout the whole year - at one point he was reduced to eating the scraps of animal skin that the Indians scorned just to keep alive - thought that the appropriate action to take at this perilous point in time was to pray for food. He fashioned one prayer for himself to deliver, and another which was intended for the Indians whom he was accompanying.

In his own prayer Le Jeune asked God to provide food, since, if he did, the Indians would believe in God and would obey him; he also offered to sacrifice his own life for those of the Indians. In the second prayer, Le Jeune had the Indians swear several times that they were not lying, that if they were provided with food they would become sincere believers, and that they would do what they were taught, presumably by Père Le Jeune. Le Jeune recited his prayer alone, then recited the Indians' prayer which they recited after him. Apparently these prayers worked, since the next day every hunter but one - ironically, this was the Apostate, the person who had translated the prayers from French into Montagnais in the first place - was successful in finding and killing at least one game animal.

There are four relatively modern editions of this account. The first was edited and printed in Québec in 1858 by Augustin Coté as part of the publication of all the Jesuit Relations with the blessings and aid of the Catholic Church in Canada (Coté, ed. 1858 [1634]:76).[3] The second was included in the Jesuit Relations and Allied Documents, another printing of all the Jesuit Relations along with other material from the period, edited by Reuben Thwaites and printed between 1896 and 1901, with original text in French or Latin and English translation of all documents (Thwaites

1959:7:152-157). This is the edition to which most scholars have access. It is also the edition that is most in concord with the copy of the original publication consulted by the present author.[4]

The third is an edition of the only known manuscript copy of the Relation of 1634, located in the Bibliothèque Nationale in Paris, published by Guy Laflèche in 1973 (Laflèche 1973:158-160). The fourth is a quasi-diplomatic edition of a number of the Relations plus other material, much of it previously unpublished, made by Lucien Campeau in 1979 under the auspices of the Jesuit order itself (Campeau 1979:702-75).

The texts of the two prayers under examination differ slightly among these four editions; for example, the Thwaites text retains non-italic and small cap k's of the original in the transcriptions of the Montagnais text, features absent from the other modern editions, which do not disinguish the various types of k. The manuscript edition of Laflèche is taken from what is apparently a copy of the original manuscript, not the original manuscript itself, and is so corrupt, both in its original form and in its modern interpretation, that it is practically useless for philological purposes.[5] Campeau presents the printed text with his own modern punctuation, but collates it with the manuscript copy and corrects it in a few places where he finds this latter a better reading than the printed version. He also changes the italics of the original Montagnais into roman type and reverses the order of the languages, putting the French above the Montagnais. Where the two versions differ, he notes the other reading at the bottom of the page. He also slightly modernizes the French spelling, and attempts to regularize word divisions in the Montagnais and make the m coincide with the French interlinear translation, but not in a wholly correct or consistent manner.

The Montagnais text with interlinear French translation is reproduced in the Appendix of this article, as it appears in the copy of the original published Relation that was examined. Line numbers have been added for ease of reference; as in Thwaites, the lines have been retained as they are in the original. However, it has not been possible to retain the grouping of French words under the corresponding Montagnais words as is done in the original and the Thwaites version. Since the space between words is problematical in the original, some being obvious and some being so close as to produce doubt concerning the intentions of both the author and the printer, a number of the groupings reproduced by Thwaites is questionable.

For typological convenience, the long s of the original has been rendered as a regular s, and the small cap K as a regular capital K. These ambiguities do not appear to be of any importance

for a linguistic analysis of the material. The present version differs from the Thwaites version in only four very minor points, none of which have any linguistic significance.[6] Also included in the present version is the original French of the two prayers as composed by Père Le Jeune prior to the translation into Montagnais.

Some points of difference between the three modern editions of the printed version are as follows (the feature under discussion in underlined):

line 3: ouiabatamen 'qui voit' is rendered outabatemen in Coté by misreading the i as t, an understandable error since the dot above the i is missing in the original. The form is a correct changed conjunct of the root wa:p- which would be ouiab- in the transcription used in the prayers. Both Thwaites and Coté, following the original, leave a word space between the ouia and the batamen, but Campeau omits the space since the form is one word, not two.

line 3-5: chaoueriminan 'aye pitié de nous' is rendered as chaoueriminon by Campeau, probably by misprint rather than misreading, since Campeau elsewhere seems to be well aware that the first person plural inflection in verbs of this type is correctly -nan.

line 5: The circumflex in nitaouitât 'a faict' is omitted by Campeau, but retained by Coté and Thwaites. Since there is no indication of vowel length elsewhere in the two documents, Campeau apparently considered this circumflex as a random diacritic, and hence omitted it.

line 13: khisitaie 'tu disois' is rendered by Coté as khisitate, again by misreading i as t. The correct form is problematic. In the original French version of the prayer, reproduced in the Appendix, the words used at this point are vous auez promis 'you have promised,' but the interlinear French translation is tu disois 'thou wert accustomed to say.' The printed form probably needs emending to khisitaien to be in concord with other second person forms in the document, like line 1 khichitaien '[tu] as fait,' although this latter, like other forms, are in conjunct position after the conjunct particle ca, which is not the case with khisitaie. It it possible that the particle egou that immediately precedes this verb requires the conjunct, but the grammars are silent on this matter. Further analysis is called for.

line 25: pamtatim 'ie t'obéïray' is a misprint for correct pamitatin, found in the manuscript version and included by Campeau in his version. It is rendered by Coté and Thwaites, following the printed version, as pamtatim. This is one of the two instances in these two texts where Campeau follows the manuscript rather than the

printed version. The form also occurs in line 43 in the second prayer as pamitatin in all versions, so is therefore probably correct as rendered by Campeau. In a consistent orthography, the preceding khiga, consisting of the second person prefix khi- plus the future particle -ga-, would be joined to the verb to form one word, but it is printed in all versions as a separate word. The root pa:m- meaning 'obey' does not appear to occur in any modern Montagnais word list, nor in any modern Cree word list, but it is found in Bonaventure Fabvre's Racines montagnaises of 1695 (Fabvre 1970:270) as ki Pamitǎ8in 2 tãtin 'tu me 2 Ie t'obeis,'[7] from which the future form khigapamitatin can be derived. The root also occurs in Ojibwa in a reduplicated form nin babamitawa 'I obey him' (Baraga 1966:183) and as bbaamta- (Rhodes 1985:34; the double bb probably indicates a syncopated initial syllable). It probably therefore represents a vocabulary item that has gone out of use in modern Montagnais.

line 39 (second prayer): bona [oukhiran] 'pourrois-je [mentir]' is rendered boua in the manuscript version, a reading adopted by Campeau, the second such adopted by him from the manuscript. The form is problematic. It proved impossible to find a comparable form in modern Montagnais material, but the form p8a does occur in Fabvre (1970:314), and also in Silvy (1974:137), where it is defined as 'in composition, chose trop grosse qui s'accorde à peine.' This is cleared up slightly by forms quoted by Silvy immediately after this entry like ni p8a8amau 'j'ai peine à mordre,' or ni p8a8ipiten 'j'arrache avec peine.' The form is probably a preverb which means 'hardly' or 'with difficulty' so that the whole verb form probably means something like 'I can hardly lie' or 'how could I possibly lie to you?.'

This particular Relation is unique in being preserved in the Bibliothèque Nationale in Paris in a manuscript copy. However, it is the opinion of Campeau that this is by no means the original manuscript, but rather a copy of the original. He is also of the opinion that the printed version was not based on this existing manuscript, but that both the printed version and the extant manuscript were based on an original which probably no longer exists. That the printed version is more correct than the manuscript copy is probably due to the instructions given to the printer by Le Jeune. These instructions are not found in the printed versions, and hence not in either Coté or Thwaites, who worked only from printed texts, but are serendipitously preserved in the manuscript copy and are included in Laflèche (1973:160) and in Campeau (1979:705). But given the multitudinous errors found in the manuscript version, these instructions were certainly not heeded by the copyist of that document. Le Jeune's comments are as follows (Campeau's rendering):

> Voilà comme ilz procèdent en leurs discours. Si ces deux petites oraisons sont mises soubs la presse, je supplie l'imprimeur de prendre garde aux mots sauvages. Ceux qui estoient dans la Relation de l'an passé ont esté corrumpus et remplis de fautes à l'impression. Pour le françois, si l'imprimeur ou moy y manquons, on nous peut aisément redresser; mais pour le langage de sauvage, je serois bien aisé de le veoir bien correct. Retournons à nostre sujet.

Although Campeau is of the opinion that the manuscript is contemporaneous with the printed version, there are a few hints that it may have been made later, or at least in a different dialect area than the lost original manuscript of Père Le Jeune. In two places, the manuscript reading has a later palatalized affricate, spelled tch, where the printed version has the earlier velar stop, spelled kh.[8] These are in line 11 ouascoukhi 'au ciel' where the manuscript form is ouascoutchi; and line 57 (second prayer) nikhirassin 'je (ne) mens (pas),' where the manuscript version has nitchirassin. In addition, a number of the French words in the published version have a more archaic form than those of the manuscript; for example, line 6 faict, manuscript fait, and line 62 (par)faictement, manuscript parfaitement. It is possible, therefore, that the manuscript version in the Bibliothèque Nationale was copied from the original manuscript at a date later than the printing, perhaps by someone who did not have access to the printed version, or who did not know that the printed version existed. Otherwise, of course, there would have been no point in copying out a long and difficult work that was already in print. Another possibility, since these differences are very slight, is that the extant manuscript is contemporaneous with the original, and was prepared as a backup copy to be kept in case the original was lost. The numerous mistakes in Montagnais indicate that the copyist was less than expert in that language.

In a final note on the shape of the two prayers, Campeau (1979:705) states that in spite of Le Jeune's caution to the printer, he was ill served in this since the printer went ahead and made a number of mistakes that could not have been in Le Jeune's manuscript, including the forms NouKhimame (line 1) 'Mon Capitaine,' which Campeau says should be NouKhimau, and KhicheouKhiman, (line 33) which should be KhicheouKhimau. Campeau is right that the latter form should have a u at the end instead of n, but is wrong in his statement about the first form, which is correct, and indeed exists in modern Montagnais in the shape /nučima:m/ 'my boss/chief' (Clarke 1982:27). The final -m is a possessive suffix whose distribution in modern Montagnais is ill-understood, since it appears impossible to predict on which words it will appear. It is interesting to note that the liturgical material from Massé (Champlain 1870:17)

contains an example of this form with plural possessor N'okimaminan 'notre Seigneur' which contains both the possessive suffix >-m as well as the regular plural possessive suffix -nan. The use of this form to address God has not been found in modern texts, where the term in common use is Tshishemanitu (Cyr 1973:80), an indication that the terminology of religious disourse has undergone a certain amount of development since the days of the early Jesuits.

In general, the text is not too different from what it would be in modern Montagnais. Apart from the general lack of affrication of velars before front vowels, and the presence of /r/ where all modern dialects of Montagnais would have either /n/, /l/, or /y/, the 17th-century phonology does not differ in any great detail from that of modern Montagnais. The grammar is still under analysis, but it follows the general lines of modern Montagnais as well, in one or another of its various dialects. It is perhaps in vocabulary where the greatest differences are found, with stems like pa:m- 'obey' and metaphors like noukhimame 'my captain' for 'my Lord' being the most obvious.

It is hoped that with the establishment of a corrected text insofar as that is possible, we will be able to make definitive statements about the language of these prayers.

APPENDIX

First prayer: French text

Mon Seigneur qui auez tout fait, qui voyez tout, & qui cognoissez tout, faites nous misericorde. O IESVS, fils du Tout-puissant, qui auez pris chair humaine pour nous, qui estes né pour nous d'vne Vierge, qui estes mort pour nous, qui estes resuscité & monté au Ciel pour nous, vous auez promis qui si on demandoit quelque chose en vostre nom que vous l'accorderiez: ie vous supplie de tout mon coeur de donner la nourriture à ce pauure peuple, qui veut croire en vous, & qui vous veut obeïr, ce peuple vous promet entierement qui si vous le secourez qu'il croira parfaitement en vous, & qu'il vous obeïra de tout son coeur, Mon Seigneur, exaucez ma prieré, ie vous present ma vie pour ce peuple tres content de mourir à ce qu'ils viuent, & qu'ils vous cognoissent. Ainsi soit-il.

1 NouKhimame missi ca Khichitaien missi,
2 Mon Capitaine tout qui as fait tout,

3 Khesteritamen missi, ouia batamen chaoueri-
4 qui sçais tout, qui vois, aye pitié

minan. Iesus oucouchichai missi ca nitaouitât
de nous. Iesus Fils tout qui a faict

Niran ca outchi, arichiirinicasouien, niran
de nous qui à cause es fait hõme de nous

ca outchi, iriniouien iscouechich, niran ca
qui à cause es né d'vne fille de nous, qui

outchi nipien, niran ca outchi ouascoukhi
à cause es mort de no9, qui à cause au ciel

itoutaien; egou Khisitaie, nitichenicassouiniki,
es allé ansi tu disois en mon nom

Khegoueia netou tamagaouian niga chaoueri-
quelque chose si ie suis requis i'ẽ auraypi-

Kan, khitaia mihitin naspich ou mitchimi,
tié, ie te prie entierement la nourriture

arichiriniou miri, ca ouitapouetasc
à ce peuple dõne qui veux croire en toy,

ca ouipamitasc, arichiriniou khiticou
qui te veux obeyr, ce peuple te dit

naspich, ouitchihien khigatapouetatin
entierement, si tu m'ayde ie te croyray

naspich, khiga pamtatim naspich, Nou-
parfaitmẽt, ie t'obïray entieremẽt mon

khimame chaoueritamitaouitou oui
Capitaine aye pitié de ce que ie dis, si tu

michoutchi nipousin, iterimien
veux en contrechãge ma mort penser

ouirouau mag iriniouisonan, egou inousin.
quant à eux qu'ils viuent, ansi soit-il.

Second prayer: French text

Grand Seigneur qui auez fait le ciel & la terre, vous sçauez tout, vous pouuez tout, ie vous promets de tout mon coeur (ie ne sçaurois vous mentir) ie vous promets entierement, que s'il vous plaist nous donner nostre nourriture, que ie vous obeïray cordiallement, que ie croiray asseurément en vous, ie vous promets sans feintise, que ie feray tout ce qu'on me dira deuoir estre fait pour vostre amour, aydez nous, vous le pouuez faire, ie feray asseurément ce qu'on m'enseignera deuoir estre fait pour l'amour de vous, ie le promets sans feintise, ie ne ments pas, ie ne sçaurois vous mentir, aydez nous à croire en vous parfaictement, puis que vous estes mort pour nous. Ainsi soit il.

33 KhicheouKhiman ca khichitaien ouascou,
34 Grand Capitaine qui as faict le Ciel

35 mag asti, missi khikhisteriten, missi Khi-
36 & la Terre tout tu sçais toute chose, tu

37 picoutan, khititin naspich, tanté
38 fais bien ie te dis entierement comment

39 bona oukhiran? khititin naspich, oui mi-
40 pourrois-je mẽtir? ie te dis sãs feintise si

41 riatchi nimitchiminan, ochitau
42 tu no9 veux dõner nostre nourriture tout

43 tapoué khiga pamitatin ochitau,
44 expres asseurement ie t'obeïray tout ex-

45 tapoué Khiga tapouetatin, Khititin
46 pres, en verité ie te croiray, ie te le dis

47 naspich, niga tin missi Khè eitigaouané;
48 entieremẽt, ie feray tout ce qu'õ me dira

49 khir khe, outchi Khian, ouitchihinan,
50 de toy à cause ie le feray ayde nous

51 khiga khi ouitchi hinan, naspich niga
52 tu nous peux ayder absolument ie feray

53 tin missi, khé eitigaouané khir Khe, outchi
54 tout ce qu'on me dira de toy à cause

55 khian, Khititin naspich; nama
56 ie le feray ie te le dis sans feintise, ie ne

57 nikhirassin, nama khinita khirassicatin,
58 mens pas, ie ne te sçaurois mentir,

59 ouitchihinan khigai tapouetatinan nas-
60 ayde nouss affin que nous te croyons par-

61 pich; ouichihinan mag missi irinioua-
62 faictemẽt, ayde nous puis de tous les hõ-

63 khi ouetchi nipouané. Egou inousin.
64 mes à cause tu es mort, ainsi soit-il.

FOOTNOTES

[1]This article is a revised and enlarged version of a paper read at the Conference on American Indian Languages held at the 86th Annual Meeting of the American Anthropological Association in Chicago, November 1987.

[2]The copy of this work referred to is that to be found in the Library of Parliament in Ottawa, call number F5602.5 J58 R5 143 1635. It is a small volume approximately 4 by 6 inches in size.

[3]Coté's edition is in two volumes. Volume 1 contains the Relations for 1611, 1626 and 1632 to 1641; Volume 2 contains the rest. However, each volume has separate pagination for each Relation, so reference has to be to the year, and within each year to the page as numbered in Coté.

[4]Le Jeune's Relation of 1634 is rare among the Jesuit Relations in having been reprinted twice. One reprint was by Cramoisy himself later in 1635; the other was a version published the following year along with the Relation of 1635 in Avignon, a city which, being at that time under Papal control, was not subject to French copyright law. Although this reprint could not be legally sold outside of Avignon, it was authorized by the Jesuit superiors and it is highly probably that it was distributed widely in France. These two reprints are a testimony to the popularity of these Relations, which regularly sold out shortly after publication. For further information cf. Pilling (1891:308) and McCoy (1972:32-37).

[5]Laflèche's statement is as follows (Laflèche 1972:226): 'Sans savoir comment il a pu y parvenir, on peut être assuré qu'il s'agit

bien du manuscrit qu'a eu entre les mains Sébastien Cramoisy qui le reproduit mot pour mot dans tous ses détails, conservant même l'inversion du paragraphe (p. 181, note a) qu'il rétablira par la suite; il ignore seulement quelques pages (voir p. 83, note a et p. 101, note a) qui sont pour nous inédites.' In fairness to Laflèche, it must be pointed out that his primary purpose is to analyze the Relation as a literary text, with structural and cultural considerations at the forefront, not textual and linguistic ones, and was consequently less concerned about the Montagnais vocabulary items than if linguistic analysis had been his goal.

[6]The differences are as follows: line 16, auraypi- lacks a word space and is obviously a misprint in my copy; Thwaites has correct auray pi-; line 39, the question mark after oukhiran is italic in Thwaites, probably by misprint, since one would assume that only text in Montagnais would be italicized; line 47, Khè has an accute accent in Thwaites, Khé, which is probably correct, since there are no other cases of a grave accent in the text or in other cases of this same word; line 61, Thwaites has the page break after pich, instead of after the end of the preceding line,probably by misprint.

[7]The symbol 8 represents the sound u or w, while 2 represents the second person.

[8]Both the spelling -tch- and the spelling kh occur in these prayers, in addition to c or k. The question of the palatalization of Proto-Algonquian velars in Montagnais, and what these graphic sequences indicate, is a subject treated by Hewson (1973). An extended consideration of these matters in relation to these two prayers is planned at a later date.

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SOME FUNDAMENTAL ISSUES IN SEMANTICS

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ABSTRACT

A number of approaches to meaning have suffered from not taking into account all levels and aspects of meaning. The attempt is made here to relate together all the different types of meaning, linguistic and non-linguistic, and to show as well the relevance of such elements as the situational or pragmatic matrix and the fact that language is a dynamism, a process, not a static entity. The purpose of the paper, therefore, is to create an awareness of the complexities and problems that have to be faced when linguists deal with linguistic meaning.

1. Introduction

There are three fundamentally different aspects of meaning that must be distinguished if we are to make a comprehensive analysis of the meaning of language, and if we are to distinguish the proper role that language plays in human affairs. These three types are (1) information (or universal meaning), (2) referential meaning, which involves both language and the world of experience, and (3) meaning that is specific to language.

1.1 Information

Information is a level of meaning that is independent of language, but may be incorporated into language, and should therefore be described as pre-linguistic. If we define meaning as a relationship, whether natural or arbitrary, between two elements, one of which is a sign of the other, we may observe that, in the world of experience, smoke means fire: smoke is a sign of fire. Or, alternatively, sunset means the coming of night. The relationships upon which the conveying of information depends are, in fact, equational, in the sense that if we are given X, we may expect Y. That all meaning involves this kind of relationship has been the linguistic tradition from the treatises on the modus significandi of the Medieval grammarians to those of the present day: Saussure (1916:97ff) used the terms signifiant (morpheme) and

signifié (sememe); Ogden and Richards (1923:11), with a quite different metaphysical bias, used symbol and referent; Hjelmslev (1935:xii) uses expression and content; Ullmann (1957:70) tries commonsense forms like name and sense; Lyons (1981:19) uses form and meaning. In all of these pairs the first element is the sign, the second is that which is signified.

In this way, if we return to information theory, X becomes the sign of Y and becomes capable of inducing a response of expectancy in an observer. If the expectancy is continuously induced in this way, the observer may in fact develop a conditioned reflex: either a positive reflex (if the expectancy is significant or important, e.g. a red traffic light) or a negative reflex to ignore (if the expectancy is trivial, e.g. the red light that indicates that the radio is in stereo mode).

Information in any channel is, of course, a function of improbability. If it is probable that the sign (or stimulus) indicates a trivial or insignificant expectancy, the observer will ignore it. If, on the other hand, it is improbable that the expectancy is trivial, the observer will tend to take note of it.

Consequently, many different observers, regardless of language, may observe a situation and draw similar conclusions from it because of their knowledge and experience of the world. And indeed, the higher animals, both wild and tame, interpret a great range of facts as being 'significant,' as having a meaningful relationship with other facts. All animals, it would seem, are capable of deriving information from observed movement: the slightest movement of a figure upon a background will attract the attention of an animal, and many animals have learned to escape observation by 'freezing,' by standing stock still.

It is well known, in fact, that information is conveyed by observed differences. Any item that differs or changes from the observed or the expected is a potential conveyor of information to the observer. Consequently, in information theory considerable importance is attached to the notion of redundancy: what is redundant is that which does not change in the channel of communication and consequently carries no charge of information, since information is contingent upon that which is different (Cherry 1964).

Much information is therefore of a 'negentropic' kind. Since entropy is the natural tendency of the universe towards a stable, formless state, negentropy is the converse: the featured informational forms that distinguish discrete elements of the universe from formless matter (Black 1969). Black, although

primarily concerned with the biological forms that are important and meaningful in medecine and microbiology, gives, as one of his most interesting examples of negentropy, the metal key that opens a door, a prime example of encoded information.

Necessarily, much of the pre-linguistic information of the universe also finds itself incorporated in some way into language. A swift survey of animal species impresses with the binarity of their structure and design: two eyes, two ears, two nostrils, two wings (or arms), two horns: one side of the body being a mirror image of the other. It would be difficult to imagine a language which did not have a word signifying two or duality; and languages are rich in all kinds of binary categories and binary structures. Where language entities closely reflect the structure of experience, we speak of the iconicity of language, and there is interesting recent work on this very topic, well illustrated in Haiman 1985, for example.

1.2 Referential Meaning

Referential meaning is, consequently, the interface between the prelinguistic information of the universe, which is universal to all human beings, and the language specific concepts that are the typical constructs of natural languages. If we observe a tree in a field, for example, there is no doubt that the sense-datum is the same for all humanity. As Hjelmslev shows us (1969:54), the tree in the field is trae in Danish, Baum in German, arbre in French, tree in English. When it is chopped down, however, it is still trae in Danish, but Holz in German, bois in French, wood in English. Bois and wood can also be used for a group of trees, but in German this is already Wald, which is also used where French and English use forêt/forest. Danish, meanwhile, uses skov for any group of trees, large or small, but this word may not be used for trees that are harvested, as is the case with Holz, bois, wood.

Referential meaning is therefore the exploitation of quite different linguistic conceptions to refer to the same experiential reality. The blade of a knife, a lawn-mower, a razor, a shears, or other cutting tool, is in French une lame. But the blade of a camera shutter, a fan, a mixer or a propeller is une pale or une palette; the blade of a turbine, on the other hand, is une aube (also the vane of a windmill and the paddle of a paddle steamer), the blade of a windshield wiper une raclette, of a guillotine le couperet, of a tongue or an oar le plat, of a plane (carpenter's tool) or a spade le fer, of a set-square la tige, of grass un brin, and of cereals une pousse. An anglophone, therefore, would refer

to all of these entities using the English word (and necessarily the English concept) blade; a francophone, referring to the same experiential entities, uses a variety of words and concepts. Both speakers are referring to the same informational material of the experiential universe, but speaking different languages, both utilize quite different conceptual materials in making these references. The French word fer, for example, used for the blade of a plane or a spade, is also used for axe-heads, punches, horseshoes, and flatirons; here is a concept that is obviously very different from that of English blade. But if I present a spade to an anglophone and a francophone, and ask them both to refer to the blade, there is no doubt that what is referred to, the sense-datum, is identical in both cases, even if it is apprehended in culturally different modes.

1.3 Linguistic Meaning

Those who speak only one language are sometimes unaware that there is a fundamental difference between linguistic meaning and universal meaning (i.e. the pre-linguistic meaning inherent in the negentropy of the universe); indeed there is a well-known tendency, commented upon by Ogden and Richards (1923:2), to confuse word and thing. An examination of meaning differences between two languages quickly reveals, however, that linguistic meaning, no matter how close it may sometimes parallel universal informational meaning, is nevertheless always language specific. As Sapir puts it (1921:14) '...the typical linguistic element labels a concept.'

Even bilinguals or multilinguals, if they speak only Indo-European languages, may be under the illusion that siblings are always classified as to their sex: brother is a male sibling and sister a female sibling. But some language families discriminate age rather than sex, so that the Cree word nisīm means my younger sibling, and there are no separate words in Cree for younger brother, younger sister. Or alternatively the discrimination may be same sex vs. opposite sex. Melanesian pidgin, for example, borrowed the words brother and sister from English, but then proceeded to use them in terms of the native culture, so that Melanesian brata means sibling of the same sex, and sisa means sibling of the opposite sex: a boy, for example, will call his brother brata and his sister sisa, but a girl will call her sister brata, and her brother sisa.

We cannot hope to avoid confusion, therefore, if we do not distinguish between linguistic meaning, which is the relationship between a language specific sign and its language specific significate on the one hand, and the use of this combined

sign-significate on the other hand to refer, as occasion may arise, to the information inherent in the world of experience.

Even words that appear at first sight to have identical linguistic meaning normally turn out to be significantly different in some small way. The French word porte and the English word door, for example, are two different signs, each with different lexical content, as the dictionary shows us: the door of a vehicle is portière, whereas porte is used of the gate of a city, which for speakers of English is not a door at all. If someone asks

1. Will you open the garage door?

they might equally say to someone who also understands French

2. Veux-tu ouvrir la porte du garage?

The door referred to in the real world (the external referent) would be identical in both sentences, but the notions underlying porte and door are different because the French notion includes the gates of cities whereas the English notion includes the doors of vehicles.

2. Language Specific Meaning

2.1 Permanent and Contextual Meaning

But, it may be justifiably objected, in the sentences in question there is no reference to car doors or city gates, and it is a fundamental fact of language that the same word will mean different things in different sentences. This observation may well lead to the old squabble over permanent and contextual meaning. In this quarrel one side (e.g. Stern 1931:31ff) claims that a word has a permanent meaning, and that dictionaries are statements of such permanent meanings. The other side, claiming with Ogden and Richards that 'words, as everyone now knows, mean nothing by themselves' (1923:10), asserts that words only have meaning when placed in context. The contextualists, as I shall call them, would undoubtedly take arms against my term 'underlying meaning,' and would probably claim that there is no such entity. The supporters of permanent meaning, however, are defending the sememe or underlying significate, whereas the contextualists are defending a different entity, the alloseme or surface significate. The result is that in their arguments the two sides are not even talking about the same objective reality. The same kind of confusion would arise in phonology if one failed to distinguish between underlying phoneme and surface

allophone. It is surprising, therefore, that there are linguists who, while insisting on the necessity and importance of distinguishing between phoneme and allophone, would reject any kind of underlying meaning, and specifically reject the sememe, as does Bazell (1954).

There is, in fact, a positivist or anti-mentalist tradition that runs from Malinowski (1923), Ogden and Richards (1923) through Firth (1935) to present day writers such as Lyons (1968, 1978, 1981), although Lyons prefers to hedge and ask questions rather than state the position categorically:

> Shall we say that the meaning of such words as truth, beauty and goodness is the 'concept' or 'idea' associated with them in the 'minds' of those who know the language to which the words belong - and, in general, that 'meanings' are 'concepts' or 'ideas'? If we say this, we shall find ourselves once again in the midst of philosophical, and psychological, controversy. For many philosophers and psychologists are extremely dubious about the existence of 'concepts,' or indeed of the 'mind'. (Lyons 1968:401).

This passage regrettably suggests that we should give a greater weight and importance to the metaphysical beliefs of certain philosophers and psychologists than to our own rational discussion as linguists. Opinion has fluctuated somewhat on this issue over the last twenty years, but Lyons is still adamant that an 'ideational, or mentalistic' theory of meaning is unsatisfactory (1981:31). It will be my contention here that no sensible discussion of meaning can ignore either the sememe (Lyons' 'concept') or the alloseme, and that the two must be reconciled within the bounds of a single coherent explanation.

2.2 The Nature of Underlying Elements

Any analysis of language that does not make some kind of distinction between -emic and -etic entities is headed for unnecessary trouble and confusion. That is essentially what the Saussurean and neo-Saussurean dichotomy of langue (tongue) and parole (discourse) is all about: the -emic entities are all elements of langue, the fundamental contrasts of the tongue we learned as children, permanently stored in the subconscious mind. The -etic entities, on the other hand, are elements of parole, they describe

the infinite variation that is found in discourse, which is exteriorised, conscious, and momentary - what is said is normally lost on the air waves in a matter of seconds. The -etic elements, as items of discourse, are normally elements of such momentary sentences, whereas the phoneme, the morpheme and the sememe are all permanent elements of tongue, elements of systems, stored in the subconscious mind, out of awareness. We may even say stored in the somatic mind, to use Black's term (1969): the somatic mind (Greek sōma = body) is a permanent part of the total physiological person, since its functioning (such as the production of spastic vowel sounds) can be triggered by the touch of the neurosurgeon's electrode on the surface of the cortex, as Penfield has shown (Penfield & Roberts 1959:199). The mental effects, such as memory replay, that were triggered by the touch of Penfield's electrode demonstrate the absurdity of the assumptions of positivist philosophers and old-fashioned behaviorist psychologists, who believe, according to true Cartesian orthodoxy, that what is described as mental is 'non-physical' and consequently has no empirical reality whatever.

It is more than three centuries since Descartes created this dualism between the <u>res extensa</u> (physical) and the <u>res cogitans</u> (mental), each one completely independent of the other, in his view. This unacceptable dualism in turn leads to arguments between 'empiricists' and 'rationalists' that are self-defeating because the two sides simply have hold of different ends of the same stick, each one concentrating on one aspect of the phenomenon, and neither side taking a holistic or global view. A true twentieth century view, in the Einsteinian tradition (space and time are not separate entities, but different aspects of the space/time continuum) would see mental organization (Descartes' <u>res cogitans</u>) and physical existence (Descartes <u>res extensa</u>) as indivisible aspects of <u>all</u> experiential reality. Belief in the 'non-physical' status of the mind, in fact, is totally refuted by the experiments of Penfield: such beliefs ultimately have nothing whatever to do with science, since science is not a philosophical or metaphysical position, but a fundamental way of proceeding in coherent and rational fashion.

