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FOREWORD

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articles in the current issue does not preclude their publication in al-
tered form elsewhere.

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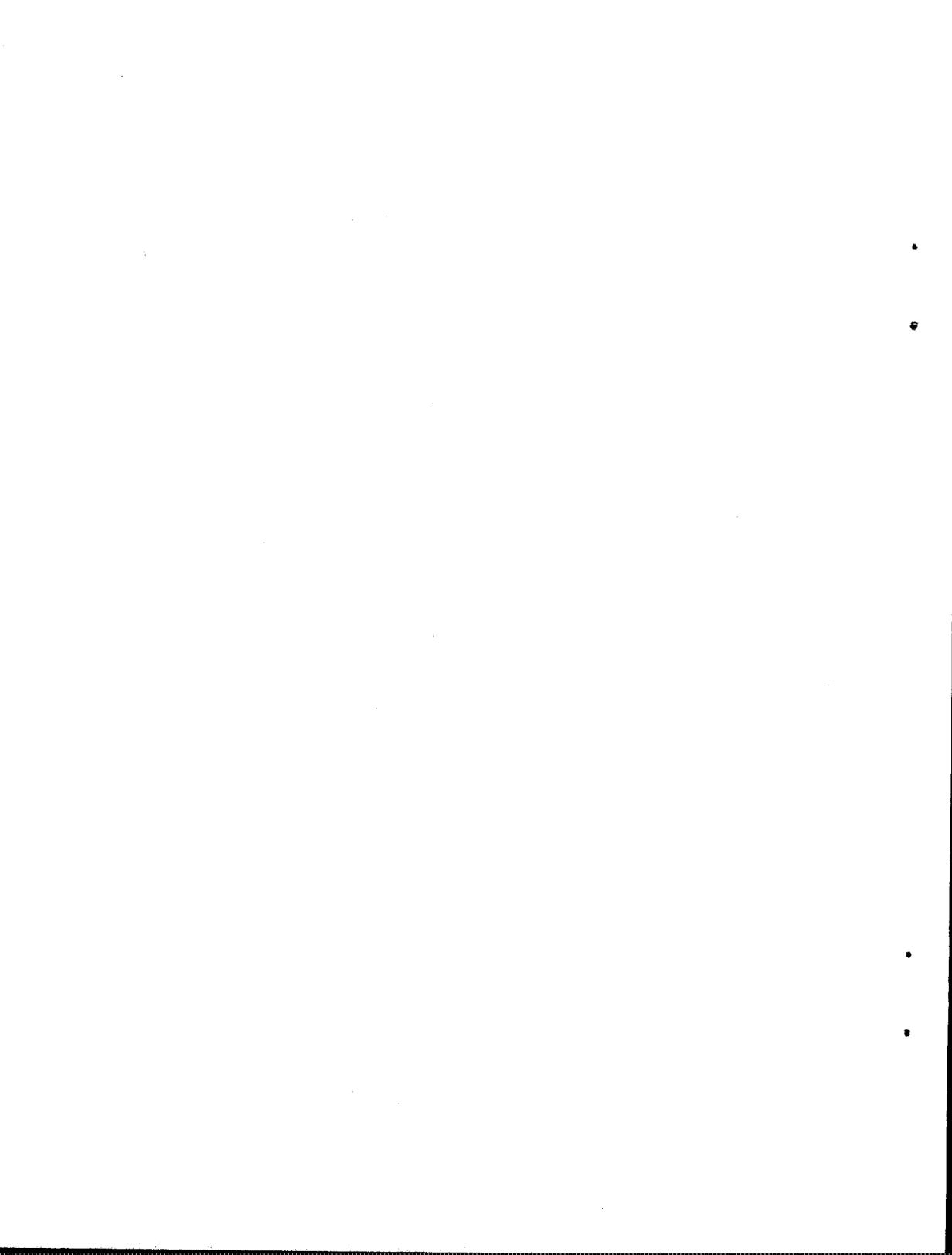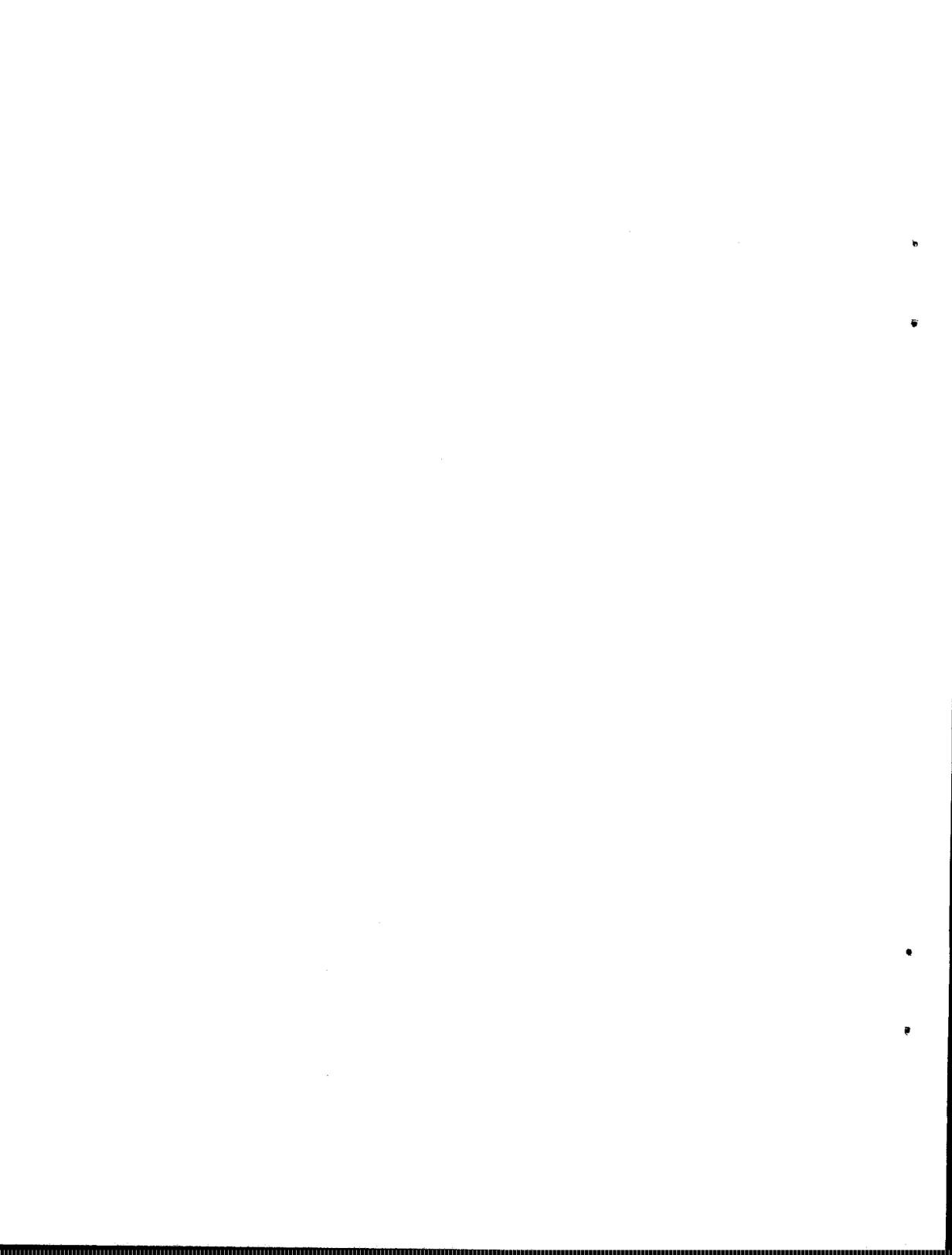provided by the Students' Union at The University of Calgary.

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Basic Spelling Competence in Adults

William D. O'Grady
Diana E. Gibbons

There is virtually complete agreement among competent researchers that the development of linguistic knowledge in human beings is dependent upon the complex interplay of two factors: the learner's inborn capacities and the linguistic environment. Because it is not possible to directly observe the nature of the learner's mental capacities, there has been a great deal of controversy over the exact role that they play in the language acquisition process. Forced as we are to make complicated inferences about the type of language acquisition mechanisms that a child needs for success in the linguistic environment, there will probably always remain serious disagreements over the precise contribution which properties of human nature make to the acquisition of language.

While spelling behaviour is obviously shaped in part by experience and instruction, there is every reason to believe that it is also the product of some very special cognitive abilities. Writing and spelling are characteristically human activities and actually constitute a relatively recent achievement in the history of mankind. A speaking animal for 100,000 years (by even conservative estimates), man's alphabetic activity dates back no more than 3,000 years. Given its relatively recent appearance and its specifically human character, it is hard not to believe that writing activity is integrally dependent upon the existence of some fairly sophisticated set of cognitive capacities that allow human beings to assign a consistent and unitary graphic representation to an infinitely variable stream of auditory signals. Like language acquisition, then, the learning of a system of graphic representation (an orthography) would seem to be dependent on an interplay between some very specific, highly developed mental capacities and some appropriate type of experience with a writing system. Unlike the study of first and second language acquisition, however, it is possible to characterize the precise nature of the contribution which properties of the mind make to the development of graphic skills -- thanks to the existence of a remarkable phenomenon which manifests itself in the pre-school years.

One of the most fascinating aspects of a young child's pre-literate graphic competence is his ability to make use of his knowledge of letter names to write the words of his language (Read 1973, Chomsky 1976). While only a minority of pre-literate children seem to develop their own system of invented spelling, there are, as we shall soon see, remarkable uniformities in the way in which these children use the 26 letter names to represent the 40 or so phonemes of English.

The significance of pre-literate writing for a theory of graphic competence should be obvious. Because pre-school writers spontaneously develop a spelling system without any experience with conventional orthography, their writing constitutes a fairly direct manifestation of those

mental abilities that must have allowed man to develop alphabetic systems of graphic representation for language in the first place. In fact, one might say that pre-literate spelling provides a window that allows us to look into the mind and to assess the contribution that the child's inborn cognitive capacities make to his ability to acquire an orthography.

An examination of the pre-literate writing activity of young children (as documented in Read 1973 and Chomsky 1976) reveals a system of graphic representation that differs from conventional English orthography in a number of remarkable ways. Young pre-literate writers, for example, apparently do not assign any special status to phonemic segments in their writing system. As a result, it is not unusual to find VC or CV sequences as well as diphthongal elements represented by a single graphic symbol (see item 4a in the Appendix). The tendency for pre-literate children to develop the type of 'letter name spelling strategy' exemplified here strongly suggests that the establishment of a one-to-one relationship between graphic symbols and individual phonemic units is not assigned any special priority by the basic cognitive component of graphic competence.

A second important characteristic of pre-literate spelling is the practice of assigning the same graphic symbol to phonemic segments that are phonetically related to each other. We thus find the child using the same symbol for homorganic affricates and fricatives and the same letter for tense-lax vowel pairs with the same approximate place of articulation (see Appendix, 4b and 4c). The sophisticated use of letter names just exemplified suggests that the child has a very precise understanding of the phonetic relationships among the phonemic segments of his language and that he is able to exploit this knowledge to increase the representational range of his spelling system.

A third interesting property of the spelling activity of pre-school children is an apparent nonchalant disregard for the readability of what is written. The orthography, while providing a rudimentary record of the phonetic properties of linguistic form, is typically uni-directional in that spellings can generally not be reliably decoded (see Appendix 4d). Interestingly, the children do not seem to be concerned by the illegibility of their spellings and they typically have no interest in reading what they have written down.

It is important to realize, of course, that the spelling behaviour just described is almost certainly shaped in part by the letter names found in the English alphabet. It is improbable, for example, that a child would use H to represent both /č/ and /š/ (as in Appendix 4a and 4b) if there were a letter with the name 'esh' in the English alphabet. It is likewise also unlikely that the child would use the letter A to represent both /e/ and /ɛ/ if there were a symbol with the name 'eh' in the English alphabet. These facts not-withstanding, pre-literate spelling activity still provides fairly direct insights into the nature of human graphic competence. Not only does the child develop the graphic conventions exemplified above in a completely spontaneous fashion, the ease with which he adapts to the limitations imposed by the system of English letter names

strongly suggests that there is no conflict between his performance and the special mental abilities that make alphabetic systems of graphic representation possible in the first place.

If the cognitive capacities that underly graphic competence somehow required the development of a spelling system that established biunique relationships between sounds and letters, one would expect pre-literate spellers to either set aside their attempts at graphic representation and wait (as most children do) for instruction in conventional orthography or to develop a system of diacritic marks, double letters and invented symbols to supplement the letter names of the English alphabet. The fact that pre-literate spellers reject both of these options and press ahead with the orthography characterized earlier strongly suggests a basic compatibility between the properties of this writing system and the cognitive foundations of graphic competence. Our original position on the importance of pre-literate spelling for a theory of graphic competence is thus confirmed and we can now proceed to examine the nature of spelling ability in adults.

In an attempt to determine whether or not invented spelling activity will provide access to the cognitive foundations of graphic competence in adults, we designed the experiment detailed below.

The Study

Design. We devised a mini-alphabet comprising eight alien symbols, each with a corresponding letter name (Appendix 1). Twenty adults, all unilingual English speakers with no training whatsoever in linguistics, were taught this alphabet in the belief that it was used to represent an actual foreign language although in reality all the sounds employed could have been drawn from an English inventory. The teaching and testing procedures were conducted over three consecutive days.

Day one was devoted to teaching the alphabet by means of flash cards, repetition and writing of the symbols. The subjects learned very quickly and were asked to continue their learning at home using any means, visual, auditory or kinaesthetic, with the proviso that they could not write anything in any alphabet other than the one being taught.

The first writing session on Day Two was preceded by a review to determine that all subjects were able to recite, recall, recognize, identify and write the complete alphabet. The subjects were then instructed to write ten consecutive nonsense words that were presented to them orally (Appendix 2).

On the third and final day there was a brief review, again to ensure mastery. The subjects were then presented with 15 consecutive nonsense words, six of which appeared in the set from the previous day.

The nonsense words were structured in such a way that our subjects were faced with a task which we feel closely approximates the dilemma of

the pre-school invented speller. That is, the words contained more phon-
emes than there were symbols (13 versus 8), there were no letter names
consisting solely of a lax vowel, stop, fricative or affricate although
the words demanded that each of these types of sounds be represented by
the symbols available. At no time was information regarding possible
sound/symbol correspondences given to the subjects. Like the children,
they literally had to invent their own spelling system. The question is:
Can they still do it, or has their graphic competence decayed?

Results. An examination of the ways in which the adults repre-
sented the 25 nonsense words indicates a remarkable reliance on the same
types of strategies employed by the pre-school invented speller. It is
of interest then to compare the adults' performance to some of the par-
ticular strategies and distinguishing characteristics of the young pre-
literate writer.

Letter Name Strategy (LNS)

Although four different syllable structures were presented to the
subjects (CV, VC, GV, VG), a LNS was employed in a highly significant
(81.5%) number of cases where it was possible (Appendix, 3a). Even in
cases where the subjects had a choice either to represent each and every
sound within a word with a symbol or use a LNS (e.g. /yum/ could be
represented with three symbols or the letter name /yu/ plus an additional
symbol), they preferred to use the letter name to represent the first two
sounds in that word.

Representation of a Fricative with a Homorganic Affricate

When asked to represent the fricative /š/, our subjects felt more
compelled to use the symbol Л (/č/) which has the same place of articu-
lation rather than use the symbol Ф (/sa/) whose letter name contains a
fricative (Appendix, 3b). Like the children then, place of articulation
was an important criterion for establishing the correspondence between
the sound and the symbol.

Representation of Lax Vowels

Our adult subjects exhibited the same ability to exploit the re-
lationship between phonetically similar sounds that was observed in the
children's spelling discussed in the first part of this presentation.
This was demonstrated by the tendency of our adult subjects to use the
diphthongal letter name Д (/ʌw/) to represent the lax vowel /ʌ/ (Appendix,
3c). Another manifestation of this phenomenon is seen in the represen-
tation of /a/ with Д (/ʌw/). It is not really surprising that Д (/ʌw/)
should be used to represent both /a/ and /ʌ/. These two vowels are phon-
etically very close. Indeed the children were found to represent two
such phonetically similar vowels with only one symbol.

On the basis of these findings one would expect perhaps the adult
subjects to represent /a/ with the letter Г (/aj/) as the children do but

in fact this happened in only 8% of cases. Why should it be that the adults were unable in this case to use their proven ability to exploit phonetic relationships? It may well be due to the fact that the diphthong /aj/ functions as a single unit in adult English. If this was the reason, it was the only time a difference in the invented orthography of adults and children could possibly be attributed to linguistic development.