The -emic entities, however, the elements of <u>langue</u>, being stored in the subconscious mind or somatic mind, out of awareness, are not amenable to direct observation, but only to indirect observation; they must be worked out by persistent and careful analysis, in much the same way that the historical linguist works out the data of (unobservable) prehistoric protolanguages. A phonological system, for example, can never be observed directly (if it could, there would be no need to train linguists), but has to be worked out from observation of the function and deportment

of the directly observable allophones in the stream of speech. The -emic entities are therefore theoretical, and the -etic entities empirical. As in all science the theoretical constructs are based upon the empirical data, and are justified or disproved on the basis of empirical evidence.

In sound theoretical method, therefore, the underlying theoretical substructures are a reconstruction of that part of the reality that is not directly observable, and consequently not amenable to empirical investigation and description. The application of sound theoretical method to linguistics requires that theoretical constructs be a reasonable reflection or model of the underlying, unobservable aspect of the phenomenon.

2.3 The Observation of Meaning

What part of linguistic meaning is amenable to empirical description, and what part must be reconstructed by sound theoretical method? If we listen to someone speaking a completely unfamiliar language, all that we are capable of observing is the phonic string that vibrates on the air waves. We are not capable of observing what such speakers mean when they speak. Because we have never learned the underlying tongue (langue) that these speakers are utilizing, we do not have the appropriate medium of observation, and are therefore not in a position to observe what they are saying. We are like the microbiologist caught without a microscope: we do not have the requisite means for observing. But when people use a tongue that we have learned, we have the necessary medium for observing what they mean when they speak. This fact has always been implicitly accepted by linguists, who have always either asked native speakers about the meanings of sentences, or, as native speakers themselves, have never hesitated to give their own interpretations of sentences in the mother tongue. But linguists have sometimes been unwilling to accept the fact that meaning is observable at the level of discourse, at the level of parole, because such observation can only be carried out by introspection. Yet even those who have objected explicitly to the use of introspection (e.g. Twaddell 1935, 1966:57) would not hesitate to ask a native speaker whether two different sentences were alike or different in meaning, apparently unaware that it is only by means of introspection that the native speaker could answer such a question.

As speakers of English, however, we are all aware, by introspection, that the openings in the walls of a city are called gates not doors. If there is a consensus of agreement among speakers about such items, there is no reason why the results of introspection

should not be just as respectable as the product of other forms of observation. The proviso however is an important one: that there should be a consensus of at least two (and preferably more) speakers. And equally important: introspection is limited to the level of discourse, of what is actually said or used, because introspection is valid only for the cerebral or conscious mind. No amount of introspection will ever enable a native speaker to observe the underlying -emic entities, because such entities belong to the somatic or subconscious mind which is not normally accessible to awareness, to consciousness, and therefore not amenable to introspection.

Any attempted use of introspection to determine underlying categories, therefore, is necessarily purely speculative. Such underlying categories being quite simply unobservable, they can only be determined by the examination of the data of discourse, and by the correct application of theoretical method to such data. We must observe how words are <u>used</u> in order to reconstruct their underlying meanings.

2.4 The Reconstruction of Underlying Meaning

From the directly observable (or -etic) entities of discourse (i.e. of <u>parole</u>), the theoretical (or -emic) entities of tongue (i.e. of <u>langue</u>) must be reconstructed. Traditionally, for example, linguists have carefully and meticulously sifted through phonetic transcriptions in order to elaborate the phonemic inventory of a language.

In like fashion, from the information available on the use of lexical and grammatical items in discourse, we may reconstruct underlying significates, or sememes, which will explain or justify the varying and different allosemes to be found in discourse. This work has so far received much less attention from linguists than comparable studies in other aspects of linguistics.

Such neglect stems at least in part from linguists' attitudes towards the sememe. Bloomfield (1933:140,168), for example, considered that it was principally the task of other sciences to define sememes. Other linguists, while prepared to accept the phoneme-allophone distinction, steadfastly refused to believe that a morph had any underlying meaning or sememe: Lyons, for example, declares (1968:412,428) that it is unnecessary and undesirable 'to postulate the existence of independently defined senses.' Still others (e.g. Fries 1954:65) believed that meaning lay in the overt behaviour or current response that consistently followed any speech

act, or in the referent (e.g. Ogden and Richards 1923:10), the object named. (Presumably if there was no referent or ensuing overt behaviour, what was said was meaningless).

Several linguists have, however, distinguished the two levels of linguistic meaning. Jakobson's Gesamtbedeutung (1936,1966:51-57) is an underlying meaning different from the surface meanings because it is a reconstruction (which is why Jakobson refuses such terms as Grundbedeutung 'basic meaning' and Hauptbedeutung 'principal meaning' - these are nothing more than major allosemes). Hjelmslev even earlier than Jakobson states (1935:37): 'La conception ou l'idée qu'il s'agit de chercher dans une forme linguistique doit être une idée une, une seule signification fondamentale ... d'un degré d'abstraction assez grand pour permettre d'en déduire tous les emplois concrets de la forme.' Guillaume distinguishes the underlying signifié de puissance from the surface signifiés d'effet, and states (1971:87) that the former must be reconstructed from the latter. Ullmann (1957) distinguishes meaning in langue from meaning in parole (what he calls meaning vs. sense). Joos (1964) distinguishes the additive meaning of a lexical unit from its privative meaning: a word used in discourse brings its own additive contribution (= sememe) to the sentence, and is then subjected to the privative contribution of all the other units of the sentence to produce the alloseme, which like the allophone, is contextual.

The notion of a single global meaning underlying all the contextual meanings, however, is not one that has gone unchallenged. Guillaume himself, in a most interesting passage (1971:78), observes that his own teacher Meillet was for long years opposed to this view, and had originally held (as did Ogden and Richards: see quote in 2.1 above) that a form meant nothing by itself and had 'no other sense than that which it received from its usage.' Guillaume notes that this opinion is justified in so far as it eliminates the erroneous practice of taking one of the surface meanings (e.g. a Hauptbedeutung, obtained by introspection) as being the basic underlying meaning, but is ultimately untenable since it also rules out the appropriate theoretical reconstruction of the necessary underlying significate.

It is obvious, for example, that all the surface meanings of any one form are limited to a range. If I say 'I fixed the board' that may mean that I tampered with the scoreboard, that I repaired the loose plank, or even that I adjusted the sound panel, but (and this is what makes the above opinion untenable) it does not, and normally cannot mean I ate the sausage or I chased the cat. In other words, it is a necessary conclusion that in the sentence I fixed the board the various surface meanings of the noun board are conditioned by an underlying meaning that circumscribes the range

of possibilities beyond which the surface meanings cannot go. Without this underlying meaning that conditions or circumscribes the surface meanings, discourse would be incoherent, would be chaos. As Guillaume put it (1964:247-8): '.. if a sign before it is used carries no potential significate, it is a sign without a usable meaning.' It is not surprising that Meillet, for all his positivist leanings, changed his mind on the question of underlying meanings (Guillaume 1971:78).

2.5 The Techniques of Reconstruction

A pianist who has not seen the score of a piece of music for a long time may have forgotten even what key the music is written in. But if he is still able to play the piece, if it is preserved in the subconscious motor memory, he can, by observing his own performance, reconstruct the score, with key signatures, bars, notes, etc. The key to reconstructing the underlying entities of a language consists likewise in careful observation of performance. As far as concerns linguistic meaning, it is important to observe especially the behaviour of linguistic elements themselves, so the the limits of their usage may be observed and the range of usage, which is restricted by the underlying conditioning sememe, thereby determined. The sememe itself, though subconscious and not directly observable, may be traced through its allosemes, through the patterns of its usage. As Wittgenstein suggested (1953:14, 53, etc.), for a somewhat different purpose, we should not look for the meaning of a word but for its use. Having done that we are then in a position to propose a theoretical underlying meaning, thereby carrying out an operation that is a fundamental <u>modus operandi</u> in both synchronic and diachronic lingistics, as in the elaboration of phonemes from a purely phonetic script or in the reconstruction of protoforms from the cognates found in daughter languages - in both cases theoretical underlying forms are proposed that are capable of conditioning the surface, observable data.

3. <u>Meaning and Process</u>

3.1 Meaning as a Productive Process

Language usage (<u>langage</u> in Saussure's terms) is a process, an activity, not a <u>Ding-an-sich</u>, not a static entity. It is only in terms of process that time (as movement across space) may be related to space (within the perspective of the space/time continuum); that mind may be related to the physiological brain; that discourse

(linguistic activity) may be related to a specific tongue. Consequently, any coherent description or theory of language must be in some sense generative, that is, must indicate movement, activity or process from one stage or state to another. Speaking is necessarily an activity whereby the underlying elements of a tongue are processed, albeit subconsciously, for use in discourse. This is not a new idea, of course; Sapir entitled the fourth chapter of his 1921 monograph Form in Language: Grammatical Processes. In English, for example, a basic significate may be processed as different parts of speech: the notion round can be made into a noun, verb, adverb, adjective, or preposition. If made into a noun it will be singular or plural; as a verb it will be processed for mood, tense, etc.:

3. They ordered several rounds of drinks.

4. He rounded the corner at a gallop.

5. At the round earth's imagined corners blow/ Your trumpets, angels.

6. Running round and round in circles.

7. He lives round the corner.

Surface meaning is also the product of processing. From the range of meaning available in a given underlying significate or sememe, the requirements of linguistic context and pragmatic situation will eliminate all factors except those appropriate to the situational context. Or, in Joos's terms, from the total of the additive meaning of a term, the privative meaning of the other terms will strip away all factors except those appropriate to the sentence. The end product is an alloseme or actual significate. In a sentence such as

8. A car door should be hinged at the front.

the context indicates that a special kind of door is meant, a kind of door that is not part of the meaning of French porte, but is part of the meaning of English door.

3.2 Generating Surface Structures

Two surface allosemes cannot be generated at one and the same time from a single underlying sememe: even with puns one has a choice

between two alternating variants, between two possibilities. It is possible to say:

9. The book is sad.

10. John is sad.

but as McCawley (1967:126) points out it is not possible to say:

11. John is as sad as the book he read last year.

because the word sad, when applied to books and people has at least two different senses: 'producing sadness' and 'feeling sadness.' McCawley consequently proceeds to place two different lexical items in the deep structures, but, whatever one thinks of deep structures, this is a methodological error because surface meaning is allosemic and endlessly various, and consequently McCawley's two lexical items cannot account for such expressions as a 'sad look' or a 'sad case,' which would seem to warrant two further entries in the deep structure. If every different surface alloseme required a new item in the lexicon, the lexicon would be infinite, because surface meaning is infinitely varied.

Many of the different aspects of meaning may be seen as belonging to different 'moments' or levels of the generative act, to the underlying or surface levels, and I shall here endeavour to present an account that aims to be a model for a speaker, who creates, from the underlying apparatus available to him or her, the variation that we observe at the surface level.

3.3 The Generative Act

Let us presume, for simplicity of presentation, that the speaker has observed some items of information from the world of experience that he or she wishes to express: the appearance of a cat in the garden, for example. In order to process this item of information through the medium of language, a search would be required for suitable underlying significates that may be appropriately fitted together to form a coherent representation. The moving figure (cat) and the external ground against which it moves (garden), both of which are fundamental informational elements, may be expected to be processed by all languages, each element being represented by being allocated to a language specific sememe, which thereupon will be processed grammatically to relate appropriately to the other elements in the final collocation. Once this grammatical processing has taken place, the resultant grammaticalized sememe

(Saussure's signifié) will have an automatic reflex: a sign (called signifiant by Saussure, in defiance of normal usage). The reflex nature of this sememe-sign relationship is demonstrated by the researches of (Penfield and Roberts 1959:227):

> When the electrode was applied to point 26 ... on the anterior speech area, the patient was being shown a picture of a human foot. He said, 'Oh, I know what it is. That is what you put in your shoes.' After the electrode was withdrawn, he said 'foot.'
>
> When the electrode was applied to the supramarginal gyrus at 27, he said, 'I know what it is' and was silent. When the electrode was withdrawn, he said at once, 'tree,' which was correct.
>
> When the electrode was applied to the posterior temporal region at 28 he was completely silent. A little time after the electrode was withdrawn, he exclaimed suddenly, 'Now I can talk - butterfly [which was correct]. I couldn't get that word "butterfly," and then I tried to get the word "moth".'
>
> This demonstrates that there is a neuronal mechanism for speech in the dominant hemisphere that can be inactivated completely, or imcompletely, by electrical discharge.

In a language such as English, for example, the underlying sememe of cross, when grammaticalized, has such reflex signs as cross, crosses, crossing, crossed, where the morphology itself clearly reflects (i.e. is a symptom of) the grammatical processing, which is itself meaningful, or semantic, as may be demonstrated by minimal pairs: I saw him cross the road/ crossing the road.

What is true of English is equally true of other types of language except that the basic notion may be grammaticalized as a root, or as a post-base, or as an incorporation of the verb rather than a separate part of speech. Each such distinctive grammaticalization may well result in a distinctively different reflex sign, which will normally show morphophonemic relationships to the other signs of the set. This is not an absolute requirement, of course, and in verbs of going there is typically suppletion in Indo-European languages: French has pres. je vais, impf. j'allais, fut. j'irai, and even in English the reflex sign for the notional content (go + past tense) is went.

We know almost nothing of the psychological reality of the syntactic organization at this level, but we can see from Penfield's discussion of his experiments (Penfield and Roberts 1959:227-233) that every underlying (linguistic) significate will automatically

release its reflex sign, unless the reflex is blocked by an electrical discharge, or disturbed by aphasia. The sign may be either interiorized (in silence) or exteriorized, in which case it will be given phonic shape and be caused to vibrate on the air waves, and received by the hearer. The hearer, if he knows the sense of the underlying significate, will normally be able to deduce the surface meaning intended by the speaker by taking into account the effect of context and situation upon this underlying significate. There are three steps in the process therefore: Step One is the choice of underlying significate or sememe, which when grammaticalized will automatically release Step Two, which is the sign. Releasing the sign into the stream of speech induces the conditioned surface significate or alloseme, which is Step Three:

Sememe ----------> Sign ----------> Alloseme

3.4 An Operational Analogy of the Generative Act

A helpful analogy is that of the child's Meccano set or construction set. Each set consists of a variety of parts, that may be fitted together in a variety of ways, some of the parts (such as nuts and bolts) being used only for connectors for fitting the major parts together. A child wishing to make a model airplane with the set will take pieces from the set and incorporate them into the model. The set corresponds to tongue, but the airplane and other such models constructed correspond to discourse, to the sentences constructed from the set.

Each part in the Meccano set is a single entity which may have a myriad different uses in the items constructed. A girder from the set, with 10 different holes, may be attached in one model only through its end holes, and the other eight holes not used, or redundant. In constructing another model four of the holes may be used, in another eight, and so forth. It is in analogous fashion that the speaker will make use of those aspects of a sememe that are relevant to the utterance and ignore the irrelevant aspects, thereby creating allosemes in discourse.

It follows that the child, in adding to the model being constructed, will decide on a suitable shape (sememe), which will be found realized in a particular piece or part (sign) of the set. Incorporating the part into the model, only certain particular aspects of the shape will be utilized, a factor which will consequently give it a role (alloseme) appropriate or distinctive to that model.

It is obvious that the same piece plays different roles as (a) member of the set and (b) as member of a model. As member of the set (sememe) the possibilities of the part enter into contrast with the possibilities of all the other parts. As structural member of a model (alloseme) some of those possibilities will be realized: discourse results from the realization or actualization of some of the possibilities inherent in tongue. The structural member incorporated into the model then enters into contrast with the other elements (i.e. actualized possibilities) of the model.

Since the airplane and the other various models constructed from the set stand for sentences, for discourse, for parole, and the set of parts represents tongue, it is of interest to note that Saussure (1916:172) stated that the sentence is an element of parole not of langue. The sentence, like the model airplane, is the construct of an individual, not a communal property. The sememe, on the other hand, is communal property, is an element of langue. Or as Sapir (1921:14) puts it, 'Each element in the sentence defines a separate concept or conceptual relation or both combined, but the sentence as a whole has no conceptual significance whatever.' In short, a sentence carries a basic message but a message, being ephemeral, is not a concept, which is, by definition, durative. As I have shown elsewhere (Hewson 1978), it is easy to demonstrate that in terms of just propositional meaning alone, before there is any question of pragmatics (see 4.2 below), a single sentence such as Our sister fixed the board may have hundreds of different interpretations. To translate into Cree, for example, we would need to know whether the sister is older or younger, and whether she is also the sister of the addressee or not (i.e. the inclusive-/exclusive contrast); then there are the multitudinous variations offered by fix and board, which require specific terms in other languages.

4. Differences of Meaning

4.1 One Sememe or Two? The Non-uniqueness of Semantic Solutions

We have said that speakers of a language are normally aware of the meaning of a sentence spoken in a particular context, and that allosemes, or meanings in discourse are observable, since otherwise translation and paraphrase would be impossibilities. We must insist, however, that underlying meanings are not directly observable, but only inferrable through the varying usages of discourse. It follows that the linguist faces similar problems in trying to determine the underlying sememe that he faces in trying to establish phonemes from a phonetic transcription. With present methods of analysis,

we cannot always be sure where there is overlapping and where there are different underlying sememes.

Our uncertainties over the boundaries of the underlying elements are never more unsure than when we are dealing with idiomatic usage. As a general rule, all surface usage that maintains at least one basic feature of the proposed or reconstructed sememe may be classified as unitary. We may assert with confidence that head has the same sememe in head of a man and head of a dog. Many would be quite content to add head of a pin and head of cabbage as other allosemes of the same basic sememe. But what are we to do with head of steam? Lexical meaning is an element that includes such extensive variation, and often such personal variation, that it is quite plausible that for some members of the English speaking community the noun head in head of steam is an alloseme of the basic noun, whereas for others it has a totally separate underlying sememe. There is a need for more research and enquiry into some of the problems and issues here raised.

4.2 Context and Situation

When in the course of a day's activities we hear an ordinary simple sentence such as

12. He brought the paper.

we have no means of knowing through the linguistic information offered what kind of a paper was brought: the context does not define the alloseme. The alloseme may, however, be defined contextually:

13. He brought the paper to be signed.

14. He brought the daily paper.

15. He brought the paper he read at the conference.

In 13., the alloseme is document; in 14., it is newspaper, and in 15. it is scholarly communication.

The alloseme may likewise be determined purely pragmatically by the situation. If there is a directly observable referent, as when the individual is seen to be carrying either a newspaper or a document in his or her hand, any linguistic context is thereby made redundant, and the alloseme is determined by situation. This may also take place (although there is frequently room for ambiguity)

when the situation includes a presupposition, as when we are expecting someone to arrive with a document. In that case, we would naturally suppose that the reference was to the document we were expecting.

4.3 Reference and the Referent

The term referent has traditionally been applied, following the positivist trend set by Ogden and Richards (1923:10) to an element of the experiential world that can be seen or touched. We shall call this the external referent. Ogden and Richards, in fact, attempted to reduce linguistic meaning to the relationship between what they called the symbol (that which vibrates on the air waves) and the external referent, thinking that they had thereby created an empirical science where each aspect of the relationship of meaning (symbol/referent) was directly observable. The result is, of course, pseudo-scientific reductionism, a theory that was very fashionable in its day, but totally unworkable: if I say

16. The table is one of humanity's oldest artefacts.

my interlocutor is entitled to ask 'What table? Show me.' It then becomes obvious that there is no external referent, that there is no directly observable table which will correspond to my reference in 16.

A further complication arises from the fact that an external referent does not exist for a human observer until it has been registered as a percept. I can say, for example,

17. I am sitting on a chair as I write this sentence.

and any human observer can see that the chair in question is wooden, has no arms, and no cushion. If I then proceed to say

18. There is no one sitting on the other chair in this room.

when in fact there is no other chair in the room, the reference in 18. must be to a purely imaginary chair: there is no other chair, and I know this because I have no mental perception of any other chair. Genuine external referents, in short, necessarily correspond to mental percepts; without such a mental percept, we conclude that there is no external referent. Alternatively, if I have a mental percept that others do not share, one concludes that I am hallucinating. It follows that the linguistic referent is necessarily the percept, or the memory of the percept, a mental

entity, and not the external referent: otherwise one should be able to bypass the percept, the internal referent, and refer to the external referent directly, which, as we have seen, is impossible.

We are so used to taking it for granted that linguistic reference to the world of experience is direct and unmediated, that this point may be difficult to grasp, and the objection may be made that we are introducing an unnecessary layer or level of complication, adding considerably to the discomfort of those who, like Lyons, consider any discussion of the mind as somewhat disreputable. After all, if I point to the chair I am sitting in, I am not pointing to a percept, and indeed I am not sitting on a percept! The appropriate response to this objection is that it would be very foolish to attempt to sit down on something of which we had no percept: it is our perceptions of the world of experience which determine our knowledge of it: without the internal referent there can be no external referent.

Furthermore, I can not apply a mental label outside of the mind. If I am to label mentally the object I am sitting on as chair, as I have done in 17., such labelling can only be carried out on a percept or a memory. If I wish to put such a label on the physical chair, I must write chair on a label and attach it to the article in question: physical labelling must not be confused with mental labelling.

We must distinguish, therefore, between the internal referent, which is a percept or a memory, and the external referent of Ogden and Richards. The internal referent is, in fact, incorporated into the noun, and this is what distinguishes the noun as a part of speech: what is referred to by the noun is either a percept, a memory or a concept. The adjective, for example, brings its meaning to the noun on which it depends; in that sense it labels the noun: wooden chair. The referent of the adjective wooden is the noun chair. But what does the noun chair label? It labels the internal referent, the mental percept, which being thus labelled, becomes a part of the noun, and distinguishes the noun from other parts of speech, in that the referent of the noun is a part of the noun itself. The referent of the adjective and the verb is always elsewhere: in dog food, for example, the word dog does not have an internal referent; it refers to food, telling us what kind of food is involved. If I explain that it means food for dogs, then dogs does have an internal referent, which can of course be plural, and we note that food for dogs is dog food, not *dogs food: the adjectival form of dog, since it has no internal referent, cannot have a plural.

4.4 Sentential Reference

Recent years have seen renewed interest in linguistic universals and in the categorizing of certain features of languages as being universal properties of the phenomenon of language. Much interesting work has been done, but there has been a continuing tendency to entrammel significantly distinctive categories together and by so doing to over-simplify and thus 'universalize.'

One of the most obvious instances of reductionism, of over-simplification concerning linguistic meaning was the early assumption in Transformational Grammar that the active and passive forms of a sentence had the same 'deep structure' and consequently had the same 'meaning,' an assumption that has, of course, long been discarded. The number of sentences that have no satisfactory active or passive correlate are enough to demonstrate the inadequacy of such a view:

19. He was born a pauper.

20. Dogs make fine pets.

21. It measures five feet.

22. The presence of x means trouble.

23. He lost his parents in an automobile accident.

24. Few people read many books.

This problem is an instance of a regularly recurring confusion between the non-linguistic meaning of information on the one hand and linguistic meaning on the other. Where both active and passive forms of a sentence occur, it happens frequently that both may be used to refer to the same external situation; it is in reference that they are identical, not in linguistic meaning. Consequently, as with sentences 1. and 2., whether one uses French or English, active or passive, the referential meaning does not change: the situation referred to is the same.

That there is a difference of meaning between active and passive sentences may be clearly and simply demonstrated however. Without a given situational matrix a particular sentence may be multivariously ambiguous:

25. He missed his mother.

For 25., we may propose the following situations: (i) he threw something; (ii) he had feelings about her absence; (iii) he went to meet her, but failed to contact her; (iv) he suddenly noticed her absence. The situations thus proposed (which in no way exhaust the possibilities) all resolve the ambiguity of the linguistic meaning of 25. We may now observe that the passive

26. His mother was missed by him.

may only be used in contexts (ii) and perhaps (iv). In short, the active and passive forms of this sentence present significantly different constructs; the passive form of this sentence is not ambiguous in the way that the active form is. This is not a surprising result: the passive is a marked form, and the marked form has normally a lesser scope than its corresponding unmarked form.

The confusion of different sentences that are supposed to have 'the same meaning' is perpetuated in truth-conditional semantics as presented, for example in Kempson (1977:28ff). As Lyons has pointed out (1981:120-121) sentences with quite different thematic material

27. I have not read this book.

28. This book I have not read.

29. It is this book (that) I have not read.

30. This book has not been read by me.

may 'all have the same truth-conditions and therefore the same propositional content.' In the following pages he shows that other elements 'cannot be satisfactorily formalized within the framework of standard propositional logic' (p.141). Concerning questions, for example, he shows that traditional ways of formalizing them are hopelessly inadequate, and that the only way to deal with them in truth-conditional semantics is to identify them, semantically, with the set of declaratives. This, he comments, 'is hardly the approach that would be chosen by someone who was not determined, for metatheoretical reasons, to force the whole of sentence-meaning into a truth-conditional straightjacket' (1981:136).

There is much more to be said (although it is outside the scope of this article) on truth-conditional semantics. No one seems to have noticed, for example, that one has to know the meaning of a sentence <u>before</u> one can evaluate its truth conditions, and

that to base sentence meaning on truth conditions is therefore to put the cart before the horse.

Since I have dealt elsewhere with the whole question of the propositional meaning of sentences (Hewson 1978), showing that what has the form of a single sentence may represent hundreds of different propositions, I shall make only one brief final comment here on the question of sentential reference. In the normal use of language, sentences belong to a time and place, to a context of situation, from which they can be abstracted only at the risk of distortion or misrepresentation. This is most obvious when one comes to translate: there is no way that the sentence I fixed the board can be translated into French unless one is informed about the situation in which the sentence is used. We are even entitled to wonder whether such a sentence has any meaning at all (apart from its individual lexical elements) if it has no context of situation.

6. Conclusions

The following main conclusions may be drawn: (1) Information is the relationship between an observable signal (a sense-datum available to all, regardless of language) and the message it conveys. This relationship is two-way: the information is the conditioner of the signal, and the signal is the symptom of the information, and (2) there are three different aspects of linguistic meaning that have to be distinguished, namely underlying meaning, surface meaning, and reference.

Underlying meaning is that to be found in the permanent system of contrasts stored in the mind of the speaker at the subconscious level, out of awareness. The relationship is between morpheme and sememe, and it is a two-way relationship: each element is a reflex of the other. As Penfield showed, this reflex can be interrupted by the application of the neurosurgeon's electrode to certain areas of the cortex during surgery. Meaning at this level is not directly observable, but it is reconstructible from observation of the range of usage of each concept at the surface level, in discourse.

Surface meaning, in contrast to the permanent and subconscious nature of underlying meaning, is both temporary and conscious. Most surface meaning is recorded temporarily in the short term memory, and then forgotten. (The exceptions are those utterances that are written down or otherwise recorded for posterity). Surface meaning is the product of interaction within the collocation and within the context of situation, and consequently demonstrates a

continuing capacity for variation, each temporal usage being very often different from the one that precedes it and the one that follows it. The relation is between allomorph and alloseme, and it is also two-way, since it works for both speaker and hearer. The fact that such meaning is conscious and observable makes it possible to translate the message so presented into other languages.

Referential meaning is the relationship momentarily established (for purposes of communication, for example) between a linguistic sign-significate combination on the one hand and a mental percept or memory on the other. The purpose of reference is to convey information about the experiential universe. Reference, being intentional, is thereby unidirectional; were this not so, falsehood and lying would be impossible through the medium of language, since then the direct perception of experience would impose its own linguistic message. Referential meaning is the only aspect of linguistic meaning that is immediately concerned with truth values.

Information, if we may come full circle in our conclusions, is the distinctive (negentropic) form of our mental percepts (which they have whether they are referred to or not), and regardless of what language is used to name them. Such negentropic information is ultimately independent of language, but is nevertheless unquestionably exploited by human languages in the development of concepts. The whole question of the iconicity of language, that is, of how languages often directly reflect the negentropic information of the universe has in fact been pursued in recent years with very great interest (e.g. Haiman 1985). And the attempts of Anna Wierzbicka to determine semantic primitives (1972) and analyse conceptual systems (1980) is in turn based on very fine observation and discrimination of informational distinctions. Relating the conceptual distinctions of language to the informational patterns of experience is certainly a profitable avenue for semantic studies, and one that will undoubtedly be extensively investigated and exploited in the years ahead.

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A NOTE ON CAPE BRETON NICKNAMES

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ABSTRACT

Nicknames are a neglected part of the Canadian vernacular tradition and have received little systematic study. The following discussion reports partial evidence collected by the author in the course of a broader study in the social history of industrial Cape Breton. Although the nickname is often regarded as a rural tradition associated with Gaelic speakers, the findings indicate that the nickname persisted as a part of the oral tradition in the industrial community. Nicknames continued to be drawn from established sources, but the tradition also incorporated references to the conditions and experiences of industrial life among the coal miners. In various cases the nickname offered a compact, often humorous, commentary on the larger social and cultural life of the community. In this way the nickname functioned as a colloquial form of social expression, emphasizing shared values and local identities. For students of language and history the evidence from industrial Cape Breton suggests that there is scope for a more systematic approach to the study of nicknames as a part of the Canadian vernacular tradition.

The nickname has generally been regarded as one of the more colourful aspects of Canadian nomenclature, but this aspect of the vernacular style of expression appears to have received little systematic study in the Canadian context. Colombo's Names and Nicknames, for instance, simply provides a list of proper names and nicknames which have been attached to prominent Canadians.

Some students of the oral tradition, however, have devoted greater attention to the origins and meanings of nicknames, which they have seen as manifestations of the social and cultural environments in which they arise. In his classic study of Scottish culture in rural Cape Breton, Charles W. Dunn provided a brief discussion of the use of identifying names among the Highland Scots of rural Cape Breton. As Dunn pointed out, such local traditions often survived because they were 'universally popular, immediately

understandable, and functionally related to the settlers' way of life' (Dunn 1953: 73, 136-8).

Our understanding of this linguistic tradition can be extended by considering some additional evidence regarding the use of nicknames, particularly in the industrial environment of the island. No concerted effort has been made to collect or catalogue Cape Breton nicknames, and the evidence considered here is fragmentary and impressionistic. The material reported here comes from evidence encountered in the course of a broader study in the social history of industrial Cape Breton and is drawn not only from the observations of previous collectors but also from evidence collected in oral interviews conducted by the author and from research in newspapers and archival sources.

A distinctive tag added to the first name, the nickname conveyed information required to more accurately identify an individual. Given the prevalence of a small range of clan names in rural Cape Breton, the use of patronymics was a common device. In the Gaelic usage which Dunn discusses, the patronymic appeared in the genitive case, though in English both names usually remained in the nominative:

	Son	Father	Identifying Name
Gaelic	Niall	Seumas	Niall Sheumais
English	Neil	James	Neil Jim [or Neil Jim's]

The surname was generally dropped entirely and the individual would, in this case, be known simply as Neil Jim. His wife was thus known as Mrs. Neil Jim and their children as Malcolm Neil Jim and Mary Neil Jim.

The use of the strict patronymic was modified by other conventions which are of particular interest for the student of social and cultural history. As Dunn points out, it also happened that the father-and-son title was eclipsed by family nicknames. While the nickname was a linguistic convention designed to convey essential information, it also functioned as a flexible and innovative element within the oral tradition. Departing from the patronymic formula, the nickname could also reflect other aspects of individual identity and common experience. Such references included allusions to personal characteristics such as appearance, occupation or place of residence. They could also refer to attitudes, events or experiences associated with the individual or the family. Such references would be most meaningful for those familiar with the individual family and the story behind the

identifying name. The nickname could be made particularly memorably if it involved a touch of humour or social comment.