Irrecoverability

As we have mentioned previously, many words written by the pre-literate speller are not readily decodable (Appendix, 4c). This was also observed in the adults' writing. As was mentioned before the vowels in words such as /bʌč/ and /bač/ were often represented by the same subject with one symbol, Д (/ʌw/). This makes neither of these two words recoverable with any accuracy. A post-test did establish however that these words were perceived as being distinct from each other.

Inconsistencies exhibited in the children's writing also play a part in preventing the words from being easily recoverable. Likewise the adults' representations contained many inconsistencies. For example, in the spelling of the word /čʌb/, eleven of the twenty subjects used a different symbol for the vowel on each of the two writing sessions. All subjects seemed however quite unperturbed by the irrecoverability of their writings. At no time did any of them display the need to expand the system by the use of diacritics or any other means. They seemed, like children, to accept the system as being absolutely capable of handling their representational needs.

Interference from English Orthography

There is no possibility that the child is subject to interference from another orthography whereas this is a factor that could influence the adults' performance and therefore warrants some inspection.

Although the evidence for influence from English orthography is actually quite scant we should mention two instances where interference may have been a factor. In the two words which contained the sound /š/, /šajm/ and /ušmu/ (Appendix, 2), that sound was represented by the two symbols Φ Л (always in that order) in 17 of the 40 examples we have. It is possible that some subjects may have used two symbols knowing that in English /š/ is represented by the digraph composed of symbols S and H. We do know however that not all of the adults in question were subject to such interference as some said that they felt /š/ was closer to the letter name /če/ and that they added the second symbol /sa/ to 'soften' the sound. The other subjects were unable to say why they had used the two symbols. It is difficult then to determine exactly the amount of interference present.

The other example of interference we noted was in the representation of the sound /ʌ/ as in the word /čʌb/. The vowel in this word is represented in the English orthography by the letter U. You will remember that in our

alphabet we also had a letter with the name /yu/. If interference was a major determining factor in the spellings, certainly it would have surfaced here. In fact of the 120 examples we have of words containing the sound /ʌ/ only 28 have the vowel represented with the symbol called /yu/. Clearly then, although some transfer was evident it was very weak.

Discussion

From the data just presented, it seems safe to conclude that the basic graphic competence underlying early spelling activity in children remains essentially unchanged in adults. As the invented spellings of the adults indicate, mature and experienced writers -- like pre-school children -- are capable of spontaneously developing an orthography which provides a rudimentary representation of the phonetic properties of speech but which does not seek to establish a rigorous system of sound-letter correspondences. The finding that graphic competence is apparently not subject to change over time is quite remarkable in light of the fact that related language learning abilities do seem to undergo some modification during childhood and adolescence with the result that the adult's capacity for second language acquisition seems to differ in significant ways from that of the child. Moreover, it is also worth noting that the spontaneous development of a system of 'creative orthography' is, unlike the process of second language acquisition in adults, remarkably free from the influence of the patterns of the native language system.

The purpose of this paper has been to compare the basic graphic competence of pre-literate children and adults and the principal finding has been that the cognitive foundations of writing ability remain essentially unchanged, manifesting themselves in pretty much the same way in the spelling activity of both adults and children. What are the implications of this finding for the ESL teacher? While research with speakers of non-alphabetic languages is necessary to fully substantiate this claim, it would seem that the basic cognitive abilities that underly mastery of alphabetic systems of writing remain essentially unchanged and undiminished in the adult. Moreover, the writer's access to these abilities seems remarkably unfettered by interference from the spelling patterns of his native language. We know, then, that if we give the average adult a set of alphabetic symbols and letter names, he is perfectly capable of devising his own system of graphic representation for a second language. While the adult's invented orthography will almost certainly differ from the conventional spelling system in a number of ways, it will provide a systematic representation of the phonetic structure of the second language -- as he perceives it. It seems to us that in order to fully exploit the adult's spelling ability, he should in fact be encouraged to begin writing in the second language with an orthography which he develops himself. A comparable type of program has been successfully implemented for the first language in elementary school settings (Beers and Henderson 1977; Chomsky 1976) and, given the stability of graphic competence, there is no reason to believe that it would not be appropriate for older students as well. The teacher's role in a spelling program that fully exploits the student's basic graphic competence is two-fold:

1) First, the teacher must ensure that the student's knowledge of the phonology of the second language continues to develop so that he can draw upon his basic graphic competence to work out an accurate graphic representation of the basic phonemic contrasts of the second language. In attempting to achieve this objective, the teacher can use the student's spelling to gain insights into his understanding of the phonetic structure of the second language. Just as a study of the spelling activity of a pre-literate child provides important clues about the way he perceives the sounds of his own language (Read 1973), so the creative orthography that the second language learner is capable of developing will reflect his perception of the sound structure of the language he is attempting to learn.

2) Second, the teacher must undertake the task of guiding the transition from the adult's invented orthography to the conventional spelling system of the language he is learning. This will involve re-cognizing the fact that the orthography which the adult's special cog-nitive abilities allow him to spontaneously develop will differ in impor-tant ways from the conventional alphabetic orthography of the language he is learning and that there could well be an optimal sequence for the introduction of the standard orthographic conventions of the second lan-guage. There is evidence from the study of spelling ability in children that the transition to standard orthography takes place in an orderly developmental sequence (Beers and Henderson 1977; Paul 1976) and it seems reasonable to believe that future research will identify a compar-able phenomenon in adults. Instead of bombarding the second language learner with dozens of the spelling rules of English, then, we suggest that he be allowed and encouraged to make use of his basic graphic competence to develop his own 'natural' orthography and that his invented system be gradually modified, in accordance with a pre-determined optimal sequence, until the transition to conventional spelling is complete.

To conclude, we have suggested that adults, like children, have the ability to spontaneously develop an orthography for a language that they are in the process of acquiring and that this orthography should be seen as a desirable first step in the development of a conventional spell-ing system. It is our belief that this developmental sequence can and should be exploited by the ESL teacher and that the first step in the learning of a new orthographic system should be the spontaneous develop-ment of a system of invented spelling. We expect future research to pro-vide further insights into the nature of graphic competence and the ways in which it can be exploited to facilitate the development of second language spelling skills.

Appendix

1. Symbols and Letter Names

Б	/yu/	Ф	/sa/
Л	/če/	Ж	/ma/
Г	/aj/	Д	/ʌw/
Ю	/ub/	И	/ri/

2. First Writing Sessions

1. /sʌw/ 2. /yum/ 3. /sum/ 4. /čʌb/ 5. /ras/ 6. /bʌč/ 7. /sajb/
8. /čab/ 9. /ʌsub/ 10. /sar/

Second Writing Sessions

1. /mub/ 2. /suč/ 3. /sʌwč/ 4. /bʌč/ 5. /šajm/ 6. /rus/ 7. /ras/
8. /čab/ 9. /ʌsub/ 10. /ušmu/ 11. /sar/ 12. /yam/ 13. /yumb/
14. /risaj/ 15. /čʌb/

3. Examples of Spelling Strategies

a. Letter Name

Total times used: 81.5%

e.g. ФИ – /sar/; ЖЮ – /mub/; ФДЛ /sʌwč/; БЖЮ – /y̲umb/

b. Segmentation of Affricate -- Representation of š

/šajm/, /ušmu/ – Л (32.5%) or Ф (22.5%) or ФЛ (45%)

c. Representation of Lax Vowels (in words where letter name strategy
was not possible)

e.g. /čʌ̲b/ – Д (/ʌw/) 47.5%; Б (/yu/) 20%
/ča̲b/ – Д (/ʌw/) 54%

4. Examples of Pre-Literate Spelling (Read 1971, Chomsky 1975 & 1976)

a. The use of a single letter to represent VC or CV sequences as well
as diphthongal elements

R̲ –are; U̲ – you; NHR – nature; BCAZ – because; MA̲D – made; LA̲DE –
lady; NI̲T – night; BO̲T – boat; HO̲L – hole

b. The use of a letter name containing an affricate to represent a
homorganic fricative

HE̲ – she; FEHIG – fishing; KRAFIH̲ – crayfish

c. The use of diphthongal letter names to represent lax vowels with the
same place of articulation

E (iy) for I̲: FE̲S – fish; FLE̲PR – flipper

A (ey) for ε: LA̲FFT – left; FA̲LL – fell

I (aj) for a: GI̲T – got; CLI̲K – clock; DI̲KTR – doctor

O (ow) for ɔ: P͟OS - paws; W͟OTR - water

U (juw) for U: T͟UK - took; L͟UKS - looks

d. 'Unidirectionality' - spellings cannot be readily decoded

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CAT   spells both cat  and can't
BAT   spells both bait and bet
BET   spells both beat and bit
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The Semantics of "Tu" and "Vous"
Diachronic and Synchronic Considerations

Patricia A. Duff

1. Introduction

One of the functions of language is to reveal the role relations
that exist between speakers. Roles are perceived by individuals, then
evaluated in order that information provided by speech acts may be appro-
priately interpreted by speakers. Part of each speaker's communicative
competence is a sophisticated set of rules, ·specific to one's cultural
membership, which determine one's verbal behaviour. It has
been observed by various linguists that social structure and grammatical
patterns are profoundly linked. With regard to personal pronouns in par-
ticular, Friedrich (1963) claims that second person pronouns link abstract
properties of a basic grammatical paradigm to a second matrix of cultural-
ly specific components of major emotional and social significance. Obli-
gatory address forms are part of a speaker's communicative competence
which fuse grammar and social categories in a very interesting way.[1]

It is the aim of this paper to investigate one particular set of
direct address pronouns, the 'tu' and 'vous' forms in French. The first
section will focus on their birth and evolution from Latin to French, and
on the kinds of meaning they have conveyed from a diachronic perspective.
The second section will treat recent studies in this realm of 'T/V' usage,
comparing current address norms in France, Quebec, and Alberta. Finally,
certain general trends will be summarized and evaluated.

2. The Historical Usage of 'tu' (T) and 'vous' (V).

The development of two pronouns of address in Europe for the second
person reference evolves from the Latin forms 'tu' and 'vos'. Brown and
Gilman (1960) describe in some detail how the two personal pronouns have
changed in their semantic content over the centuries. Originally T re-
ferred exclusively to the second person singular, and V to the second
person plural. About the fourth century B.C., however, this usage was
modified when a second Roman emperor came to power: while one ruled the
west, from Rome, the other's domain covered the east, from Constantinople.
This situation is believed to have launched Diocletian's reform, whereby
an address to one ruler implicitly included his distant counterpart. For
this reason, the plural pronoun was logically employed. As it came to
assume the semantic connotation of power as well as plurality, V gradu-
ally seeped into the overall social fiber, through the veins of .the ex-
isting social hierarchy. According to Brown and Gilman, the use of T and
V was by no means uniform within any of the European language groups until
the twelfth to fourteenth centuries A.D., by which time a standard set of
rules had been established. Individuals who were superior to others in
terms of physical strength, socio-economic status, profession, and so on,
gave T to their inferiors and were in turn given V. In a family, children
were called T, though their parents were accorded V, the so-called V of
'reverence'. This power semantic is non-reciprocal or asymmetrical, since
the actual pronoun chosen between speaker and addressee depends upon the

objective relation between the two. Between equals, the choice would be reciprocal; between employer and employee, on the other hand, it would be non-reciprocal. In Medieval Europe, members of the upper class exchanged V with one another, whereas lower class equals exchanged T. The reciprocal V was thought to be elegant, and was adopted by the nobility, well-bred lovers, and by parents and their grown children.

Gradually, reciprocal V came to represent a formal or distant rapport among speakers, T a more intimate one. Brown and Gilman's (ibid.) 'solidarity semantic', which calls for reciprocal or symmetrical pronouns of address because speakers consider themselves or their social roles to be relatively equal, has in the past two centuries become more widely favoured, as political ideologies have stressed equality and brotherhood, and have purposed to collapse great social distance and injustice. Mutual V was considered appropriate between strangers, irrespective of their social status, and at the same time, the scope of mutual T usage was extended. Among fellow students, employees, athletes and youth, for example, this marked the solidarity established by their common membership.

The pronouns of address have in this historical overview shown a correspondence, both social and psychological, to the backgrounds of speakers. Even members of the same social class might use pronouns differently. That is, depending on their political orientation, whether radical or relatively conservative, speakers may choose to change or maintain existing norms for the system of address forms. The pronouns of address are, therefore, reflections or expressions of transient attitudes,[2] to be interpreted by interlocutors. It is interesting to note that the present use of pronouns of address in Europe in general favours the establishment and manifestation of solidarity among individuals, and consequently, it is T, the more 'familiar' personal pronoun, that is becoming more popular and more widely used across the various countries, within the family, at work, at school, and so on.

When we map the usage of T and V in French onto the general European picture just presented, certain patterns which exemplify their historical development will be examined. For the reader with an understanding of the semantics currently associated with T and V, it might seem odd that in Old French speakers could whimsically substitute T for V, and vice versa, when addressing the same individual, even to the point of choosing the alternate form within a single sentence. Whereas today, for example, such shifts might accompany some emotional shift, like a temper tantrum or a moment of unusual tenderness, in the twelfth and thirteenth centuries in France,

> tout le monde, ou à peu près, s'y tutoie, ce
> qui est admissible, vu les personnages, mais
> tout le monde s'y dit vous également, ce qui
> est déjà plus curieux. (Foulet 1963:199)

Even less consistent is the mixture of second person singular pronouns with second person plural verbs, or vice versa, which Foulet (ibid.) illustrates by the following exerpt from a play entitled *Courtois d'Arras*, in which a father is speaking to his son:

Beau fils, *taizez-vous, mangez* du pain et des pois,
et *envoie* promener tes folles imaginations.[3]
(Courtois d'Arras 11.49-51)

Maley (1972:995-1005) concentrates on the usage of T and V through Middle and Modern French. She notes that in the sixteenth century, scholars were seeking to transform French into a literary language. Pasquier, she cites, explains that it is normal to address a single man with V, "spécialement quand il est de quelque qualité", since the established norm was to give V to nobles, and to receive T; thus V had been the designated form of address to superiors (Maley 1972:999). T was addressed asymmetrically to inferiors, and symmetrically to close friends of the same social class. In poetry, however, T was often given to a king, prince, or lord, and V was given to equals or to 'people of quality', and the latter was even given to an inferior from time to time, to show respect.

It is said that in the seventeenth century there was a crystallization of the norms of address, from which current pronominal usage is derived. The pronoun of politeness was clearly V, and that form was most often used in literature.[4] Even if a master verbally addressed his valet with T, this would necessarily appear as V in written form (Antoine de l'Estang, 1669:57, cited in Maley, ibid:1000).

In speech, T was exchanged between equals as a sign of either 'amitié' or 'mépris', between common people, or when addressing oneself. It was given to individuals who were very inferior, which included members of other racial groups (Maley, ibid:1002).[5] The polite form was so common that in his letters to family and friends, Racine gave V, and elsewhere,

à Port-Royal, les enfants eux-mêmes ne se tutoient pas.
C'est là toutefois une mode distinguée; dans le peuple à
l'armée, le tutoiement reste courant. (Brunot and Bruneau,
1969:232)

The French Revolution had a profound impact on various levels of the late eighteenth century status quo, and accordingly, at that time there was a movement toward the symmetrical usage of T and V. Brown and Gilman (1960) report that with the concept of 'fraternité', there was a shift from the formal V to a mutual 'citoyen' T. The upper class favoured V nonetheless, and equated the T with the 'sans culottes' of the Revolution. Meanwhile, the 'Committee for Public Safety condemned the use of *vous* as a remnant of feudalism and ordered everyone to use reciprocal *tu* on all occasions (1793)' (Maley, 1972:1002). Within a decade of the great upheaval, the V and pre-Revolutionary pronoun usage which depended upon the social status, absolute and relative, of speakers was restored.

By the middle of the nineteenth century, pronouns between parents and children were still non-reciprocal (although domestic help was accorded V), but by the end of the century, T was finally given to parents 'sous la poussée démocratique' (Maley, ibid:1003). Thereafter, T was more a unifier than a discriminator. In the first part of this century, T was employed with either those who were very inferior, or with very familiar addressees. In literature, it also served to honour gods and

princes. Mutual T was maintained in most families (excluding the aristo-
cracy), between children, young students, soldiers, siblings, and between
husband and wife. Mutual V, on the other hand, was employed by fiancés, a
master and servant, a servant and child, in-laws, university students, and
so on. It was also appropriate when addressing members of the opposite
sex. In general, the degree of intimacy achieved by individuals was an
underlying factor for the choice of either mutual T or mutual V.

Following World War II, the T of familiarity expanded, especially
among people of the same age group, fellow employees, sportsmen, and vari-
ous club members. In the French army V emerged, while in the Communist
Party T was necessary. A recent development, occurring in 1967, was a
decree by the Roman Catholic church in France that God was no longer to
be addressed as V, as had been the case since the eighteenth century;
rather, T was to be adopted in all prayers and ritual ceremonies   (Maley,
ibid:1006).

3. The current usage of 'tu' (T) and 'vous' (V)

France

J. Ford (1974) reviews the work of Brown and Gilman (1960), with
particular interest in the application of the system of direct address
pronouns to current tendencies in France. He specifies that T marks simi-
lar identity, and V marks reverence for power superiors. Because one does
not always realize the status of individuals when first meeting them, Ford
claims that a mutual V is often employed to avoid potential embarrassment
at a later date. V represents good breeding, and implicitly creates a kind
of barrier between interlocutors. This is because V as a concept comprises
two notions or 'semantic fields' (Ford, ibid:1143). There is a 'power sem-
antic', by means of which V stands for respect and/or reverence, and there
is a 'distance semantic', which assumes the three features of formality,
distance, and disdain. Distance is identified as a constant feature of V
(ibid: 1144-1145).

The concept of T, on the other hand, comprises three notions: cam-
eraderie, intimacy, and condescension. In the family, for example, both
within and across generational lines there is a predominating 'solidarity
semantic' at work, which interprets the degree of intimacy present into
the pronoun T. Ford cites an exception to this generalization; it seems
that General DeGaulle addressed his wife and son as V, which might be ex-
plained by the General's lengthy military training where the V of respect
predominates (ibid: 1146). In other cases, some aunts and uncles might be
called V if they are seldom seen, thus hardly known by their relatives.

In May, 1968, the French address dynamic was upset by a 'tutoiement
sauvage' (Bustin-Lekeu 1973:774), similar to the revolution of nearly two
centuries prior. Ford remarks on the closeness of the linguistic tie to
the social-political situation; for example, when the pervading norms came
under tension and attack, especially in student quarters in Paris, the
usage of T and V was challenged. Normally, the shift from V to T procedes
as follows.

For V/V the situation may drop reverence and respect

> to end up a distance-formality relation. A V/V can
> become a T/V relation by gradually dropping V notions
> and adding either cameraderie and/or intimacy, or
> condescension changing into disdain. The outcomes
> are two different T/T. The first involves reciprocal
> cameraderie or intimacy (or a mixture of both); the
> second is mutual disdain   (Ford, 1974:1148).

This process was catalyzed in 1968, such that V was stripped of its power, and T took control with power. Thereafter in the French student milieu, speakers would readily 'tutoient' at their first meeting, and this was the T of acceptance. Taking into consideration the variables of age and sex, often if these differed between students, there would not be the spontaneous shift to mutual T until they got to know each other better. Since 1968, according to G. Donovan (The University of Calgary; personal communication), it is common for university students in the same academic department to exchange the reciprocal T, and this has generalized so that T is usually given to any other student. It should be mentioned that students in the faculties of law, medicine and pharmacy take exception to this observation; as they are quite probably from backgrounds where V was frequently used as a mark of social distinction, they tend to maintain a reciprocal V usage even with classmates and some friends.[6] Professors who exchanged V with their colleagues just fifteen years ago, now too have adopted the solidary T in many areas; the same is true of high school staff. One significant condition is that the verbal encounters be between two men or between two women, because the V of distance and often respect is preserved between the sexes. In Ford's observations, students who receive T from their professors admire the concern and interest that is offered to them, and they sense that these are 'real flesh and blood' people who are teaching them   (Ford, 1974:1154). Overall, Ford sees a tendency toward the T of solidarity, something Friedrich (1972) has referred to as an 'esprit de corps', which is an extension of the kinship bond.

Donovan (personal communication) summarizes the rather complex system of direct address pronouns currently in use in France as follows.

Within the basic fabric of each social class there is certain linguistic behaviour which can be expected of speakers according to their age. For example, older people retain the traditional, polite *vous*, whereas their middle-aged counterparts, who value equality with others moreso than they value class distinctions, adopt a more impersonal form. Young people, on the other hand, reject what subservience they observe in their parents' speech and thus opt for a more humanized, personal *tu*.

F. Bustin-Lekeu (1973:774) captures the basics of the semantic content of the forms T and V in the following excerpt:

> Le système binaire d'autrefois, fondé sur la relation
> d'autorité et de pouvoir (power structure), demeure
> sous-jacent à un autre système plus complexe -- le
> nôtre -- où le sentiment d'une certaine solidarité
> entre les locuteurs entre en ligne de compte pour dé-
> terminer si l'on usera de la forme polie (signe d'une
> réverence réelle ou neutralisante, en quelque sorte,

> lorsqu'il n'y a ni véritablement solidarité ni autorité
> en jeu) ou bien de la forme familière qui, elle, sera
> toujours chargée de signification. ,

Interested in what she termed 'a polarization toward a liberating
T', Bustin-Lekeu (1973) conducted a study entitled 'Toutoiement et Vou-
voiement Chez les Lycéens Français', where she examined the T/V usage
of thirty-six Grade 10 students in an urban district in the Midi of France.
This sample of fourteen to sixteen year olds included twenty-two girls,
fourteen boys. The questionnaires she distributed had three parts: (1)
pronouns used within the family; (2) pronouns used at school; (3) students'
response to the problem of direct address pronouns. A summary of the re-
sults from Bustin-Lekeu (ibid.:773 - 782)   follows. Percentages are
rounded here to the nearest whole number.

(1) a. There is reciprocal T between parents, children, and grand-
       parents.
    b. Generally aunts and uncles send and receive T; 3 informants
       indicate V/T; 6 say it depends.
    c. For adult cousins, male and female, pronoun choice depends
       on distance, age, usage imposed by parents; 7 informants
       favour T. (The use of V within the family originates with
       the upper middle class; i.e., students whose fathers are
       doctors, engineers, professors.)

(2) A a. Asked how they would respond to a new student, 81% give T.
      b. Asked how they would respond to V from the new student,
         almost half the informants would 'react', while more then
         half would 'tolerate'. Of the first group, most would
         demand an explanation or laugh; of the second group, most
         would decide that the V was his business, or would consider
         the V 'cold'.
      c. Meeting an unknown student, in the corridor, 64% of the
         boys would give T (age is an important factor); 59% of the
         girls would give T (age and sex are the most important
         factors). *Immediate, reciprocal T is not (yet) universal
         there.
    B a. According to the school administration, students are to be
         given V by teachers.
      b. Teachers' usage according to subject:
         Phys. Ed. 81% informants claim to receive T.
         Maths/Sciences 61% informants claim to receive T.
         Letters 58% informants claim to receive T.
      c. Teachers' usage according to age:
         Old   42% informants claim to receive T.
         Middle 70% informants claim to receive T.
         Young 57% informants claim to receive T.
      d. What would motivate the teacher's shift from V to T?
         (36% say mid-term shift was highly unlikely)
         1. sympathetic teachers -- 40% informants claim this would
                                     cause change.
         2. common involvement in extra-curricular activity -- 33%

           3. with time -- 21%
           4. academic performance -- of no significance.
        e. Regarding the importance of T:
           2/3 informants say it is significant/desirable (most say
           it shows that the teacher is equal and thus wants to
           reduce social distance; others say teacher confides in
           students, is 'nice', or is simply interested in them).
           14% (all boys) say insignificant.
           Others: 4 girls say it depends mostly on particular
           speaker; 1 boy says even T does not necessarily eliminate
           distance.
      C a. 62% informants occasionally give T to teacher (but not
           systematically).
           38% informants never give T to teacher.
           (Some boys spontaneously volunteer T to nice teachers;
           for a girl, however, 'il est probable que ce serait dés-
           agreable de tutoyer un professeur'.)
  (3) a. Although they do not really like the pronominal distinction,
        they would not go so far as to T everyone ('la violence
        verbale').
      b. 70% informants would prefer reciprocal T in certain cases.
        52% say this is not possible because of age differences.
        (Not even 1/3 would dare take the initiative.)
      c. T from adults does not disturb informants; 78% wouldn't want
        V from family, teachers, friends.
      d. RECIPROCITY is the problem with using T and V:
        64% say the pronouns should always be used reciprocally.
        (71% boys vs. 59% girls; also, boys suggest universal T.)
      e. Asymmetrical usage (V/T) is disappearing in the following
        pairs:
        1. daughter-in-law/mother-in-law,
        2. workman/engineer,
        3. maid/young boss.
      f. If a pronoun were to disappear, which would you prefer to
        see go?
        75% informants would prefer V to go.

In concluding her study, Bustin-Lekeu relates that it is not the
system which bothers students, but the workings of the system; "it is so
complex that dismissing or maintaining social barriers is almost oppres-
sive" (ibid.: 782). In all, there are mixed feelings regarding either
the acceptance or the changing of the present system of direct address
pronoun usage.

Quebec

      The old, traditional form (of direct address in France) was
      the *vous* to your parents, and that only very slowly broke
      down, and it did not break down until after the people had
      immigrated to Canada ... Now in Canada, for many, many people,
      as soon as they meet each other, they tend to go to the *tu*.

> But there are 'hold-overs' -- pockets of people and their
> families -- who hold over the older usage. (Donovan, personal
> communication)

The trends toward symmetrical pronoun usage and a widening use of
T have already received much attention. It is nonetheless noteworthy that
substantial pockets where the traditional address system has been preserved
may be found in various regions in the Province of Quebec, mostly rural,
and elsewhere the T/V usage may correlate predictably with speakers' socio-
economic background. Some of the studies by Wallace Lambert which pertain
to this area of enquiry will be described below, and the conclusions drawn
from his findings will also be reported.

A pilot study by Lambert (1963) focused on the use of T and V as
forms of address in French Canada. One hundred thirty-six French-Canadian
boys, sixteen to nineteen years old, who were attending a CEGEP in Quebec
City, were asked to fill out questionnaires regarding their own T/V usage.
They were also asked to describe their father's occupation, which helped
classify them into one of three social classes: (1) Professional; (2)
White collar; (3) Blue collar.

Most of the boys revealed that they give V and receive T when speak-
ing with their grandparents; from their parents, most boys would receive T,
half giving V in response, the other half giving T. Thus, regarding the
students and their grandparents, aunts and uncles, there was generally far
more non-reciprocal usage than students with their parents. Either it was
a matter of grandparents seeking 'respect for elders', or it was the boys
marking the social distance separating them from their grandparents. It
was Lambert's prediction that knowledge of the boys' social class member-
ship might help determine which pronoun would be given to parents. Ques-
tions raised considered the following possible explanations: Is middle/
upper class usage more traditional so the V of formality, or perhaps re-
spect, is accorded? Does V mark social distance, and thus prevent intimacy?

The results of his study confirm the existence of a strong relation-
ship between socio-economic status and the forms of address used. Those
families higher up the socio-economic ladder show greater tendencies of re-
ciprocal T between parents and children, whereas their lower class counter-
parts tend to use T/V non-reciprocally.

Lambert encouraged further investigation into the pronouns generally
used by French-Canadians, and he suggested that variables including age,
sex, and social class of informants be considered.

One social-psychological aspect that Lambert considers is the con-
flict faced by young lower class children who must learn to use different
linguistic forms than their parents, whose example of language use they are
expected to acquire and follow. That is, parents will usually address each
other and their children, close friends and siblings with T, but children
must learn in appropriate cases, that they, unlike their parents, must
address the parent, aunt or uncle with V.

Lambert's college-aged informants feel comfortable with reciprocal
T between friends of either sex. With teachers, priests, and strangers,
reciprocal V is most appropriate because it is a marker of social distance.

Since the variable of social status is included, Lambert claims that the rule system in French Canada is more complex than the one in France, which relies primarily upon the degree of familiarity which has been established between interlocutors.

In a study Lambert conducted a few years later (in Lambert, 1969: 86ff.), fifteen hundred French speaking students in Alma and Montreal, Quebec, filled out detailed questionnaires. Informants were from Grades 3, 5, 7, 9, and 11, and came from various schools in each city. Thirty-four possible instances of social interaction were examined, and informants were asked which pronouns would be given and received by them in each case. Family interaction was of chief interest, especially the use of pronouns between close family members versus similar behaviour with distant family members. Later the chi-square statistic correlated linguistic use and age, sex, or social setting.

As in Lambert's pilot study, where middle and upper class children directed a reciprocal T toward their parents, social class was again a very significant factor in determining the pronoun usage in similar relations in subsequent analyses.

Age

The relation between social class and the selected pronoun was greater with elementary school children than with high school students. Chi-square values ranged from 60-70, to 14 respectively. That is, about 60% of the informants used reciprocal pronouns with both parents; 40% used non-reciprocal pronouns. From a sample of Montreal students originally from France (and upper class backgrounds), 90% claimed to use reciprocal T with their parents.

Rural/Urban Differences

The results from Alma, Quebec differ from those from Montreal and Quebec City; the rural nature of the Alma area seems to reduce the importance of socio-economic status, at least as far as pronouns are concerned. Students there all received T from their parents, of course, but they seemed to be almost equally divided when addressing their parents, some using T, and others V.

In the country it is found that more non-reciprocal exchanges take place than in the urban centres. In this vein, Lambert cites examples of rural girls with their grandparents, aunts, and uncles, and rural boys with their aunts and godparents.[7] Reciprocal usage is still greater, however, between rural children and their cousins and brothers-in-law, than for urban children.

With extended family members, social class plays a more significant role for rural, but not urban speakers. Generally, for both rural and urban, 80% would give their grandparents, aunts, uncles, and godparents V, and receive T in turn.

If one were to ask whether the solidarity semantic has replaced the non-reciprocal one, it would be fairly certain that it has not. In fact, over 40% of the informants sampled here reported non-reciprocal address

forms with their own parents; so, in much general family interaction, the
majority of direct address pronouns exchanged would be non-reciprocal.
The element of socio-economic status is important insofar as urban centres
show a gradual movement toward reciprocal T (between parents and children)
in direct relationship to movement up rungs of the socio-economic ladder.
Again, rural social norms seem to operate with their rules for pronoun
selection, without needing to include details of one's social class back-
ground.

        An interesting point which Lambert briefly discusses is his conclu-
sion from preliminary testing that family ties where T/V is prevalent are
as strong and close as relationships defined by T/T.

        Secondly, his treatment of children's evaluative reactions to T and
V in family discussions has opened up another door to studies of the seman-
tics of T and V. Briefly, when eleven year olds were played recordings of
simulated parent-child interactions characterized by T/T in one case, and
T/V in the other, the children judged that families whose pronoun usage was
reciprocal were more respectable, with better family spirit, and were more
progressive or more modern; moreover, the son using V in the conversations
would have a greater chance of receiving the dog he requested in the dis-
cussion   (Lambert 1969:90).

Alberta

        The last section of this paper deals with the French that is spoken
in the province of Alberta. Again the focus of attention is the T and V
usage, and like Lambert's study, the intrafamily norms are the primary
scope of our own investigation.

Method

        The author chose to sample three French speech communities in Al-
berta, which, by means of their differing geographical locations and social
characteristics might provide an interesting picture of pronoun patterns
in this province. St. Paul was selected from several potential sites for
this survey, to represent the northeast of Alberta; next, a district in
Edmonton, in which a French college, high school, parish, and convent are
located; and finally, members of a local French church in Calgary consti-
tuted the third sample. Questionnaires (after Lambert, 1963) written in
French were distributed personally in each of the above communities. In-
formants were asked primarily to specify the form of address, either 'tu'
or 'vous', they usually gave to each of twelve listed individuals, and how
they in turn were normally addressed by each person. Their interlocutors
were the following: (1) mother; (2) parent(s); (3) grandparents; (4)
uncles and aunts; (5) brothers and sisters; (6) male friends; (7) female
friends; (8) teachers; (9) priests; (10) nuns; (11) older people; and (12)
strangers. In addition to their actual pronoun usage, informants were
asked to specify the following: (1) sex; (2) age category; (3) mother
tongue; (4) birthplace; (5) region from which their grandparents came;
(6) father's occupation; (7) informant's occupation. The questionnaire
was just one page in length, and was by no means complete, but was adequate
for the purpose of this study.   Basically, it follows
Lambert's Pilot Study described already, save a few additions. The cate-
gory (2), parent(s), was intentionally included in both questionnaires,

and occasionally it is found that an informant would address his/her mother with a different pronoun than with his/her 'parent' (father?). It was not the interest of this analysis to yield statistical correlations, yet these might be very significant in further work in this topic area.

St. Paul

St. Paul is a town of about four thousand inhabitants, situated to the northeast of Edmonton. Although French speakers may have been in the majority just a few decades ago, today there are almost three equal minority groups -- native Indian, Ukrainian, and French, whose common denominators might be the English language they have adopted and their common lifestyle in a fairly isolated farming community. Once-French schools, churches, and businesses have been anglicized, although some families continue to communicate in their native languages when at home. Children of even second generation St. Paul natives receive French at home, but usually respond in English. The preceding details might help explain why it was rather difficult to locate a sample of 'franco-Albertans'.