The folklore collector Helen Creighton was also impressed by the persistence of nicknames in rural Cape Breton. Her interview with the educator Alexander Laidlaw, recorded in 1944, provided a number of interesting observations on the tradition (Creighton 1962:71-76). Recalling his own youth in rural Cape Breton, Laidlaw suggested that the most common nicknames referred to an individual's occupation. Among the examples he cited were Angus the Cooper, Alex the Turner, John the Mason, Angus the Miller. Place of residence was another common referent, as were size and appearance; hence Allan the Ridge, Big Sandy, Red Angus, etc. But misdirection was also common and the meaning of nicknames was sometimes opaque to the outsider. For instance, John the Banker was no financier but a fisherman on the Grand Banks. Angus the Nun was a janitor at the local convent. Maggie the Lighthouse was not tall and erect but her father was a caretaker at a government lighthouse. Similarly, individuals named for their size bequeathed names to their children which were confusing except to those familiar with their lineage: Big John's children, Alex Big John and Katie Big John, might bear more resemblance to their mother, who was small in stature (and known as Mrs. Big John).

In the late 19th and early 20th centuries rural society was strongly affected by emigration, particularly to the coal and steel districts of the island. When they left the countryside Cape Bretoners did not abandon the habits of speech and thought embedded in the oral tradition. Like people in other times and other places, they drew upon their existing culture to attach meaning to the new environment, and this theme has appeared prominently in the recent social history of industrial Cape Breton (Muise 1980; Macgillivray 1983; Frank 1985). The nickname became an accepted part of the new industrial culture. The persistence of nicknames in the mining community was recalled in the following comments by two coal miners, both in their 80s, recorded in 1975:

> Joseph Nearing: Once you got that name it followed with the old people. I don't know about the young people today, but everybody had a nickname in Reserve in the olden days.
>
> Angus F. MacDonald: Everybody.
>
> Nearing: Everybody had a nickname.

> MacDonald: The same here, everybody. You take this, there is a lot of Angus MacDonalds round here, you know what I mean, and I guess if I didn't have an F in my name they would have some nickname on me. One fellow called Long Angus, another fellow called Pretty Angus, you know what I mean. Another fellow Long John or Short John, No Hair John and Bald Headed John and Whiskery John, you know what I mean. That is the way you knew them, yeah. The same was in the Gaelic -- I have Gaelic you know-- if you call a man you would call him by his old name, his father's name and even his grandfather's name.

The recruitment of population for the industrial areas drew heavily, though not exclusively, on the rural parts of Cape Breton Island, and as a result the most common cultural background among the coal miners was one of Scottish Highland origins. A small district readily furnished several John MacLeods, Sandy MacDonalds or Mary McNeils, and this demographic factor certainly contributed to the persistence of nicknames in the industrial environment. One long verse, devoted entirely to Mary McNeils and John MacDonalds, appeared in print in the Cape Breton Mirror in 1953:

> Is it Tall John or Black John or Johnny Red Neil?
> Or Johnny the Lady or Johnnny Cornmeal?
> Or perhaps you'd be looking for Johnny Big Blow,
> Or the fellow they sometimes called Johnny the Crow?
>
> By this time I guess that you surely must see
> There are lots of MacDonalds in little C.B.
> Then you'd say quite politely, 'I'd like for to know
> Where's that Mary McNeil that I knew long ago?'
>
> You may be surprised if the answer will be,
> Is it Mary Tall Angus or Mary John D.,
> Or Mary the Widow, or Mary John More,
> Or Mary Big Duncan that lives by the shore?

Similarly, another rhyming recitation of nicknames, composed in the 1920s in Sydney Mines by Michael Dwyer, illustrated the broad scope as well as the persistence of the tradition (McCawley 1929:62-64):

> Hungry Malcolm has enough to eat,
> Raspberry Vinegar was old and sweet,
> Alan the Fiddler and Slim Jim,

Lazy Hector and Coal Black Tim;
Jim Butcher looks slick dressed up in hi beaver,
Angus the Wrestler and George Weaver,
Danny Bara has only one tone,
Jimmy Bottomer and Poor Cheap Joe;
Old Crunch used to speak so odd,
Jack Scotch and Minnie Maud,
William Tell, no one could harm her,
Mick Boisdale, the Caraway Farmer.

In the almost cryptic references to local characters there was hidden meaning and humour, and the nickname may be seen as a key to a fund of anecdotal knowledge embedded in local traditions. At the same time the presentation of nicknames in verse form in these examples implies that there was a recognition that the tradition was an entertaining, even decorative, part of local tradition worthy of preservation.

In the coal towns the nickname readily incorporated references to the new situation and new kinds of experiences. Paymasters recorded nicknames on the payroll in order to distinguish the various Macdonalds, MacNeils and MacLeods, and the less familiar names of Ukrainian, Italian or Lithuanian immigrants were sometimes replaced by anglicized surnames or nicknames. Green hands from the countryside were often known as Bucks, and thus Johnny the Buck, a McIntyre and well known ballplayer, carried the name from the days his father first arrived to work in the mines. Dannie Narrow Gauge was a MacDonald who operated a long, narrow, three-storey boarding house for the coal miners. Among the coal mining MacDonalds there were numerous Sandy MacDonalds, hence Alex the Weighman (for his occupation), Little Sandy (for his size), Sandy Cape North (for his home) and Black Sandy (for his whiskers). In one pit there were several Jack MacLeans: Jack Sandy's was known by his patronymic, but Jack the Bottomer handled loaded tubs at the bottom of the shaft and Jack the Face worked at the face of the coal seam. Burnt Rory earned his nickname when a premature shot was fired in the mine and left him with a powder-burned face; the family were subsequently known as the Burnt Rorys. When a miner received a cut in the pit, it was the custom to rub some slack coal on the wound to stop the blood. The sulphur in the coal had an antiseptic effect, but when the wound healed a blue scar remained. The Blue Ranalds earned their tag in this fashion, and in later generations the nickname Blue tended to eclipse the surname MacDonald entirely. The brother of Maurice Blue, however, Lewis MacDonald, gained his personal nickname, Kid Burns, because his boxing style resembled that of his hero, Tommy Burns, the Canadian who held the world heavyweight title in 1906-8.

Stuart McCawley, a Glace Bay journalist and collector, documented local nicknames and their associated stories during the 1920s and 1930s, and much of this material was presented in local collections and in his personal scrapbook, later acquired by the Miners' Memorial Museum in Glace Bay. McCawley readily appreciated the ways in which the nicknames could convey some of the common experiences of the industrial community. No anecdote better dramatized the transition from rural to industrial environment than the story of one Sandy MacDonald's nickname. Looking for work, Sandy MacDonald stepped into a colliery office, chewing and spitting tobacco and scuffling his feet. The paymaster felt his mode of approach lacked sufficient deference and demanded:

> 'Remove your hat!'
> Sandy ignored the request, and the paymaster, getting hot under the collar, stamped his foot, and looking Sandy squarely in the eyes, said
> 'Didn't you hear me tell you to remove your hat?'
> 'What hat?' said Sandy.
> 'The one on your head,' said the paymaster.
> 'Her is not a hat,' said Sandy. 'Her's a cap; and Mister Smarty, the head that took her in here can took her out.'

McCawley's rendition captured the rural Cape Bretoner's habits of speech as well as the lack of deference which was often characteristic of early industrial culture. The paymaster afterwards enjoyed repeating the story but also had his revenge: 'And to get even,' McCawley reports, 'he put Sandy on the payroll as "Sandy Took Her MacDonald"' (McCawley 1966:23).

In another incident widely repeated in the industrial community to this day, the story of yet another Sandy MacDonald reflected some of the less humorous tensions involved in the transition to an industrial way of life. This coal miner walked a long distance to the colliery office to collect his pay one day. When he opened it, he found there were so many deductions listed on the paysheet that he received only two cents in cash -- two large black Victorian pennies. 'Did you have a good pay?' he was asked. 'Well yes, I had a very big pay.' The practice of deductions and the shortage of cash among the coal miners, many of whom lived in company houses and depended on goods from company stores, was a widespread grievance among the coal miners. As the story circulated, he became known as Sandy Big Pay, and his sons were the Big Pay MacDonalds (Nearing and MacDonald 1975).

Nicknames were also applied to the more prominent figures in the mining community, and often clearly signified approval or

disapproval. Hiram Donkin, general manager of Dominion Coal in the 1890s, was a massive man with black hair and a full beard; he was known as Black Donkin. A later company official, a big man with a reputation as a despot, was known as Sandy the Bear. In the 1920s the humour of the oral tradition was turned against the unpopular president of the British Empire Steel Corporation, and one miner's wife observed bitterly in a letter to the Maritime Labor Herald: 'Roy Wolvin -- better known to me as "Wolf" -- how came your mother to name you so well?' In adopting this device, the coal miners were making an effort to give the face of their employers a more recognizable shape, even as the corporations became increasingly large and distant forces in the local economy. The complexities of the local political economy could be sharply summarized in a single sobriquet popularized in verses such as those by the worker-poet Dawn Fraser originally published in the 1920s (Fraser 1978:51).

> Now of all the bosses that e'er were cursed,
> Roy the Wolf was called the worst,
> He was the leading parasite
> That fed on the workers day and night;
> Greedy, growling wolf for more,
> He stole the bread from the workers' door ...

In some ways, then, the tradition of the nickname bridged the gulf between rural and industrial environments. As new circumstances warranted, older references were replaced by new ones. The nickname continued to be an innovative tradition, related to the experience of successive generations. In conveying information, the nickname also preserved the memory of anecdotes and events, conveyed attitudes and offered standards of judgement. Often the nickname was functionally related to the way of life of the individual, family, community or class. Neighborhood and kinship ties remained strong in the coal towns, but the nickname attempted to extend this spirit of shared identity to a much larger community among the industrial population. By its familiar, colloquial nature, the nickname implied that the community was compact and closeknit, and that individuals could be known by their family and personal history. Conflicts and loyalties were personified in ways that underlined the primacy of individual experience and personal responsibility. At times it appeared almost as a ritual maintained primarily for its residual humorous appeal. In other cases the nickname appeared as a form of social control or social protest, expressing expectations or sanctions associated with the tensions of industrial society.

It is difficult to make generalizations, however, for this is an area which deserves systematic inquiry and there remain many opportunities for research. It is not clear, for instance, to

what extent nicknames entered into the official culture of written government records, particularly in legal documents, where efforts to trace individuals can be confounded by the absence of the familiar nicknames by which individuals were generally known. Neil MacNeil has observed that nicknames rarely entered the realm of official culture in rural Cape Breton (MacNeil 1971:18-20). In another context, for instance, the suppression of nicknames among the Normandy peasantry in the 19th century has received attention as an indication of the growing authority of the nation-state (Hobsbawm 1975:226). Some social historians have seen naming practices as indicators both of cultural domination and subordination and of collective solidarity and resistance, themes which have loomed large in debates on the social history of slavery (Genovese 1974:444-50; Gutman 1976:230-56). The approach suggests that nomenclature may be helpful in understanding the resistance to bureaucratic authority among the lower classes and more remote territories of Canadian society. Consider, for instance, the example cited by Anselme Chiasson in his study of Chéticamp, where one Hubert Poirier failed repeatedly to respond to the roll call when Acadians were called out for military exercises. To be understood the interpreter for the British officers had to call out the more familiar name, Petit Singe. As this example also reminds us, nicknames were not an exclusively Scottish tradition, and there is ample scope for exploring the use of nicknames among other groups such as the Acadians (Chiasson 1986:235-7). The use of derogatory ethnic nicknames has been explored at some length in the American context (Allen 1983). Interestingly, however, little evidence was encountered of the use of nicknames in Cape Breton as reflections of ethnic tensions. It may be that nicknames drawn from the new industrial culture functioned more in the cause of solidarity than division within the industrial community and formed one of the ingredients in the development of new local or regional identity. Again, this is a theme which requires investigation, and perhaps we should conclude only that in some of its manifestations this aspect of the oral tradition seems to promise insights into the special features of local culture and identity in the industrial community.

All this is simply to suggest that investigations of habits of speech and uses of language need not be restricted to technical studies of variations in the use of language. Certainly there has been a growing interest in the social and historical origins of linguistic traditions in Canada, an interest symbolized most impressively by the Dictionary of Newfoundland English (Byrne 1983; Poteet 1987). From the perspective of cultural history, major social changes should be traceable in the commonplace transactions of language. One of the preoccupations of social historians in recent years has been the effort to identify the neglected sources

of local and regional identity in Canada. The search for Canadian culture has often been conducted at the level of national traditions, but it may be that some of our most vigorous cultural traditions are rooted in local identities and embodies in the everyday uses of language. The study of nicknames offers a case in point, and there may be opportunities here for greater collaboration between students of language and history.

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UNITY AND DIVERSITY IN ACADIAN PHONOLOGY: AN OVERVIEW BASED ON COMPARISONS AMONG THE NOVA SCOTIA VARIETIES

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ABSTRACT

The Acadian population of the Atlantic provinces is located in a number of geographically separate areas. Existing phonological descriptions of specific varieties have shown the existence of a great deal of diversity, but also much common ground. Little comparative work has been conducted to assess the extent to which the various regional varieties share the characteristics described for individual communities. New data are here brought to bear on these issues, drawn from the material collected in the course of a research project which has as its general objective the systematic charting of the linguistic differences and similarities among the Acadian communities of Nova Scotia. Features common to all these communities and to previously described varieties are distinguished from those which show interdialectal differences, and the nature of these differences is analyzed.

1. Introduction

The aim of the present article is to take a further step in the direction of a complete overview of the phonology of the Acadian French of the Atlantic provinces, by combining material gathered in Nova Scotia in the course of an ongoing research project under the direction of the present author, with the existing body of knowledge about Acadian varieties. From being described in bits and pieces through monographs on specific varieties and unorganized observations on others, the Acadian family of dialects is now increasingly an object of systematic study, and the gaps in our knowledge are gradually being filled. At a time when Quebecois phonology is becoming more and more thoroughly described, it is time that the characteristics of Acadian, widely recognized to be distinct from Quebecois and its daughter varieties, be charted in a systematic fashion, and the common features distinguished from regional characteristics within the Acadian speech community. This was not really feasible so long as large uncharted gaps still existed, since most linguists were too aware of the striking differences between varieties to feel comfortable with generalizing from whatever variety they had studied systematically to Acadian French in general.

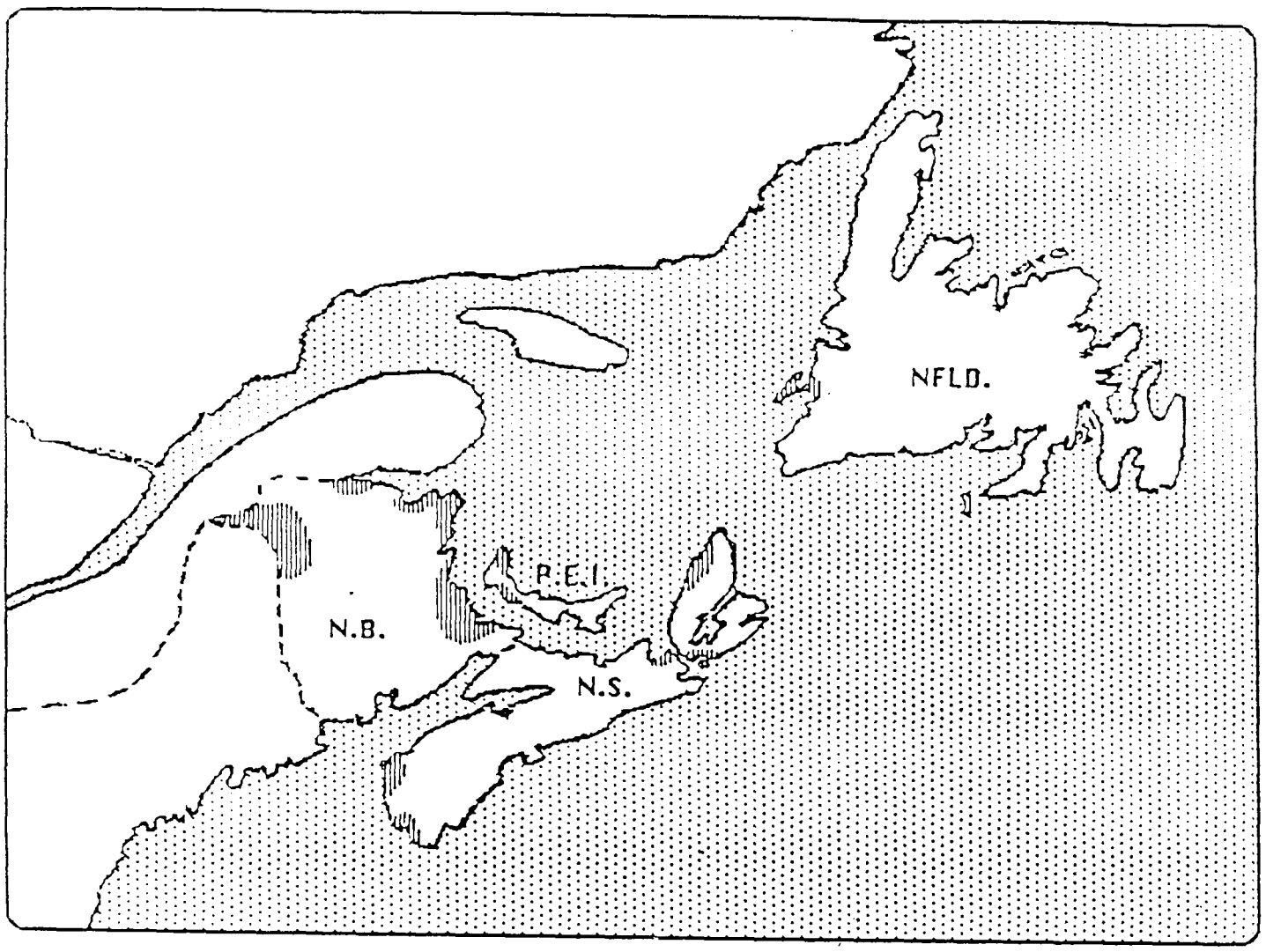


Figure 1. Major Acadian Areas of the Atlantic Provinces

A look at the map in Figure 1 shows the dispersed nature of the Acadian regions of the Atlantic Provinces, separated by large stretches of English speaking areas. It also indicates that the political boundaries between provinces are not a natural way of grouping the various regional varieties, at least on the basis of geographic proximity. Historically, the underlying unity of the Acadian varieties can be traced back to the period preceding the Deportation by the British in 1755. Prior to this date, the various settlements were geographically contiguous, having emanated from one another through expansion and spread eastward from Port Royal along the Bay of Fundy. In 1755 and subsequent years, successive expulsions scattered the Acadian population, sending them to various destinations in the New England states or back to Europe. After the Treaty of Paris in 1763, Acadians were allowed to return, on condition that they not form sizable groups. The geographic distribution as we now know it is the result of the post-Deportation resettlement.

In the present study, features analyzed on the basis of a corpus which covers all the major varieties spoken in Nova Scotia are systematically linked to earlier descriptions of Acadian phonology, as outlined in section 2 below. Particular emphasis is placed on points where the phonology of one or more varieties differs in some way from existing descriptions, both of Acadian and Quebecois. At the same time, points where hitherto undescribed varieties confirm the generality of known features are of course of interest. As much as possible, the emphasis is on synthesis and formulation of general rules rather than on the contrasting of surface differences.

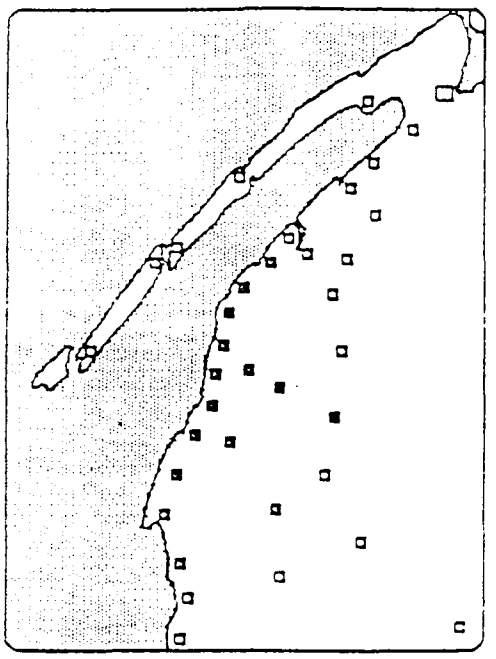
It must be borne in mind that the work presented here forms part of a multifaceted study, entitled 'A Comparative Study of the Acadian French Varieties of Nova Scotia.' The collection of the corpus was based on the need to obtain material that would be truly comparable, in particular from a sociolinguistic perspective. Thus comparisons are now possible between material recorded in similar circumstances in the different areas of the province. The sub-corpus for each regional variety has a parallel structure in terms of stratification. Analysis of this corpus is being carried out at different levels: lexical, morphological and syntactic as well as phonological.

The core Nova Scotia sociolinguistic sample consists of 130 informants. A double series of interviews was conducted, to examine style shift and accommodation when speaking to an outside francophone. All the informants were first interviewed by a member of their own community, then, at a later point in time, by an interviewer from outside the community (see Flikeid 1987). Informants range in age from 12 to 91 and represent five communities,

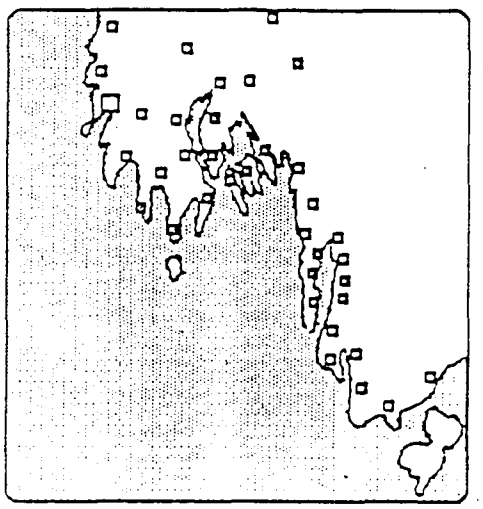
each the largest and most francophone village of each of the geographic regions: Meteghan (Baie Sainte-Marie, Clare); Pubnico (Argyle); Petit de Grat (Ile Madame, Richmond); Pomquet and Cheticamp. These regions are shown on the maps in Figure 2. Complementary to this in-depth approach, a geographic study based on the representation of all the other localities has also been undertaken. A total of 227 informants have been interviewed in all. The major part of the collected material has been transcribed and computerized.

The material in this article is based on direct analysis of the series of interviews carried out by local interviewers in the five key communities, focusing particularly on the oldest (above 60) and the youngest (12 to 25) age groups. In many cases different tendencies are found in the youngest group than in the oldest group, but their speech is not necessarily more standard. As discussed in the following section, the reasons for this lie in the particular situation of the Acadian communities as minority groups in Nova Scotia. The systematic study of age stratification is being carried out quantitatively on the basis of this corpus, as well as the study of stylistic and social variation. In the case of the other geographic points considered, only older speakers were interviewed in the initial phase.[1] 22 such interviews, representing 16 localities, have also been analyzed for the purpose of the present study in order to determine the extent of the intraregional variation. As the subsequent comparisons show, the key communities cannot be taken as representative of the surrounding communities in the case of features which exhibit fine geographical patterning.

The predominantly synchronic approach adopted here is complementary to other ongoing diachronic work being carried out in the ongoing Nova Scotia project. The aim of this work is to understand the historical evolution which has led to the present stage. A major concern in this context is to discern the innovations which have taken place subsequent to settlement in Acadia from the features which have simply been preserved. This involves systematic study of the existing sources regarding earlier stages of Acadian as well as comparison with regional varieties of French, for example as charted in the Atlas Linguistique de France (ALF) at the turn of the century, and descriptions of the linguistic situation in France at the time Acadia was settled. The external evidence regarding the settlement history of the communities is also being examined. The comparison with other varieties of Acadian is to be broadened to go beyond Atlantic Canada and to extend to other varieties of French transplanted at the same period.



BAIE STE MARIE (CLARE)



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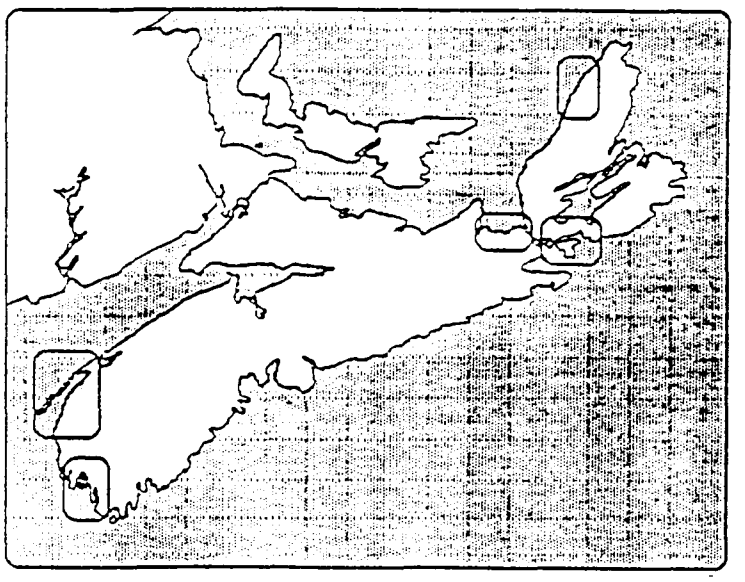
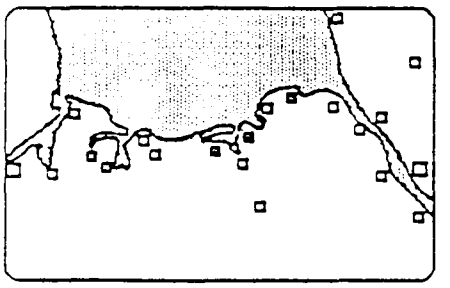
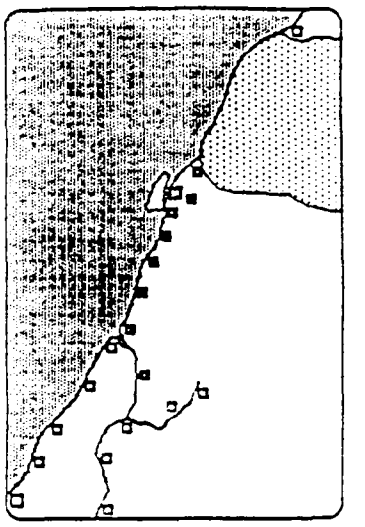




POMQUET



CHETICAMP

□ Anglophone

■ Francophone

ILE MADAME (RICHMOND)

Figure 2. Major Acadian Areas of Nova Scotia

More generally, the basic focus of attention is the interplay of geographic and sociolinguistic differences. The linguistic situation of Nova Scotia is such that geographical separation/ isolation is particularly sharp between regions (separated by distances of up to 700 km). There is however also a great deal of intraregional variation. In the corpus as it presently stands, the sociolinguistic dimension is well represented. The focus of the last stage of data collection, to take place in the summer of 1988, will be to ensure that the geographic dimension is equally well documented, by using an even finer grid. The sociolinguistic analysis is facilitated by the fundamental similarity of the communities studied: all are rural, of roughly the same size, with similar occupational structure; in all of them French has a minority status. Factors which distinguish between the communities include varying degrees of exposure to English and to outside French. One major concern is to distinguish current sociolinguistic changes due to the influence of external varieties of French, including standard French (hereafter SF), from long-term internal changes.

It is not enough to enumerate the differences between the regional varieties, be they phonological or otherwise. Some way of summarizing and quantifying them must be devised. An ongoing attempt to explore the notion of linguistic distance through the application of dialectometrical methods in the analysis of the material in the corpus is reported on in Flikeid and Cichocki (1987). On the phonological level, an important aspect, not yet resolved, is the weighting of the various features included, crucial, in that distances will be greater or smaller according to the features given prominence. This article contributes towards this study in consistently establishing the type of phonological contrast involved for each feature discussed, though whether this is a relevant criterion remains to be determined. Perceived prominence may well be based on other distinctions, as discussed in the following section.

Since these other fields of inquiry consist of work in progress, results cannot systematically be incorporated here; however, wherever appropriate and available, they will be drawn on by way of illustration.

2. Discussion of Existing Work and Descriptive Framework

Contemporary work on Acadian phonology based on original analysis of collected corpora is represented mainly by the work of Lucci (1973) who described the speech of the villages surrounding Moncton in Southeastern New Brunswick, Ryan (1981), who analyzed

the speech of Meteghan in the Baie Sainte-Marie area of Nova Scotia, and Landry (1985), who focused on the vowel system in the village of Pubnico, also in Southwestern Nova Scotia. King (1978) and Barter (1985) have described varieties of Newfoundland French. Aspects of the phonology of Northeastern New Brunswick French are described in Flikeid (1984).

Ongoing work now includes that of King and Ryan on Prince Edward Island Acadian French, in progress since 1986. Some phonological observations based on their preliminary survey are discussed in King and Ryan (1986). This study will prove particularly interesting because of its comprehensive sociolinguistic approach which will allow systematic comparison of a kind not possible until now. Another interesting project is that of Phlipponneau, a questionnaire-based phonological survey, now in its preliminary stages, reported on in Phlipponneau (1987).

Articles dealing with aspects of Acadian phonology include Landry (1981) on the vowel system of another Baie Sainte-Marie village, Petit Ruisseau, and Patterson (1978a, 1978b), who reanalyzes particular known aspects of Acadian phonology. Other articles will be referred to in the text. A systematic overview of work in Acadian linguistics in general can be found in Gesner (1986).

Much of the other existing work touching upon phonology or phonetics should be considered primarily as a source of diachronic information, in that it is based on material gathered over forty years ago. As such it is of course extremely valuable. Often this work represents non-systematic observation, but taken together it constitutes a body of knowledge about Acadian 'characteristics': Massignon (1947, 1949, 1962), Haden (1954, 1973), Garner (1952), Geddes (1893-94, 1897-98, 1914), Poirier (1884, 1928), etc. A discussion of the work of these authors can be found in chapter 2 of Flikeid (1984). Phonological generalizations are to be found in some of these, e.g. Haden (1973) and Garner (1952), and in work based on their observations, notably that of Morgan (1978).

Apart from the ongoing studies described above, the methodological approach has been predominantly structuralist, with the notable exception of Landry and Patterson who adopt a consistently generative approach. All are based on the examination of the idiolects of a small number of older informants chosen so as to minimize the influence of SF. It is particularly interesting, from a sociolinguistic perspective, to examine how the variability which is nevertheless present is incorporated into the analysis. When variation is observed within an idiolect, it appears to prevent clear-cut phonological analysis. Thus for both Lucci (1973) and Ryan (1981), a major reason for concluding, for example, that the

affricates do not have phonemic status is that there exists intra- and interspeaker variation in the corpora examined.

It will here be argued that a more comprehensive and quantitative approach, which allows the sociolinguistic/stylistic variation to be identified and formulated, through variable rules or otherwise, makes a more clear-cut picture of an underlying stable system possible. When all age groups and social groups are taken into account, as is the case in this study, the picture becomes clearer rather than more confusing. For the 'snapshot' represented by the idiolect, or at most by a subgroup of the community, cannot show the moving parts, which thus become indistiguishable from the stationary ones.

The analysis carried out on the Nova Scotia corpus so far, at all levels, has brought to light the interesting fact that it is often the younger informants who represent the deepest vernacular. On the phonological level, the presence of standard forms is minimal in the youngest age group in the case of many variables. There are parallel findings on the morphological level (Flikeid 1987). This is partly due to the fact that in the series of interviews considered here, great care was taken to choose only interviewers from within each community, all in their early twenties or younger. Peer pressure not to deviate from community norms is thus strong. Also, the particular situation of the Acadian minorities must be taken into account, in particular the relative lack of exposure to SF. It is in fact among the older speakers, who have cumulated the linguistic experience of a life-time, that we find a greater presence of standard forms. The opportunities for communication with francophones from outside the community are not on the increase for the younger generation; instead, there is increasing interaction with English speakers.