Five men and five women were asked to fill out the questionnaire; their average age would be close to forty years. (Refer to Appendix I.) All had grown up in the town speaking French; their grandparents came mostly from Quebec, and their fathers were in most cases farmers. The results of the questionnaire are very convincing of the homogeneity of the informants. Overwhelmingly, mothers, parents, grandparents, aunts and uncles were given the direct address pronoun V by informants (the sole exception, is a daughter who gives her mother T, which is perhaps the mark of solidarity established between the two as they deal with the father, who is senile -- who is given V); similarly, teachers, priests, nuns, strangers, and older people are given V, the traditional representation of respect and distance. Conversely, and actually asymmetrically, all informants received T from (1-4), and this has been seen before in certain working class or rural milieux in Quebec. Between siblings and friends the elements of intimacy and age determine the use of mutual T in every specified case. There is almost an even split between whether informants claim to receive T or V from categories (8-12). This does not seem to depend upon the age group of addressees. Do these data follow a general trend toward a universal solidary T, which is common in other parts of the French-speaking world? It would seem that in the nursing home, yes, but elsewhere, the V form is by far the preferred pronoun of address. (One informant mentioned that it had upset her to adopt the T form when addressing God the Father.)

Collège St. Jean, Edmonton

One main reason for sampling the college was to observe pronoun usage among students, who come more often from small French communities neighbouring Edmonton, as well as towns further north, and further east to Saskatchewan, Ontario, Quebec, and New Brunswick. The average age of informants was in the early twenties, though several teachers at the college also took part in the survey. There were twenty-eight who filled out questionnaires: nine males, nineteen females. All spoke French natively; most had been raised in Alberta, and their grandparents generally came from

Quebec. Regarding their fathers' occupations, an indication of socio-economic status, about thirteen were farmers, eighteen involved in trades of some sort, and two were professionals. The results indicated that over half addressed their mother/parents T -- (as far as tracing these informants to birthplace, some of them were from out of province); grand-parents, however, received V far more often than T; aunts and uncles were split evenly, some receiving V, others T; a great majority of informants gave V to those occupying roles worthy of their respect (8-10), and to those from whom they were separated by age and social distance. Regarding the pronouns received from others, T definitely predominated, except when interacting with strangers, who give V. Once again, mutual T was exchanged between peers.

It was interesting to speak with the priest and several nuns in the same neighbourhood, whose usage was linguistically conservative, following traditional norms. One nun who had moved to Alberta from Brittany in 1912, was particularly helpful in elaborating upon her direct address pronouns, when and with whom a certain form was appropriate. She had exchanged mutual T with her parents, mutual V with grandparents, and with aunts and uncles, professors, priests, and so on. As for other nuns, she explained:

> Je n'aurais jamais osé dire *tu* à une religieuse,
> même mes soeurs qui étaient religieuses, on se
> disait *vous*.

Similarly, when addressing her niece who was also a nun, she would most often use V. Instinctively, when one of her own sisters became a nun, there was a shift from T to V.

> J'attacherais plus de respect a *vous* qu'à *tu*;
> ...je ne me permettrais pas de dire *tu* aux
> personnes que je voudrais respecter.

And to God?

> A Dieu je dis *tu*, dernièrement, ...je n'ai pas
> toujours fait ça. Autrefois, c'était toujours
> *vous*...je ne me serais jamais permi de dire *tu*
> au Seigneur autrefois; ...il y avait une certaine
> distance, le respect; mais graduellement cela a
> changé.

When she explained that she still shifts from T to V with God, it seemed appropriate to ask which form would reflect which state of affairs. When asked how she addressed Him when she felt very far away from Him, it was surprising that she responded:

> Je dis: "Aie pitié, Seigneur" plus de "ayez pitié,
> Seigneur".

One informant at the college, filled out his form while sitting next to one of his colleagues there. The former, a man from Beaumont, Alberta, filled in categories (1-11) as received from others, with T. While thinking out loud as to how a stranger would address him, his colleague stated that in Quebec almost everyone would exchange T. Asked his

opinion of the suggestion that the French address system in Alberta would likewise shift to greater usage of T, he replied that in his very large family, the children and grandchildren of his brothers and sisters still say V to parents, and that maybe just the fourth generation would start to say T to their parents. (Note that Beaumont, recently 90% French speaking, is now an English suburb/development site belonging to Edmonton.)

Reviewing the results from the college, it again is apparent that the characteristics of speakers themselves are very important, more so than socio-economic background, in determining the selection of either T or V. Also, one perceives a standard set of norms which unite the community members, and leave less defined relations to be decided by age, roles and the sex of speakers. The importance of age was emphasized by one young student, who explained that she thinks she gives T not V to her parents because they are very young.

L'Eglise Sainte-Famille, Calgary

Although most of the twenty informants from this local parish come from towns in Quebec and Ontario, it is surprising how similar these results are when compared with those from St. Paul. On the average, the eight men and twelve women would fall into the 'middle aged' category; their grandparents came from Eastern Canada, in general; the fathers of twelve were farmers or labourers, while seven said their background might be 'white collar'. Four cases of T addressed to the mothers of informants seem to be closely linked to the informant's origin in Montreal (where T is more widespread than in the countryside). It is clearer from this sample that most of the informants would receive the V form from the priest, nuns, older people, and strangers. Again it is evident that the age variable causes this difference.

A sideline note, brought to the author's attention by the priest at this church, shows the continued respect for members of the opposite sex, through the marking of V. For at that church as in most, T would be given to God and Christ under normal circumstances, however V would be offered Mary -- in 'Je vous salue, Marie", but "que ta volonté soit faite..." to God.

Conclusion

> Les notions d'autorité et de solidarité...combien
> l'équilibre de notre système est sans cesse à revoir
> et surtout difficile à maintenir, car rien n'est plus
> étroitement lié aux phénomenes d'évolution sociale et
> de transformations des moeurs qua la façon dont nous
> percevons qui sont nos pairs. (Bustin-Lekeu 1973:774)

The usage of direct address pronouns, like many social norms and institutions, is in a constant state of flux. As society and its social values change, language seeks to accommodate for this by allowing words to be emptied or revised in terms of their semantic content, and reapplied to the new situation. The changing usage of T and V through one part of European history, has shown how the birth of a second pronominal usage has triggered ensuing conflict in usage of direct address pronouns across certain social strata. Generally, the achievement of cameraderie between

speakers, a common age group and social class membership, would satisfy
the requisites of the solidarity semantic, and would likely result in
movement toward reciprocal T.[8] This trend is quite prevalent, and has
been encouraged by students, particularly in France. A comparable usage
exists in Montreal, where a feeling of common membership or brotherhood
seems to take hold. This widening of T usage, however, has not really
penetrated the well-established norms for proper and respectful pronoun
usage in districts of France, rural and working class Quebec, particularly
"well bred districts" in France, and most areas of French Alberta. One
might speculate that the over-riding tendency will affect these pockets
within the next few generations, under the influence of other French and
European language norms, a changing political ideology, the influence of
English, and so on. Whether or not these will prove stronger than centu-
ries-old tradition, remains to be seen.

Footnotes

[1] La langue en tant que "réalité immédiate de la pensée" (Karl Marx)
peut être autant plus liée à l'idéologie que la réalité refletée par la
langue ... plus fortement conditionnée par des structures sociales. Ceci
est fort particulièrement valable pour la terminologie à l'aide de laquelle
sont denommées les classes d'une société donnée." (*Langue Francaise*, Paris,
Vol. 9, 1971:105.)

[2] N. Dittmar (1976) mentions the concept of "Weltanschauung" or
world outlook.

[3] *Courtois d'Arras*, ed. Edmund Faral, 2nd ed. Paris: 1922. Cited
in Foulet (1963:199). The play is an adaptation of the biblical parable
of The Prodigal Son. In the original text, this excerpt appears as:

        Biaus fieus Cortois, car soiés chois,
        Si mangiés del pain et des pois,
        Si lai ester ta fole entente. (in Foulet, ibid.)

[4] In the 18th century, this polite V emerged among the Russian elite,
where it marked respect and formality (Friedrich, 1972). Also regarding
the polite usage in France, from the 17th century, the third person sing-
ular pronoun was borrowed to show great respect for someone with whom one
might usually exchange a mutual V.

[5] The question of addresses given to members of "out-groups": it
seems that since 1957, T has been given to French African natives by their
European superiors. Donovan explains that this non-reciprocity, or'"Tiers
Monde" de l'adresse' (Bustin-Lekeu (1973)) tends to be given to the natives
because they among themselves prefer this usage, and it is natural that
they would attract this toward them. He adds, however, that when the T
is given to blacks in France (very common practice), this is clearly a re-
flex of racism.

[6] The author acknowledges with thanks the helpful reflections and
personal observations of Dr. G. Donovan, Department of Romance Studies,
The University of Calgary, who has lived and studied extensively in French
communities.

[7] It was brought to my attention by a French-Canadian classmate, that
when she meets with her two sets of uncles and aunts she is often ill-at-
ease at having to address one set, from the farm, with V, then turn to
address the other set, equally close to her, but from the city, with T.

[8] A very interesting contribution made by Ford (p. 1156), not dis-
cussed elsewhere, is his observation of a T-V dualism in plural as well
as singular addresses. When speaking informally to close friends, it seems
the "T may be unconsciously borrowed from its strictly grammatical function
as second person singular, and is used in expressions like "tu vois", even
when referring to a specific group. There is an 'unconscious tendency to
choose appropriate and fitting semantic fields, dispite grammatical limi-
tations'.

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Table I

Form of Address Between St. Paul Residents and Others*

Interaction with	'tu' sent	'vous' sent	Depends no answer	'tu' rec'd	'vous' rec'd	depends
1 Mother	1	9	0	10	0	0
2 Parents	0	10	0	10	0	0
3 Grandparents	0	10	0	10	0	0
4 Uncles, Aunts	0	9	1	10	0	0
5 Brothers, Sisters	10	0	0	10	0	0
6 Boy friends	10	0	0	9	0	1
7 Girl friends	9	0	1	9	0	1
8 Teachers	1	8	1	5	4	1
9 Priests	2	8	0	4	6	0
10 Nuns	2	8	0	4	6	0
11 Older People	1	8	1	6	4	0
12 Strangers	1	8	1	5	5	0

*Entries are actual frequencies based on the replies of 10 informants --
5 males, 5 females. 2 (15-20 years old); 1 (21-25 years); 1 (26-35);
6 (36+ years). Most informants' fathers were farmers.

Table II

Form of Address Between Edmonton Residents and Others*

Interaction with	'tu' sent	'vous' sent	Depends no answer	'tu' rec'd	'vous' rec'd	Depends
1 Mother	17	11	0	27	1	0
2 Parents	15	13	0	27	1	0
3 Grandparents	5	22	1	25	3	0
4 Uncles, Aunts	12	13	3	28	0	0
5 Brothers, Sisters	27	0	1	28	0	0
6 Boy friends	27	1	0	28	0	0
7 Girl friends	26	1	1	28	0	0
8 Teachers	8	17	3	22	3	3
9 Priests	4	22	2	23	4	1
10 Nuns	3	22	3	17	8	3
11 Older People	0	28	(1)	20	5	3
12 Strangers	3	23	4	8	19	6

*Entries are actual frequencies based on the replies of 28 informants --
9 males, 19 females. 12 (15-20 years old); 11 (21-25 years); 2 (26-35);
4 (36+ years). Fathers: farmers etc. 13, trades 18, professionals
(engineers) 2.

Table III

Form of Address Between Calgary Residents and Others*

Interaction with		'tu' sent	'vous' sent	Depends no answer	'tu' rec'd	'vous' rec'd	Depends
1	Mother	5	14	1	17	1	2
2	Parents	5	14	1	18	0	2
3	Grandparents	3	16	1	18	0	2
4	Uncles, Aunts	4	16	0	19	0	1
5	Brothers, Sisters	18	2	0	19	0	1
6	Boy friends	19	0	1	19	0	1
7	Girl friends	18	2	0	17	2	1
8	Teachers	2	17	1	10	8	2
9	Priests	1	19	0	7	12	1
10	Nuns	2	18	0	4	15	1
11	Older People	1	19	0	9	10	1
12	Strangers	2	16	2	4	13	3

*Entries are actual frequencies based on the replies of 20 informants --
8 males, 12 females. 1 (15-20 years old); 3 (21-25 years) 5 (26-35 years);
11 (36+ years). Fathers: farmers etc. 12, trades 7, professionals 1.

Questions in Natural Speech:
Problems of Recognition, Usage and Analysis*

Christopher J. Doran

1. Introduction

　　This paper concerns itself with certain problems in naturally oc-
curring speech, with our intuitive knowledge of what questions are. The
problems that I want to discuss are not exclusively limited to 'questions'
and could be applied to other types of utterance. However in this paper
'questions' will serve as a focus for the discussion, although I may draw
on other types of examples to illustrate more general points. My first
task will be to try and categorize, in some formal way, what enables
speakers in conversation to be able to recognize a question. Knowing that
not all utterances are questions, what is it that differentiates them from
other types of utterance? Thus I am interested in the types of criteria
people use in natural speech so as to be able to know that a certain ut-
terance was a question. Notice that I am concerning myself with not just
an abstract definition of what a question is, but how people actually use
their ideas and knowledge of what questions are in conversation. Secondly
I will take certain utterances which are questions and illustrate the dif-
ferent ways they can be used in conversation, e.g. how they are able to
imply a command rather than a request for information.

　　Lastly, and following from the prior discussion, I will show that
the problems which stem from the problems of usage and recognizability of
questions also lead to further difficulties if we as analysts attempt to
make formal studies of naturally occurring speech. I will then propose
a tentative suggestion for accommodating these problems within the con-
text of speech act analysis.

2.　　In this part of the paper, I want to deal with how we as members of
a culture with the same language are able to know such things as what con-
stitutes a 'question', and how do we recognize it as such. I will look at
some of the features which have been said to be indicative of a 'question'
and compare these features with the way in which questions are used in
natural speech, in order to estimate how applicable these features are.

　　Most traditional analyses start from the premise that questions may
be framed in syntactic forms (e.g. Quirk, Greenbaum, Leech and Svartvik
1972:386). Thus, word inversion, the presence of the wh- interrogative at
the beginning of a sentence, and rising intonation may all indicate a ques-
tion. However it has been noted that questions such as 'Can I have a pen-
ny?', 'May I have the salt?' although framed in this syntactic question
form, are not really questions but are requests. This is pointed out by
the argument that in either of the questions a simple yes/no type answer
may well be insufficient to satisfy the questioner. But Searle notices,

> The sentences... have literal utterances in which they
> are not also indirect requests. Thus 'Can you reach the
> salt?' can be uttered as a simple question about your
> abilities (say by an orthopedist wishing to know the

medical progress of your arm injury)   (Cole and Morgan 1975:69)

Thus he says that 'Can you reach the salt?' can have two meanings, a literal one and a request one, dependent on context. This difference between a question and a request is well exemplified here, in that these two descriptions of 'Can you reach the salt?' are, in these instances, mutually exclusive. However, occasions often arise when an utterance contains both question and request elements in it. In such cases people do not feel the necessity to delineate precisely the status of the utterance and feel justified in calling it either a request or a question.

Another commonly stated feature of questions is that they have rising intonation at the end of the sentence. This may or may not be accompanying the syntactic form of the question.

> "Are you going to the office?"
> "You're going to the office?"

Here it is said that intonation is able to show that a question is present. However rising intonation at the end of a sentence does not necessarily mark it as a question. Rising intonation can be used for other purposes, e.g. calling someone, expressing surprise. An utterance like B below:

> A: I killed the cat.
> B: You killed it.

is often difficult to label in any precise way, it frequently being taken as an expression of surprise or a question. Thus both or either interpretation may be put on B's utterance because of its rising intonation form. Quirk, Greenbaum, Leech and Svartvik also indicate that rising intonation may be used "to indicate that our utterance is non-final, or that we are leaving it open and inconclusive." (1972:1044) I.e. that we are not finished with our speech and are going to continue.

Rising intonation may also not be present at the end of a syntactic question. Characteristically, many yes/no type questions (those seeking an answer 'yes' or 'no') do not have the rising intonation, and have a falling tone at the end of sentences. Falling tones in questions can also indicate displeasure.

> "Are you coming or not?"
> "Are you coming?"

From these discrepancies it seems that the system of simple (mainly syntactic) rules invoking certain characteristic features often used for categorizing utterances as questions is not adequate. In order to satisfy our demand for how questions are recognized as such, we must examine other additional ways in which people know what questions are. Because of the factor mentioned earlier that, often, questions and requests may be incorporated into the same utterance, I want to examine how utterances which can be classified as question/request are differentiated from other types of utterance e.g. commands, threats, snubs.