An area which is purposely left aside in the existing structuralist analyses is the lexical incidence of phonemes. A number of the characteristics of Acadian French can only be described through the enumeration of the lexical set involved. An example would be the presence of /œ/ in the 'lève,' 'pèse' set. This type of feature is not per se included in these earlier studies, where the lexical distribution is taken as a given, in line with the ideal of looking at the dialect in itself, except whenever the lexical distribution coincides with a generalizable phonological observation, such as the presence of /u/ to the exclusion of /o/ and /ɔ/ before nasal consonants. When this is the case, the contrast with SF is in fact readily made in these studies; thus Lucci (1973:40) states: 'le [o] du français standard est aussi réalisé [u] dans "assommer", "bonhomme"...' And mention can then be made of other words where the incidence of /ɔ/, /o/ and /u/ is different

in Acadian French, e.g. 'chose,' 'ôter,' even though this phenomenon is one only definable by reference to a lexical set.

One of the goals of the present project has been to establish the exhaustive lexical sets involved in the various processes, which can be particularly useful, for example, for the study of lexical diffusion. This is only possible through the systematic search of the full corpus and is by no means complete yet.

When varieties are being compared, a typology of possible levels of contrast is often established. This will normally distinguish between the following main groups: a) systemic differences, involving either the inventory of phonemes as a whole (an example of this would be the presence of the phoneme /h/ in Acadian, in contrast to SF) or a subsystem, where only a subset of phonemes is allowed (an example would be the neutralization of /ɔ̃/ and /ɑ̃/ in open stressed styllables); b) phonotactic differences (e.g. the absence of /r/ or /l/ in final consonant clusters) c) realizational differences, e.g. the [χ] and [ʁ] variants of /ʃ/ and /ʒ/, and d) differences in lexical incidence, such as that exemplified by the 'lève,' 'pèse' set mentioned above. Wells (1982), who makes use of this classification when comparing English dialects, observes that differences in incidence are easily the most prominent (from speakers' point of view).[2]

In the present study, the phonological relevance of the dialectal differences studied will be systematically brought out. Whenever the analysis is sufficiently advanced to warrant it, a process/rule oriented presentation will be used. However, comparisons with existing studies will adopt the framework of the latter. Although much reference work on SF is generative, descriptions of regional varieties of France, e.g. Walter (1982), are predominantly structuralist. One difficulty, when discussing phonological patterns which are only just emerging through ongoing analysis, is that the underlying form must be chosen, even though all the relevant aspects may not yet have been elucidated. For example, is /ɛ/ or /a/ the underlying form in 'vert,' 'verte' etc. in those of the Nova Scotia dialects which have [a] in both the environments exemplified? The existence of regional Acadian varieties where we find [vart] but [vɛr] would make it logical to chose /ɛ/ as the underlying form. But in any of these regional varieties, does the Acadian speaker seeking to converge to SF have /ɛ/ as an underlying form permitting him or her to easily convert [vars] to [vɛrs] ('(il) verse') but not [tart] to *[tɛrt] ('tarte')?. Or does the process of standardization involve the learning of the lexical set? A related question, which is not directly addressed in current phonological theory, is how the sociolinguistic variation due to increasing exposure to external norms is to be treated in

the phonological analysis of regional varieties. In the course of the following presentation of specific results emerging from the phonological comparison of the Acadian dialects, these issues will come up on several occasions.

3. Oral Vowels

3.1 Length vs. vowel quality: the mid and low vowels

Descriptions of Quebecois French show that this variety maintains a distinction between the pairs of phonemes /ɛ/ - /ɜ/[3] and /a/ - /ɑ/, where the second member of each pair is inherently long, and mainly etymological in origin, though new forms have been added to the original lexical set (Santerre 1974). In the varieties of Acadian French examined in this study, this type of opposition appears to exist throughout the vowel system. Two important aspects to be addressed are whether length or vowel quality play the primary role, and to what extent this opposition coincides with the tense/lax opposition, which also plays a more general role in Acadian. These issues are of course extremely complex, both synchronically and diachronically, as shown in the recent work of Dumas (1981, 1986) and Morin (1985, 1986).

3.1.1 /ɛ/ - /ɛ:/

Some form of the length-related opposition between two E's is maintained in all the Nova Scotia varieties examined, although not as firmly in the two central varieties, those of Richmond and Pomquet. A clear-cut difference appears between the Southwestern (S.W.) varieties on the one hand and the Northeastern (N.E.) varieties on the other, as illustrated by these examples:

		S.W.	N.E.
1.	'fête'	[fe:t][4]	[fæ:t]
	'faite'	[fɛt]	[fɛt]
	'maître'	[me:t]	[mæ:t]
	'mettre'	[mɛt]	[mɛt]

In Meteghan and Pubnico, the lexical set with long E has merged with the /e/ set, so that the opposition between historically long and short E is realized through the existing opposition /e/ - /ɛ/, and not, as in the Moncton variety, for example, through length:

/ɛ/-/ɛ̃/.[5] In these varieties, then, /e/ is found in syllables closed by a greater number of different consonants than in other varieties of Acadian (see the following section), i.e. not only in words such as 'mère' and 'neige,' but also in 'quête,' 'pêche,' etc. In the Cheticamp area of Northeastern Nova Scotia, and to some extent in Richmond and Pomquet, there is also a distinct difference in vowel quality, but in this case [æ:] as opposed to [ɛ]. A lexical set which has [e:] in the Southwestern varieties and [æ:] in Cheticamp can be established: it includes words such as 'evêque,' 'prêtre,' 'paraître,' 'guêpe,' 'messe,' 'baisse,' 'traine,' 'carême,' 'vêpres' etc. Words outside this set have /ɛ/ in all the varieties examined, e.g. 'avec,' 'lettre,' 'laisse,' 'prenne,' etc.

In Richmond and Pomquet, many speakers do not seem to distinguish firmly between the two lexical sets. When there is a distinction, it either takes the form of a relatively small difference in length, e.g. [fɛ·t] - [fɛt], or a change in the vowel quality of the 'fête' set, [fæ:t] - [fɛt], i.e. in the same direction as in Cheticamp.

3.1.2 /e/ - /ɛ/

The /e/ - /ɛ/ opposition in closed syllables, which is firmly maintained in the eastern areas of New Brunswick, is also regularly found in Nova Scotia, at the two geographical extremes of the province, whereas it is virtually absent in the central varieties, Richmond and Pomquet. This opposition is best compared in the pre-R environment, where the 'mère,' 'père' lexical set can be established, realized with /e/ in Cheticamp as well as in Pubnico and Meteghan, in contrast to the /ɛ/ set, exemplified by 'mer' and 'paire.' The /e/ set also includes words such as 'frère,' 'bière,' 'arrière,' 'derrière,' 'misère,' 'manière,' etc. As we saw above, this lexical set merges with the 'fête,' 'maître' set in Pubnico and Meteghan, but not in Cheticamp. In Richmond and Pomquet, although some older speakers appear to maintain the opposition, though not systematically, the overall situation is that only /ɛ/ is found in closed syllables.

Before we can complete the discussion of the phonological analysis, an interrelated process must be examined, the 'lowering of [ɛ]' (see below) in final and pre-R position in a number of the varieties studied. Because of this process, the 'père' - 'paire' opposition is realized with a much greater difference in vowel quality in Meteghan for example than in Cheticamp. The most

differentiated pronunciations would be in each case [peᵽr] - [pɒ:r] in Meteghan, and [pe̯:ʁ] - [pɛ̯:ʁ] in Cheticamp.

To be retained from the discussion so far: the distinction between the 'maître,' 'fête' set and the 'mettre,' 'faite' set is maintained in all varieties. The second set has /ɛ/ throughout, but the 'maître' set has [æ:] in Cheticamp (Ch), [ɛ·] or [æ:] in Richmond (Ri) and Pomquet (Po), and [e:] in Pubnico (Pu) and Meteghan (Me), where diphthongization is also present, as discussed in 3.6 below. The /e/ - /ɛ/ opposition in closed syllables is present in Cheticamp and in the Southwest. These differences can be summarized through the examples in 2., bearing in mind that other variants are also present in each variety (diphthongs, retroflex /r/, etc.):

		Me	Pu	Ri	Po	Ch
2.	'mettre'	[mɛt]	[mɛt]	[mɛt]	[mɛt]	[mɛt]
	'maître'	[me:t]	[me:t]	[mɛ̯·t]	[mɛ̯·t]	[mæ:t]
	'mère'	[me:r]	[me:r]	[mɛ̯:r]	[mɛ̯:r]	[me:ʁ]
	'mer'	[ma:r]	[ma:r]	[mɛ̯:r]	[mɛ̯:r]	[mɛ:ʁ]

3.1.3 Lowering of [ɛ]

Variously called opening or lowering of E or neutralization of E/A, this process can take place in a number of different phonological environments. It is most frequently found before /r/ followed by a consonant as in [sartɛ̃] 'certain' and [marsi] 'merci.' Walker, describing contemporary Montreal French, groups these realizations among the 'residual problems' and refers to them as 'rural, archaic or otherwise stylistically marked' (1984:98). In Acadian, this feature is widespread and by no means as marked. Lucci (1973) finds it regularly only in unstressed syllables in the Moncton variety; in Northeastern New Brunswick (Flikeid 1984) it is found in both stressed and unstressed position, e.g. [ʃarʃe] 'chercher,' [parʃ] 'perche.' This is also the case in all the Nova Scotia communities studied. Other examples of words which have [a] in these contexts are:

3.	'couverture'	'couverte'
	'èsherber'	'herbe'
	'personne'	'lanterne'
	'servante'	'perdre'
	'avertir'	'cercle'

In the context where /r/ is followed by a vowel, both [a] and [ɛ] are found, e.g. [opare] 'opérer' - [ɛspɛre] 'espérer.' A lexical set having [a] must be circumscribed, e.g. 'derrière,' 'Amérique,' 'différent,' 'intéressant,' 'terrible,' 'vérité,' etc.

Synchronically we could here simply see a different distribution of the /a/ phoneme from SF. This would however give different distributions of the /a/ - /ɛ/ lexical sets between the various regions of Nova Scotia, since a distinctly Southwestern phenomenon in Nova Scotia is that it is also found before final /r/. Examples include [fa:r] 'faire,' [ta:r] 'terre' [kãsa:r] 'cancer,' where Cheticamp, Pomquet, and Richmond have [fɛ:r], [tɛ:r], [kãsɛ:r].

If we postulate a general lowering rule of [ɛ] to [a], it would apply in progressively more environments as we move from variety to variety, as illustrated in 4.:

4.	__ rC	__ rV	__ #	__ rV[6]	__ r#
	'perche'	'terrible'	'était'	'éclairer'	'terre'
Ch	[paʁʃ]	[taʁib]	[etɛ]	[eklɛ:ʁe]	[tɛ:r]
Ri, Po	[parʃ]	[tarib]	[eta]	[eklɛ:re]	[tɛ:r]
Me, Pu	[parʃ]	[tarib]	[eta]	[ekla:re]	[ta:r]

In these examples, [a] and [ɛ] are used to represent the general tendency, even though realizations given as [a] may in fact range from [æ] to [ɒ], and [ɛ] is often more open, i.e. [ɐ]. In particular, it should be noted that the Richmond realization of the 'était' set is lowered further than that of Pomquet, and, as we shall see in the following section, the Meteghan realization of the 'terre' and 'éclairer' sets is more backed.

3.1.4 Backing of [a]

The distinction between /ɑ/ and /a/ is firmly maintained in all the Acadian varieties examined. Overall, the distribution is similar to that of Quebecois, with /ɑ/ being found to the exclusion of /a/ in final open syllables (e.g. /rɑ/ 'ras') and final syllables closed by /r/ (e.g. /amɑr/ 'amarre'). The two phonemes are opposed in syllables closed by other consonants as illustrated in /hɑt/ 'hâte' - /dat/ 'date,' /ʃɑk/ 'chaque' - /sak/ 'sac.' In the varieties where [ɛ] is lowered to [a], however, the distribution of the surface realizations is different, in that [a] is found both finally and before /r/, as in [afɛ:r] -> [afa:r] 'affaire,' and [fɛ] -> [fa] 'fait.' As has been discussed for Quebecois in the

case of final /ɛ/ (Walker 1984:85), rule ordering becomes important in regard to the backing of /a/ in these positions. Walker sees /ɑ/ in final open syllables as the result of a backing rule, which does not however apply to the [a] resulting from [ɛ] lowering.

Similarly, in most Acadian varieties, the [a] resulting from [ɛ] lowering in final or pre-R position is not backed. Observations in Meteghan and in certain Argyle communities other than Pubnico, however, lead to the postulation that the situation is changing there, in that this [a] often does undergo backing. The younger speakers in particular, and a number of the older ones, pronounce [tɒ:r] 'terre,' [sɒ:re] 'serrer' etc. with a very backed [ɒ]. /o/ itself is diphthongized in this position. We thus get the series:

5. 'père' [pe:r] 'paire' [pɒ:r] 'part' [po:r] 'port' [pɔ^{w}r]

In final position the backing is less pronounced in Meteghan but in some Argyle villages the vowel resulting from /ɛ/ lowering ranges from [æ] to [ɑ].

3.1.5 [wɛ] and [wɑ]

In general the group of words with orthographic 'oi' follows a regular pattern in Acadian French: [wɛ] in final closed syllables and internal open syllables, [wɑ] in final open syllables.[7] These forms have a parallel distribution to [ɛ] and [ɑ] respectively. For example, only [wɑ] is found in final open syllables for all lexical items ('moi,' 'toi,' 'bois,' 'vois,' 'fois,' 'mois,' etc.), except in a small group of words (e.g. 'mouchoir,' 'rasoir') where the deletion of /r/ has led to realizations in [we] (e.g. [muʃwe], [rɑzwe]). As in Quebecois, there are also words with the variant /ɛ/ e.g. 'froid' [frɛt], with /u/ e.g. 'soigne' [sʊŋ], and with [ej] e.g. 'nettoyer' [nɛteje].

In closed syllables the distinction between historically long and short E is maintained, as discussed above (section 3.1.1). Thus the following sets of items have distinct vowel realizations:

6.	'boîte'	N.E. [bwæt]	S.W. [bwe:t]	'abouette'	[abwɛt]
	'poêle'	N.E. [pwæ:l]	S.W. [pwe:l]	'poil'	[pwɛl]
	'paroisse'	N.E. [parwæ:s]	S.W. [parwe:s]	'ouest'	[wɛs]

Before final /r/ or /r/ followed by a vowel, /ɛ/ lowering applies in the Southwestern (S.W.) varieties so that we get [swa:r] 'soir' and [swa:re] 'soirée,' coinciding with the SF forms though not as a result of any standardizing tendency.

3.1.6 Three E's or three A's?

To paraphrase the title of Santerre (1974), the question arises of whether three phonological A's or E's should be distinguished. This question can well be asked, since it is necessary to consider [e], [ɛ] and [ɛ:] on the one hand and [æ], [a] and [ɑ] on the other, when comparing the different varieties. As we have seen, /ɛ:/ can be [ɛ:] as in Moncton, [e:] as in Meteghan or Pubnico or [æ:] as in Cheticamp. [æ] (as well as [a]) can also be the realization of /ɛ/ in the final or pre-R position.[8]

How many phonemes is one to recognize? If we include /æ/ as a separate phoneme, it would not appear in the same lexical sets in the different varieties. In Cheticamp the only closed syllable context in which [æ], [ɛ] and [e] are all found is before the 'lengthening' consonants other than /r/, e.g. 'fraise' [fræ:z], 'treize' [trɛz] and 'anglaise' [ɑ̃gle:z].[9] Elsewhere, there is either the [æ] - [ɛ] opposition only or the [ɛ] - [e] opposition only, as before /r/. In Meteghan and Pubnico, on the other hand, the [ɛ] - [e] opposition extends to syllables closed by consonants other than /r/, and [æ] is in complementary distribution to [ɛ]. Giving it phonemic status, as Landry (1985) chooses to do, allows the generalizations based on the tenseness feature to be free of exceptions.

The phonetic realizations of the vowel in the 'faire' and 'fait' sets is as often [a] or [ɑ] as [æ], and it would be possible to see these as underlying /a/. However, this would give a different lexical distribution for the different varieties, and also goes against the distributional pattern for /a/ - /ɑ/. In this context, it is particularly interesting that in several Southwestern varieties, as noted above, [a] is increasingly backed in this lexical set, bringing it in line with the general /a/ - /ɑ/ distribution.

It must also be noted that the lexical set which undergoes affrication (see section 5.1), and which is generally limited to the __ [-back, -low] context, includes words such as 'quai,' 'guerre.' Such words are realized [tʃa] ~ [tʃɑ] and [dʒa:r] ~ [dʒɑ:r] in these varieties, i.e. with a [+low] and/or [+back] vowel, whereas 'cas' and 'gare' have [k] and [g] respectively: [kɑ], [gɑ:r]. If an affrication rule is postulated which applies in the ___[-back, -low] context, it would have to precede the /ɛ/ lowering rule, in order to differentiate between the two groups of words. However, if the 'quai,' 'guerre' group is seen as having underlying /a/, then a different analysis must be adopted for the affricates.

To summarize the discussion of this first section, the examination of the mid and low vowels has brought out differences between the regional Acadian varieties which involve both lexical incidence and phoneme inventory as well as differing extensions of several rules. And although a great deal of common ground is present, differences in analysis from that of Quebecois French should be apparent, and will become more so after the discussion of the high vowels, the role of the lengthening consonants and the nature of the diphthongization process.

3.2 Length vs. vowel quality: the high vowels

Parallel to the etymologically based difference between the two sets of A and E words, a similar distinction is regularly maintained in the Nova Scotia Acadian varieties in the case of the high vowels as well, as in the following examples: [vu:t] '(il) ôte' - [rʊt] 'route;' [i:l] 'île' - [vɪl] 'ville.' Although the distinction here is based on the same vowel quality difference analyzed as a tense/lax opposition in Quebecois French and in the Acadian French of Moncton (Lucci 1973), in both these varieties the distribution is phonetically conditioned in that laxing regularly occurs in syllables closed by non-lengthening consonants, whereas the tense variants are found before /v - z - ʒ - r/. In the Nova Scotia varieties examined, there is a phonological opposition between the two series of phonemes, /i - y - u/ and /ɪ - ʏ - ʊ / in closed syllables, which is not determined by the nature of the following consonant.[10]

Lexical sets with [i:], [y:] and [u:] can be established which are the same in all the Nova Scotia varieties and distinct from sets with [ɪ] [ʏ] and [ʊ], e.g. as in 7. (as is the case for the /ɛ/ - /ɛ:/ opposition, this distinction tends to be somewhat less stable in Richmond and Pomquet).

7.

'dix'	[di:s]	'office'	[ɔfɪs]
'plus'	[ply:s]	'usses'	[ʏs]
'pousse'	[pu:s]	'brosse'	[brʊs]

In syllables closed by the 'lengthening' consonants other than /r/ (see section 3.4.1 below), the same opposition is present, as in [ʃu:z] 'chose' - [dʊz] 'douze.'[11]

3.3 The tense/lax opposition in general

If we consider the tense/lax opposition to be phonological in the case of the high vowels, a division of the entire oral vowel system based on the [+/-tense] feature becomes possible and allows for broader generalizations than in Quebecois, such as those of Landry (1985) in regard to diphthongization in Pubnico. Generalizations which are valid for all the varieties examined can also be made as to distribution. In Table 1 on the following page, different types of environments are exemplified.

The striking similarity in distribution between final and pre-R positions is immediately evident. If we look at the tense/lax pairs, we find the tense ones in final and pre-R positions and in the lexical sets discussed previously. Before the lengthening consonants other than /r/, we do find both tense and lax vowels, however it is important to note that we do not find the merger of inherently long and lengthened pairs, as in Quebecois French. (See the discussion of the 'lengthening' environments in the following section).

An irregularity in the pattern is linked to the E's. /ɛ/ is classified as lax, yet it is found in pre-R and final positions. As discussed above, considering /æ/ as a separate phoneme, classified as [+tense], or distinguishing between /ɜ/ and /ɛ/ as does Morin (1985), eliminates this irregularity, but gives a different lexical distribution from one variety to the other.

As in SF, the tendency towards a complementary distribution of the lower mid vowels in closed syllables and the higher in open syllables is not the same for the /e/ - /ɛ/ pair as for the two others. What is noticeable in Table 1 is the parallel between pre-R and final open position on this point as well: we generally find only /o/ and /ø/ in these two positions, but both /e/ and /ɛ/.

If we look beyond the key communities we have been focusing on, however, there are varieties where [œ], for example, is found in final position, notably in several Argyle villages, where we find 'vieux' [vjœ], 'eux' [zœ], 'chanceux' [ʃɑ̃sœ]. /e/ is also lowered to [ɛ], which does not lead to any confusion with /ɛ/ since the latter is realized anywhere from [æ] through [a] to [ɒ] (see above). The distinction between infinitive and imperfect is thus maintained as [ɛ] - [a] as in [abitɛ] 'habiter' - [abita] 'habitait.'

	Final, open ___#		Final, closed by /r/ ___r#		Final, closed by 'lengthening' consonants ___C#			
i/ɪ	[li]	'lit'	[li:r]	'lire'	[vi:v]	'vivre'	[lɪv]	'livre'
y/ʏ	[sy]	'su'	[sy:r]	'sûr'	[y:z]	'use'		
u/ʊ	[fu]	'fou'	[fu:r]	'four'	[ʃu:z]	'chose'	[dʊz]	'douze'
e/ɛ	[eme]	'aimer'	[me:r]	'mère'	[fre:z][a]	'fraise'	[trɛz]	'treize'
	[emɛ][b]	'aimait'	[mɛ:r][c]	'mer'	[frɛ:z][d]			
ø/œ	[pø]	'peu'	[pø:r]	'peur'	[krø:z]	'creuse'	[pœz]	'pèse'
o/ɔ	[bo]	'beau'	[bo:r]	'bord'	[so:v]	'sauve'		
ɑ/a	[pɑ]	'pas'	[pɑ:r]	'part'	[kɑ:v]	'cave'	[ɾav]	'rave'

	Final, closed by other consonants ___C_o#				Pretonic, open ___ |C			
i/ɪ	[i:l]	'île'	[vɪl]	'ville'	[di:ne]	'dîner'	[vɪlaʒ]	'village'
y/ʏ	[ply:s]	'plus'	[ʒʏs]	'juste'	[ply:me]	'plumer'	[bʏtɛ̃]	'butin'
u/ʊ	[pu:s]	'pousse'	[brʊs]	'brosse'	[vu:te]	'ôter'	[ekʊte]	'écouter'
e/ɛ	[be:s][a]	'baisse'	[lɛs]	'laisse'	[pe:ʃe][a]	'pêcher'	[pɛʃe]	'péché'
	[bɛ:s][d]				[pɛ:ʃe][d]			
o/œ	[dø:s]	'deux'	[fœs]	'fesse'	[ʒø:di]	'jeudi'	[ʃœse]	'sècher'
o/ɔ	[o:t]	'haute'	[bɔt]	'botte'	[fo:ʃe]	'faucher'	[rɔʃe]	'rocher'
ɑ/a	[ʃɑ:k]	'chaque'	[sak]	'sac'	[rɑ:to]	'rateau'	[katɛ̃]	'catin'

Table 1. Distribution of the Oral Vowels in Final and Pretonic Syllables

a. In Southwestern varieties.
b. [æ] in Southwestern and Central varieties.
c. [æ] in Southwestern varieties.
d. [æ] in Northeastern and Central varieties.

3.4 Lengthening environments

3.4.1 Do the 'lengthening' consonants lengthen?

In Table 1, it may have been noticed that the examples of lax vowels followed by the 'lengthening' consonants other than /r/ are not transcribed as long. The evidence brought forth by the examination of the Nova Scotia corpus has made it increasingly apparent that the voiced fricatives /v/, /z/ and /ʒ/ do not necessarily constitute lengthening environments for the lax vowels. All of the following examples are realized with a short vowel by speakers of all the Nova Scotia varieties under study:

8. 'livre' [lɪv]
'douze' [dʊz]
'treize' [trɛz]
'veuve' [vœv]
'menage' [menaʒ][12]

Taken to its extreme, the situation is this: only the inherently long (i.e. tense) vowels are long before these 'lengthening' consonants, e.g.:

9. 'vivre' [vi:v]
'chose' [ʃu:z]
'chaise' [ʃe:z] or [ʃæ:z]
'pauvre' [po:v]
'âge' [ɑ:ʒ]

But these are of course long in other pre-consonantal environments as well, as we have seen. It must be noted that in terms of frequency, lexical items such as those exemplified in 8. are in the minority, the examples in 9. representing the most common pattern.

Although less general in extent, similar observations have been reported for Quebecois French. Dumas (1981:44) discusses diachronic and contemporary evidence of the variability of both phonological and phonetic lengethening before the consonants /v/ and /ʒ/. Boulanger (1986) reports on the non-lengthening of the high vowels [ɪ - ʏ - ʊ] in certain regional varieties.

The 'non-lengthening' of the lax vowels, although common to all the Nova Scotia Acadian varieties examined, appears to be subject to a standardizing influence, so that in some individuals lengthened vowels can be observed as well. There are however enough speakers of all ages who maintain the short vowels for this to be considered the basic pattern in the Acadian varieties considered.[13] The

basically non-lengthening nature of /ʒ/, for example, can be seen in the treatment of words such as 'neige' or 'collège.' When /e/ is used, it is long: [ne:ʒ], [kɔle:ʒ]. For speakers who use /ɛ/, the vowel is short: [nɛʒ], [kɔlɛʒ].

A number of words ending in /ɛv/ in Quebecois and SF have not /ɛ/ but /œ/ in Acadian, so that 'rêve' - 'lève' appear as [re:v] - [lœv] or [ræ:v] - [lœv] in the S.W. and N.W. varieties respectively. Here again the [œ] is very short, as it is in [fœv] 'fève,' [pœz] 'pèse' etc. as well.

3.4.2. Pretonic position

A characteristic of the prosodic system of the dialects studied is the prominence of pretonic syllables. In the context of our discussion here of the distribution of the tense/lax pairs, it is enlightening to examine which of the vowels are lengthened in this environment. From Table 1 it can be seen that the tense vowels can be long here too and that the lax vowels are not lengthened. This is an extremely complex point, however, in that all lexical items with tense vowels are not necessarily subject to lengthening. A thorough examination of the lexical distribution and stress patterning remains to be undertaken.

3.5 Raising of tense vowels, lowering of lax vowels

Two general tendencies of sound change, the raising of tense vowels and lowering of lax vowels, are well illustrated in Acadian. To some extent one could describe 'ouisme' in terms of the raising of [ɔ] and [o] rather than the lexical distribution of /u/ (See section 3.9). A similar case could be made for /ø/, which is raised to /y/ in [yrɔp] 'Europe,' [deʒyne] 'déjeuner,' etc. Both of these cases reflect diachronic processes and are common to all the Acadian varieties.

More to the point, however, is a change which affects the dialects variably: the overall raising of the high mid vowels, as described by King and Ryan (1986) for Prince Edward Island French. In Nova Scotia this is found mainly in Cheticamp, where the pronunciations of /e - ø - o/ are extremely closed. A similar raising can be observed in Northeastern New Brunswick. This is not the only feature which is similar in these varieties, and further comparisons, combined with research into settlement history, may

well bring out significant parallels. As an examination of Figure 1 will show, there is a relative geographic proximity between the communities in question.

The lowering of the high and mid lax vowels seems general. In the group of words 'icitte,' 'cecitte,' 'aussitte' etc. the vowel can be very open, and pronounced as [ɛ], more so in younger speakers. This is particularly noticeable in Pomquet, where it is in fact identical to the /ɛ/ of 'Pomquet' [pʊmtʃɛt]. Other /ɪ/s do not open to this extent and are distinct from /ɛ/ as are the pairs /ʊ/ and /ɔ/, /ʏ/ and /œ/.

There is a related tendency, also most pronounced in Pomquet, for the mid lax vowels /ɛ/, /œ/ and /ɔ/ to open, becoming unrounded in the process and converging towards /a/:

10.	'Noël'	[nwæl]	'seul'	[sɐl] ~	[sal]	'robes'	[rab]
	'avec'	[avæk]	'jeune'	[ʒɐn]		'étoffe'	[etaf]

3.6 Diphthongization

The diphthongization of the mid and high vowels in open syllables is characteristic of both the Pubnico and Meteghan varieties and has been well documented and analyzed by both Ryan (1981) and Landry (1985). Interestingly, informants from the various Argyle communities situated between these two villages do not have this diphthongization, which cannot thus be regarded as an overall Southwestern feature. To all extents and purposes, this process is also absent in the Central and Eastern varieties, although there is a limited tendency towards [ɔ^{w}] in closed syllables in Pomquet and Richmond. In Nova Scotia, then, diphthongization as a general process is confined to parts of the Southwestern area. It has not been attested in the Acadian varieties of the other Atlantic provinces.

There are some systematic differences between the Pubnico and Meteghan varieties. The most important one is that whereas the two coincide in diphthongizing all the [+tense, -low] vowels in open syllables, this process is extended in Meteghan to closed syllables in the case of some of the vowels. We thus have, for /o/ and /e/ for example:

		Pu	Me
11.	'peau'	[pɔ^{w}]	[pɔ^{w}]
	'faute'	[fo:t]	[fɔ^{w}t]
	'été'	[etɛ^{j}]	[etɛ^{j}]
	'quête'	[tʃe:t]	[tʃɛ^{j}t]

In addition to the fact that diphthongization is only present in a small number of the Acadian varieties, the contrast with Quebecois French also lies in the nature and distribution of the process involved. As described by Dumas (1981), diphthongization in Quebecois French can take place, subject to various constraints, in the case of all long vowels, in closed syllables and non-final open syllables. In Acadian French, the only vowels which diphthongize in closed syllables are /e/, /ø/ and /o/; this is limited to the Baie Sainte-Marie area, as described by Ryan (1981). The privileged context for diphthongization is in open syllables, internal as well as final, where high and mid tense vowels are all subject to diphthongization both in Baie Sainte-Marie and Pubnico (Landry 1985).

The presence of diphthongization has implications in terms of the realizations of the oppositions between the mid and high vowels. Whereas the raising of the tense vowels in varieties such as that of Cheticamp brings /e/ extremely close to /i/, /ø/ to /y/ and /o/ to /u/, the diphthongized variants are far more distinct, because of the greater distance between the onsets, related to the vowel quality of the corresponding lax vowels. Thus we have e.g. [ɪ^{j}] - [ɛ^{j}] in the Southwest vs. [i] - [e̞] in Cheticamp. (The Pomquet and Richmond varieties have neither the raising nor the diphthongization).

Another point where there is a sharper realizational difference in the varieties which diphthongize is in the case of the opposition /o/ - /ɑ/. /ɑ/ is extremely backed overall, becoming [ɒ] or [o]. However in the Southwestern dialects the realizations /o/ -> [ɔ^{w}] (often [ɛ^{w}]) and /ɑ/ -> [o] are always distinct, in contrast to the minimal differentiation found in Cheticamp: /o/ ->[o̞] and /ɑ/ -> [o].

3.7 Rounding of /ɛ/

A phenomenon apparently common to all varieties of Acadian but not commented on explicitly in most existing descriptions because it is linked to a lexical set and not to a phonological context, is the [œ] in the set 'fève,' 'lève,' 'appelle' etc. A

generalization based on the presence of a labial consonant following or preceding the vowel could be considered, since many of the words have these conditions present, as shown in the list below:

12.	'pèse'	[pœz]	'fève'	[fœv]
	'fesse' (v.)	[fœs]	'lève'	[lœv]
	'appelle'	[apœl]	'achève'	[aʒœv]
	'mène'	[mœn]	'trèfle'	[trœf]

A similar process of labialization has been described by Pignon (1960) for Poitou. However, other lexical items with the same phonological structure have /ɛ/, e.g. 'fesse'(s.),'élève' (s.), 'pelle,' 'semaine.' This distribution would seem to indicate that the lexical set containing /œ/ is the result of a diachronic process which did involve the labial environment.