As examples of the latter one could include:
> "What do you think you are playing at?" (command)
> "Are you man or mouse?" (threat)
> "Are you the man who still believes in Santa Claus?" (snub)

I do not want to restrict this paper just to what criteria delimit the form that questions can take, but also want to propose certain forms of utterances which might be recognized as questions, but which are not covered by the above conditions, and which as a consequence will make the task of formulating specific rules to enable us to attach the label 'a question' to an utterance more difficult.

This study emerges from the light which analysts such as Austin (1962) and Searle (1969, 1975) have thrown on the question of utterances, and uses their analyses as a base point to begin the investigation. Austin (1962) was the first to notice that utterances have both locutionary and illocutionary force. The locutionary force is associated with ideas of sense and reference, and is primarily descriptive.

"It is raining."

This is subject to notions of truth and falsity, and can be verified, for instance, by looking at the weather. The other type of utterance, the illocutionary, is a slightly more involved idea to handle, and is concerned with the intentions and consequences of the utterance. To take one of Austin's examples, the statement 'France is hexagonal.' cannot be evaluated very easily on the true-false scale that was proposed above. It may be that the speaker is only giving an approximate description, he may be confusing 'hexagonal' with 'square', or he may just be mistaken in that he meant another country not France. In order to find out what the speaker meant by that statement, we can either allow him to elaborate or ask him exactly what he means. However, it is probable that we would come to the same conclusion as Austin on this statement, i.e. that it is a rough description rather than a right or wrong one. (But consider what inferences we might make if the speaker went on to say 'each angle measuring sixty degrees.')

This notion of a speaker's intention as expressed in speech, is a tricky one and Austin deliberately differentiates between illocutionary acts and another type, the perlocutionary, because of this problem. The latter type of act is defined in terms of its consequences rather than its intentions. Thus if I say 'I alarmed him,' then this would be a perlocutionary act, according to Austin, because 'alarmed' is measured in terms of the consequences on 'him' rather than my intentions.[1]

The idea of the difference between illocutionary and perlocutionary is important in my analysis of questions. If I say that one can identify questions because they are followed by answers, then this is to be confusing the perlocutionary aspects and the illocutionary aspects of the notion of a question.

Austin also notes that utterances have 'performative' functions, a type of locutionary act that utterances can perform certain actions rather than just describe them. Thus 'I do' at a wedding can be said not just to describe the event, but to perform it, in that, if the 'I do' was not included, then the event -- the marriage -- would be said to have not taken place. But these performative functions may be encased in utterances which do not use an explicit 'performative' verb. Austin gives the example that 'I promise I shall come.' may sometimes be given in the form, 'I shall come.' This utterance conveys the sense of promise implicitly. But it is

important to note that Austin says that not always is the sense of prom-
ising given by the second utterance, 'I shall come.'

Thus I want to suggest that questions may also occur like promises
with illocutionary force in otherwise formally unmarked sentences (un-
marked -- indicating that they do not convey the sense of a question by
any outward syntactic or intonational form). If I say, for example,

"I'm going to the store now."

in the context of my own home, in the presence of my family, then I think
it may sometimes be heard as a question, but that it will not be heard as
a question on every occasion of its occurrence, whether in the same con-
text or in a different one. Listeners might reply to it,

"O.k. fine, see you."

or   "Could you get me a packet of cigarettes while you're there."

(which would be an adequate reply to the more easily identifiable ques-
tion, "Do you want anything from the store?"). I propose that contextual
and situational variables (rather than syntactic variables) are at work
here in enabling us to hear this as a question/request rather than a mere
statement of intention. Notice that this does not resolve in any neat way
Austin's problem of illocutionary and perlocutionary force. Remember
that perlocutionary force is the force of an utterance measured in terms
of its consequences, e.g. 'I alarmed him.' (Here one cannot infer from
this that the speaker's intention was to alarm.) The perlocutionary force
of the utterance, "I'm going to the store now." may be given as, "Do you
want anything from the store?" because of the reply concerning the cig-
arettes. But it is crucial to realize that the actual intention of the
utterance may or may not have been that. That the listener interpreted
it as a question does not enable us to categorize the utterance unambigu-
ously as a question. The problem is a recurrent one and I will return to
it in the final section of this paper.

In this part of the paper, I have outlined certain types of utter-
ance which could be called questions, I have described conventional ques-
tion labels, and also introduced an utterance which has the force of a
question but not any overt marking. I have indicated that conventional
questions, which ask for a response may not be marked in the conventional
manner (i.e. by the lack of syntactic markers) and that unconventional
formulations may serve the purpose of asking for a response (i.e. 'I'm
going to the store now') thus indicating two main differences in this
loosely held notion of question.

1. They can ask for answers, replies, or information despite
   their form.

2. They can have a conventional syntactic question form and
   'do' other things.

Throughout, I have not tried to define in any strict way what a question
is, as this problem constitutes a major focus of the paper. Although
questions may not always follow the conventional rule formulations (i.e.
intonation, word inversion) which they are supposed to, this does not usually

present a problem for interactants. That is, they are able to formulate and 'hear' questions based on other criteria quite easily in conversation. In the next part of this paper, I want to look at this second category, the more easily identifiable, syntactic questions, and examine the varied uses that they have.

3.   I now want to concentrate on those analyses which have investigated syntactic questions, i.e. ones which from their grammatical form or their intonation pattern can be regarded as questions. (This is not to infer that the type of distinction which I made between utterances which have the form of questions and those which have the force of questions, is not an important one, but only that syntactic questions have been discussed more in the literature.)[2]

The most detailed study of questions, as an object of inquiry in natural speech, is given by Goody (1978), who classifies questions into four main types: Control, Rhetorical, Deference and Information. Although this research was based on a community in West Africa, its purpose is a more general one:

> This essay is a first exploration of the nature of
> questioning -- what is it that we do when we ask
> questions. (Goody 1978:17)

She accepts the implications of Austin's work and gives instances of questions in which the illocutionary force of an utterance is present in the locutionary act. Thus she cites as an example of an Intention-Deference question, "Are you going to greet X today?" (1978:32) said by her subordinate to her while they were working (at weaving) in the village. She analyses this as being a statement by the speaker to the effect that "We should greet X today." Goody goes on to describe the reasons for this reading of the utterance. The person who addressed her was her subordinate, and

> It is wrong for the subordinate to tell his senior what he
> should do. Instead he asks him what is ostensibly an Infor-
> mation question. The superior may then answer 'Yes I shall
> greet X (the chief)' thus assuming the initiative; or he may
> say, 'No, I must visit the farm today.' thus denying the need
> to greet the chief, but without having to admit that he has
> been told to do so by a subordinate. (1978:32-33)

The main point of Goody's argument is that this use of different types of questions for different purposes can be explained in terms of the relative status and level of intimacy of the interactants. Thus, for example control questions often occur in the speech of adults to children because of the high status differences between them; but she points out that when adults try to use other types of questions to children, these questions are still often heard as Control questions.

Adult: What are you doing?
Child: Nothing. (Goody 1978:34)

Goody says that in this example, this was intended as a deference question by the adult to the child, but was treated as a control question. Its

original intention was to express interest and concern in the activities
of the child. But Goody realized that often this would not have the de-
sired effect on the child unless 'this form of questioning has to be done
very gently.' (1978:34) to prevent the child treating it as a control
question. This example hints at some of the problems involved in 'hear-
ing' a question correctly.

    Another use which the 'question' can be put to and which has been
carefully documented is the 'Clarification Request' used by adults to
young children. Corsaro (1977) isolates the 'Clarification Request', and
says that it is used mainly by adults in their talk with young children,
featuring less frequently in interaction with older children, and these
clarification requests are rarely produced by the children in this inter-
action. They are interrogatives which take one of three linguistic forms.

> The first is a clarification marker of some type (i.e. what,
> huh, hum...). Although it would be difficult to specify all
> the possible clarification markers, it is clear that they
> belong to a definite set of constructions, all of which would
> be recognizable as such by native speakers. (1977:186)

A second type is the simple repetition of the last speaker's utterance,
but they are always interrogatives either by intonation or by slight
modification of the initial utterance, e.g.

    Child: I can't do it.
    Adult: You can't?
and,
    Child: I'm going to put a band-aid on it.
    Adult: You're going to put a band-aid on it? (Corsaro 1977:187)

The third type is the 'expansion' whereby the adult expands and para-
phrases the speaker's utterance.

    Adult: O.k. Where'd you get 'em at? (Referring to strawberries.)
    Child: On place where (B looks up and says the following as if
            reading a sign) -- you pick your own strawberries.
    Adult: Pick your own strawberries? You got 'em at a place that
            says you pick your own strawberries? (1977:187)

    Corsaro also assigns function to those C.R.s (Clarification Re-
questions) and notes the typical places where they would occur in speech.
He states that when there are communicative difficulties between speakers
(i.e. when one speaker does not hear the utterance of another), one may
call for a clarification marker. Clarification requests which ask for
a clarification or a repetition of an utterance heard, but not clearly
understood, may be formed from either of the last two types of C.R. An-
other function of the C.R. is to fill in 'one's turn in conversation'.
Although it doesn't actually involve clarification, it usually takes the
form of the first type of C.R. mentioned, and Corsaro gives it the label
of 'marker of acknowledgement.' (An analytic problem may be noticed here
in that it is now possible for Corsaro to label the same utterance as be-
ing either a clarification marker or a marker of acknowledgement, and
the difference between them seems to be the intention of the speaker.)

In the next part of this paper I want to return to some important problems concerned explicitly (but not exclusively) with Corsaro's analysis, and try to relate them to more basic problems of conversation analysis.

Keenan, Schieffelin and Platt (hereafter K. S. P.) (1978) assert that two basic functions of questions are that they (1) are directives to attend; (2) express items of immediate concern to the speaker.

By the former they imply that a question shows by its form that it needs a response, and thus what it does is to make somebody attend to the speaker. The status of the response needed is unclear, however, e.g.

'What did I say about drinking it out of the can?' (K.S.P. 1978:51)

This may indicate that a verbal response is required or that it may be an imperative, and thus a reply might be thought of as being 'cheeky.' But it does seem to fulfill the criterion of directing a person to attend.[3]

That a question expresses an immediate concern of the speaker is less clear cut, and largely asserted, rather than argued for by K.S.P., and thus it is unclear as to what is exactly meant.

Although different analyses have focused on different aspects, it is clear that 'what may be regarded as utterances with a question like form' can function in many varied ways and that the main task of these analyses has been to classify these 'questions' into categories of 'what they really are.' The next part of this paper will examine the fruit-fulness of this type of task, and outline in more detail the criteria that are used to classify utterances.

4. The features and uses of 'questions' in actual speech, because of their varied properties that I have outlined, present a number of potential problems for any analysis in terms of their analyzability. In this section I want to clarify the nature of these problems. To explicate my case, I will use data mainly from Corsaro's (1977) analysis of the 'Clarification Request.' The reason this is chosen is that it is a well-documented example and presents the data in a detailed, systematic way, rather than that the problems which I want to discuss are exclusive to it. In fact, these problems apply to many other types of analysis, but for the sake of brevity, will not be discussed here.

I have outlined in the earlier parts of this paper that questions can perform many other functions rather than just asking for information or a response, and that this is connected with the knowledge of what we, as ordinary speakers in society, see as being a 'question'. I have demonstrated that the knowledge which speakers use to understand what questions are, is not a simple analytic process of identifying features such as intonation or the presence of syntactic elements within an utterance. (Yet it is not true to say that speakers do not attend to these types of features in conversation.)

Thus, the type of knowledge which interactants possess includes the syntactic features which I have outlined in the early part of the paper. But these rules are not restrictive in the sense that one is compelled to make utterances or to hear them in such a narrow way. Thus

rules are known by speakers, but they must be considered in the context in which they occur. And the use or otherwise of these rules is a context-bound activity. Now by this I do not mean that they are predictive rules in that, if the context is specified then the appropriate utterance will be produced,[4] but that a speaker in an interaction knows that rules exist, but he is not bound to follow them. The consequence of this is that speakers can influence conversation by either attending to these rules or disregarding them, and that certain inferences will be made by the hearers on the basis of how the rule is applied or not applied. For example, if I do not return your greeting when I see you in the street, you may infer a number of things: that I am annoyed, that I am short-sighted, that I think you are being too familiar, that I am in a hurry. The actual reason for this lack of return of greeting cannot be specified in any exact way, but by using a speaker's 'cultural competence' (that common sense type knowledge that any ordinary person in that culture will have), you may come to a decision as to what the reason was, in this particular instance. But it is important to note the reason chosen for this occasion may not be applicable to other times when I fail to greet you. For example, on the first occasion of me not returning your greeting, you may posit the reason as 'being in a hurry.' If this happened on a number of occasions, consecutively, you might feel that this reason was invalid and might choose another one, although the actual occasion of the sixth 'meeting' might have an identical physical context to the first one.

It is also true that syntactic and intonational features may be present and CAN be used by speakers in order to make assertions such as the following hypothetical example.

    A: Have you washed the dishes?
    B: It's not my turn.
    A: O.k. I was only asking.

Thus in A's second utterance, we can see it as an appeal to certain features of A's first utterance which allow it to be a question, i.e. its syntactic form (although it appears to have been treated as a command).

That I have outlined different aspects of the term 'question' still leaves unresolved the problem of whether an utterance is a perlocutionary act or an illocutionary act (i.e. whether a question was intended as a question or merely heard as a question). In conversation, this problem is largely left unresolved, in that interactants do not feel the need to specifically ask whether or not some utterance was a question. (Although one can cite examples which actually question the status of utterances.

    "Are you asking me or telling me?"

or seek clarification in some way.

    "What do you mean?"
    "What are you trying to say?"

and I do not dispute that these are legitimate types of utterances within conversation.)

This ambiguity in language seems intrinsic to it, by which I mean that in many of the conversations throughout this paper (which although some of them are hypothetical, I take it can be heard as conversations

which could naturally occur) I have demonstrated ambiguities which can
and do occur, even though the hearer may know exactly the 'grammatical'
meaning of the words used (i.e. it is not a case of the hearer somehow
failing to hear, in an acoustic sense, what was said). This apparent
paradox must be examined to see how conversationalists achieve this cap-
acity to 'understand conversations.' How is it that they come to make
sense of conversations?

Garfinkel's et-cetera principle (Garfinkel 1964) is one solution
which has been proposed. This states that a hearer in a conversation will
fill in or assume the existence of a common understanding of what is said
when it is not immediately obvious.

Now I see it that what Corsaro is doing in his analysis, is using
the same type of reasoning to make sense of the conversation such as that
in the extract below. Corsaro is using his 'common understanding' of the
conversation and all its background knowledge to make sense of what the
conversation was about, as exhibited by his description which accompanies
the text.

	Transcription	Description
1. B-M:	A present for you. Open it.	Buddy's mother employs the CR
2. M-B:	For me?	(2) as a marker of acknowledge-
3.	[B nods head yes]	ment. Note that the mother's
4. M-B:	Are you sure?	use of the CR here momentarily
5.	[B nods head yes]	takes control of the topic away
6. M-B:	Does it have my name on it?	from Buddy and puts her in
7. B-M:	Yes.	charge. At 6 she produces a
8. M-B:	Where?	leading question which is aimed
9. B-M:	Right on the box.	at producing the sequence which
10. M-B:	(Inaudible) O.K. [opens pack-age].	follows (i.e. the mother's fail-ure to read the card). Subse-
11. B-M:	You forgot to read the card!	quent discussion with the moth-
12. M-B:	I blew it. I blew it. I don't even know who it's from? Read the card for me. Come here.	er confirmed the researcher's belief that Buddy failed to 'read the card' several times on Christmas day. (1977:198)

Thus Corsaro is demonstrating how HE makes sense of the conversa-
tion, and the method which he uses is not different from that used by the
interactants themselves. Now, if that problem of obtaining the meaning of
utterances is problematic to the interactants, then Corsaro, employing the
same methods, cannot be said to have obtained the correct unambiguous mean-
ing of the interaction. He has only done what others could do and that is,
form a CANDIDATE explanation of what occurred.

A candidate explanation is one which is a possible explanation of
'what really happened' which might differ from an explanation given by
other people who saw exactly the same video-tape as Corsaro. I find that
I am applying the word 'explanation' here to what, in effect, is a certain
'type of description of what happened.' Thus, different descrip-
tions might be given as to what happened, but although all these descrip-
tions might be accepted as describing what took place, they might be criti-

cized on the grounds that they were inadequate. Compare this with Austin's
'France is hexagonal.' It may be difficult to criticize this as being
incorrect on most occasions of use, but we can criticize it for being in-
adequate in certain contexts (e.g. if we are trying to give the properties
of hexagons).

In actual conversation, if a student asks another,

A: What happened in the lecture I missed?
B: Oh, he talked for 45 minutes.

This may be thought of as being inadequate in that, although it was a correct
description, it did not 'answer the question' in some way. (Although once
again, in certain contexts, this may be seen as an adequate answer and B
will be satisfied with it.)