An important aspect is that verbal alternations are involved, e.g., [ləve] 'lever' / [lœv] 'lève,' [ʒəte] 'jeter' / [ʒœt] 'jette.' This alternation is also seen in the verb 'faire': [fəzɛ] / [fœz] ('faisait' - 'faise'). Brunot (1967, vol. 2:244), sees this historically as a maintaining of [ə]. However verbs such as 'fesser' and 'sécher' have [œ] in the stem as well ([fœse], [ʃœse]) and there are also nouns which reflect the same process, e.g. 'fève,' 'trèfle,' 'lièvre.'

This redistribution of /ɛ/ and /œ/ strengthens the weak /œ/ - /ø/ opposition, adding forms such as [pœz] 'pèse' which contrast with words ending in [øz] '-euse.'

3.8 Fronting of /ɔ/

A likely more recent process, involving centralization or fronting, is one which is specific to Cheticamp, among the Nova Scotia dialects, but which has also been encountered by the author in Northeastern New Brunswick.[14] This can be viewed as a synchronic process which affects /ɔ/ in most environments, i.e. in both stressed and unstressed syllables and before all consonants except /r/, e.g.

13.	'école'	[ekœl]	'collège'	[kœleʒ]
	'Ecosse'	[ekœs]	'social'	[sœsjal]
	'poche'	[pœʃ]	'brocher'	[bʁœʃe]
	'Europe'	[yʁœp]	'adapter'	[adœpte]

Followed by /r/, /ɔ/ most often maintains its [ɔ] quality, as in [pɔʁte] 'porter,' though some realizations with [œ] exist, e.g. [mœʁy] 'morue.' Thus /ɔ/ and /œ/ are almost completely

neutralized.[15] Established English loanwords also undergo the process, e.g. [bœt] 'boat,' [lœt] 'lot,' having first become phonologically integrated with the vowel /ɔ/.

Of particular interest are the pre-nasal environments, where there is interaction with the variable rule changing /u/ to /ɔ/ i.e. standardizing. When this rule is applied, fronting of /ɔ/ also takes place. Thus u -> ɔ -> œ, which explains the presence of two non-standard variants in the 'ouisme' lexical set, e.g. [dun] ~[dœn] 'donne,' as shown in the following section.

There is to some extent a parallel process for /ʊ/ in Cheticamp. The vowel of 'toute,' for example, is quite fronted. However, speakers still distinguish /ʊ/ from /ʏ/ as in 'boutte' - 'butte.'

3.9 Ouisme

'Ouisme' is one of the most universal Acadian characteristics, reported on as early as 1884 by Poirier, and one which distinguishes Acadian from Quebecois. The present study shows it to be represented in all the Nova Scotia dialects. Treated by Lucci (1973), for example, as a neutralization of /u/, /ɔ/ and /o/ in pre-nasal environments, it also touches the lexical set 'chose,' 'ôter,' 'rôti,' 'gros,' 'os,' 'obliger,' etc. If this feature were seen simply in terms of the distribution of /u/, a variable rule would govern the standardizing tendency towards /ɔ/ and /o/. Further rules affecting /ɔ/ would apply subsequently, such as fronting in Cheticamp and lowering in Pomquet, giving, for example, [um] -> [ɔm] -> [œm] and [um] -> [ɔm] -> [am] respectively for 'homme.'

A raising rule offers certain advantages, however. Ryan (1981) points out that the neutralization of /o/, /ɔ/ and /u/ when followed by a nasal is ony partial, for two reasons. One is the existence of oppositions such as /pom/ 'paume' - /pum/ 'pomme.' This problem could be solved by having a raising rule apply only to /ɔ/ in the ___N# context, but to /o/ as well as /ɔ/ in the ___NV environment (e.g. 'homard' 'connaître'), and in the 'chose,' 'ôter' lexical set.

A second point raised by Ryan is that the realization of /ɛ̃/ in stressed syllables, which is regularly [ɔn] in the Meteghan dialect (as in 'demain' /dəmɛ̃/ -> [dəmɔn] or 'pain' /pɛ̃/ -> [pɔn]), results in an opposition between the word 'ben' (= 'bien') realized as [bɔn] and 'bonne' [bun]. If [bɔn] is derived through a rule changing /ɛ̃/ to [ɔn] in stressed final position (see Patterson 1978a and 1978b), it could simply be specified that the output from this rule does not feed the raising rule changing [ɔn] to [un].

4. Nasal Vowels

A predominantly stress-determined pattern, whereby the nasal vowels alternate between distinct realizations according to the phonological context, has been described for a number of varieties of Acadian: Southeastern N.B. (Lucci 1973), Northeastern N.B. (Flikeid 1985), Meteghan, N.S. (Ryan 1981), Petit-Ruisseau, N.S. (Landry 1981), Pubnico, N.S. (Landry 1985), Evangeline and Tignish, P.E.I. (King and Ryan 1986), Stephenville, Nfld. (King and Ryan 1987b). In all these varieties, this pattern also entails the partial neutralization of the phonemes /ɑ̃/ and /ɔ̃/. Interesting to note is the existence of localities where this neutralization does not take place: parts of the Acadian Peninsula in Northeastern N.B. (Flikeid 1985), certain villages in Southeastern N.B. (Peronnet 1985b), and in the Newfoundland community of l'Anse-à-Canards (King and Ryan 1987b).

The present study of the Nova Scotia varieties reveals that in all the communities examined, one or more of the nasal vowels conform to the general pattern of alternation described above. This often entails neutralization, but interestingly this process turns out not to be confined to the /ɔ̃/ - /ɑ̃/ opposition. In the village of Petit de Grat in Richmond, for example, /ɑ̃/ and /ɛ̃/ are neutralized, both opposed to /ɔ̃/. In Cheticamp, all the nasals are neutralized in final stressed position, with a common realization [ã].[16] There are also communities in several different areas of the province where the stressed forms are all distinct from the unstressed ones, but without any of the realizations coinciding.[17]

There are thus contrasts between the different localities with respect to several aspects: which phonological opposition(s) become neutralized, which phonetic realizations are found and in which environments the different variants appear. This is a point where a great deal of geographic variation in present. Twenty-one localities have been examined, which offer almost as many subsystems.

4.1 Types of realizations

An interesting discussion concerning the derivations of the realizations of Acadian nasals is that of Landry (1981). Describing a Baie Sainte-Marie community north of Meteghan, Landry draws on the work of Morin (1977) who analyses the nasals of an area of France, the Marais Vendéen, from which many Acadians are thought to have come. Landry derives the Petit-Ruisseau nasal variants [ɛ̃^{w}] and [ɔn] in the following manner:

14. $\tilde{\varepsilon}$ -> $\tilde{o\jmath}$ -> ɔn cf. Morin: $\tilde{e}$ -> $\tilde{a\jmath}$ -> an
$\tilde{ɔ}$ -> $\tilde{\varepsilon^{w}}$ $\tilde{ɔ}$ -> $\tilde{a^{w}}$ -> aŋ

Landry (1985) subsequently describes the Pubnico variety, where the intermediate stage [$\tilde{o^{j}}$] is the present-day realization, so that we have $\tilde{\varepsilon}$ -> $\tilde{o^{j}}$ and $\tilde{ɔ}$ -> $\tilde{\varepsilon^{w}}$.

Complementary to this is the evidence brought forth by the present study that in numerous communities the stressed realization of either /$\tilde{a}$/ or /$\tilde{ɔ}$/ or both is [aŋ] (or [ɛŋ]), parallel to that described by Morin. These include villages located between Pubnico and Clare in the Southwestern area, as well as communities in the Pomquet area and in Richmond. In addition, this form is found in use by some older speakers in communities where the present-day predominant pattern does not include it, notably in Meteghan. Although the diphthongized variants are predominantly concentrated in the Southwest, they are also found in the village of Pomquet itself and in several Richmond communities. There are thus a number of areas where [$\tilde{\varepsilon^{w}}$] and [ɛŋ] either coexist as realizations of the same phoneme in the same community or are found in closely neighboring communities.[18] Table 2 on the following page will give an indication of the geographic complexity.

These observations do not represent individual fluctuations, but community-wide patterns, indicative of the remarkable stability of intercommunity differences. The nasal vowels represent an excellent starting-point for examining the fine patterning of dialectal differences in Nova Scotia, and the charting of the realizations is only the first step towards a more thorough investigation.

The table also shows clearly the contrasts between villages separated by only a few kilometres in regard to which phonological oppositions are neutralized in stressed position. This is the case on Ile Madame in Richmond, and also in the Argyle area. As mentioned above, villages where all the realizations remain distinct in stressed position are also found in these and other areas: they include among others Pointe du Sault in Argyle, Tracadie in the Pomquet area and at least two communities in Richmond.

		/ɑ̃/		/ɔ̃/		/ɛ̃/
Clare	Concession	[ãʲ]	≠	[ɛ̃ʷ̃]	≠	[ɔn]
	Meteghan	[ɛ̃ŋ][a]	≠	[ɛ̃ʷ̃]	≠	[ɔn]
		[ɛ̃ʷ̃]	=	[ɛ̃ʷ̃]	≠	[ɔn]
Argyle	Hubbard's Point, Wedgeport	[ãŋ]	=	[ãŋ]	≠	[ɔn]
	Pointe du Sault	[ãŋ]	≠	[œ̃ŋ]	≠	[ɔn]
	Quinan	[ãŋ]	=	[ãŋ]	≠	[ãʲ̃]
	Ile Surrette	[ɛ̃ŋ]	=	[ɛ̃ŋ]	≠	[ɔ̃ʲ̃]
	Pubnico Ouest	[ɛ̃ʷ̃]	=	[ɛ̃ʷ̃]	≠	[ɔ̃ʲ̃]
	Ste Anne du Ruisseau	[ɛ̃ʷ̃]	=	[ɛ̃ʷ̃]	≠	[ãʲ̃]
Pomquet	Pomquet	[ɛ̃ʷ̃]	=	[ɛ̃ʷ̃]	≠	[ɛ̃]
		[ã]	=	[ã]	≠	[ɛ̃]
	East Tracadie, Havre Boucher	[ãŋ]	=	[ãŋ]	≠	[ɛ̃]
	Tracadie	[ã:ɲ]	≠	[ɔ̃ŋ]	≠	[ɛ̃]
Richmond	Samsonville	[ɑ̃ɲ]	≠	[ɔ̃ŋ]	≠	[an]
	Rivière Bourgeois	[ɑ̃ʲ̃]	≠	[ɔ̃ŋ]	≠	[æ̃]
	Ardoise, D'Escousse, Arichat Ouest	[ãŋ]	=	[ãŋ]	≠	[ɛ̃]
	Louisdale	[ɛ̃ã̃]	≠	[ɔ̃ŋ]	≠	[ɛ̃ã̃][b]
	Petit de Grat	[æ̃]	≠	[ãŋ]	≠	[æ̃][b]
Cheticamp		[ã]	=	[ã]	=	[ã]

Table 2. Realizations of the Nasal Vowels in Stressed Open Syllables (Nova Scotia Acadian Communities)

a. The nasalization symbols are included here, although in the V + N forms, the vowels are often denasalized.

b. Note the neutralization here of /ɑ̃/ and /ɛ̃/.

In addition to the V + [ŋ] forms found for both /ɔ̃/ and /ɑ̃/, and the V + [n] forms found for /ɛ̃/, there are realizations of /ɑ̃/ with [ɲ] as the consonantal segment in several communities. [ãʲ̃] and [ãɲ] are both found as variants of /ɑ̃/ in widely scattered points: the Baie Sainte-Marie community of Concession, the Richmond communities of Rivière Bourgeois and Samsonville, and Tracadie in the Pomquet area. We thus have a possibility of divergent developments:

15. ɑ̃ -> ãʷ̃ -> aŋ and ɑ̃ -> ãʲ̃ -> aɲ

The most plausible explanation to account for this would appear to be that in the second case we first have a fronting and raising of /ɑ̃/ to [æ̃] or [ɛ̃], which would then follow a development similar to that of /ɛ̃/, except that [ɲ] rather than [n] becomes the consonantal segment. Neighboring Richmond communities actually have [ɛ̃] as the stressed variant of /ɑ̃/.

Special consideration must be given to the variants of the sequence /wɛ̃/. Haden (1954) and Landry (1985) both point out the distinct nature of words such as 'point,' 'loin,' as does Svenson (1959) for the Marais Vendéen dialect. Geographically varying realizations of this lexical set can be charted in several of the Nova Scotia varieties examined. In Wedgeport, Argyle, we find /wɛ̃/ realized as [un] (e.g. [bəzun] 'besoin') in contrast to the realization of /ɛ̃/, which is [ɔn]. In Pointe du Sault, Argyle, the equivalent realization is [uʲ̇n] (e.g. [luʲ̇n] 'loin'). In Samsonville, Richmond, we find [pɔʲ̇n] 'point' (/ɛ̃/ is realized [an]).

4.2 Historical perspective

A real time comparison is made possible by the existence of data collected by Massignon in the 1940's in many areas of the Atlantic Provinces. Some of this is described in her 1947 article on the Southwestern Nova Scotia nasal vowels, but it has also been necessary to sift through the phonetic notations in her 1962 vocabulary study for words containing the nasal vowels. The main geographical points in Nova Scotia where Massignon gathered information were Pointe de l'Eglise, Pubnico, Petit de Grat, Cheticamp and Chezzetcook. The predominantly older speakers she interviewed were born approximately 100 years earlier than the youngest informants in the present study. The most striking observation brought out by the systematic comparison is that the

presence of the V + [ŋ] variants was more extensive than it is today. Notably Massignon gives [ɔŋ][19] in addition to [ɑ̃] as the stressed variant of /ɔ̃/ in Cheticamp, and [ɑ̃ŋ] as a variant of both /ɑ̃/ and /ɛ̃/ in Petit de Grat. She notes [ɛ̃ŋ] as the only variant of /ɑ̃/ in Pointe de l'Eglise and both /ɛ̃ŋ/ and /ɛ̃^{w}/ in Pubnico. In all four cases the present-day predominant realizations are different, as shown in 16. below:

16.

	1940 (Massignon)		Present
Cheticamp	'fond'	[fɔŋ]	[fɑ̃]
	'mouton'	[mutɑ̃]	[mutɑ̃]
Petit de Grat	'pesant'	[pəzɑ̃ŋ]	[pəzæ̃]
	'chalin'	[ʃalɑ̃ŋ]	[ʃalæ̃]
Pointe de l'Eglise	'vent'	[vɛ̃ŋ]	[vɛ̃ŋ] ~ [vɛ̃$^{w̃}$][20]
Pubnico	'temps'	[tɛ̃ŋ] [tɛ̃$^{w̃}$] ~	[tɛ̃$^{w̃}$]

In addition to the [ɑ̃ʲ̃] variant of /ɛ̃/, the [ɑ̃ɲ] variant is also attested by Massignon (Ste Anne du Ruisseau). The most interesting case of intraspeaker or intracommunity variation is the case of Chezzetcook, where Massignon's two informants jointly produced all of the following variants of /ɑ̃/: [ẽ], [ẽɲ], [ẽ$^{w̃}$], [ẽŋ] and [ɑ̃ŋ]!.[21]

Another real time comparison can be made with the observations of Haden based on material gathered in 1940-41 and described in Haden (1954, 1973). He concentrates on the Nova Scotia community of Pointe du Sault, Argyle, where he gives [ɛ̃ŋ], [ɑ̃ʲ̃], [œ̃ŋ] and [uɲ] as the principal variants of /ɑ̃/, /ɛ̃/, /ɔ̃/ and /wɛ̃/ respectively, in addition to other, secondary, variants. These observations correspond to those found in the present study, except for the /ɛ̃/, which was found to be realized as [ɔn]. The form Haden gives corresponds to the one being used in neighboring communities, as can be seen in Table 2.

In general, it is perhaps not irrelevant that there is fluctuation in the Acadian varieties between [n], [ŋ], [ɲ] and [j] for /ɲ/, as in the words 'agneau' or 'soigne.' It should also be noted that acoustically the realizations [ɛ̃$^{w̃}$] and [ɛ̃ŋ] are extremely

close, sharing a velar coarticulation. Although the realizations of the informants can most often be unambiguously classified as one or the other, there are cases where the two are difficult to distinguish. A few informants, notably in Meteghan, where as we have seen there appears to have been a change from [ɛ̃ŋ] to [ɛ̃^{w}], distinctly alternate between the two forms.

4.3 Overview of the nasal vowels

There are clear-cut, stabilized patterns in the younger generation, e.g. fusion of /ɑ̃/, /ɔ̃/ and /ɛ̃/ as [ã] in Cheticamp; fusion of /ɑ̃/ and /ɛ̃/ as [æ̃] in Petit de Grat, with a distinct realization of /ɔ̃/ as [aŋ]; fusion of /ɑ̃/ and /ɔ̃/ as [ɛ̃^{w}] in Pubnico and Meteghan with a distinct realization of /ɛ̃/ as [ɔn] in Meteghan, [ɔ̃^{j}] in Pubnico.

Attested change (both through apparent time and real time approaches) mainly consists of the partial disappearance of the V + [ŋ] forms either through dropping of the [ŋ] segment for some or all of the nasals as in Richmond and Cheticamp, or through adoption of the competing diphthongized form as in Pubnico and Meteghan. If the derivation: simple nasal vowel -> nasalized diphthong -> V + N reflects the diachronic evolution, to which one could add a final optional step: -> simple nasal vowel, then we have all four stages represented in various geographical locations. The presence of the diphthongized variants and V + N as competing forms, with the diphthongized variants winning out over the period of 100 years we have access to is particularly interesting. In the discussion of the potential case for historical unity of the dialects, we will come back to this point.

5. Consonants

As is often the case when describing varieties of French, there is more to be said about the vowel system than the consonant system. The interdialectal differences found in the case of the consonants are often purely realizational. There is however an important process to be discussed: affrication, one of the features singled out by Poirier in his pioneering 1884 article.

5.1 Affrication

Affrication is a feature common to all described Acadian varieties, and it is thus not surprising that it is present in all the Nova Scotia varieties examined. It is subject to very little geographic variation, except for some minor differences in the lexical sets involved. The pattern common to all the varieties can be summarized as follows: [tʃ] and [dʒ] are found in a number of words where SF has [k] or [tj] on the one hand and [g] or [dj] on the other. One set of items, those which correspond to SF [k] or [g], can be defined in terms of the following phonological environment: __ [-back, -low] (e.g. [tʃø], 'queue,' [dʒɛte] 'guetter'). The others, where the affricates correspond to SF [tj] or[dj], can have any vowel, e.g. [dʒɒb] 'diable' [pitʃe] 'pitié.' Before the non-low front vowels we can thus find [tʃ] and [dʒ] belonging to either set, e.g. [otʃɛ̃] 'aucun,' [tʃɛ̃] 'tien.'

Both Lucci (1973) and Ryan (1981) conclude that these are 'variantes combinatoires' of [k] [g] and [tj] [dj] despite the phonetic identity, which they comment upon explicitly as being compatible with this analysis in the structuralist perspective. A major justification for their analysis is that variation is present in the community and they feel that speakers are aware of the 'underlying' consonant or sequence, even when they do not themselves alternate. This in itself is perhaps not sufficient reason for not giving phonemic status to [tʃ] and [dʒ]. Variation is present for many features presented as regular, and need not constitute a reason for not discerning the underlying regularity.

If one postulates the phonemes /tʃ/ and /dʒ/ as basic to Acadian, as do Haden (1973) and Morgan (1978), then a variable rule changing these to [k], [tj], [g] and [dj] in the appropriate lexical sets can be postulated. The fact that these sets have to be learned corresponds to the situation many Acadian speakers find themselves in. The Nova Scotia corpus shows there to be very little variation among younger speakers in informal style. In a situation provoking maximal accommodation to a SF speaker, there is evidence of incomplete mastery of equivalent forms. Many words are known to be in alternation, but many are not i.e. those not encountered in a school situation. Other factors to be considered include lexicalization (e.g. the regular opposition between [tʃi] as in 'n'importe qui' and [ki] as in 'ceux qui parlent'), and the fact that more recently incorporated lexical items are not subject to affrication (see also Flikeid 1988).

5.1.1. Other processes involving stops

Although some overlap has been pointed out, strong isoglosses set affrication off as Acadian and assibilation as Quebecois (see Morgan 1978). An interesting finding reported on in King and Ryan (1986) is the presence of [t^s] and [d^z] in the Prince Edward Island Acadian communities, pointing to a more complex situation. Morgan (1978:89) states that there is regular assibilation in Louisiana Acadian French as well. No trace of assibilation has been found in the Nova Scotia corpus.

Aspiration of the stops is a characteristic of many of the Acadian varieties in Nova Scotia, as in [p^hi:r] 'pire' or [t^he] 'thé.' Another feature, described by Holder (1986), is the realization [χ] of the phoneme /k/, as in 'le canot' [lə χano]. This is found in a number of localities across Nova Scotia.

5.2 /h/

The phoneme /h/ is present in all the varieties examined; it is strongly maintained everywhere, in approximately the same lexical set, e.g. 'hardes,' 'haler,' 'honte,' 'hâvre,' 'hors' etc. In intervocalic position, there is a tendency for /h/ to be absent, particularly in Cheticamp: where, [do:ʁ] is the regular form of 'dehors,' while it is [dəho^{w}r] in Meteghan, and sequences such as 'le homard' are by many speakers realized [lumɑʁ].

5.3 /r/

The contrasts involving /r/ are predominantly realizational, although at least one of the processes to be discussed, the deletion of final /r/, has phonological implications. An examination of the overall picture is nevertheless interesting, because of the clear-cut regional differences, and the ongoing changes involved.

5.3.1. The distribution of [ʁ] and [r]

A sharp contrast appears between Cheticamp on the one hand, with its uniform use of dorsal /r/, and all the other areas, where apical /r/ is the basic form. There is a clear-cut dividing line, except for minor irregularities: in the strongly assimilated villages

south of Cheticamp, such as Magré, the remaining older speakers have [r], and in Pomquet there are some speakers with [ʁ].

Is the Cheticamp [ʁ] the result of a recent change which has reached completion? Flikeid (1982) reports on a rapid shift from [r] to [ʁ] in the Acadian area of Northeastern New Brunswick, studied through the apparent time approach. It is not inconceivable that a similar process could have taken place in Cheticamp. Massignon (1962:110) says of /r/: 'Le r Acadien est un r apical....' She would undoubtedly have noticed if there had been another realization in Cheticamp. Can the r -> ʁ process have been completed in the ca. 40 years which separate Massignon's informants (older speakers) from the older speakers in the present study? If so, the change presumably started in the syllable-final environment, as it did in Northeastern New Brunswick. There, speakers who had not shifted completely to [ʁ] had [ʁ] and [r] in complementary distribution, with [ʁ] syllable-finally and [r] elsewhere. A confirmation of this lies in the following comment by Massignon (1962:110): 'le r final est peu perceptible et tend à se dorsaliser.' She is here speaking generally, of the whole Acadian area. A limited tendency towards a dorsal variant is in fact found among speakers in Pomquet and Richmond. However, in these areas the shift from [r] to [ɹ], to be discussed below, has interrupted any potential shift from [r] to [ʁ].

5.3.2 Weakening and deletion of final /r/

A process which can be observed in several of the Nova Scotia varieties is the weakening and deletion of final /r/. This process must be distinguished from the diachronic process which presumably led to the lexical sets in [we] and [ø] e.g. 'mouchoir,' 'pêcheur,' or the group of infinitives in /i/, e.g. [kri] 'quérir.' These are older, lexicalized phenomena. Nor is it the same as the process which has led to the absence of /r/ as a second element of a final consonant cluster, e.g. in 'battre,' 'ancre.'

Rather, it is a generalized tendency towards a zero variant, in variation with devoiced or vocalized variants of [ʁ] or [r]. This tendency is most marked in Cheticamp, Richmond and Pomquet. In Cheticamp there is also the variant [ə] as in [pu^{ə}] 'pour.'

It was pointed out above that the final pre-R and open environments are remarkably similar in regard to the distribution of the tense-lax vowel pairs. This leads to words such as 'peu' and 'peur' being distinguished by length only, if at all, when the zero variant of /r/ is used. In Pomquet, where final /r/ before a

pause is entirely absent in the youngest generation, and where the /ɛ/ - /e/ opposition in closed syllables has disappeared, words such as 'frère' and 'frais' merge as [fræ]. A point where the breakdown of the /r/ - zéro distinction is particularly problematic is in the passé simple and past subjunctive, where only /r/ distinguishes singular from plural, as in /i passi/ 'il passa' - /i passir/ 'ils passèrent.' When going through the transcribed corpus in the correction process, numerous cases were found where a plural was initially interpreted as a singular by the transcribers but which could be identified as plural through the context.

5.3.3 R retroflexing

R retroflexing is manifestly a change in progress, which has come to completion in some areas. It consists of a change from apical r to retroflex, 'English' r, and thus affects all the [r] areas, but not the [ʁ] areas. Apparently it does not affect the dorsalized or zero final variants either. There is thus a limited set of circumstances where there is variation between [r], [ʁ] and [ɹ], i.e. in speakers from Richmond and Pomquet communities where word-final /r/ is realized [ʁ], who alternate between [r] and [ɹ] in other environments.

This retroflexing process is a rapid one. When the youngest speakers are contrasted with the oldest, it is obvious that great change has taken place. This is particularly striking when the speech of the interviewers, who are all about twenty years old, is compared to that of the older informants being interviewed. In Pomquet, Richmond and Pubnico the young have almost completely generalized [ɹ]. The environment which most favors retroflexing, and where the [ɹ] variant first appears, is the internal pre-consonantal environment, particularly after a back vowel. This is the environment where Tousignant (1987) finds the [ɹ] variant in Montreal French. However in the Nova Scotia varieties where the retroflexing process is taking place, intraspeaker alternation between [r] and [ɹ], or the complete replacement of [r] by [ɹ], can take place in any environment, as illustrated by the following examples: [tɹɛn] 'traine,' [byɹo] 'bureau,' [manjeɹ] 'manière.'

There appears to be a difference among the various regions with respect to the time of inception of this process. More older speakers have some or all [ɹ] in Pubnico and Richmond than in Pomquet. It is not to be denied that these are the areas where intimate daily contact with English has been the greatest, over the longest period of time. The checkerboard pattern of settlement can be seen particularly well for the Argyle area on the map in

Figure 2. Pomquet, although small, was quite isolated and self-contained until increased mobility started leading to rapid assimilation. There is rapid assimilation in Richmond and Argyle as well, though in the larger communities such as Pubnico and Petit de Grat, French is maintained, in a bilingual setting, with a resulting long-term situation of language contact.

Here again a quantitative study is necessary to show the progression of the change, through the various environments and through the lexicon. Non-quantitative observation shows the same words to be variably realized with [r] or [ɹ] in the same speakers. It is obvious that the spreading of the change through the environments and the lexicon is at different stages in different places, speakers and age groups. One difficulty is that some variants are difficult to identify, and there are very likely more, phonetically intermediate, variants than those discussed here.

6. Discussion

The new elements gathered and analyzed here enable a more thorough discussion of general issues in Acadian phonology. As we have seen, the Nova Scotia varieties span a great range in terms of interdialectal differences at every level considered. An important aspect of this discussion is the historical one, which will now be examined in some detail.

6.1 Historical change and change in progress

In the study of the evolution of a language or dialect, both internal and external evidence can be brought to bear. Based on the settlement history, models of reconstitution such as that of Barbaud (1984) can be elaborated. Trudgill's 1986 examination of situations of dialect transplantation shows how important the relative numerical proportions of the various groups involved in a dialect mixture situation can be to the end result. Internal evidence is equally important, in this case comparing present-day Acadian with earlier stages of French and other transplanted varieties. Starting with the internal evidence, different types of change can be distinguished:

1. There are features which appear to be common to all Nova Scotia and other Acadian dialects (and some to other exported varieties as well). A logical conclusion would be that these preceded the Deportation or even the initial arrival in Acadia. Examination of

historical sources show that many of these were often quite wide-spread in France and would thus have been shared by most of the settlers. Examples are [wɛ], [tʃ], [dʒ], [u], [h], [ar], vowel length, pretonic lengthening, many of the distributional features. The ALF shows many of these to cover a large area. A theory would be that those features found only in Acadian would have been less widespread in France than those found in other varieties, e.g. Quebecois, as well. Those found in only some areas of Acadia (and elsewhere) would have had a more restricted range in France, e.g. the diphthongs, the stressed nasal variants and the [χ] and [ɦ] variants of the palatal fricatives.

2. There are processes which are most likely to have taken place after the initial settlement, in particular after the Deportation and resettlement, since the geographical distribution of the Acadian population has been relatively stable since then and the development of the individual varieties continuous up until the present day. Our knowledge of the linguistic developments in pre-Deportation Acadia can only be based on reconstitution, i.e. if features were found in all Acadian dialects, which were not attested in the source dialects in France. Unless total linguistic unity had been achieved by the Deportation, then some degree of dialect mixture based on the varying composition of the new groupings of settlers may account for the present-day regional differences. Massignon, who was familiar both with the Acadian dialects (ca. 1940) and those of the Centre-Ouest (she was co-editor of the Atlas Linguistique de l'Ouest), although her initial focus was the lexicon, appears to have given a great deal of thought to this matter. She postulates a thorough 'brassage' (mixing) of the various population elements before the Deportation and thus feels that it is useless to attempt to trace the characteristics of regional Acadian differences to the specific French origins of the families whose names predominate in a particular area (1962:72). She attributes the present-day differences entirely to changes having taken place, different in each isolated area, since the resettlement (p. 91). It is however more likely that the 'brassage' was not complete, and that in addition to the subsequent changes in the isolated dialects, the original mixture of settlers at the resettlement phase had some bearing. It is important too that this included non-'Acadian' elements having come directly from France.

Processes that might well have take place since the resettlement could include those which involve the generalization of [ɛ] lowering, the raising of tense vowels and lowering of lax, with a concomitant shift from vowel length to vowel quality as the determining feature, the fronting of [ɔ] and the change from [r] to [ʁ].

3. Some processes can be seen to be ongoing. A first category may well include processes which have their root in the post-Deportation adjustments, e.g. the settling of the nasal consonant/nasalized glide variation, and the backing of lowered /ɛ/ to [ɒ]. A second category of processes are those which may be attributed to the recent accelerated contact with English, e.g. the change from [r] to [ɹ], the aspiration of the stops, certain changes in vowel quality. A third category, broad in scope, comprises the changes brought about by the contact with more standard varieties of French. This contact is variable in extent and date of inception, both among regions and among speakers of different ages and social/educational background.

All of these categories are best studied quantitatively, through the examination of the age-graded corpus. This is the object of ongoing work, particularly on the diffusion through different contexts and through the lexicon. The alternations involving changes towards external prestige forms are being studied in their sociolinguistic dimension and expressed through variable rules. This will also show up the difference between processes on their way to completion, generalized among the youngest speakers, e.g. the fusion of [ɛ], [ɛ:] and [e] in closed syllables in Pomquet and Richmond, or the loss of the consonantal segments of the nasal vowels in Richmond and Cheticamp. Although these changes are seemingly standard-initiated, the contrast is strong with another group of variables where there is no age-grading, but stylistic alternation, e.g. [tʃ] ~ [k], [u] ~ [ɔ]. Since Pomquet and Richmond are the least standardizing with respect to these and other points, as well as with respect to the grammatical features examined, perhaps the first processes mentioned are rather to be seen as a result of dialect levelling or internal change, than as a result of a standardizing influence.

7. Conclusion

7.1 Unity and diversity

The Acadian varieties may be conservative, but they are not static. The diachronic pattern leading to the present-day varieties of Acadian has many threads, some of which have been identified in this article. Features found consistently in all the Nova Scotia varieties, cut off from each other for 200 years, as well as in other Acadian communities, very likely represent threads which were already woven in France before the original settlers migrated. Where differences are found, a number of possibilities can be sketched out, either (a) that there were divergent developments,

developments at a different rate, dropping of features at a different rate, as Massignon suggests, or (b) that the resettlement after the Deportation brought together individuals and families who still had differences among themselves, so that new dialect mixtures took place in each new locality.

The situation of the Acadian speech communities is unique for several reasons. Firstly, the isolation and lack of contact with the outside francophone world has led to present-day dialects which are considerably removed from other dialects of modern French, in terms of preservation of features which have disappeared elsewhere. Secondly, because of the Deportation and resettlement, the natural evolution over time that an exported variety would take was cut off and the components thoroughly shuffled, so that understanding the evolution becomes an even more intricate puzzle than elsewhere. Thirdly, the physical isolation of the various groups from each other has led to independent developments (in addition to original differences?) which render them quite distinct. The focus in this article has been on finding the underlying common patterns for surface differences. However, in actual practice, there are considerable barriers to mutual understanding. Speakers from the various communities, particularly those furthest apart, do have difficulty understanding each other. Accommodation does take place in face to face contact. Acadian students from different communities who have worked on the Nova Scotia research project have been observed to communicate fairly easily with each other, but be totally unable to follow, let alone transcribe, recorded interviews from one anothers' communities.

One type of change that there has been little direct mention of in this article is the change towards external prestige forms. This is partly because such change is best studied quantitatively or not at all, and that will be the object of further work. Also, in the series of interviews on which this article is based, all the interviewers were from the same community as their informants. Due to the internal linguistic cohesion of the communities, little variation with prestige forms takes place. This type of variation shows up mainly in style shift/accommodation situations.

The type of change that has been exemplified in this article is internal change, which is particularly interesting because the direction of change or the elements which will be affected cannot be predicted in the way change towards prestige forms can. In addition, it provides more elements towards solving the puzzle of the evolution of the Acadian dialects.

7.2 Perspectives

Research is continuing within the Nova Scotia project in a number of different directions. In order to better understand the diachronic pattern, quantitative study of the existing corpus is being carried out, focusing on the patterns of change and the exact lexical distributions. Related activities include filling in the last remaining gaps in the Nova Scotia geographical grid and obtaining as much information as possible on the source dialects in France. Parallel work continues on exploring the best manner of combining dialect features to determine linguistic distance, and ultimately using these distance measures to understand the divergent developments. With respect to synchronic description, the main thrust of the study lies in identifying which sociolinguistic patterns exist, how the communities differ and to what extent structures are parallel, what form stylistic variation takes, and how the Acadian features selectively resist current factors of change.

As to the main topic of this article, the description of Acadian phonology per se, it is hoped that the discussion has brought out more clearly the different levels at which inter-regional contrasts may exist, and has given an indication of the points where a unified analysis is appropriate. To those familiar with Quebecois French, points of similarity and divergence with this variety will have become apparent. It is also hoped that this article has drawn attention to the uniqueness of the Acadian speech communities in the North American context, both in terms of their intricate linguistic history and, particularly in the case of the isolated Nova Scotia communities, in terms of the fine geographic patterning for the most part firmly preserved to the present day.

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FOOTNOTES

[1]A number of villages remain to be represented both within the identified major regions and outside of these, during the final stage of data gathering to take place this summer. Additional younger speakers will also be interviewed in the localities already visited.

[2]For a discussion of the relationship between salience and phonological contrast in regard to dialect contact situations, see also Trudgill (1986). Milroy (1980, 1987) describes the use of lexical sets in the delimitation of sociolinguistic variables.

[3]To use the symbol advocated by Santerre (1974).

[4]The diphthongization of the vowel which is found in the Baie Sainte-Marie communties in this environment is not indicated here. See section 3.6.

[5]Cf Ryan (1981:64), Lucci (1973:56).

[6]When the /r/ is prevocalic, two lexical sets must be distinguished, one set which has [a] overall, illustrated here by 'terrible,' and one which has [a] only in the Southwestern regions, illustrated by 'éclairer.'

[7]With the exception of Northeastern New Brunswick, where final [wɛ] is also found (see Flikeid 1984).

[8]Haden (1973) gives phonemic status to /æ/ in all varieties of Acadian except for the northernmost areas. Landry (1985) concludes that /æ/ has phonemic status in Pubnico.

[9]See below (section 3.4.1) for a discussion of the effect of these consonants.

[10]Landry (1985) adopts this analysis in his description of the Pubnico variety, whereas Ryan (1981) regards the distribution as allophonic in the Meteghan variety. Based on the present author's observations, there is no inherent difference between the lexical distribution of these vowel pairs in Meteghan and Pubnico.

[11]Boulanger (1986) reports on a regional usage in Quebec where [ɪ - ʏ - ʊ] are found before /v - z - ʒ/, as in the word [eglɪz] 'église.' The distribution remains phonetically conditioned however, in that in this variety the lax variants are used systematically in all words having the appropriate context.

[12]Landry (1985) transcribes these and similar words with [ɪ:], [ʊ:], [ɛ:] etc. However, most of the Pubnico informants in the prsent study were found to have the non-lengthened variants.

[13]A systematic study of all the lexical items involved may well reveal a pattern of lexical diffusion, with a subset of words having a lengthened lax vowel.

[14]Barter (1985) reports similar realizations for Newfoundland communities.

[15]An incident giving an interesting indication of speakers' perception: in a phonetics class, searching for minimal pairs for the /ø/ - /œ/ opposition, a Cheticamp student repeatedly came up with forms such as [kœl] 'colle' and [nœs] 'noce,' intended to illustrate the phoneme /œ/.

[16]/œ̃/ is distinct from /ɛ̃/ in other positions, as in 'emprunte' - 'empreinte.' The two are systematically neutralized in the stressed position considered here; thus 'un' is [jã] in Cheticamp, [jɛ̃] in Richmond and Pomquet, [jɔn] in Meteghan and [jɔ̃] in Pubnico, parallel to forms in /ɛ̃/.

[17]For simplification, a stress-determined pattern is assumed. It must however be noted that in some dialects one finds in prevocalic position the same variants as in open stressed syllables (see Landry 1981).

[18]This appears to be the case as well in one of the Prince Edward Island communities studied by King and Ryan (1986), Evangeline.

[19]Massignon's original transcription has been changed to correspond to that used throughout this article.

[20]Younger speakers in the Baie Sainte-Marie area now have [ɛ̃$^{w̃}$]; older speakers with [ɛ̃ŋ] are attested in Meteghan.

[21]This is a community where strong assimilation to English has taken place and few if any younger speakers exist, and was not included in the initial Nova Scotia sociolinguistic corpus. It is one of the localities to be studied in the final phase.

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GENERIC PRONOUN CHOICE AS A MEASURE OF 'CONCRETE' BEHAVIOURAL INTENT

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ABSTRACT

This study examines the generic pronominal choices that men and women make in a variety of male-oriented, female-oriented and sex-neutral sentences. Responses are also analyzed in relation to a behavioural intent measure concerning pronoun change. It is shown that behaviours (pronominal choices) and attitudes (behavioural intent) are not always aligned with each other, especially among female subjects. Many females in the study repeatedly chose 'generic' he in sex-neutral sentences, and yet expressed a desire to see a gender-exclusive (but otherwise neutral) inscription changed to a gender-inclusive form. This opposition was not as prevalent among male subjects.

I. Introduction

Much has been written in recent years on the generic or pseudo-generic he. Moulton, Robinson and Elias (1978) note that the relationship between language and sexism was discussed as early as 1895 by Elizabeth Cady Stanton. Stanton (1895, 1898) recommended that the 'dual pronoun' they be used instead of he, his or man. Charlotte Stopes (1908) argued that 'woman' will always be included in the word 'man' when there is a penalty to be incurred, but will be excluded from the interpretation when a privelege is to be conferred. Recent research (e.g. Bate 1975, Downey 1979, Falco 1977, Farwell 1973, Morton 1972, Murray 1973, Strainchamps 1971) suggest that the use of 'generic' he may serve to perpetuate the secondary social status of women in several ways. Because, as Murray (1973) comments, its use implies that all people are male until proven otherwise, 'generic' he operates to exclude women. Further, the marked pronominal category of 'female' usually carries negative, contemptuous connotations (cf. Miller & Swift 1972, Saporta 1974, Stanley & Robbins 1978, Veach 1979). Moreover, research suggests that 'generic' he may have detrimental effects on females' performance in psychological and educational tests (Selkow 1984), may discourage female applicants in employment-seeking situations (Bem & Bem 1973), and may limit comprehension and lead to poorer self-concept in females (e.g. MacKay 1983; MacKay & Konishi 1980).

Numerous studies (e.g. Blaubergs 1978, DeStefano, Kuhner & Pepinsky 1978, Harrison 1975, Harrison & Passero 1975, Kidd 1971, MacKay 1980, Moulton et al. 1978, Shimanoff 1977, Wilson 1978) have found that both children and adult subjects overwhelmingly interpret 'generic' he to mean male - not male or female. Prescriptive he is not neutral. In 1977, the American Psychological Association published 'Guidelines for Non-sexist Language in APA Journals,' predicated on findings that 'prescriptive he clearly influences normal comprehension in such a way as to create or maintain sex bias' (MacKay 1980:448). Germane to the present study is Falco's (1977) assertion that, because behavioural change tends to precede attitudinal change, efforts should be directed toward changing behaviours. Implicit in her assertion is that language should be considered a critical behaviour.

Several studies have investigated use of the generic he via sentence completion tasks. Martyna (1980) found that, among a sample of 400 subjects, he was preferred by 65% in sex-neutral sentences, only a very small percentage chose she (5%), while 30% opted for other pronominal alternatives, such as they, or he and she. In male-related sentences, 96% of subjects selected he; in female-related sentences, she was used in 87% of cases. The Martyna study also examined the effects of subject sex on pronominal choice. The females of the sample proved to use he somewhat less than did males in all three types of sentences, especially neutral ones; they also opted for she more than did males in female-related and neutral sentences. While this study did not employ any statistical testing, the data seem to suggest that, as of 1980 at least, generic he was still widely used by both males and females, even when the sentence was neutral in orientation.

The present study is similar to the Martyna investigation, in that it concerns itself with analysis of non sex-specific and sex-specific pronoun use in a sentence-completion task involving neutral, female-oriented and male-oriented sentence types. One of the hypotheses of the study is that males will make more 'traditional' pronoun choices than will females, even though this difference might not prove statistically significant. While results from the Martyna study found that females used he somewhat less in all three types of sentences, it is expected that continuing societal changes regarding sexist language will serve to reduce the discrepancy between male and female pronoun choices seven years later. Media attention, and government and industry response to the sexist language issue, have become increasingly pro-active. In Canada, for example, the Canadian Association of Broadcasters recently issued its members a guide for non-sexist language. Additionally, recent psychology and linguistics university textbooks (e.g. Brown 1983, Fasold 1984, Mook 1987) have taken great care to insure that

both male and female referents are used equally in examples. Thus, as gender-inclusive language becomes more commonplace, one might expect this to be reflected in the current data.

In order to examine language attitudes, in addition to linguistic behaviours, the present investigation goes beyond the Martyna (1980) study by introducing a further measure of analysis. The observation has been made that much of the research on the use of 'generic' he has involved analysis of texts, or sentence completion tasks. Bodine (1976: 192) points out '[since] frequency is too straightforward a question to require experimentation, further investigation should be based ... on observations in different social settings and involving different topics.' MacKay (1979) has argued that 'the wrong type of thought' has been explored in relation to language. He suggests that asking people to provide pronouns in tasks using occupational class, or traditionally sex-specific roles, involves having them rely not on evaluative processes, but on language-independent processes. That is, we might well expect more people to use he and him in sentences referring to chemists, pilots and so forth, because (according to MacKay) we survey our minds for real-life knowledge of 'what's actually out there.' Evaluative processes, by contrast, do not involve the use of such extensive, reliable data. How people feel about pronouns, then, rather than what they know about occupational and role ratios, is a more revealing criterion.

Considering this plausible assumption, it is appropriate to consider how males and females will respond to such an evaluative measure. The present study incorporated a measure of subjects' behavioural intent, in the form of their response to pronoun change in an otherwise neutral paragraph incorporating 'generic' masculines.

The primary purpose of the survey was to determine if a tendency to choose 'traditional' or 'non-traditional' pronouns could predict a behavioural intent which is concerned with pronoun change, and whether or not this would differ as a result of sex. Specifically, the research hypothesis predicted that traditional respondents, regardless of sex, would be significantly less inclined to see a need to eliminate gender-exclusive language, and would prove significantly less committed to change in favor of gender-inclusive language than would less traditional respondents. Since it is likely that more women than men would be affected by feminist beliefs, it was also hypothesized that males with a 'traditional' orientation would be less committed to language change than would 'traditional' females; among 'non-traditional' respondents, a greater proportion of females could be expected to display commitment to language change than their male counterparts.

2. Methodology

2.1 The questionnaire

A written questionnaire involving five different components was presented to subjects.[1] Part I consisted of a Social Desirability Scale, one of the two screening measures used in the study. This scale was composed of a standard questionnaire set, as developed by Crowne and Marlowe (1964); it was employed to detect those subjects who might wish to present themselves favourably to the experimenter, either knowingly or unknowingly, so that responses would not reflect their actual attitudes and beliefs. The second screening device was a short Demographics Questionnaire, which immediately followed Part II.

Part II constituted one of the two major components of the questionnaire. It consisted of a sentence completion set involving 36 sentences. Six of these contained references to traditionally female roles or occupations (e.g., librarian), six contained references to traditionally male roles or occupations (e.g., scientist), ten were irrelevant, calling for no pronoun choice, and fourteen were neutral (e.g., jogger). Placement of the sentences was determined randomly, using G.E. Dallal's PC-PLAN (1985), a computer program allowing the creation of random tables.

The second major questionnaire component, Part III, consisted of a Behavioural Intent Measure (B.I.). This section presented subjects with a paragraph representing an inscription that contained the masculine generics man and him.[2] Subjects were asked five questions designed to assess their degree of commitment to changing these forms to gender-inclusive alternatives, such as people, men and women, and them.

Part IV of the questionnaire was a qualitatively evaluated comment sheet, in which subjects were asked to respond to the nature of the survey and give their feelings about it.

Parts III and IV of the questionnaire were administered separately, following completion of Parts I, II and the Demographic Questionnaire. This was done to prevent subjects from looking ahead to Part III, and thereby being influenced in their responses to Part II.

2.2 Subjects

A total of 75 subjects in two night classes at York University participated in the study, which required about 45 minutes to complete. Subjects were told that the purpose of the investigation was to examine communication strategies and problem-solving. It was considered necessary to employ this modest deception in order to elicit the most honest responses possible, and to insure that subjects would take the survey seriously.

Those subjects who achieved a score of seven or more out of ten on the Social Desirability Scale (Part I of the questionnaire) were eliminated from the study, since their responses might have confounded the results. The potential sample was further reduced by the elimination of subjects who were younger than 18 or older than 35. Also, only subjects born in Canada or a 'westernized' English-speaking country were included in the analysis, since it is possible that inculturation processes have not yet allowed more recent immigrants to adapt to current norms of North American culture, including those relating to sexist language. The final sample contained only 44 subjects (12 males and 32 females). Given the small sample size, particularly for males, the findings presented cannot be regarded as conclusive, but rather, as a compelling call for further research in this area.

2.3 Analysis

The sentence-completion task of Part II included three relevant sentence types: male-related, female-related and neutral. Pronoun choices were scored as male (he, his, himself, or a male name - e.g., Fred), female (she, her, herself, mother, or a female name - e.g., Susan), or as neutral (i.e., including either a plural or specific reference to both gender, such as he and she, s/he, they, them, people, etc.). Scores assigned for each type of question, by pronoun type, are as follows:

SENTENCE TYPE	MALE PRONOUN	FEMALE PRONOUN	NEUTRAL PRONOUN
Neutral	3	1	2
Female-Related	3 OR 0[3] (context-based decision)	2	1
Male-Related	2	0	1

Table 1. Scoring Scheme for the Sentence Completion Task

Scoring was in the direction of 'traditional' responses, that is, those that conformed to stereotypical pronoun use. For example, for every male-related sentence in which a person chose a male pronoun, a score of 2 was awarded; a female pronoun received a 0 (strongly non-traditional); and a neutral pronoun was given a score of 1. If person failed to answer a question, or failed to give a pronoun response, the maximum worth of the sentence was deducted from the total. An adjusted score was determined using a relative, or 'sliding' ranking scale.[4] Thus, if a person scored a total of 46 points out of 65 (e.g. if three sentences were not completed with a pronoun), this would convert to 26 out of 45 or about 58%.

On the basis of their overall scores for Part II, subjects were divided into four main categories - Strongly Traditional (ST), Traditional (T), Non-Traditional (NT), and Strongly Non-Traditional (SNT). An ST orientation is denoted by a percentage range of between 76% and 100%, T by a range of between 50% and 75%, NT between 25% and 49%, and SNT between 0% and 24%.

Scores were analyzed statistically, via the Estimate of Interval for Two Independent Proportions. Additional analysis, using Forced Entry Regression, did not yield any substantially different results.[5] Analyses were undertaken to determine a) if orientation differed significantly as a function of sex, b) if behavioural intent differed significantly as a function of either sex or orientation, and c) whether or not age influenced scores on either the orientation or behavioural intent measure.

3. Results

While the number of analyses that could be conducted on the data (even given the small sample size) are many, the tests reported on here are far from exhaustive. An extensive item-by-item analysis, such as the one done by Martyna 1980 (albeit without statistical analysis), was not performed. Nonetheless, a number of different analyses were conducted, which ordered the data along various dimensions. Results are presented in the following sections.

3.1 Subject orientation

Table 2A groups male and female responses on the sentence-completion task, or Part II of the questionnaire, according to orientation: ST, T, NT, and SNT. These orientations were also collapsed into two 'overarching' categories: traditional (ST/T) and non-traditional (NT/SNT), as shown in Table 2B. Collapsing was done to determine whether significant differences would emerge when sample size per orientation, over sex, was increased.

Overall, no statistically significant results were found. That is, males and females did not differ significantly on any of the four orientation categories, nor on the two more general categories. Pure proportions are noted here, however, as the small, non-significant differences noted in these Tables may be related to significant findings noted later in this paper.

	Males (n = 12)	Females (n = 32)
ST	(1) 8%	(3) 9%
T	(7) 58%	(17) 53%
NT	(3) 25%	(8) 25%
SNT	(1) 8%	(4) 13%

Table 2A. Subject Orientation
ST - Strongly Traditional
T - Traditional
NT - Non-Traditional
SNT - Strongly Non-Traditional

(Percentages may not total one hundred due to rounding).

	Males (n = 12)	Females (n = 32)
ST/T	(8) 67%	(20) 63%
NT/SNT	(4) 33%	(12) 38%

Table 2B. Subject Orientation, Collapsed Categories

Contrary to expectations, a slightly higher proportion of females than males proved strongly traditional (F = 9%, M = 8%); nonetheless, as predicted, a overall higher proportion of males (58%) than females (53%) displayed a traditional orientation. When the two traditional categories were collapsed, they likewise included a higher overall proportion of males (67%) than females (53%). As to non-traditional orientations, the strongly non-traditional (SNT) category contained as expected, a higher proportion of females (13%) than males (8%).

3.2 Behavioural intent

Part III of the questionnaire was designed to measure behavioural intent. Scoring for this section was relatively straightforward, as presented in Table 3 below.

	Response	Score
Question Regarding Change:	YES	1
Question Regarding Petition-Signing:	YES	2
Question Regarding Contributing Money:	YES	3
Question Regarding Amount of Money		
- between $1.00 & $5.00:	YES	(score remains the same)[6]
- more than $5.00:	YES	4

Table 3. Scoring for Subjects' Behavioural Intent
(A 'NO' response on any question scored zero)

These scores were converted to percentage form, based on the number of subjects in the category being analyzed. For example, when examining behavioural intent scores (B.I.) as a function of sex, if 7 of the 12 male subjects responded 'No Change', then the percentage would be 58% (7/12). These relative proportions were used throughout the analysis, as the small sample size prevented the use of averages (means). Table 4 below presents behavioural intent scores as a function of sex.

BEHAVIOURAL INTENT	SEX MALE n= (12)	 FEMALE (32)	SEX DIFFERENCES
No Change [0]	(5) 42%	(6) 19%	M 23% more in favour
Yes, Change [1]	[2] 17%	(4) 13%	M 4% more in favour
Yes, Petition [2]	(3) 25%	(6) 19%	M 6% more in favour
Yes, Low $ [3] ($1 - $5)	(1) 8%	(11) 34%	F 26% more in favour
Yes, High $ [4] (More than $5)	[1] 8%	(5) 16%	F 7% more in favour
TOTAL	100%	100%	

Table 4. Behavioural Intent as a Function of Sex

Tests for significance were performed on each behavioural intent pair, comparing males and females. In addition, the behavioural intent categories were collapsed into two: Change (C) and No Change (NC). Tests for significance tests were conducted i) on <u>all</u> (C) subjects compared to <u>all</u> (NC) subjects, and ii) on males who agreed to some form of change (C) compared to (C) females.

Of the 44 subjects in the survey, 33 opted for some form of change. This was significant at the 99% level ($p < .01$). A

comparison of males and females with respect to the behavioural intents 'Change' and 'No Change' revealed a higher proportion of females (81%) than males (57%) to be in favour of change, although this finding was not statistically significant. When males and females were compared over each specific behavioural intent (0-4), males proved more in favour of the no change (0), change (1) and petition (2) options, even though none of these proportions proved statistically significant. Females, on the other hand, were significantly more inclined to offer 'Low Money' (B.I. 3) ($p < .05$). A higher proportion of females also proved in favour of the B.I. 4 option of a higher monetary contribution, although this difference was not significant.

3.3 Subject orientation by behavioural intent

All subjects were grouped over the four orientation categories (ST, T, NT, & SNT), as well as over all behavioural intent categories (0-4). Percentages for each Orientation by Behavioural Intent dimension were calculated, and findings were examined for significance. Collapsing orientation categories into Traditional (ST/T) and Non-Traditional (NT/SNT) produced no significant differences in responses on the measured behavioural intent.

Orientation categories were collapsed into the two more general categories (ST/T & NT/SNT). These were compared against the two collapsed categories of behavioural intent, NC ('No Change') and C ('Change'), where C incorporates any form of change from 1 to 4.

While both males and females with NT/SNT orientation were equal in their behavioural intent responses, more ST/T females than ST/T males wanted change. While orientation did not significantly affect scores on the behavioural intent measure, both sex and age were significant determiners, with younger subjects, most notably females, being more committed to change than males or older subjects. This is a critical finding as it suggests a dissonance in females, but not in males, between linguistic behaviour and subsequent attitude.

As expected, non-traditional (i.e., NT/SNT) females proved to opt considerably more significantly for change than for lack of change. Unexpectedly, traditional (ST/T) females opted significantly ($p < .01$) in favour of change. There was no significant difference in traditional (ST/T) males who wanted change over those who did not - in fact, an equal number of males (4 each) opted for each possibility. In the non-traditional (NT/SNT) category, results were not significant but clearly indicated a trend. While

proportionately the same number of males as females wanted change here, the small sample size has prevented significance from emerging. Regression analysis revealed that, when behavioural intent is viewed along a continuum (rather than in discrete units), males display significantly less commitment to change than do females ($t = -2.297$, $p = .02$), regardless of linguistic behaviour on the sentence completion task.

SEX	BEHAVIOURAL INTENT	ORIENTATION ST/T	NT/SNT
Males	NC	(4) 50%	(1) 25%
	C	(4) 50%	(3) 75%
Females	NC	(3) 15%	(3) 25%
	C	(17) 85%	(9) 75%

Table 5. Behavioural Intent No Change/Change in Terms of Sex and Orientation (Traditional/Non-Traditional)

NC = No Change (B.I. = Ø)
C = Change (B.I. = 1-4)

3.4 The effects of age

Males and females were grouped by age, and their orientation and behavioural intent scores were noted. Percentages in each age group for 'change' and 'no change' were calculated. Findings are presented in Table 6. Regression analysis indicated that behavioural intent varied significantly as a function of age and sex ($F = 4.1$, $p < .01$). Younger female subjects were more committed to change than older female subjects. The demographics of this sample show that both men and women in the age range 30-35 opted for some form of change in equal proportions (9 of the 12 females, and 3 of the 4 males). Both males and females who did not want the inscription changed in this age grouping were non-traditional (i.e., NT or SNT) in their orientation, which is counter to the hypothesis.

AGE GROUP	ORIENTATION	B.I.	PERCENT C/NC
30-35			
Males (n=4)	T (50%)	4	
	T (64%)	2	75% = C
	T (60%)	1	
	NT (35%)	0	25% = NC
Females (n=12)	T (53%)	4	
	SNT (17%)	4	
	T (71%)	3	
	SNT (22%)	3	
	SNT (3%)	3	75% = C
	NT (45%)	3	
	T (70%)	2	
	ST (85%)	1	
	NT (29%)	1	
	SNT (24%)	0	
	NT (44%)	0	25% = NC
	NT (41%)	0	
24-29			
Males (n=5)	SNT (10%)	3	
	T (50%)	2	40% = C
	T (65%)	0	
	T (64%)	0	60% = NC
	ST (76%)	0	
Females (n=13)	T (57%)	4	
	NT (40%)	4	
	T (60%)	3	
	T (61%)	3	
	T (71%)	3	85% = C
	NT (49%)	3	
	T (68%)	2	
	T (67%)	2	
	NT (43%)	2	
	T (72%)	1	
	NT (44%)	1	
	T (75%)	0	
	ST (78%)	0	15% = NC
18-23			
Males (n=3)	NT (32%)	2	
	NT (37%)	1	66% = C
	T (66%)	0	33% = NC
Females (n=7)	T (51%)	4	
	T (64%)	3	
	T (67%)	3	86% = C
	T (58%)	3	
	T (51%)	2	
	ST (85%)	2	
	T (61%)	0	14% = NC

Table 6. Behavioural Intent (B.I.) in Terms of Age, Sex and Orientation

NC = No Change (0 B.I.)
C = Change (1-4 B.I.)

In the intermediate age category (24-29), the most striking sex-based differences appear. Of men in this age grouping, 60% (3 of 5) did not opt in favour of change; all were either ST or T in orientation. However, only 15% (2 of 13) women in this age grouping did not want an inscription change. Overall, findings for this age grouping support the hypothesis.

Finally, in the youngest age grouping (18-24), only one of the three males (the only one with a traditional orientation) was against any change.

By comparison, only 14% (one woman out of 7) in this age grouping was against any change. What is surprising, however, was that all women in the youngest age group proved traditiónal in orientation, even though 86% of them declared themselves in favour of some degree of change.

The oldest males of the sample, those aged 30 to 35, tended to be more in favour of change than their younger counterparts (75%, versus 40% and 66% in the two younger groups). In contrast, the largest proportion of females favouring change were in the youngest age grouping (86%), with the intermediate and oldest age levels following very closely (85% and 75%, respectively). Older women (30-35) were by far the most non-traditional, but were also the most 'divided' as a group. All three of the older females who opted for 'no change' were of non-traditional (i.e., NT or SNT) orientation, which runs counter to expectations.

4. Discussion

As predicted, this study found women and men to be similar in their orientation, as defined by their choice of generic pronouns. Further, sex proved important with respect to behavioural intent, since males of both traditional and non-traditional orientations were somewhat less inclined to opt for any change in the inscription presented. While the difference in orientation by B.I. between sexes is only marginally significant ($p < .10$ but $> .05$), using the Estimate of Proportion statistic, the Regression Analysis yields no significance here ($t = -1.569$, $p > .10$), suggesting that subject orientation does not vary as a function of sex in any meaningful way. However, the small sample size for males must be taken into account. In addition, the dividing line for 'traditional' versus 'non-traditional' orientations is somewhat arbitrary, and six of the scores were 'borderline' - that is, between 46 and 54%.[7]

In addition, an interesting phenomenon seemed to occur about half to three-quarters of the way through the sentence completion set. Subjects who had been scoring very traditionally appeared to 'switch tactics,' and use more female pronouns or alternatives-especially for the sentence with the referent 'president of the bank' - which occurred near the end of the set. This suggests that the hypothesis was not sufficiently obscured, and that during the set subjects inferred the intent of the study. To correct for these potential flaws, it would have been helpful to have included more irrelevant sentences, to have made sentences less clear-cut, and to have had a panel of independent judges rate each sentence and its proposed scoring key. A reliability co-efficient for inter-judge agreement could then be determined. To test for 'hypothesis guessing,' it might have been helpful to present the comment sheet before Part III was given, or to split Part II in half, to determine if there were any major discrepancies in answers between the first and second halves.

Some of the referents may have served to elicit what MacKay (1979) has suggested are 'descriptive' rather than 'evaluative' pronoun choices - that is, pronouns based on objective, real-life knowledge about proportions of doctors, scientists, librarians and so forth. Still, it is felt that, overall, the sentence completion set contained enough 'neutral' referents to allow for a valid orientation to emerge.

It is possible that petition-signing and money-donating attitudes may also have confounded responses. Subjects who may have agreed to change may not like signing petitions or donating money in general - so that these behavioural intent measures would be independent of any feelings about pronoun change, per se. Findings do not seem to support such an alternative hypothesis though - most of the 'change' measures were for petition-signing or low money. Only six of the thirty-three subjects who wanted some form of change opted for inscription change alone (B.I. = 1). Therefore, the behavioural intent criterion is considered a valid evaluative measure of attitudes about the need for pronoun change.

What, then, might explain the differences that were found? Several interpretations of the findings are possible. The comment sheet evaluations indicate that at least three forces were operating.

Comments such as 'It felt as though someone was trying (unsuccessfully) to manipulate my answers' (from a non-traditional female who wanted no change to the inscription) are interpreted as evidence of reactance. Reactance is a psychological construct which suggests that when people feel they are being controlled or manipulated against their will, they tend to adopt a contrary

attitude or behaviour to the one they feel is being 'demanded' of them, in an attempt to assert their independence. Several of the comment sheets contain responses which could be interpreted as evidence of reactance.

Another force that may have been operating was Cognitive Dissonance (Festinger 1957). Cognitive dissonance suggests that people wish to think of themselves as rational and strive for consistency. Having made one behavioural 'statement,' such as choosing mostly masculine pronouns, a subject would be compelled to make a similarly traditional response on the behavioural intent measure (i.e., make an attitude 'statement'). This would occur because, according to cognitive dissonance theory, attitudes and behaviours that are inconsistent with one another produce an unpleasant dissonance, which people are usually highly motivated to 'correct.' Here, as subjects could not change their answers on the sentence completions (having already turned the form in), they would be compelled to 'follow through' and be similarly traditional or non-traditional on the behavioural intent measure. To express a contrary attitude would produce dissonance. However, except for the traditional males in the intermediate and oldest age groupings, cognitive dissonance does not appear to be operating strongly. In fact, many traditional respondents, especially females, expressed very strong desires (B.I. = 3 or 4) to see a pronoun change - contrary to the action predicted by cognitive dissonance theory.

A third, more plausible factor might have been operating. Bem (1965) suggests that people assess their beliefs and feelings on the basis of observations of their own behaviour. What might have occurred here, especially among female subjects, is a post-assessment of feelings about pronoun use. That is, subjects recognized their own tendencies to respond in traditional ways and sought to 'correct' this behaviour by opting strongly for inscription change. This might explain one of the few highly significant findings - that females far outnumbered males in the 'Low Money' B.I. - and may further explain why so many traditional subjects overall responded in a contrary, non-traditional manner on the behavioural intent measure. This hypothesis is supported by several of the comment sheets. For example, one female subject with a traditional orientation opted for 'High Money,' and wrote on her comment sheet: 'I felt [the survey] showed me how aware I was in terms of sexual/gender bias.' A number of other subjects made similar responses.