The second point which allows interactants to make sense of what
is being said in conversation is called the 'Retrospective-Prospective
Principle'(Cicourel 1970) and this in fact constitutes a more serious
argument against Corsaro's attempt to assign meaning to conversation.
This princple states that "routine conversation depends upon speakers and
hearers waiting for later utterances in order to decide what was intended
before" (Corsaro 1977:202). As Corsaro is in effect a listener in this
conversation, then he seems to be ignoring this principle, in that his
description which accompanies the conversation is his formulation of the
conversation, and does not allow for different interpretations being in-
ferred by the interactants in the course of the later conversation. One
might argue against this and say that young children might not have the
memory capacity to reflect on what was said previously in a conversation,
and this point may be accepted. However, it does not invalidate the gen-
eral claim, as both the adult and Corsaro (who may be thought of as a
silent listener in the conversation) can and do reflect on what was said.
This point emphasizes the importance of the Retrospective-Prospective
principle and Corsaro's lack of attention to it.

The third point which I want to make concerning the analysis of
conversation is to outline the notion of 'Undercutting' which other writers
have noted as being a feature of conversations (Turner 1974; Atkinson and
Drew 1979). With regard to the Corsaro tape on page 198, we can see that
at line 20, the mother makes the utterance,

"A new ring?"

Corsaro, using his competence as an adult and a listener to the conversa-
tion, notes,

> Here it is difficult to determine whether the C.R.s
> (Clarification Requests) reflect surprise or are markers
> of acknowledgement. I feel that they serve the latter
> function because they were produced with a high-pitched
> voice and paralleled the excitement of the young child.(1977:198)

Here we have evidence that what Corsaro is explaining is a candidate de-
scription and that it might be open to undercutting, i.e. that people
might interpret it differently, both analysts and interactants.

A high-pitched voice may sometimes indicate surprise and sometimes a question, but it always depends on the context. Corsaro has shown the basis for his inference, but in order to assign that the status of being 'the correct meaning,' he may be seen to be saying that this is a 'reasonable' type of inference to make and one which 'anybody might have made' after seeing the tape. Although it may be a 'reasonable' inference, it does not make it correct. Thus others are still able to undercut him, e.g.

> By stating that the mother had talked earlier about
> wanting a new ring and was thus surprised that Buddy
> should remember that piece of information.

In other words, people may draw on other relevant background knowledge and use it to either support or undercut certain utterances, this background information not necessarily being part of the present conversation, but knowledge which can be shown to be 'relevant' in this particular instance.

5.   From these analytic problems of how we can obtain unambiguous descriptions of speech, it is apparent that although members have little problem in making sense of utterances, its analysis presents multiple problems which are not easily resolved.

As I have tried to demonstrate throughout the paper, the tools which the analyst uses are predominantly those of the interactants, i.e. natural speakers' knowledge. However, for this to enable him to obtain a correct unambiguous meaning of the interaction when this privilege is not allowed the interactants (in that interactants can dispute the meanings of utterances, misunderstand, be ambiguous, lead others astray, tell lies, etc.) is a dangerous exercise.

Throughout we have seen that interactants concern themselves with making sense of conversation by fitting it into the context, being aware that they may misinterpret, and holding meanings in abeyance if they are unclear (e.g. perhaps holding more than one interpretation of an utterance).

These then seem to be the guidelines that analysts should use. By making explicit the background knowledge which they are using to interpret an utterance, and by outlining the candidate nature of the description of it and thus accepting that other interpretations are possible and valid, one will hopefully be able to tackle more productively the task of speech analysis.

Footnotes

*I wish to express my thanks to W. C. McCormack and R. H. Souther-land for a number of valuable comments on this paper. However, I bear total responsibility for remaining errors and shortcomings.

[1]Austin's analysis of perlocutionary acts is more narrow than the one I envisage, in that he feels that certain <u>verbs</u> have perlocutionary force (e.g. 'to alarm'), but I feel that ordinary speakers in conversation do not feel so restricted; thus, they may say 'I alarmed him' without knowing for certain that their action definitely caused alarm in 'him.' Thus in speech, 'I alarmed him' may say something about the speaker's intention rather than the consequences on the 'him'.

[2]But see Grice, Searle, Gordon and Lakoff in Cole and Morgan ed. (1975) for discussions on related matters.

[3]The most detailed account of this property of questions and other related utterances is given in Sacks, H. 'On the Analyzability of Stories by Children' in R. Turner (ed.) (1974).

[4]For attempts at this type of analysis, see Ervin-Tripp 1971 'Sociolinguistics' in Fishman (1971) 'Advances in the Sociology of Language Vol. 1'.

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Vowel Harmony in Yamba

Terri R. Scruggs

Introduction

Traditionally, when one speaks of Vowel Harmony, one thinks of, for
example, Hungarian or Turkish. In such 'traditional' languages, all suf-
fixes harmonize to the root of the word; that is, the vowels of one mor-
pheme are more important than those of the other morphemes and they affect
one (or all) of the features of all the other vowels in the word. But in
Yamba, the process is somewhat different. Two clitics, one that occurs in
noun phrases and one in verb phrases, undergo harmony based on the stem
vowel of the head of the phrase. No other clitics or affixes follow this
pattern of harmony. The following data give some examples of cases where
it does not happen. The affixes are -à 'question marker', -ā̄ 'if', and
-àm/-ām 'my (sg/pl)', where low tone ` and mid tone ¯ distinguish certain
morphemes.

(1)   'question marker'   'if he...'   'my...'[1]

    'neck'   mi   mi-à   ---   mi-àm/mi-ām

    'farm'   nzum   nzu-à   ---   nzu-ām

    'cutlass' fek   fe?-à   ---   fe?-àm/fehe-ām

    'go'   lo   lo-à   lo-ā̄   ---

    'sing'   yəm   yəm-à   yəm-ā̄   ---

    'hear'   yuk   yu?-à   yu?-ā̄   ---

    'break'   kɨp   kɨp-à   kɨp-ā̄   ---

In spite of the consonant alternations in the above data, there is
no vowel harmony. Aside from these four morphemes, no other vowel-initial
suffixes have been found; hence, it is not possible to verify if the qua-
lity of the suffix vowel determines whether or not Vowel Harmony will
occur.

The two suffixes in which Vowel Harmony does occur contain a vowel
which is not a, but rather ə. All other suffixes containing this vowel
have an initial consonant which does not undergo any alternation.

(2)   Citation   Causative

    'sift'   kpes   kpes-sə

    'white'   fəfəp   fəfəp-sə

Vowel Harmony has not been found to occur in suffixes that clearly begin
with a consonant (or semivowel) in which that consonant (or semivowel)
does not undergo alternation.

(3)   'that ...'   'his ...'

    'neck'   mi   mi-na?a   mi-ye

    'cutlass' fek   fe?-na?a   fe?-ye

    'banana'   gom   gom-na?a   gom-ye

Yamba is a Benue-Congo language spoken by about 35,000 people in the North-West Province of Cameroon, Africa. The data was collected during the period November 1977 to May 1979 while working in conjunction with the Summer Institute of Linguistics under the auspices of the National Office for Educational, Scientific and Technical Research (ONAREST). Two different men provided the data, one age 22 and the other between ages 40 and 50.

2. Harmonizing Suffixes

For the noun phrase, it is the clitic which indicates 'locative' that harmonizes with the vowel of the noun. For the verbs, it is the clitic which indicates 'repetitive action'. In Yamba most words, including nouns and verbs, are monosyllabic; hence, there is no need to specify the stem vowel more closely than just 'the stem vowel'. However, there are some disyllabic and compound nouns; in these cases the clitic harmonizes with the last vowel of the stem.

The locative marker is specified as -hə because in certain cases it does not harmonize and hence is identifiable. However, the existence of the h and the ə are not identifiable from the same set of data. The only place the h is seen is an instance where ə never occurs, as Vowel Harmony always takes place there.

The following data gives evidence for the vowel of the locative clitic.

(4)

		Citation	Locative
(a)	'banana'	gom	gom-ə
	'(snake)'	nzwim	nzwim-ə
	'handle'	ŋkem	nkem-ə
	'hat'	tam	tam-ə
	'things'	ɓum	ɓum-ə
	'lake'	təm	təm-ə
(b)	'forest'	kop	kop-ə
	'hut'	tap	tap-ə
	'handle'	tep	tep-ə
	'(dust)'	dzəp	dzəp-ə
	'wing'	bap	bap-ə
(c)	'soldier ants'	ŋgɛs	ŋgɛs-ə
	'(leaves)'	wɛs	wɛs-ə

The repetitive marker, in contrast to the locative marker, always harmonizes exactly with the stem vowel of the verb and cannot be identified as being one vowel over another; its distinctive features are completely unspecified. It begins with the consonant h (which also appears

in the locative marker as seen in data (5)).

(5) (a)

	Citation	Locative	(b)		Infin.	Repetitive
'neck'	mi	mi-hi	'trace'		fi	fi-hi
'hole'	wɨ	wɨ-hɨ[2]	'build'		či	či-hi
'hand'	bo	bo-ho	'catch'		ko	ko-ho
'hill'	nda	nda-ha	'shoot'		ta	ta-ha
'head'	tu	tu-hu	'vomit'		lu	lu-hu
'grave'	se	se-he	'transform'		be	be-he
'(basket)'	ŋgə	ŋgə-hə				

For the purposes of this paper, we will denote it with the shape -hə.

These two markers can be distinguished by tone but because tone is not relevant to the discussion, it will be omitted from this paper.

The only environment in which the h is seen on the surface is when the harmonizing suffixes occur with open syllables. However, it seems more likely that the h deletes after a closed syllable than that it is inserted here for the following reasons: first, in other places in which transition elements are inserted, they are not h. Why this one should be h is not clear. Secondly, other clitics and affixes that begin with vowels do not insert an h following an open-syllable stem (see data (1) examples 1 and 4).

The following rule of Vowel Harmony can be formulated based on (5).

(A) Vowel Harmony I

$$\text{ə} \longrightarrow V_i \text{ / } V_i + h \underline{\qquad}$$

Now let us consider stems that end in a nasal consonant.

(6) (a)

		Citation	Locative	(b)		Infin.	Repetitive
i.	'trap'	ndɨ̃ŋ	ndɨ-ɨ				
	'valley'	ntõŋ	nto-o	'love'		kõŋ	kõ-õ
	'bush'	ŋgãŋ	ŋga-a	'read'		tãŋ	tã-ã
	'cross'	ntə̃ŋ	ntə-ə				
	'bracelet'	mvĩŋ	mvi-i	'loosen'		fĩŋ	fĩ-ĩ
	'thatch'	ywĩŋ	ywi-i	'dig'		tũŋ	tũ-ũ
ii.	'farm'	nzum	nzu-u	'scratch'		kom	ko-o
	'stomach'	vəm	və-ə	'sing'		yəm	yə-ə
	'heart'	ntɨm	ntɨ-ɨ	'blow'		fim	fi-i
				'trap'		tam	ta-a

In this data it can be seen that several rules are operating. The first is the rule of h-Deletion, hinted at above.

(B) h-Deletion

i. h ---> ∅ / C + ___ V

ii. $\begin{bmatrix} -\text{cons} \\ -\text{voc} \\ +\text{cont} \\ +\text{low} \end{bmatrix}$ ---> ∅/[+cons] + ___ [+syll]

Due to the fact that no other affix has been found that begins with an <u>h</u>, it is not necessary to specify the final vowel in rule B any further. <u>h</u> has been specified as [-cons, -voc]; this is due to the special quality of two segments <u>h</u> and <u>?</u> which differ from all other nonvocalic segments in that vowel harmony occurs across them.

Following this, there is a rule of <u>m</u>- and <u>ŋ</u>-Deletion.

(C) Nasal Deletion

i. $\{^m_ŋ\}$ ---> Ø / V ___ + V

ii. $\begin{bmatrix} +cons \\ +nas \end{bmatrix}$ ---> Ø / [+syll] ___ + [+syll]

Rule C is actually a much-simplified version of the actual nasal consonant deletion rule, but for the purposes of this paper we will ignore syntactic and morphological conditioning which can cause <u>m</u>, <u>ŋ</u>, both, or neither to delete.

Thirdly, there is the rule of Vowel Harmony.

(D) Vowel Harmony II

ə ---> V_i / V_i + ___

These three rules (B, C, and D) interact quite closely in that they are ordered one after another. <u>h</u>-Deletion must precede Nasal Deletion as the rules are written. Then Nasal Deletion must precede Vowel Harmony because if the nasal does not delete (as in data (1) examples 2 and 5), Vowel Harmony does not operate.

There is one more rule operating in this data. The <u>ŋ</u> seems to cause the previous vowel to be nasalized. This is a very low-level rule in Yamba.

(7) 'bird'   swǐŋ
    'gun powder' ŋkãŋ
    '(fishnet)'   nzũŋ
    'brain'   və̃ŋ
    'cow'   mbõŋ

The rule could be stated as follows.

(E) Vowel Nasalization

i. V ---> Ṽ / ___ ŋ .

ii. [+syll] ---> [+nas] / ___ $\begin{bmatrix} +cons \\ +nas \\ +back \end{bmatrix}$.

The syllable boundary (.) is necessary to prevent <u>a</u> in ŋwa.ŋwe 'woman' or the first <u>u</u> in ku.ŋgup 'shoe' from being nasalized.

Looking closely at the data in (6) a very interesting fact can be seen. The rule of Vowel Nasalization occurs before Nasal Deletion in the case of the repetitives but after Nasal Deletion in the case of the locatives. It seems, then, that the ordering constraints for this rule are specific for certain morphological classes.

Moving on to stems that end in nonnasal consonants:

(6)	(a)		Citation	Locative	(b)		Infin	Repetitive
	i.	'house'	ndap	nda?-a		'speak'	čep	če?-e
						'peel'	yup	yu?-u
						'cross'	wap	wa?-a
						'blow'	fwəp	fwə?-ə
						'break'	kɨp	kɨ?-ɨ
	ii.	'coco'	kut	ku?-u		'plug'	tset	tse?-e
		'calabash'	mvət	mvə?-ə		'cut'	čit	či?-i
		'trap'	ntat	nta?-a		'chase'	bɛt	bɛ?-ɛ
		'body'	nit	ni?-i				
	iii.	'cutlass'	fek	fe?-e		'ask'	fek	feh-e
		'thigh'	buk	bu?-u		'hear'	yuk	yuh-u
		'grinding stone'	ŋgok	ngo?-o		'tell'	tsok	tsoh-o
		'cloth'	čək	čə?-ə		'wait'	tək	təh-ə
		'book'	ŋwak	ŋwa?-a		'work'	fak	fah-a
		'stem'	ndik	ndi?-i		'say'	dɨk	dɨh-ɨ

Again, there are several rules operating in this data. The first is the rule of h-Deletion established above, rule B. The second rule for this data has several parts. Rule F deals only with the nouns.

(F) Consonant Weakening

$$\left\{\begin{matrix} p \\ t \\ k \end{matrix}\right\} \longrightarrow \quad ? \quad / \text{ V } \underline{\hspace{1cm}} + \text{ V}$$

The counterpart of this rule for the verbs has two different parts. The first part is similar to rule F.

(G) Non-Back Consonant Checking

$$\left\{\begin{matrix} p \\ t \end{matrix}\right\} \longrightarrow \quad ? \quad / \text{ V } \underline{\hspace{1cm}} + \text{ V}$$

The second part is an operation similar to the one s̲ undergoes as will be seen in rule (K) below.

(H) Back Consonant Weakening

$$k \longrightarrow h \text{ / V } \underline{\hspace{1cm}} + \text{ V}$$

The third rule for this data is, once again, a rule of Vowel Harmony.

(J) Vowel Harmony III

$$ə \longrightarrow V_i \text{ / } V_i \left\{\begin{matrix} h \\ ? \end{matrix}\right\} + \underline{\hspace{1cm}}$$

The rules are also ordered with respect to each other. Rule B, h̲-Deletion, must precede rules F, G, H, (these 3 are mutually exclusive), and they in turn must precede the rule of Vowel Harmony (J).

The final set of data to be examined contains stems ending in s̲.

(9) (a)		Citation	Locative	(b)		Infin.	Repetitive
'fire'		mis	mih-i	'sneeze'		tis	tih-i
'(basket)'		kpes	kpeh-e	'take out'		fis	fih-i
'hill'		nzes	nzeh-e	'yawn'		gɛs	gɛh-ɛ
				'reach'		wɛs	wɛh-ɛ

There are two solutions to this data. In one the s of the stem deletes such that C V s + h V ===> C V + h V. In the second, the h of the suffix deletes and then the s weakens to h; that is, C V s + h V ===> C V s + V ===> C V h + V. It is not clear which of these two solutions is the better. However, despite the fact that it looks like the second solution involves an extra rule making that analysis more complex, that one was chosen as the better solution for the following reasons: (a) it preserves a generality, (b) it actually makes use of existing rules, h-Deletion which is needed elsewhere and Obstruent Weakening which will be seen in rules F' and G' below, and (c) it avoids a further ordering constraint which would be necessary if s had to delete before the h deleted. The solution which involves simply s-Deletion actually is the one requiring more rules.