5. Conclusion

While males and females did not differ significantly in their pronominal choices on the sentence completion task, females were significantly more committed to a pronoun change. Thus, many females whose behaviour indicated a fairly high traditional orientation, in terms of the number of 'generic' he completions used, were significantly less traditional in their attitudes than males.

Women of all three age groups tend to see a gender-inclusive inscription as being a desirable alternative to the man/him inscription, and in a greater proportion than their male counterparts. Older women, however, tended more often than men to use non-traditional pronouns, but, unlike their male counterparts, several of these women also rejected a pronoun change. Younger women, while overwhelmingly traditional in their pronoun choices, were far more willing to approve the inscription change.

Reactance, as noted, is one possible explanation for these older women's contrary responses. The fact that the experimenter was female and of a similar age may have further contributed to reactance. In a similar vein, younger women might have opted for the change because they wanted to 'please the experimenter,' who may have held more authority in their eyes. This explanation is purely speculative, of course, but the experimenter effect should not be overlook as a confounding variable.

Donald MacKay (1983) cites studies by Shepelak (1977) and Bate (1975) which may better explain the discrepancy noted between females' linguistic behaviour and their subsequent attitudinal responses. MacKay argues that a person's cognitive framework may affect the ways in which she or he deals with prescriptive (i.e. 'generic') he. A person working within a feminist or egalitarian framework would view males and females as different but equal. Implications to the contrary, such as would be found in gender-exclusive language, would be resented. Under the conformist framework, women would value the goals ascribed traditionally to females, and would accept the connotations of prescriptive he. They would not find the test paragraph in this study offensive, because they accept their peripheral status and passive orientation. Women holding an assimilation framework, on the other hand, would accept, value and seek male goals for themselves, but would reject 'messages about other women' (here, that women should be included in the inscription) - women being a class of people that they themselves have no desire to be associated with.

Both the egalitarian and the assimilation frameworks may have been operating in this study. As subjects were university students,

it seems less probable that the conformist framework was operating, as women who supposedly reject motives such as ambition would not be attempting to earn a degree by attending night classes (presumably after working all day). However, such activity would fit well within the assimilation and egalitarian frameworks.

The egalitarian framework might explain the responses of those who exhibited both behaviours and attitudes favourable to women. Perhaps some of the older women who held unfavourable attitudes toward change were operating within an assimilation framework. But while the assimilation framework might account for the resistance to change, it does not adequately explain why these same subjects would choose gender-inclusive pronominal forms on the sentence completion task. If attitudes indeed 'follow' behaviours, then perhaps, given time, these subjects might become more favourable to change. Conversely, negative experiences may have suggested to these older women (but not the younger women), that 'making it' in a largely male-dominated world means rejecting a feminist viewpoint, while aspiring to and identifying with a male perspective.

In fact, it is quite possible that the younger women in the study may have been enculturated in a more transitional environment - where 'generic' he is still widely used in textbooks, in the media, and in everyday speech, but where more positive attitudes about women are also highly salient and where a relatively greater exposure to strong female role models has occurred.

Overall, results indicate that a significant proportion of females interpret a paragraph with 'generic' he to be exclusionary and that they wish to see this rectified. Conversely, males, while their pronominal choices might be indicative of increasing exposure and/or awareness, do not seem to hold similar attitudes. The fact that they are not excluded from such paragraphs may in part account for the difference in attitude.

However, results also indicate that a significantly greater number of subjects want some form of change over those who do not. Further, it appears as though inroads are being made in the 'generic' he arena, judging from the orientations of many of the respondents. While 'generic' he is still being used in neutrally-oriented sentences, alternatives are also being chosen. Only a few subjects departed radically from 'generic' he, but then only a few adhered strictly to this form as well. Finally, qualitative evaluations based on the comment sheets indicate that sheer exposure to the issue of gender exclusion through linguistic behaviour may encourage an attitude change.

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FOOTNOTES

[1]An abbreviated example of each of the main sections of the questionnaire is provided in the Appendix.

[2]The full paragraph, which represents an inscription chiseled in concrete over the main entrance of the Ross Building at York University, is provided in the Appendix as Part III of the questionnaire.

[3]Using a male pronoun in a female-related sentence may indicate either an extremely traditional orientation (using he for all sentences, regardless of type), or it may indicate a radical departure from tradition (using he only in female-related sentences). Thus, the context of the total paper determined the score on these sentences.

[4]Raw scores were quite variable, in part because not all subjects completed all sentences. The relative ranking conversion compensated for omissions on the sentence completion task by reducing the proportional discrepancies between response sets of varying sizes. Percentage scores were thus calculated based only on those sentences completed with a pronoun.

[5]Initially, limited computational facilities restricted the type of statistical analysis that could be performed. As the data dealt with proportions, the Estimate of the Interval of Two Proportions was chosen. This statistic yields identical results to those that would be found using Chi-square. As the sample size per cell in some of the analyses proved to be so small as to make the Estimate of Proportion somewhat problematic, regression analyses were subsequently conducted when additional computational facilities became available. Results from these indicated that there was no significant difference between males and females on the sentence completion task ($t = -1.569$, $p > .10$), but that sex and age were significant determiners of behavioural intent for both sex ($t =$

-2.297, p = .02) and age (t = -2.233, p = .03). Specifically, females and younger subjects were more committed to change than were males or older subjects.

[6]The third question (regarding monetary contribution, no stated amount) and the first part of the fourth question (regarding amount of money - between $1.00 and $5.00) are essentially similar in terms of reflecting subjects' committment; hence the score of 3 given initially remains the same for an affirmative response to the first part of question four. The purpose of this reiteration was to determine subjects' consistency in responding.

[7]One of the reasons there may have been six of these borderline cases might be due to the ambiguity of some of the sentences. For example, it became apparent that the supposedly 'neutral' referent of parent could easily have been viewed as a 'female' referent, judging from the number of she pronouns that appeared here in otherwise very traditional response sets. Also, while not as clear-cut, the referents victim (neutral) and chef (male) appeared to elicit female responses in otherwise traditional response sets, thus making the overall score lower than it might have been.

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APPENDIX

(Abbreviated Version of Questionnaire)

PART I (Social Desirability Scale)

Subjects were asked to rate the following statements as true or false when applied to them personally. A score of 1 was assigned to a 'True' response in statements 1, 2, 5, 9 and 10, while a 'False response received a score of 1 for the remaining questions.

1. I never hesitate to go out of my way to help someone in trouble.

2. I have never intensely disliked anyone.

3. On occasion I have had doubts about my ability to succeed in life.

4. I sometimes feel resentful when I don't get my way.

5. My table manners at home are as good as when I eat out in a restaurant.

6. If I could get into a movie without paying for it and be sure I was not seen, I would probably do it.

7. On a few occasions, I have given up doing something because I thought too little of my ability.

8. I can remember "playing sick" to get out of something.

9. I always try to practice what I preach.

10. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.

PART II (Sentence Completion Set)

(In each of the following sentences, F refers to a traditionally female role or occupation, M to a traditionally male role or occupation, and N to a neutral situation. The original questionnaire also contained 10 irrelevant sentences which called for no pronoun choice; these are not reproduced here).

1. After the leader of the negotiation team _____ two members to negotiate, _____ told them to address the issue clearly and _____. (N)

2. When a person is encouraged to feel that _____ has control over a stressful event, the _____ of that event will be _____. (N)

3. When an angel appeared to the congregation, _____ spoke of _____ and forgiveness. (N)

4. As a fashion model, _____ learned that it was important to pay attention to one's _____, even when not _____. (F)

5. The doctor, who was a heavy cigarette smoker, knew that _____ should quit, but it was _____ to advise patients to do so. (M)

6. Opening the front door, the jogger prepared for _____ daily run, but then noticed the _____ was _____. (N)

7. The alcoholic frequently finds that _____ is subjected to a great many unpleasant or negative experiences, due partly to _____ and also due to poor physical health. (N)

8. _____ was known as a great chef, and the best proof of this was in the _____. (M)

9. As a creature with few defenses against the environment, a small child must rely on _____ parents or other guardians to provide the _____ of life. (N)

10. After the flight attendant brought a _____ to the pilot, _____ left the cockpit and began to prepare the _____ to be served after take-off. (F)

11. When the hospital staff examined the victim, they noticed _____ had multiple bruises and severe swelling of the _____. (N)

12. For the Christmas charity bazaar, several _____ helped out by cooking _____ and setting up tables. (F)

13. Being a parent isn't all it's cracked up to be, _____ thought; there is always _____ to be done and never enough _____. (N)

14. _____ liked playing basketball for the sense of _____ it provided. (M)

15. Nowadays, the scientist without publications often finds _____ working without grant money and thus the _____ of research is limited. (M)

16. The patient disliked having _____ activities restricted; consequently the family made efforts to provide _____, which helped somewhat. (N)

17. _____ was a Scholar with a capital "S" - always _____ and well-known for being _____. (N)

18. When the store clerk approached the customer, _____ made a mental note of the _____ the customer was _____. (F)

19. Given the unusually high salary and good _____, it wasn't surprising that the librarian had been at _____ job for over fifteen years. (F)

20. Toronto is the kind of _____ where a driver could easily find _____ blood pressure rising, because there are so many _____ nowadays. (N)

21. A child care worker in a chronic care setting is more likely to find _____ falling prey to "burnout", than would a guidance counsellor in a _____ setting. (F)

22. The president of the bank always kept _____ desk free from clutter, and some employees saw this as a sign of _____, while others suggested it reflected _____ instead. (M)

23. _____ enjoyed being a mortician, although it was frustrating at parties when people _____ about the _____. (M)

24. A good journalist must be _____ when reporting highly sensitive events, and must not allow _____ own interpretations to bias _____. (N)

25. The student asked a lot of questions during _____, and while the professor seemed to like this, fellow students thought _____ asked questions just to _____ and score "brownie _____". (N)

26. We at Delta U must give special _____ to the humanizing of _____, freeing _____ from those pressures which mechanize the _____ and make for routine _____. (N)

PART III (Behavioural Intent Measure)

Here is a paragraph that is chiseled in the concrete over the front entrance of the Ross Building at York University:

> We at York ... must give special emphasis to the humanizing of **man**, freeing **him** from those pressures which mechanize the mind, which make for routine thinking, which divorce thinking and feeling, which permit custom to dominate intelligence, which freeze awareness of the human spirit and its possibilities.

1. Were you familiar with the above paragraph before you saw it printed here - that is, were you aware of such an inscription on the Ross Building at York University before today, or is this the first time you have read it? (please check one:)

   [ ] **NO**, I was not familiar with the paragraph - this is the first time I have seen it or heard about it.

   [ ] **YES**, I was familiar with the paragraph - I have seen it or heard about it before reading it here.

Suppose that the inscription on the Ross Building you just read could be changed very easily. For example, assume that there is a process whereby the letters chiseled in the stone can be smoothed and new letters put in their place; and assume that this process requires a minimum of tools, taking about half an hour per word, on average. Do you think the underlined words (man, him) should be CHANGED to an alternative similar to one of the following?:

people / **them**
men and women / **them**
woman and man / **them**

(The beginning of the paragraph would now look something like this:

> We at York ... must give special emphasis to the humanizing of **people**, freeing **them** from those pressures which mechanize the mind .... etc.)

2. Please select one of the following:

[ ] **YES**, I do think the inscription should be changed to one of the alternatives given. (Assigned 1 value in subsequent coding)

[ ] **NO**, I do not think the inscription should be changed to one of the alternatives given. (Assigned a Ø value)

Questions (3) to (5) were answered only by those who gave a 'yes' answer to Question (2))

3. Would you sign a petition calling for a replacement of the words "**man**" and "**him**" to one of the alternatives given (e.g. "**people**" and "**them**")?

[ ] **YES**, I would sign such a petition. (Assigned a 2 value)

[ ] **NO**, I would not sign such a petition.

4. Would you contribute money in order to help raise the funds required to replace the words "**man**" and "**him**" to one of the alternative sets given (e.g. "**people**" and "**them**")?

[ ] **YES**, I would contribute money for this purpose. (Assigned a 3 value)

[ ] **NO**, I would not contribute money for this purpose.

5. How much money would you consider contributing to change the words? (check one answer only please):

[ ] No money - I wouldn't contribute

[ ] $1.00 } (Low $ - assigned a 3 value)

[ ] More than $1.00 and less than $5.00 } (Low $ - assigned a 3 value)

[ ] More than $5.00 and less than $10.00 } (High $ - assigned a 4 value)

[ ] More than $10.00 } (High $ - assigned a 4 value)

PART IV (Comment Sheet)

1. In one or two sentences, in your own words, please state what you believe the survey was about.

2. Did you find the survey difficult to understand or complete? If yes, please state why. If not, why not?

3. How did you feel while you were filling out the survey?

4. Have you taken a similar type of survey before? If yes, can you remember what it was about?

2. Please select one of the following:

[ ] **YES**, I do think the inscription should be changed to one of the alternatives given. (Assigned 1 value in subsequent coding)

[ ] **NO**, I do not think the inscription should be changed to one of the alternatives given. (Assigned a Ø value)

Questions (3) to (5) were answered only by those who gave a 'yes' answer to Question (2))

3. Would you sign a petition calling for a replacement of the words "**man**" and "**him**" to one of the alternatives given (e.g. "**people**" and "**them**")?

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REVIEWS

Substrata Versus Universals in Creole Genesis (Creole Language Library, Vol. 1), ed. by Pieter Muysken and Norval Smith, Amsterdam/Philadelphia: John Benjamins Publishing Company, 1986, 315 pages, Hfl. 150, $76.05 CDN, $60.00 US, ISBN 9027252211/ 0-915027-90-9.

This first volume in the series Creole Language Library (general editor, Pieter Muysken) is a collection of fourteen papers resulting from a workshop held at the University of Amsterdam in April 1985. As the title indicates, sides are taken and defended, and the editors, Pieter Muysken and Norval Smith, act as moderators. The main topic is syntax, but there is one paper on semantics. Phonology is conspicuously absent.

The debate - a heated one - centers on a theoretical issue which has sparked more controversy than any other in recent creole language research. It has gained momentum especially since the publication of Derek Bickerton's 'language bioprogram hypothesis' in the debating forum of The Behavioral and Brain Sciences (1984). Bickerton hypothesizes that creole languages are largely 'invented' by children and show fundamental similarities, which derive from a biological program for language. An enormous range of disciplines and theories are involved: child language, second language acquisition, universal grammar, government-binding theory, psycho-linguistics, neuro-science, genetics, and on goes the list.

In the introductory chapter, the editors summarize the issues and critically evaluate each contribution. They present the argument as follows (p. 1):

> The universalist hypothesis claims, essentially, that the particular grammatical properties of creole languages directly reflect universal aspects of the human language capacity ... The substrate hypothesis claims, on the other hand, that creole genesis results from the confrontation of two systems, the native languages of the colonized groups, and the dominant colonial language, and that the native language leaves strong traces in the resulting creole.

Muysken and Smith also present certain aspects of Berbice Dutch (spoken along the Berbice River in Guyana), as good testing ground for substrate influence: in this creole, a large percentage of basic vocabulary (27%) derives from Eastern Ijo, spoken in the Niger Delta region of Nigeria. The editors suspect that there are both universal and substrate factors in creologenesis, in varying proportions, depending on precise social and historical circumstances. They thus side with Salikoko S. Mufwene, whose paper is entitled 'The universalist and substrate hypotheses complement one another.'

Muysken and Smith point out that 'the same debate rages now as it did one hundred years ago' (p. 2). This is just what Glenn Gilbert shows in 'The language bioprogram hypothesis: Déjà vu?.' Gilbert neatly sums up Bickerton's ideas and shows that they existed in germ in earlier writers such as Schuchardt and Hesseling. These writers are seen to be Darwinian in outlook, as against pre-Darwinians such as Schleicher. Gilbert gives us a clear understanding of the three currents of thought which have traversed Creole studies since 1880. These are 1) substratum influences; 2) biological laws; 3) societal constraints.

Bickerton combines 2) and 3) and sees them as the main evolutionary forces shaping Creoles, rather than 1). In a paper entitled 'Creoles and west African languages: A case of mistaken identity?,' he argues as follows (p. 25):

> One cannot prove similarity between two languages by simply producing superficially similar surface structures in those languages; one could only do so by producing grammars, or at least fragments of grammars, which were substantially identical.

Bickerton is careful to point out that 'a universalist account by no means rules out substratum influences' (p. 38). He repeats it is simply not enough to produce lists of superficially matching surface structures.

In the replies to this position, there is agreement on universals and the innateness of language capacity, but reluctance to dismiss entirely the possibility of substrate influence. We find either a strong endorsement of the substratist position (Koopman, Holm, Lefebvre, Alleyne), or some kind of intermediate position not excluding universalist or substrate influences but bringing in other factors (Mühlhäusler, Seuren & Wekker, Hancock, Arends, Mufwene, Baker and Corne, den Besten). We will give a brief indication of the main point made in each of these papers,

and comment on those which are more critical of Bickerton's stance regarding substrata.

Peter Mühlhäusler ('Bonnet blanc and blanc bonnet: Adjective-noun order, substratum and language universals') finds that for the development of Tok Pisin, it is the rule-changing ability of speakers, and consequent reinterpretation of structures, which seem to be important. He finds substratum and/or universal factor relevant in small areas only. Pieter Seuren and Herman Wekker, ('Semantic transparency as a factor in creole genesis') put forward the notion that creole languages are characterized by a tendency to maximize semantic transparency, that is, a property of surface structures enabling listeners to carry out semantic interpretation with the least possible effort. Ian Hancock, in his 'The domestic hypothesis, diffusion and componentiality: An account of Atlantic anglophone creole origins,' provides historiographical and linguistic evidence of the westward transmission of Guinea Coast Creole English during the seventeenth century. Jacques Arends ('Genesis and development of the equative copula in Sranan') shows that large-scale restructuring took place over three hundred years in this creole of Suriname. Salikoko S. Mufwene contends in his above-mentioned article that the universalist and substrate hypotheses are not necessarily mutually exclusive. Philip Baker and Chris Corne ('Universals, substrata and the Indian Ocean creoles') consider that universals and substrata, in varying proportions and at different times, must both have played a role in the development of the Indian Ocean Creoles. Hans den Besten ('Double negation and the genesis of Afrikaans') shows that processes of pidginization and creolization have played a role in the development of that language.

The last four papers in this collection - two on Haitian, one on Hawaiian, and one on Jamaican - present an array of cultural, historical and comparative data, as evidence in favour of substratum continuities. Hilda Koopman ('The genesis of Haitian: Implications for a comparison of some features of the syntax of Haitian, French, and West African languages') shows that West African languages share many properties among themselves, and secondly, that these properties (lexical and syntactic) tend also to be characteristic of Haitian. Clair Lefebvre ('Relexification in Creole genesis revisited: The case of Haitian creole') in a comparison of Fon and Haitian, says that the similarities are substantial enough to suggest that relexification was one of the processes involved in the formation of Haitian. She further points out that Haitian culture is related to Fon culture, and that the bulk of the slave population brought to Haiti came from the Gold Coast and the Slave Coast, where languages of the Kwa family predominated.

John Holm ('Substrate diffusion') says that the most compelling reason for rejecting Bickerton's data on Hawaiian is that it came from the wrong people speaking the wrong pidgin at the wrong time. He concludes that we cannot continue to dismiss the possibility that features in Hawaiian Creole English have their origin in the diffusion of Atlantic creole features that can in turn be traced to the influence of substrate African languages. Unfortunately, a bothersome point of chronology in Hawaiian Pidgin English makes things difficult to assess here.

In the last chapter in the book ('Substratum influences: Guilty until proven innocent'), Mervyn C. Alleyne suggests that the presence of substrate languages in the Caribbean should be accepted as a deeply rooted behavioural and cognitive competence. He supplies a great deal of linguistic and historical data, particularly from Twi-Asante, as evidence of substratum continuities in Jamaican Creole.

Coming back to Bickerton's major point - outlined above - it would have been nice to see somewhere a direct rebuttal along the lines of: 'What we have shown is precisely what Bickerton is asking for: substantially identical grammars of underlying systems, not just superficially matching surface structures.' I was left feeling 'a little in the air,' wondering precisely to what extent his opponents had demonstrated this, even though their arguments appear very convincing.

We must be grateful to the editors for an excellent job of summarizing and clarifying the issues, and providing a balanced point of view. One can only hope that present disagreements will eventually be ironed out; inevitably, of course, some wrinkles will remain. In the meantime, the message is: creoles provide important clues to language genesis, and cannot be dismissed as merely marginal, or unrepresentative of 'mainstream' language development.

REFERENCE

BICKERTON, Derek. 1984. 'The language bioprogram hypothesis.' The Behavioral and Brain Sciences 7:173-221.

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Focus on the Caribbean, ed. by Manfred Görlach and John A. Holm, Amsterdam/Philadelphia: John Benjamins Publishing Company, 1986, paper, ix, 209 pages, Hfl. 75, $38.03 CDN, $30.00 US, ISBN 90-272-44866-4.

Focus on the Caribbean is the eighth volume in the series Varieties of English Around the World edited by Manfred Görlach of Cologne University. The present volume is a collection of eleven essays, plus an Introduction by Manfred Görlach and John Holm. We are told on the back cover that half of the contributors are from the Caribbean region, and the other from Europe, Africa and the United States.

The Introduction contains an excellent summary of the contents of the volume. The main point of each paper is clearly presented and explained, and this proves a great aid in understanding the issues. In what follows we give a brief indication of the content of each paper, with quotations where appropriate. It must be pointed out that the order of the articles in Focus on the Caribbean is different from that given below. We regroup them so as to maintain a flow from those which are more purely linguistic (phonology, etymology and lexis, morpho-syntax), to those reaching into history and politics, language planning, sociology and psychology.

In 'Tracing elusive phonological features of Early Jamaican Creole,' Barbara Lalla attempts reconstruction with the aid of written documents from the eighteen and nineteenth centuries. She concludes that substantial evidence exists for consonant structure and phonotaxis, less for vowels, and not surprisingly, still less for suprasegmental features.

Frederic Cassidy, in 'Etymology in Caribbean Creoles,' discusses the problems besetting researchers who attempt to work out Caribbean creole etymologies: 'one has to deal with half a dozen European languages and dozens or even hundreds of African languages not to mention a number of American Indian languages, and possibly some others as well.' (p. 134). Velma Pollard, ('Innovation in Jamaican Creole. The speech of Rastafari') describes a speech variety that reflects the religious, social, cultural and philosophical positions of the movement named after Ras Tafari, the early title of Haile Selassie I of Ethiopia. The innovations are grammatical and lexical. With regard to Jamaican Creole pronouns, 'I and I and I replace the JC mi, ... while I and I and di I replace you and him.' (p. 158). Furthermore, the initial sound of any word may be replaced

by the sound of 'I': Imes = times, I-ceive = receive, I-hold = behold. Consequently, Rasta Talk has been called 'Iyaric,' or 'I-lect.' The author relates these changes to elements of Rastafarian philosophy. Other examples illustrating the formation of new words are: higherstand for understand, freenana for banana (indicating the abundance of this fruit in Jamaica), backative = stamina, strength.

There are three papers on morpho-syntax: 'The structure of tense and aspect in Barbadian English Creole' by John D. Roy; 'Notes on durative constructions in Jamaican and Guyanese Creole' by Salikoko S. Mufwene; and 'Evidence for an unsuspected habitual marker in Jamaican' by Pauline Christie. Roy demonstrates the basically creole structure of the rural Bajan, against the view that it is a regional non-standard variety of English. Mufwene maintains that the Jamaican and Guyanese progressive markers de/da and a most likely derive from English there and a- (the latter is a common colloquialism in the English-speaking world, e.g., 'she's a-comin'!). Mufwene seeks to show the weakness of Afrogenetic theory in trying to explain the origin of these preverbal markers, and also shows that historically, the progressive construction was essentially locative (cf. ashore, aside, aboard, abed). Pauline Christie cites examples where this same preverbal particle, a, marks habitual aspect, whereas previous analyses failed to uncover this use.

Useful background is provided by the first paper in the collection: 'The spread of English in the Caribbean area' by John Holm. Over three and a half centuries are covered, from 1600 to the present, and maps showing movements of English-speaking settlers from the seventeenth to the twentieth centuries are most helpful. There are many well known English-speaking territories in the Caribbean, but it is seldom realized that English-based creoles also exist in Suriname, eastern Nicaragua and Honduras (the Miskito Coast), the Dominican Republic (Samaná Peninsula), and the Bay Islands off the coast of Honduras: these are some of the fascinating facts brought to light in Holm's historical survey. Central America in fact figures prominently in John Lipski's article entitled 'English-Spanish contact in the United States and Central America: sociolinguistic mirror images?'. The mirror image in question can be 'seen' by citing one of the twenty examples Lipski so abundantly provides (pp. 199-202): in the English speech of speakers of Central American English, interference from Spanish is lexical and syntactic; in the English of Mexican Americans living in the southwest United States (California, Arizona, New Mexico, Texas) such interference is phonetic. Conversely, (here comes the mirror image), in the Spanish speech of Central American English speakers, interference from English is phonetic, but in the Spanish of Mexican American

speakers, it is lexical and to a lesser extent syntactic. Lipski contends that these different bilingual configurations should be taken into account in the design of research projects, and particularly when addressing questions of standardization and education policy.

These very questions are addressed by Hubert Devonish in a different context, that of former British colonies such as Jamaica, Grenada, and Guyana. His paper is entitled 'The decay of neocolonial official language policies. The case of the English-lexicon Creoles of the Commonwealth Caribbean.' This issue is far too complex to be summed up briefly. Suffice it to say that Devonish makes a very strong case for the elevation of Creole to the status of official language, with English being taught in the schools as a second language: this, he feels, is necessary for efficient communication between public officials and the masses, and for efficient education on a wide scale. He is supported by Marlis Hellinger who gives us a paper 'On writing English-related Creoles in the Caribbean.' Various writing systems are compared and evaluated, and Hellinger concludes that spelling should be related to the phonemic system, and compromises made so that the same orthography could be used for all English-related Caribbean creoles. The phonemic system used by Cassidy and Le Page in the Dictionary of Jamaican English serves as a model in this regard. Education, sociology and psychology figure in Dennis Craig's 'Social class and the use of language: A case study of Jamaican children.' In this study, Craig compares differing communication styles in low and high social-class groups, and finds that they are both equally effective.

A wide range of topics is covered in this collection. Much is quite specialized, but there is also material for the general reader interested in the affairs of the Caribbean, for example the historical survey by Holm, and the insight given by Devonish into the problems of the region. This is recommended reading for those interested in the varied development of the English language around the world.

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The Syntax of Serial Verbs: An Investigation into Serialisation in Sranan and other Languages (Creole Language Library, Vol. 2), Mark Sebba, Amsterdam: John Benjamins Publishing Co., 1987, relié carton, 227 pages, $32.00 U.S., ISBN 0-915027-95-X.

Grammatical Relations in a Radical Creole: Verb Complementation in Saramaccan (Creole Language Library, Vol. 3), Francis Byrne, Amsterdam: John Benjamins Publishing Co., 1987, relié carton, 293 pages, $38.00 U.S., ISBN 0-915027-96-8.

Après avoir publié en 1986 une première collection d'articles sur les créoles (P. Muysken et N. Smith (réd.), Substrata versus Universals in Creole Genesis: Papers from the Amsterdam Creole Workshop, 1985), la Creole Language Library, sous la direction de Pieter Muysken, nous propose ces deux études. La première, comme le titre l'indique, se veut une analyse des constructions dites 'sérielles,' portant surtout sur la nature des verbes sériels en sranan, langue créole parlée au Suriname. La deuxième étude, plus technique, est une analyse de certains aspects de la syntaxe, entre autres la syntaxe des verbes sériels, du saramaccan, langue créole également parlée au Suriname. Ces deux langues ont été relativement peu connues et étudiées jusqu'aujourd'hui et il est donc heureux que nous disposions maintenant de ces deux nouvelles analyses. Nous les discuterons brièvement tour à tour.

L'étude de Sebba, tel qu'indiqué, s'intéresse particulièrement à ce que la linguistique est venue à dénommer les verbes 'sériels.' Brièvement, il s'agit des phrases simples qui contiennent plusieurs verbes tensés mais un seul sujet et sans qu'il y ait coordination ou enchâssement. On retrouve ce type de construction dans de nombreuses langues, entre autres les langues de l'Afrique occidentale comme le yorouba, le nupe, les langues kru, etc., le chinois et le vietnamien et dans certains créoles de la zone américaine tels que le jamaïcain, le papiamentu, l'haïtien, etc.

Dans un premier chapitre, Sebba donne les différentes définitions qui ont été proposées pour cette construction et montre à quel point on a eu tendance à servir le terme 'construction sérielle' à de nombreuses sauces! Sebba essaiera donc de restreindre la construction sérielle à un ensemble de données particulier en établissant des critères clairs afin de distinguer les constructions sérielles d'autres constructions à verbes multiples, telles que les coordonnées et les enchâssées. Il essaiera finalement d'appliquer ces critères à différentes langues et de comparer entre

elles les constructions sérielles découvertes dans ces langues. Les critères que Sebba choisit sont que les verbes impliqués doivent être premièrement de vrais verbes, c'est-à-dire qu'ils doivent pouvoir exister indépendamment comme verbe unique dans une phrase; qu'ils doivent avoir le même temps/aspect; qu'ils n'ont qu'un sujet exprimé et que le sujet de V_i est également celui de V_{i+1} ou que le complément objet de V_i est le sujet sémantique de V_{i+1} et finalement, que les verbes en question doivent tous être dans la même phrase, donc qu'un des verbes n'est ni coordonné ni enchâssé à l'autre.

Au troisième chapitre, Sebba démontre qu'aucune analyse syntaxique (transformationnelle) ne peut rendre compte de manière satisfaisante du phénomène des constructions sérielles et que seule une analyse du type proposé par Gazdar et Pullum (1982) peut correctement répondre aux exigences de ces structurs. Sebba termine ce chapitre par une analyse sémantique de certaines prépositions selon une approche 'Model Theoretic' telle qu'utilisée par Creswell (1978) pour l'anglais.

Au Chapitre 4, l'auteur applique les critères développés précédemment à des constructions verbales souvent considérées comme étant sérielles dans un ensemble de langues afin de déterminer si, dans ces langues, on peut réellement parler de constructions sérielles et si oui, quelles seraient les ressemblances et les différences entre elles et les constructions sérielles du sranan. Il réussit à démontrer qu'en effet, les caractéristiques typiques des constructions sérielles en sranan existent également ailleurs et qu'aussi, les propriétés qui caractérisent les verbes sériels en sranan semblent exister de manière implicationnelle, c'est-à-dire que la présence d'une des propriétes implique nécessairement la présence d'autres propriétes et ce pour l'ensemble des langues étudiées.

Dans sa conclusion, Sebba démontre premièrement que certaines constructions sérielles ont subi une réanalyse interne, dans ce sens qu'un des verbes de la suite a été réanalysé, le plus souvent comme une préposition ou un complémenteur. Sebba s'adresse finalement à l'argument bien connu de Bickerton (1981) que les constructions sérielles feraient nécessairement partie de la syntaxe de toute langue à ses toutes premières étapes de développement, étape que la plupart des langues ont cependant réussi à dépasser. Pour ce dernier, les constructions sérielles seraient des conséquences du non-développement de prépositions et de flexions verbales. Sebba considère plutôt que les constructions sérielles sont les conséquences naturelles du fait que certains verbes sont restreints quant au nombre d'arguments qu'ils peuvent avoir. Par exemple, en ijo, langue africaine occidentale, un verbe ne peut

avoir plus de deux arguments. Donc un verbe équivalent à donner ou montrer ne pourrait exister puisque ces verbes exigent trois arguments. Pour compenser à cette lacune, un VP s'est développé à l'intérieur du VP, ce qui permet à un prédicat à trois arguments de s'exprimer syntaxiquement dans une structure ayant deux verbes et trois arguments nominaux au lieu d'un seul verbe et trois arguments nominaux. Les constructions sérielles sont donc, selon Sebba, des stratégies qui augmentent le nombre d'arguments permis.

L'étude de F. Byrne, une révision de sa thèse de doctorat, porte également sur les constructions sérielles et les compléments verbaux, mais tel qu'indiqué plus tôt, il s'agit du saramaccan, créole du Suriname. La thèse principale de Byrne est que les constructions sérielles et les compléments phrasiques sont identiques sur le plan syntaxique et que les constructions sérielles en samaraccan ont été générées spontanément et n'ont donc pas leur origine dans d'autres langues, telles les langues africaines de l'Ouest, comme le voudraient de nombreux substratomanes comme Alleyne.

Ce qui fait l'originalité de l'étude de Byrne est qu'elle est conçue dans le cadre théorique chomskien le plus récent, la théorie du gouvernement et du liage (Government-Binding theory). D'ailleurs, Byrne se sert des faits du saramaccan pour appuyer certains aspects théoriques de la position chomskienne tels que le principe de la sousjacence (subjacency), la nature cyclique de mouvement-QU (WH-movement) et la nécessité d'avoir des catégories vides.

Dans le premier chapitre, Byrne résume l'argument principal de sa thèse, à savoir, les constructions sérielles dans les langues africaines de l'Ouest (comme le kwa) peuvent être considérées comme des constructions verbales, dans ce sens que ce sont des VP dont seul le premier de la série est dominé par le noeud S, alors que pour le saramaccan, les constructions sérielles doivent être analysées comme des structures de phrases subordonnées, c'est-à-dire des structures S'-COMP. Donc, les constructions sérielles du saramaccan n'ont pas leur source dans les langues africaines mais ont été créées de façon spontanée. Byrne propose même que le saramaccan représente la forme la plus 'pure,' la plus 'profonde' d'un créole (ce qu'il appelle un créole radical), c'est-à-dire qu'il refléterait le plus parfaitement les structures et les catégories les plus essentielles de notre 'faculté de langage,' dans le sens du bioprogramme à la Bickerton (1981).

Dans le deuxième chapitre, Byrne présente une analyse démographique des débuts de la colonisation du Suriname, démontrant de façon convaincante qu'aucune langue africaine donnée n'aurait pu servir de substrat et que le développement du créole n'a pu

venir qu'à partir d'un pidgin déficient, appuyant ainsi la théorie bickertonienne qui veut que dans cette situation particulière, c'est notre bioprogramme, notre grammaire innée, qui déterminera en large part la structure du créole naissant.

Le troisième chapitre analyse les structurs interrogatives en saramaccan, particulièrement les constructions QU, ainsi que d'autres processus de déplacement, démontrant que pour chacun d'eux, il s'agit d'un déplacement cyclique de COMP à COMP, ce qui implique que lorsqu'il y a déplacement, c'est toujours à partir d'une phrase enchâssée vers une phrase matrice.

Le chapitre quatre reprend cet argument de façon plus particulière, invoquant surtout les restrictions théoriques sur le déplacement telles que proposées par la théorie du gouvernement et du liage.

Le chapitre cinq est une analyse des COMP en saramaccan. Byrne tente de démontrer que ceux-ci sont en fait des verbes qui ont été réanalysés et qu'à l'origine (i.e. au moment de la formation du créole), le saramaccan ne possédait pas la catégorie COMP.

Les deux prochains chapitres analysent de façon plus particulière les constructions sérielles en saramaccan et Byrne tente de démontrer que pour chacune des ces structurs, les propriétés syntaxiques manifestées portent à la conclusion qu'elles sont en fait des propositions enchâssées tensées et non des structures verbales (VP).

Au dernier chapitre, Byrne tire une série de conclusions. La première porte surtout sur les règles catégorielles requises pour le saramaccan d'aujourd'hui par rapport à celles que nécessite le saramaccan 'reconstruit,' indiquant que ce créole a subi une série de réanalyses internes, surtout des verbes, donnant lieu, par exemple, à des constructions modales et à la création de la catégorie COMP, et peut-être même celle de PREP. Une deuxième conclusion, très importante, est que les constructions sérielles sont un sous-produit automatique des processus de formation de ce type de créole puisque, au début, un verbe ne pouvait prendre qu'un seul cas; les constructions datives et bénéfactives nécessitaient donc un autre marqueur de cas (i.e., un autre verbe) afin de ne pas violer le filtre des cas. En gros donc, la seule stratégie disponible au saramaccan pour exprimer certaines relations grammaticales essentielles à toute langue naturelle était celle des constructions sérielles. Celles-ci seraient donc une conséquence naturelle du processus de créolisation radicale plutôt que due à l'influence d'une langue africaine quelconque. Cette position, qui rejoint d'ailleurs celle évoquée par Sebba, est renforcée par le fait que

les constructions sérielles du saramaccan diffèrent sensiblement de celles reconnues pour les langues africaines et d'autres créoles de l'Atlantique. Pour Byrne, la syntaxe du saramaccan reflèterait donc le plus parfaitement possible les aspects fondamentaux de la grammaire génétiquement transmise, la grammaire universelle.

Nous savons donc gré au rédacteur de cette nouvelle série sur les langues créoles de nous avoir offert ces deux études fort intéressantes et fort à propos. Neanmoins quelques améliorations seraient à être effectuées. Nous avons trouvé extrêmement désagréable le peu d'attention protée à la rédaction et à l'édition du texte de M. Sebba. Par exemple, les numéros des exemples cités dans le texte ne correspondent pas, la plupart du temps, aux numéros des phrases exemples. Ainsi la phrase citée (24b)a fait vraisemblablement référence à la phrase (25b) du texte, la référence (28b) renvoie plutôt à la phrase (33b), et ainsi de suite. Ce type d'ereur, fort agaçant, rend la lecture et surtout la compréhension de la discussion assez ardue. Alors que le texte de M. Sebba est accessible au lecteur non spécialisé, ceci n'est certainement pas le cas pour celui de F. Byrne qui exige de la part du lecteur une très bonne connaissance des développements récents en théorie GB.

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An Introduction to Language (4th edition), by Victoria Fromkin and Robert Rodman, New York: Holt, Rinehart and Winston, 1988, paper, xiv, 474 pages, $32.95 CDN, ISBN 0-03-006532-1.

1. This is the fourth edition of a hardy perennial which first appeared in 1974; subsequent editions followed in 1978 and 1983. An Introduction to Language evidently gathers little dust on the shelves of university bookstores across North America, and the new version continues to have the sort of appeal which has ensured past success in the marketplace.

As noted by almost all previous reviewers, Fromkin and Rodman's text scores high marks for clarity, readability and liveliness of style. Much of its attraction for students lies in its use of a variety of formats and typestyles. Offset matter, epigraphs, charts, diagrams and cartoons contribute to the impression that this medium is, if not positively 'hot', then definitely warm, and certainly of the present moment. The fourth edition takes the concern with layout one step further: margins are wider, several type size and style variations appear on nearly every page, and, most important, subheadings clearly indicate the internal organization of each section. The discussion headed **Linguistic Knowledge**, for example, in the first chapter of the third edition, occupies six and one-half unbroken pages of text, while in the new edition the same stretch is separated by four subheadings. The difference is visually striking, and aptly illustrates the publisher's counterpart to the culinary principle that a meal is more appealing when presented as a series of small, attractive helpings instead of a heaped plate.

There is other evidence of updating as well. The references cited at the end of each chapter have been augmented by 19 new titles dated 1983 or after, some new cartoons and epigraphs appear while others have been excised, and the chapter organization has been altered. The syntax section is now sandwiched between morphology and semantics, as in most similar texts; the chapter on writing now follows the one on language change; and there is an entirely new chapter which takes up the theme of language processing developed in the first edition of the book but abandoned in the second and third editions.

But an instructor's decision on adopting this text for an introductory course will depend less on these mainly cosmetic considerations and more on changes and improvements in substance. This review therefore will concentrate on the new elements of this

upgrade, and try to determine whether the authors have responded to comments made on their text in earlier assessments and upheld their claim to have substantially revised the book, especially in those core areas of linguistic concern which they label the **Grammatical Aspects of Language**. And in view of the recent appearance of O'Grady and Dobrovolsky's Contemporary Linguistic Analysis, produced at the University of Calgary and targeted at the same market, I shall also make comparisons between the two texts where the two approaches diverge.

2. The phonetics chapter may be the one which has benefitted the most from attention to clarity through layout. Boxed summaries, diagrams and charts abound, and, in response to observations made in previous reviews (Horrocks 1979:385, Whitley 1978:68, Embleton 1985:84-89), correspondences between IPA symbols and those traditionally used by US linguists have been provided. Useful résumés of diacritics and additional symbols follow their discussion in the text, and there are new examples of vowel and consonant length. In keeping with a general pattern throughout the book, the exercises have been renumbered; otherwise, they are virtually the same as in the third edition.

In their preface, Fromkin and Rodman point out that one of their substantial revisions to the book is a discussion of syllable and metrical structures in phonology. What this involves in fact is a single new paragraph on syllable structure (p.85), a slightly recast section on tone in which tones are represented on a separate tier, and a diagram of primary and secondary stress patterns in noun-verb pairs such as subject - subject which uses a sigma-notation to represent the syllables in question. Apart from this acknowledging nod in the direction recent developments in phonology, no changes have been made to incorporate these revisions into the formulation of their phonological rules. This is in sharp contrast to the corresponding section in the text by O'Grady and Dobrovolsky, for example, who introduce these notions and then proceed to use them in the operation of their rules.

Fromkin and Rodman's phonological rules are unchanged from edition three, but the phenomena they account for (assimilation, dissimilation, addition, deletion and metathesis) are now presented after instructions on formalization have been given. The result is less backtracking through the text to link up rules with the data which motivate them. Students are provided with more opportunities for practice in rule writing, and 'slip of the tongue' errors as evidence for the regularity of phonological processes are skillfully blended into this chapter.

The morphology chapter is virtually unchanged, the one exception being a new example from Russian illustrating the liberating effect on word order of a rich nominal case system. This will hardly satisfy those like Horrocks (1979:385) who thought that the treatment of inflectional morphology in earlier editions was weak: a very brief discussion of cases in Finnish and Russian and of one tense change in French will continue to send instructors to other sources for more comprehensive illustrations of these non-marginal phenomena.

It is the syntax section which has undergone the most extensive revision. There is a much more explicit discussion of the elements used in tree diagrams; the Phrase Structure Rules have been enriched by the use of bar-notation, with COMP, N', S'and AUX joining the set of symbols expanded by the rules; and the place of the Lexicon within the overall organization of the grammar is clearly set out. Once the arsenal of formal apparatus is in place, however, the presentation stalls.

Previous editions used extensive discussion to motivate three transformations, involving movement of WH-words, Negatives and Particles. Even these were insufficient, however, in Whitley's (1979:68) view, to justify the Deep Structure - Surface Structure distinction. But instead of tackling the issue head-on, Fromkin and Rodman have now decided to avoid the it altogether. In its place we find the versatile Move-Alpha, presented as a sort of metaphor for relating pairs of sentences identical except for the fact that their AUX and WH elements occupy different positions. Two brief paragraphs alluding to universal conditions on representations are then offered; these are meant to reassure those concerned by the "word hash" resulting from the untrammelled operation of a rule empowered to move anything anywhere. The words "subjacency" and "recoverability" are brandished, and then a warning is posted that these matters are just too incredibly complex to be dealt with in an introductory text.

Those students who are tantalized by this peek into the circuitry of grammar are advised to look to the cited references for more information. I suspect, though, that these will be in the minority; the rest will simply remain puzzled about where such a system might lead, and without an opportunity to see how things might operate in practice through step-by-step derivations, will leave this chapter with an impression that syntax is all very vague and wooly. Fromkin and Rodman's approach to syntax is thus very different from that of O'Grady and Dobrovolsky. The latter believe in letting students get their hands dirty, leading them through derivations in a variety of languages so that they get a feel for the way the details work out. This is a more useful approach, in my opinion, than sketching the outlines of a grand overview.

The core area of semantics has not changed substantially in content or approach, although there have been some additions. A half-page of text each and two new exercises have been devoted to meaning postulates and thematic relations, and Grice's maxims introduce a reorganized section on discourse analysis. (The absence of such a section was one of the main complaints of Frazer's (1984:448) rather bilious review.) The overall impression left by this chapter is that it is comprehensive and very approachable, and more suitable as an introduction than the more sketchy and structure-oriented outline in the O'Grady and Dobrovolsky text.

3. Treatment of areas of concern for the student not committed to the study of core linguistics have also undergone certain modifications. The discussion of animal communication has been reduced by half, with the section called **Chimps and Language** reassigned to the chapter on language acquisition. The chapter entitled **Brain, Mind and Language** contains more examples of aphasic speech than its earlier counterpart. Diagrams of the brain are less anatomically realistic, but contain more information. And there is an interesting account of recently applied techniques of emission tomography which provide evidence for the modularity of brain activity underlying distinct cognitive systems.

The chapter on **Language Acquisition** has been expanded by roughly three pages, and contains new examples and classifications of errors which throw light on the process of rule acquisition. Evidence of early acquisition of syntactic categories and relations, rather than solely semantic ones, is also provided, as well as an expanded consideration of second language learning.

Language Processing: Human and Machine is the title of the concluding chapter: most of its contents are new. Along with the section on acoustic phonetics imported from the phonetics chapter of the third edition, there are discussions of the techniques of psycholinguistic research which provide evidence for a model of speech production, computer processing of language, machine translation, speech synthesis and recognition, parsing and artificial intelligence. The authors succeed admirably here in introducing potentially bemusing material with great clarity.

4. Instructors of Linguistics 101 who have already considered and rejected An Introduction to Language are unlikely to be persuaded to adopt the fourth edition, despite the changes mentioned above. Nothing of real substance has been added to the core chapters, and where changes have been made, they have not always been well integrated into existing material. And with its largely expository presentation, this text will still not appeal to those who prefer

students to be involved with methods of argumentation, justification and hypothesis-testing. This niche in the marketplace is still probably best filled by Akmajian, Demers and Harnish's Linguistics: An Introduction.

Those considering adopting an expository text for an introductory course would do well to short-list Fromkin and Rodman's book, especially if the course is aimed mainly at generalist students. Its breezy style and wealth of data, useful summaries, exercises and index, discussion-provoking cartoons and eye-catching layout all make for definite reader appeal.

I would also suggest that O'Grady and Dobrovolsky's text be included on that list, for reasons that are more than nationalistic. It too is attractively packaged, provides summaries, notes, extensive discussions of sources and copious sets of exercises at the end of every chapter, and positively overflows with non-English data. (The core chapters of Fromkin and Rodman's text refer to 34 languages other than English; O'Grady and Dobrovolsky's refer to 45, and elsewhere there is no contest: their chapters on **The Classification of Languages** and **Amerindian Languages of North America** would tax the capacities of a good-sized database management system.) It is also much more contemporary: as this is its first edition, it shows no sign of attempts to patch the new in with the less-new, which is occasionally obvious in An Introduction to Language.

The choice will in the end depend on the judgement of instructors; they will no doubt take into account the needs of their students, and assess whether cartoons and apt quotations from Alice in Wonderland are more worthwhile than discussions of Cree and Newfoundland English.

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Semantics of the English Subjunctive, by Francis James, Vancouver: UBC Press, 1986, cloth, vi, 186 pages, $15.00 CDN, $12.00 US, ISBN 0-7748-0255-3.

The basic premise of this book is an interesting one: that the difference of meaning between indicative and subjunctive, in English and elsewhere, lies in a simple binary contrast between verb forms that are a "blueprint" for action and those that are a "sketch" of action (photograph would have been a better term). The blueprint precedes the building of a house, whereas the sketch or photograph is made of the house after it is finished; the blueprint is a BEFORE, the sketch an AFTER.

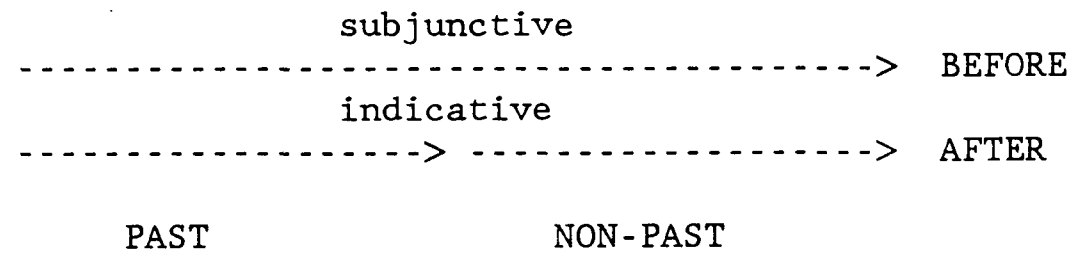
Such a proposal is praiseworthy for several reasons: (1) it challenges the separation of syntax and semantics and the treatment of grammar as meaningless; (2) in proposing a single underlying meaning for the subjunctive the author is recognising the necessity of such a principle unless linguistic meaning is to be atomistic and incoherent, as phonology would be if there were only allophones and no phonemes; (3) grammatical meaning is often a matter of simple binary contrast (e.g. singular vs. plural), and BEFORE/AFTER covers the elusive subjunctive/indicative distinction:

1. They believe that it is so. (AFTER the event)
2. They require that it be so. (BEFORE the event)

There are two further important theoretical principles that must be mentioned at this point, both of which are enunciated by Jakobson (1936): (1) every underlying element must, by its nature, be different from all the surface elements that it determines, in the same way that a protolanguage must be different from all its daughter languages; (2) any underlying entity is necessarily part of a system; it is the restraints set up by the contrasts in the system that will justify and determine the surface data and usage. The high front vowel of a three vowel system, for example, will cover a wide range of allophones, a range which is determined by the contrasts with the range of the other two vowels. In a three vowel system all vowel sounds will fall into three different areas which are entirely determined by the contrasts (+front, -low), (-front, -low), (+low). A high front vowel in such a system would not be /i/ (which is really only one of the allophones) but (+front, -low), which is a position in a system.

A subtle problem exists therefore for the underlying status of the author's BEFORE/AFTER contrast. A subjunctive is a blueprint for an event, whereas an indicative is a record of an event; but there are no events in the underlying system, so that this kind of contrast cannot be an underlying contrast. It would appear, in fact, that this BEFORE/AFTER- the-event contrast is a major alloseme or surface meaning, a Hauptbedeutung in Jakobson's terms. The problem is not serious, however, because it is possible to find a very simple and elegant BEFORE/AFTER systemic contrast that is only removed from James' proposal by one step. The clue to this further step is the fact that the subjunctive is not governed by the sequence of tenses, whereas the indicative normally is, as James, following Hirtle (1964) points out (pp. 2-3).

Since the so-called present subjunctive is in fact tenseless, occurring freely after both past and non-past tenses, we may conclude that the subjunctive represents indeterminate time that is neither past nor present. Such indeterminate time is necessarily a representation of time BEFORE the past/non-past contrast is introduced, whereas the two-tense system of the indicative is the result of introducing this contrast: the indicative is therefore the representation that is achieved AFTER the introduction of the contrast between memorial and non-memorial (i.e., experiential and non-experiential) time:



(Here the terms BEFORE and AFTER represent positions in the underlying system). Such a system would present us with a subjunctive that is capable of being a blueprint, and an indicative that is capable of being a record: an event represented by a subjunctive can occur anywhere - it is a potential event, whereas an event represented by an indicative belongs to time that is represented as experiential, past or non-past.

Such a solution also helps us with another problem that is both theoretical and practical: the status of the so-called past subjunctive, which the system I have sketched above does not allow for. The text, after an introduction, concentrates the next two chapters on the present subjunctive and the past subjunctive, leaving Chapters Four for the modals and Chapter Five for the general question of subjunctives in human languages. In Chapter Four the whole question of whether there is, in fact, a past subjunctive in

Modern English is discussed, and the conclusion drawn that there is not. It would have been preferable to have had this question discussed before Chapter Three, Semantics of the Past Subjunctive, during which I personally spent much time complaining that there is no semantic, morphological or syntactic evidence for any such category in Modern English. I am aware, of course, that there is one solitary morphological form, were with a singular subject; but was can always replace it, except in the inversion were I, were he, which to me is a frozen archaism of the type Would I were. Apart from these "quaint" forms, there is no past subjunctive, there is only the use of past indicative in its counterfactual sense:

3. If I knew I would tell you.

which is parallelled by indicatives in other languages, as in the French equivalent:

4. Si je savais, je vous le dirais.

Immediately after restricting the Modern English subjunctive to the so-called present, the author writes (p.126.): "...we may find it unrealistic to claim the existence of the present subjunctive as well." This comment, occurring as it does towards the end of the book, illustrates how the argument wanders around and is not properly signposted: we are never quite sure where it is going next. What we need is a clear discussion of these issues at the beginning of the book, and then a clear plan of campaign, so that we can follow and understand what the author is doing as he does it.

We should congratulate the author for having the sense to interweave the historical dimension with his synchronic analysis. This makes it possible to show how the modals have tended to replace the subjunctive, undoubtedly because the subjunctive is not distinctive enough and the modals carry "more specific or more accurate" information (p. 100). The comparison could be made with the prepositional phrase, and the way that it has replaced bare cases in many IE languages.

One useful concept for dealing with certain historical shifts is that of the NORM, first introduced by Hjelmslev (1942), which is the way that a given system is exploited. It is possible for the norm to change, such as the subjunctive after verbs of hoping and believing, and also (as in modern German) after saying and asking (p. 30), without change in the system itself. Old English, just like modern German, could have a subjunctive in clauses that represent assertions, which is no longer the norm in modern English:

5. Er sagt, dass es wahr sei.
   He says, that it be true.

In such cases the systemic element, the subjunctive, is not substantially different: what has changed is the norm, the way of exploiting the system.

Let me at this point indulge in a few minor cavils of personal preference. (1) I find the terms practical (=BEFORE) and theoretical (=AFTER) quite inappropriate, in spite of their etymological justification. A report of an empirical observation, for example, would have to be classified as "theoretical", a quite inappropriate usage. (2) I found the formalization of sentences used throughout the book an annoying distraction. Such formalization has little to recommend it - it is basically an elaboration of the obvious- and many inadequacies: it distorts, oversimplifies, explains nothing, and puts language in a straightjacket. For example, when the author formalizes the verb insist as REQUIRING A HUMAN SUBJECT, what are we to make of "... the deep lane insists on the direction into the village" from T.S. Eliot's East Coker? (After writing this I heard a native speaker complain of a word-processor "It insists on placing hyphens where I don't want them"). Why do linguists waste time making formalizations that are manifestly inadequate? Language is far too supple, and subtle, to fit a Procrustean bed. (3) It is a shock to find the expression "semantically empty" used of the grammatical auxiliaries do, be, and have (p:106). There is no question that the meaning of these auxiliaries is extensively dematerialized, but if they were "dummies", we could not have a meaningful contrast in the following minimal pair

6. The missionary had eaten that morning.
7. The missionary was eaten that morning.

Chapter Four, which is mostly about the modal auxiliaries, I found to be the most interesting; this chapter could probably prompt a long review article, so much did it set me thinking. Modality is the representation of possibility, of the necessary conditions for the realisation of an event, or the necessary result of such an event, and may be achieved through (a) verbal moods (e.g. subjunctive), (b) verbal lexicon (e.g. modal auxiliaries), (c) other grammatical items (e.g. conjunctions such as if), or (d) other lexical items (perhaps, possible, maybe, ever). The author, in wondering why the were form may be used with as if but not with like (p. 108),

8. He's behaving as if/like he was sick.
9. He's behaving as if/*like he were sick.

has not realized that it is the occurrence of _if_ that allows us to use the modal variant _were_. Conjunctions such as _if_ are just as important as representations of modality as is a modal or a subjunctive, as Gustave Guillaume has shown us (1929:49-50) with conjoined French conditional clauses of the type

10. Si vous arrivez et que je ne sois pas là
    If you arrive and I am not there

where the modality is marked in the first clause by _si_, and the second clause, because _si_ is not used, requires a subjunctive.

There are many interesting insights on the modal auxiliaries themselves. _Should_, for example, is no longer the past of _shall_, indicating that the whole question of the system of the modals needs to be rethought. Perhaps, now that _shall_ seems to be disappearing, at least in some dialects, _should_ will become, like _must_ and _ought_, a relic of an ancient past form whose present has been lost. And with the loss of the past subjunctive, perhaps the past of the modals has been automatically recategorized, as James suggests (p. 113).

In conclusion, there are many provocative initiatives in this book that will interest the reader. We should also give a bouquet to the University of British Columbia Press for producing a quality book - I found only one trivial misprint (_may_ for _my_, p. 145) - and a handsome cloth bound volume for only $15, a price which allows us to own the book! (In a recent letter an American colleague told me that he would like to have sent me a copy of his book, but at 225 DM he could not afford it himself!). Whatever their secret, the UBC Press cannot fail to succeed with a product of this quality and price.

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Leçons de linguistique de Gustave Guillaume, publiées sous la direction de Roch Valin, Walter Hirtle et André Joly, Québec: Presses de l'Université Laval & Lille: Presses Universitaires. Vol.6, Grammaire particulière du français et grammaire générale, 1985, paper, 332 pages, $24.00 CDN, ISBN 2-7637-7055-X; Vol. 7, Esquisse d'une grammaire descriptive de la langue française, 1986, paper, 358 pages, $25.00 CDN, ISBN 2-7637-7113-0; and Vol. 8, Grammaire particulière du français et grammaire générale, 1987, paper, 375 pages, $29.00 CDN, ISBN 2-7637-7128-9.

These are the sixth, seventh and eighth volumes of the texts of Gustave Guillaume's lectures given between 1938 and 1960 at the Ecole des Hautes Etudes in Paris, now appearing at a regular, even accelerated rate. Vols. 6 and 7 are lectures given in 1945-46 (at one point he mentions 'the Occupation,' which brings the period into perspective), and Vol. 8 is from 1947-8.

These texts are of particular interest to anyone who teaches French or who has an interest in French linguistics: Vol. 7, for example deals with the French verbal system. At several points Guillaume contrasts the architecture of the verbal systems of the Romance languages, which commonly have a framework of five tenses in the indicative, with that of the verbal systems to be found in Germanic languages, which have a framework of two tenses. His purpose is to show us that such systems are what Hjelmslev called content systems, systems of meanings, where each element takes its meaning from its position in the system.

This aspect of language has been sadly neglected, partly for lack of an established methodology, partly for lack of convincing analyses, partly because some 20th century linguists have assumed, in spite of extensive evidence to the contrary, that all grammar is syntax, and syntax is meaningless - the syntax vs. semantics shibboleth, which stems from the old behaviourist doctrine that 'structure' is to be treated independently of meaning. Guillaume clarifies many of these issues, making explicit the notion of linguistic system (1985:51ff), and distinguishing between system and use-of-system, that is between langue and norme (1986:112), borrowing the latter term from Hjelmslev's seminal article 'Langue and parole' (1942).

We may illustrate this by saying that if both British and Americans share the knife and fork as a common 'system,' the British

norm of usage at the dinner table differs from the American. And likewise the British contrast of have you/ do you have is unknown in American English, although both groups share the same verbal system. As Guillaume points out, the Norm is a question of 'la capacité permissive du système' - the exploitation, in different ways, of what the system allows. Understanding the functioning of language requires, therefore, a threefold discrimination between tongue (langue), norm (norme), and discourse (discours = Saussurian parole). The simple mechanical systems belong to tongue, their traditonal exploitation creates a norm, and discourse is what is said or written by using a tongue and following a norm.

Whether Guillaume's analyses of the French verb are convincing or not I leave to the reader. I was fortunate to have been taught by Guillaume's principal disciple, Roch Valin, and to have had the privilege of arguing out in the classroom what puzzled me. What I found convincing I have subsequently taught to students of French, often to be confronted with the comment 'This is so simple and clear, why wasn't it taught to us like this in the first case?' What I found less than convincing, I have often subsequently worked on profitably because the trail-blazing had been done. What I found unconvincing, and it amounts to a small percentage, I still reject, and for the same reasons. The last two lessons of Vol. 7., for example, present us with an analysis of French verb morphology that uses abstract underlying forms: my objection to abstract underlying forms, and their inherent confusions, are on record (Hewson 1971). Curious, that Guillaume, an unabashedly 'God's truth' linguist when he discusses content, should resort to 'hocus pocus' when he comes to discuss morphology. Whereas, in fact, his 'God's truth' analyses of the content side of language are totally convincing to undergraduate students, the 'hocus pocus' analyses of the expression side of language are unconvincing even to dedicated Guillaumians.

If the coherence of Vol. 7 lies in its concentration on the French verbal system, Vols. 6 and 8 must be seen as quite different. Vol. 6 is Guillaume's lectures for his 'beginners,' whereas in Vol. 8 he deals, as he says in the final sentence of the volume, 'un peu témérairement de sujets qui étaient encore pour moi des sujets d'étude.'

Vol. 6 begins with a thumbnail sketch of the recent history of linguistics in which Guillaume relates his own position to that of Saussure and of such post-Saussurians as Meillet ('mon maître Meillet'), Hjelmslev, and Trubetzkoy. The rest of the volume deals with what Guillaume considers to be the fundamentals of linguistics: the distinction between (a) tongue, the underlying level (he uses the sousjacent/surface distinction as early as his

1929 book Temps et Verbe) and (b) discourse, the surface level. Every linguist, according to Guillaume, must alternate between being a linguiste de langue and a linguiste de discours. As a linguiste de langue Guillaume describes and compares the underlying content system of number (singular/plural) with that of the articles (indefinite/definite); he illustrates the surface usage of these systems by quotations taken from sources as diverse as Aucassin et Nicolette and La Tribune de Genève.

Vol. 8 continues the same fundamental method, but at a level of sometimes striking profundity. He is not afraid to raise the question of linguistic universals (the time is 1947-48!), and discusses at length the nature of the personal pronouns, and how far they might represent universal categories of language. He discusses languages that normally omit pronominal reference (Chinese, Korean); this happens in English when we say 'Bought it yesterday,' allowing the context of situation to complete the subject, which will be first person for an affirmation, second person for a question. He also discusses the difference between those languages that express person through verbal inflections (Italian, Russian), and those that require separate pronominal subjects (French, English).

There is, of course, no one system of personal pronouns that is universal. What is universal, however, as Guillaume carefully points out (p.188), is the distinction between what is immanent to the linguistic system, and what transcends it: third person is always immanent to the system; first and second, however, because they are the two poles between which the act of language takes place, are established outside the system, and change with every change of speaker. They are necessarily deictic elements, in a way that third person is not. It is not surprising that in child language third person is a very early development, with the child using third person for self reference; use of first and second person pronouns is a reasonably late development.

The editors have continued with their policy of giving us an exact transcription of Guillaume's manuscript notes, marking clearly the rare instances where they have corrected or emended the original. Such lecture notes are, of course, a mixed bag. Some are wordy and repetitious; these the discriminating reader quickly scans, and passes on. Others have such food for reflection that they can only be read slowly, and indeed it is profitable to reread them. The typescript is easily readable, and the errors very few indeed. The editors have also developed in the more recent volumes an extensive Table analytique, where each lesson is reviewed in a couple of pages; the review in Vol. 8 covers pages 257 to 313, for example, and is followed by an extremely useful and extensive

index which runs from page 315 to page 375 - altogether more than a hundred pages of reference material.

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