Hence, we will say that for this data there are three rules operating; h-Deletion (rule B) is the first. The second rule changes s to h.

(K) s-Weakening

s ---> h / V ___ + V

The third rule operating is that of Vowel Harmony as stated in V.H. III, rule J, and the same constraints of ordering occur here: the h deletes, then the stem-final consonant undergoes its specific change, and then Vowel Harmony occurs.

Taking a closer look at the rules of Vowel Harmony I, II, and III (rules A, D, J), we can collapse them into a single rule.

(A') Vowel Harmony

i.
$$\ni \longrightarrow \begin{bmatrix} a \\ e \\ i \\ o \\ u \\ \dot{\textbf{\i}} \\ \ni \\ \varepsilon \end{bmatrix} / \begin{bmatrix} a \\ e \\ i \\ o \\ u \\ \dot{\textbf{\i}} \\ \ni \\ \varepsilon \end{bmatrix} (\{ {}^{h}_{\gamma} \}) \underline{\hspace{1cm}}$$

ii.
$$\begin{bmatrix} +\text{syll} \\ -\text{high} \\ -\text{low} \\ -\text{round} \\ +\text{back} \end{bmatrix} \longrightarrow \begin{bmatrix} +\text{syll} \\ \alpha\text{high} \\ \beta\text{low} \\ \gamma\text{round} \\ \delta\text{back} \\ \varepsilon\text{nas} \end{bmatrix} / \begin{bmatrix} +\text{syll} \\ \alpha\text{high} \\ \beta\text{low} \\ \gamma\text{round} \\ \delta\text{back} \\ \varepsilon\text{nas} \end{bmatrix} \left(\begin{bmatrix} -\text{cons} \\ -\text{voc} \\ +\text{low} \end{bmatrix} \right)$$

It no longer seems relevant that there is a morpheme boundary in the environment, sometimes before the [+low] glide, and sometimes after it. But it is necessary that this rule be ordered after h-Deletion (B).

An attempt at collapsing the rules that deal with obstruent-final stems, Rules F and K for the nouns, might look like this:

(F') Obstruent Weakening I (nouns only)

$$\begin{bmatrix} +cons \\ -son \\ <-cont> \end{bmatrix} ===> \begin{bmatrix} -cons \\ -voc \\ +low \\ <-cont> \end{bmatrix} / \ [+syll] \ \_\_\_ \ + [+syll]$$

For the verbs a similar attempt could be made, combining rules G H K.

(G') Obstruent Weakening II (verbs only)

$$\begin{bmatrix} +cons \\ -son \\ \langle -cont \rangle \\ \langle -back \rangle \end{bmatrix} ===> \begin{bmatrix} -cons \\ -voc \\ +low \\ <-cont> \end{bmatrix} / \ [+syll] \ \_\_\_ \ + [+syll]$$

It does not appear that these two rules may be combined in any succinctly written form, in spite of their obvious similarities as far as the change that is made and the environment in which the change happens.

So far, it has been seen that all verbs undergo some rule involving the stem-final consonant and subsequent Vowel Harmony and that not all nouns do. There seems to be some systematic way in which this happens for the nouns. Stems whose final consonant is a bilabial usually do not undergo a consonant-change rule and vowel harmony. For the m's (data 4a and 6ii) the percentage is considerably less than half for those that do undergo these operations; for the p's (data 4b and 8i), the percentage is far less than that for those that do undergo these operations. There does not seem to be any kind of phonological conditioning that decides which m-final stems will change and which will not; in fact, the near homonyms ndùm 'mole' and ndúm 'husband' act differently. But difference in tone is not the factor causing the difference in derivation. Other high-tone nouns túm '(animal)', nzwím '(snake)' ŋkúm 'chief' do not follow suite with ndúm 'husband'. Even in the data given in 6 (ii), only the first and last nouns have high tone; the other is a low-tone noun just as is ndùm 'mole'.

With the s-stem nouns though, there does appear to be a phonological distinction between those that will change and those that do not. If the vowel of the stem is i or e (data 9a), Obstruent Weakening and Vowel Harmony will operate; if the stem vowel is ε (data 4c), these two rules will not operate.

Noun stems that end in ∅, t, k, and ŋ always undergo the change.

One further note needs to be added about the s-final and p-final stems that I have cited as candidates for undergoing the change. In all cases, they may undergo the changes optionally. Both routes are open to them.

(10) 'in the house'   mə   ndap-ə   mə   nda?-a
     'in the fire'   sə³ mis-ə   sə   mih-i
     'in the (basket)'   sə   kpes-ə   sə   kpeh-e

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As explanation for this, there are two possible choices: either the language is changing so that the Vowel Harmony process(es) are becoming more widespread, or these processes have begun to limit their distribution. It is difficult to tell which is the case and I do not have any dialect comparisons of locative phrases at hand to make a check from them.

In the case of 'in the house', the only p-example, one could speculate that this happens because of the extreme frequency of the word, 'house'; the people say 'we talk that way when we're not talking properly or when speaking fast'. That it is a fast speech rule which is invoked only in the case of one much-used phrase is a possible explanation; this could be interpreted to mean that the process is spreading.

For the case of the s's, I have no immediate explanation, speculated or otherwise.

3. Dialect Forms

We could perhaps look at one other area of the phonology for a clue. There are some verb forms which appear to be long (or at least longer than the general case for verbs); that is, there seems to be what might be called an echo vowel after the stem-final consonant. Some of these 'long' forms have cognate 'short' (short means 'usual canonical shape') forms which give evidence that the long form may actually be the stem + hə, the 'repetitive' marker.

(11) te?   'sew'   te?-e   'patch' (sew repeatedly)
      tsok   'tell' tsoh-o 'preach' (tell repeatedly)

These two examples show that the words in the following data may (some do) have short forms (that is, the nonrepetitive form). And some may not actually be repetitive forms but they certainly resemble the repetitive forms in phonological shape. That is, the 'stem-final' consonant is always ?, h, or the two vowels are nasalized indicating the loss of an ŋ, and the two vowels at the end of the word (with or without a consonant between them) are identical. This is just the situation for all verbs that clearly have a repetitive and nonrepetitive form.

For the words in question, the variations (which are known) for two of the other Yamba dialects are given. Mbem is the main dialect, Bom is north of it, and Rom is off to the south-west. Mbem is the most progressive of all the dialects because it is the largest, is located on the only road through the territory, and has been the centre for education and health resources for thirty to forty years.

(12)

		Mbem	Bom	Rom
a.	'patch'	te?e	te:r	tyɛt ~ tyekə
	'plug'	tse?e	tsərkə	tsekə
	'curl up'	ke?e	kɛpkə	kekə
	'fall'	kɛ?ɛ	karkə	kaykə
	'hang'	kə?ə	kərkə	kəkə
b.	'forfeit, lose'	maha	makə	makə
	'hide'	swihi	swikə	swɛkə

	Mbem	Bom	Rom
'extinguish'	lihi	limkə	limŋə
'preach'	tsoho	tsəkə	---
'descend'	suhu	sukə	sukə
'lean'	yəhə	yɨkə	yəkə
'be ready'	fɨhɨ	fwɨkə	fɨkə
c. 'dry by heat'	yãã	yɛ̃nkə	yãŋə
'refuse'	dzẽẽ	dzɛ̃nkə	dzə̃ŋə
'hang'	bɛ̃ɛ̃	bãnkə	bãyŋə
'shift'	sõõ	sə̃ŋə	sõŋə
'lie down'	nõõ	nõŋə	---
'descend'	tsõõ	tsə̃ŋə	tsəmə
'bend'	zõõ	zəm	zəmŋə
'bury'	tũũ	tũŋə	tũŋə
'appear'	yə̃ə̃	yɛ̃nkə	yə̃ĩŋə ~ yə̃ŋa
'turn'	bɨ̃ɨ̃	bə̃ə̃	bwĩŋə
'be pregnant'	zɨ̃ɨ̃	zumkə	zɨmŋə

Note: the data from Bom and Rom was collected from two grand-
fathers and was not checked with other younger speakers of these
dialects. The vowel changes are beyond the scope of this paper.

This data supports several parts of our analysis thus far:

(a) the vowel of the 'repetitive' is probably ə
(b) the intervocalic h can and usually does indicate a k-final
stem (for verbs at least)
(c) the intervocalic ? may derive from a stem-final k (although
not for verbs in the data seen previously)

However, in the (a) and (b) sections of data (12), the kə from Rom
and Bom may represent the actual suffix added and our previous rule B
would have to be amended to be a k-Deletion rule instead of h-Deletion
if that rule were needed. Data from Bom shows an r in the middle of sev-
eral words and much more data can be brought to bear to show that Bom r's
often correspond to Mbem ?'s in syllable-final position. The data from
Rom shows simple deletion of the stem-final consonant (if there is evi-
dence for one in Rom). For the Mbem data of (b), the rule of k ---> h
could be easily modified to accommodate this data. For most of the (b)
data from Bom and Rom it is difficult to say which k-rule is operating:
k-Deletion from -kə or k-Deletion before the kə suffix. Within the (c)
data, there are five examples from Bom which show evidence for -kə as the
suffix. It appears that the k has disappeared totally from Mbem. In Bom
the k generally stays following front vowels and deletes elsewhere; in
the latter case (Bom) the ə of the suffix usually remains unchanged. In
Rom the k looks as if it always deletes, but in two cases after a stem-
final m, it may be that the ŋ is the k of the suffix having assimilated
to the nasality of the m. The stem-final nasal usually stays without
nasalizing (in the case of ŋ) the following vowel (which is just as the
Vowel Nasalization rule as previously stated predicts).

4. Conclusion

In conclusion then, we can say that there seems to be some property of the suffix -hə (or /-kə/) that invokes Vowel Harmony in the Mbem dialect. There are three cases where this is not generally the case; p-final nouns, m-final nouns, and /Cɛs/ nouns, but these are very much the exception rather than the rule. Because of the dialect situation as outlined above, we also suggest that Vowel Harmony is an innovation of the most progressive dialect rather than a vestige of an older form of the language.

Footnotes

[1]àm/ām is representative of several possessive affixes. The others are: -àvès/āvès 'our' (sg. & pl.)
  -àwè/āwè 'your (pl.)' (sg. & pl.)
  -àwó/āwó 'their' (sg. & pl.)
  ´ indicates high tone.

[2]There is also a variant wɨrə which might suggest a citation form of wɨr. This does not occur in this dialect but does in other dialects.

[3]The difference between the two prepositions 'in' reflects direction. mə means 'up into' and sə means 'down into' from the speaker's view point.

Aspects of Current Phonological Change in Snowdrift Chipewyan

Richard Douglas Jehn

0. Introduction

        Dramatic sound shifts are presently occurring in Snowdrift, North
West Territories Chipewyan which may provide some clues to the nature of
normal phonological change in language.[1] This paper deals with the com-
plete shift of /t/ to /k/, the loss (or voicing) of /ɫ/, the loss of
morphemes which contain /γ/, and the reanalysis of nasalized vowels into
vowel plus nasal consonant, all of which are illustrations of the type of
sound change that the linguist in the field rarely expects to witness.

        Section 1 of the paper briefly describes the community of Snowdrift
and the native speakers who provided the data presented here; Section 2
gives a brief account of Chipewyan phonology; Section 3 presents the data
which substantiate the sound shifts in progress and I also discuss aspects
of the phonological rule changes which account for the sound shifts (i.e.
rule loss, rule addition, etc.); and Section 4 summarizes the paper with
some consideration to the possible motivations for such rapid changes.

1. Snowdrift, N.W.T. -- The Community and the People

        Snowdrift is primarily a native Chipewyan community with a popu-
lation of 263 persons (R.C.M.P. figures for 1978). There are about fif-
teen non-Chipewyan residents in Snowdrift, mostly consisting of govern-
ment employees (R.C.M.P., Department of Public Works, etc.). Virtually
the entire community is fluent in both Chipewyan and English, with many
children acquiring both languages in the home (i.e. not in the classroom).

        Six Chipewyan speakers provided the material which is presented
here -- two older native Chipewyans who were not fluent in English, and
four younger speakers (15 to 30 years of age) who, although Chipewyan was
their first language, exhibited some vocabulary deficiencies as the data
below will show.[2]

        Data from all four younger speakers will be presented, some of
which provides support for the varying conclusions that are presented in
the final section of the paper. The young speakers were S.M., a 15 year-
old male; B.A., a 19 year-old female; F.M., a 23 year-old male; and F.C.,
a 30 year-old male. They had finished Grade 8, Grade 10, Grade 8, and
Grade 7 in school, respectively. All four were born in Snowdrift.

        One of the older speakers was born in Snowdrift (a 64 year-old male
-- no education). The other was born in Fort Smith, N.W.T., but he moved
to Snowdrift when he was very young (a 67 year-old male -- no education).
Both men were quite familiar with the Chipewyan syllabary (which was
adopted from the Cree syllabary) and had "taught themselves to speak Eng-
lish." (The latter is a claim which the two men iterated, but which can-
not be explicated nor substantiated due to lack of information.)

        In the next section of the paper, I discuss elementary aspects of
Chipewyan phonology. In the following section of the paper I present the
data which illustrate the changing phonemic system and the abstract rule

changes which may account for the changes. The data from the older speakers are collapsed and appear as though they were elicited from only one person.[3] The data from the younger speakers are presented separately with each form (or list of forms) and are identified by the initials of that person (see above).

2. Snowdrift Chipewyan Phonology -- A Brief Account

There are six vocalic and thiry-five consonantal phonemes in Chipewyan. Five of the vowels may surface as nasalized vowels (only /ə/ does not). These may be analyzed as Vn underlyingly, however. Tone is distinctive in the language, although it seems to be giving way to generalized rules of stress assignment.[4] There are only two tones in Chipewyan -- high and low. The minimal pair ɫú 'whitefish'; ɫu 'fish' establishes the distinctiveness of tone in Chipewyan.

The six vocalic phonemes follow:

$$i \qquad\qquad u$$
$$e \quad ə \quad o$$
$$a$$

Tabled below are the thirty-five consonantal phonemes.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
(1)	b		d				g	
(2)		dð		dl	dz	dž		
(3)			t				k	
(4)		tθ		tɫ	ts	tš		
(5)			t'				k'	ʔ
(6)		tθ'		tɫ'	ts'	tš'		
(7)		θ		ɫ	s	š	x	h
(8)	m	ð	n	l	z		γ	
	w		r			y		

where (1) Plain stops, (2) Plain affricates, (3) Aspirated stops, (4) Aspirated affricates, (5) Glottalized stops, (6) Glottalized affricates (7) Voiceless continuants, and (8) Voiced continuants; and where (a) Bilabial, (b) Dental, (c) Alveolar, (d) Lateral, (e) Alveolar affricates, (f) Palatal, (g) Velar, and (h) Glottal.

The status of the phonemes /m/, /w/, and /r/ requires some comment. /m/ appears distinctively in very few forms: ma 'stinking, dirty'; mɫɫtsaγe > mutsa 'owl.' Otherwise, [m] usually appears as a homorganic nasal preceding the bilabial stop, e.g. tsaba > tsamba 'money'; dechənbes > chənbes > chambes 'wood saw.'[5] /w/ must be considered phonemic due to the discovery of a minimal pair: dúwé 'very' (intensifier); ne-dúyé 'small, short.' Otherwise, [w] and [γ] neutralize on the lowest level, particularly when associated with rounded vowels. /r/ appears word-initially in a few forms, e.g. radzi < horadzi 'spider'; ratθən < horatθən

'grasshopper.' Normally, /d/ surfaces as [ɾ] ([ř]) intervocalically and
as the trill [r̃] word-finally. /r/ is clearly phonemicizing, however, as
the two examples above indicate. Another form which suggests that /r/ is
becoming phonemic is the following example elicited from a thirty-year-old
male speaker: narzus 'split (in half); it's split' (probably from under-
lying /na-de-zuz/).

The remainder of the consonantal inventory requires little dis-
cussion. The plain stops are voiceless and unaspirated in older speakers.
Young speakers tend to treat them as voiced segments, presumably pattern-
ing the sounds to English. The continuants are definitely opposed along
the voicing continuum. /š/ and /y/ alternate in certain environments
(see Cook 1977:265ff. for an account of this phenomenon in Central Carrier
and Chilcotin which is very similar to the Chipewyan alternation; see also
Jehn (in preparation)); thus the inclusion of /y/ as a voiced continuant
under /š/ in the chart.

To return to the vocalic phonemes, a brief discussion of the status
of /o/ is in order. In older speakers, [o] clearly surfaces when the
underlying sequence of segments is /au/. That is, /au/ --> [o]; /au̯/ -->
[o̜]; etc. It appears that [o] must have another source, however, consid-
ering that some forms always contain phonetic [o] and cannot be pronounced
as [au], e.g. nezo̜ '(it is) good'; tšo 'big.' The source for this [o]
will be taken to be phonemic /o/, since it is opposed to both /u/ and /a/
in several forms, e.g. -γú 'teeth', -γol 'throat'; tɬ'ul 'rope, tɬ'o(γ)
'grass'; -tθo(γ) 'be yellow', tθ'al 'moss'; gane 'pine', goné 'killdeer',
-gáné 'arm.'

Schwa often behaves as though it were simply a reduced allophone
of a full vowel (usually of /a/, /u/, or /o/), but nevertheless must be
considered phonemic due to the following sub-minimal pairs: ʔél 'dam',
ʔəl 'spruce bough'; k'əðe 'side', ne-k'aθ 'it is cold.' Schwa appears
neither word-finally nor as a nasalized segment.

This concludes the required preliminary discussion of the Chipewyan
phonemic system. The next section of the paper presents the data which
substantiate the phonological changes that are occurring in Snowdrift
Chipewyan.

3. Sound Shifts in Snowdrift Chipewyan

I separate this section of the paper into several subsections in
order to clarify the various sound changes which are occurring in Snow-
drift Chipewyan. Specifically, in the order of their discussion, I pre-
sent 3.1 /t/ --> /k/, 3.2 /ɬ/ --> /h/; /ɬ/ --> ∅; /ɬ/ --> /l/, 3.3 /-γe/
--> ∅, and 3.4 /γ/ --> /Vn/.

3.1 /t/ --> /k/

The shift of the voiceless aspirated stop to a velar place of
articulation is now complete in all speakers of Snowdrift Chipewyan who
are under thirty years of age. Consider the following data:

	Older Speakers	S.M.	B.A.	F.M.	F.C.
(1)	tu 'water'	ku	ku	ku	ku
(2)	tən 'ice'	kən	kən	kən	kən
(3)	taɣe 'three'	ka	ka	ka	ka
(4)	tatše 'Reliance, N.W.T.'	katše	katše	katše	hatše[6]

This shift is complete in all environments.

As Haas (1968:166) points out, the /t/ > /k/ shift makes little sense unless it is viewed in the light of the phonetic form of underlying /t/. That is, to maintain maximal distinctiveness between (phonetically) $[t^h]$, [t], and [t'] (phonemically /t/, /d/, and /t'/, respectively), the older speakers of the language produce $[t^h]$ with a noticeable amount of velar friction. Considering concurrently the fact that very little semantic confusion would result from such a sound shift (i.e. few minimal pairs involving /t/ and /k/), to suggest the following natural progression is plausible:

$$(5) \quad [t^h] \quad [t^x] \quad [k^h]$$
$$ /t/ > /k/$$

3.2 ɬ --> /h/; ɬ --> ∅; ɬ --> /l/

I will argue here that the changes which are presently occurring with the phoneme /ɬ/ in Snowdrift Chipewyan may be considered as basically one broad phonological shift with two aspects to the shift, i.e. pre-consonantal ɬ-deletion and word-final ɬ-voicing. Although grammatical information (specifically morphological) is pertinent, I will demonstrate below that it is not necessary to utilize it in explaining the ɬ-shifts. The current phenomena concerning /ɬ/ are not static, but are rather in a state of variability, as is shown by the following data:

	Older Speakers	S.M.	B.A.	F.M.	F.C.
(6)	yaɬti 'he speaks'	yahki	yahki	----	hati/yaki
(7)	eɬgéne 'dry meat'	egéne	egəne	egəne	ehgəne
(8)	mį́ɬtsaɣe 'owl'	mutsa	mutsa	mutsa	mutsa
(9)	nagoðeɬt'i 'lightning'	----	----	nagoðeht'i	----
(10)	niɬts'i 'wind'	nihtsi	nihts'i	nihtsi	----
(11)	yeɬką̨ 'dawn'	----	----	yehką̨	----

Older Speakers	S.M.	B.A.	F.M.	F.C.
(12) yį‡tšu 'he took it'	----	yíh(θ)tšu	yįhtšu	----
(13) náį‡ní 'you pay'	----	naį‡ni(e)	naįhni	----
(14) ʔe‡dzas 'trap'	edzes	ʔehdzas	ʔedzas	ʔehdzəs

In general, the shift seems to be /‡/ preceding a consonant becomes /h/, but /‡/ variably becomes ∅ in this environment.[7] I reserve discussion of the phenomena which are occurring with the vowels, e.g. į --> u,[8] but will concentrate rather on the shift in /‡/ before a consonant. I note that /‡/ under discussion here happens to be the ‡-classifier, but given the fact that this is the only /‡/ which occurs preceding a consonant, then the morphemic identity of ‡-classifier may remain unspecified. That is, /‡/-shift is simply a phonologically conditioned change.

It would appear that the feature [voice] plays some part in the variable shift of /‡/ --> /h/. Recalling that young speakers tend to produce voiced segments for the voiceless plain stops, it would seem that the ‡-classifier becomes /h/ more often preceding voiceless segments and is deleted more often preceding voiced segments. Adopting the notation which was introduced by Labov (1969, 1972), the following rule roughly describes the shift:

$$\text{‡} \longrightarrow \left\{ \begin{array}{c} \langle h \rangle \\ \langle \emptyset \rangle \end{array} \right\} / \underline{\hspace{1cm}} \left\{ \begin{array}{c} \left\langle \begin{array}{c} [+\text{cons}] \\ [-\text{voice}] \end{array} \right\rangle \\ \left\langle \begin{array}{c} [+\text{cons}] \\ [+\text{voice}] \end{array} \right\rangle \end{array} \right\}$$

Word-final /‡/ behaves somewhat differently than pre-consonantal /‡/. The data are limited, however, and the discussion here should be treated as inconclusive.

Older Speakers	S.M.	B.A.	F.M.	F.C.
(15) tθę‡ 'axe'	tθen	tθen	tθen	tθen
(16) tabí‡ '(fish) net'	kabín	kabin	kabin	kabín
(17) hatsá‡ 'nail'	etsél	----	hats'ál	tsále

In examples (15) and (16), the word-final /‡/ follows a nasalized vowel and becomes ∅.[9] In example (17), on the other hand, word-final /‡/ becomes /1/. The only clear difference lies with the preceding vowel, i.e. word-final /‡/-deletion is conditioned by a preceding nasalized vowel while word-final /‡/-voicing is conditioned by a preceding oral vowel. It should be noted that final ‡-voicing is more extensive (Cook, personal communication).

Hence we see that word-medial /‡/ is in the process of disappearing

with the intermediate shift to /h/ occurring at first in many speakers.
Word-final /ł/, on the other hand, is in the process of becoming voiced
in general, with only a few specific environments conditioning deletion.
I discuss the explanations for ł-shift in Section 4, as well as discuss-
ing the reanalysis of nasalized vowels, both of which seem to fall under
a more general process of simplification of the syllabic structure in
Snowdrift Chipewyan.

3.3. -γe ---> ∅ / ___

Younger speakers of Snowdrift Chipewyan almost invariably delete
the affix /-γe/ word-finally. The real question here is whether this is
deletion at a morphological level or whether it is simply a phonological
process (i.e. apocope). Rules (18) and (19) show the statement of the
process at the phonological level:

(18) /e/ ---> ∅ / ___ ##

(19) /γ/ ---> ∅ / ___ ##

where (19) is actually a redundant statement of a rule which exists in-
dependently of the phenomenon under discussion here; that is, /γ/ never
surfaces word-finally in Snowdrift Chipewyan.

Consider the data in (20) through (27) below:

	Older Speakers	S.M.	B.A.	F.M.	F.C.
(20)	taγe 'three'	ka	ka	ka	ka
(21)	tabąγe 'shore'	kubą	----	kabą	kabą
(22)	įłaγe 'one'	----	----	ła	ła
(23)	mį́łtsaγe 'owl'	mutsa	mutsa	mutsa	mutsa
(24)	eyą́γe 'marrow'	eka	----	eya	----
(25)	ʔedlą́γį 'who?'	dlą	dlą(e)	dlą	----
(26)	ʔedlą́γe 'what?'	dla	dla(e)	dla	----
(27)	-edzaγá 'ear'	-edzá	-edza	-edza	----

It can be seen from these examples that it is not simply a case
of vowel apocope where only the final /e/ is deleted. If this were the
case, we might expect to find some evidence that /γ/ is in final position
underlyingly. There is an independently motivated phonological rule in
Chipewyan which devoices word-final fricatives yielding alternations such
as nagiθ ~ nagiðe 'red fox'; džis ~ džize 'gloves.' The only two segments

which are clearly involved in this devoicing rule are /ð/ and /z/. In
Jehn (in preparation), a more substantial statement concerning the status
of word-final /γ/ (and /y/) is presented with persuasive evidence that
shows that /γ/ no longer obeys this particular devoicing rule in Snow-
drift Chipewyan.[10]

Nevertheless, it seems safe to assume the broader phonological
process suggested earlier. That is, the elision of word-final /e/ auto-
matically results in the deletion of the impossible word-final segment
/γ/, i.e. there is a feeding relationship between the two rules ((18) and
(19)). To make statements of morphological information is unnecessary in
this instance, particularly since /-γe/ seems to be a redundant morphemic
particle.

3.4. Ṽ ---> Vn

As a preliminary remark to this section of the paper, the reanaly-
sis of nasalized vowels into vowel plus nasal consonant is a dynamic phe-
nomenon which exhibits a considerable amount of variation between speakers.
Therefore, the discussion here should be viewed in this light and it should
not be taken as a conclusive statement.

Examples (28) through (35) illustrate the process under consider-
ation here:[11]

	Older Speakers	S.M.	B.A.	F.M.	F.C.
(28)	tθęɫ 'axe'	tθen	tθen	tθen	tθen
(29)	tabį́ɫ '(fish)net'	kabín	kabin	kabin	kabín
(30)	įyeze 'bird'	inyes	inyes	inyes	----
(31)	tsąba 'money'	tsamba	samba	samba	samba
(32)	wįgəl 'Go away!' (2sg)	wiŋgəl	wiŋgəl	wįgəl	----
(33)	datšǫ 'dish cloth'	datšą́	----	dašón	detšǫ
(34)	ɫįyaze 'puppy'	ɫįyaze	ɫįyeze	----	ɫįyaze
(35)	ɫaųtǫ 'nine'	ɫų́ką	ɫųka	ɫųką	ɫǫką

Examples (28) and (29) are the clearest cases of the Ṽ-reanalysis.
In both instances, a preceding nasalized vowel (and the reanalysis of the
Ṽ into Vn) allows ɫ-deletion to take place. It should be noted that the
reanalysis of Ṽ must precede the deletion of /ɫ/, but that the reanalysis
takes place only when there is a "deletable" consonant word-finally (see
examples (33) and (35)). The following pair of rules describe the phe-
nomenon:

$$\underset{\sim}{V} \longrightarrow Vn \ / \ \underline{\hspace{1cm}} \ \dagger \# \#$$
$$\dagger \longrightarrow \emptyset \ / \ C \ \underline{\hspace{1cm}} \# \#$$

Examples (30) and (34) provide another interesting case of the nasalized vowel phenomenon. In example (30), the reanalysis does take place preceding the segment /y/, while in (34) this does not occur. An explanation does present itself immediately, however. In (30), the form is a single morpheme, while in (34) two morphemes are involved; i.e. $\underline{\dagger i}$ 'dog' + -aze 'small' ---> $\underline{\dagger i}$yaze. Thus, the rule may be restricted in such a way as to exclude the form *$\dagger$in(y)aze.

Examples (31) and (32) illustrate instances of homorganic nasal assimilation (as does example (30)), but precisely what motivates the initial reanalysis of the nasalized vowel is again uncertain.

This section of the paper serves only to make note of this peculiar (and unexpected) phenomenon and I will leave the discussion as it stands. It is hoped that further exploration of this phonological process can lead to a more conclusive statement than I have been able to make here.

4. Motivations for Rapid Sound Change

The data which have been presented here result in no extreme problems to current phonological theory. There are some sound shifts occurring in Snowdrift Chipewyan, however, which do require closer scrutiny. In particular, I refer to the interesting differences associated with the shifts of the phoneme /$\dagger$/[12] and the reanalysis of nasalized vowels ($\underset{\sim}{V}$) into vowel plus nasal consonant (Vn).

Insofar as the /t/ > /k/ shift is concerned, the previous discussion may stand. I only reiterate the necessity of allowing phonetic factors into the explanation behind the shift. The elipsis of word-final /e/ with the subsequent automatic deletion of /γ/ also requires little discussion.

I would suggest that the shift of /$\dagger$/ is dependent, at least in part, upon considerations of Chipewyan syllable structure. Thus we see an underlying C$\underset{\sim}{V}$C structure shifting to a CVN structure. Likewise in the shift of pre-consonantal /$\dagger$/ to /h/ (and presumably to $\emptyset$ later), we see underlying CVC remain CVC, although the tendency to simplify to CV is apparent. The large majority of word-final syllables are CVC, i.e. most stems in Chipewyan are underlyingly structured in this manner.[13] The large majority of non-final syllables (i.e. prefixes) are structured CV, however, and perhaps with this information the tendency for pre-consonantal /$\dagger$/ to disappear completely becomes explainable.

Finally, I would include the influence which the English language has had on young speakers in Snowdrift as a not inconsequential factor. All young people attend public school where only English is taught at present. The fact that English has no nasalized vowels may certainly be affecting young speakers to produce forms such as inyes 'bird' or tsamba (samba) 'money', rather than the older forms iyeze or tsaba. The question must remain open at this time, but perhaps further field study in Snowdrift will clarify the phenomena which I have presented in this paper.

<center>Footnotes</center>

[1] Morphological change is also clearly taking place, but these shifts will be discussed only peripherally here. See Henry (1979) for a more complete treatment of morpheme deletion in Snowdrift Chipewyan.

[2] Some factors are ignored here which may be significant. I resume discussion of these in Section 4.

[3] I defend this procedure on the grounds that the forms given by the two older men were identical on the order of 95% of the time.

[4] I mention this only as an unsubstantiated preliminary observation of young persons' speech. Considerably more research would be required to establish this claim.

[5] The actual assimilation to place of articulation is not as clear-cut as is suggested here, i.e. there are counterexamples: <u>hebel</u> 'he is swimming,' but <u>hibel</u> 'you (sg) are swimming.' In this latter case, the form *<u>himbel</u> is not possible. This may be due to the boundary preceding the verb stem -<u>bel</u>, however (see Stanley 1973).

[6] The form <u>hatše</u> cannot be easily explained and I reserve discussion of it for this reason. It may be presumed to be idiosyncratic in this speaker. Other idiosyncratic forms appear in the data, as well as some forms that are clearly mistaken. Some of these will be discussed and others will be arbitrarily ignored.

[7] This sound shift could possibly be interpreted as VɫC > V:C, but it should be noted that there is audible breath in most cases. Additionally, /h/ already exists in the phonemic inventory, whereas length is non-distinctive.

[8] The backing of /i/ becomes even more difficult to understand when the following form is considered:

	Older Speakers	Younger Speakers
(i)	talɣus	kalwis
	'shore bird'	

There is no adequate account of these phenomena available at present.

[9] Following the reanalysis of Ṽ into Vn (see Section 3.5).

[10] Cook informs me that [ɣ] and [x] do alternate word-finally in the Fort Smith Chipewyan dialect.

[11] I exclude several examples which tend to obscure the data. I defend the practice here for two reasons: (i) the data can be very different between speakers, and (ii) this discussion is meant to be only a preliminary account of the phenomenon.

[12] This statement may be more correctly presented as the voicing of the phoneme /ɫ/ in word-final position and the shift of pre-consonantal /ɫ/ to /h/. I did not discuss other positions involving /ɫ/-shift because there seem to be none. In particular, the form <u>uɫini</u> 'only' comes to mind with the resulting young peoples' responses: <u>eyuɫi</u> (F.M.) and <u>iɫi</u> (B.A.) in which /ɫ/ does not shift. I ignore the other unexplainable changes for obvious reasons.

<center>- 59 -</center>

[13]I include stems that surface as CV̨ in the set of stems that are underlyingly CVC, i.e. they are actually CVn in the underlying represent-ation.

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Word Shortening in Snowdrift Chipewyan

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In my fieldwork on Chipewyan in Snowdrift, N.W.T. in 1979 it became immediately apparent that variations between speakers were often extensive and that, in particular, younger speakers (roughly, under 30 years old) consistently differed from older speakers and that the variation was greatest between the youngest and the oldest speakers.[1]

The most notable difference is the t-k shift (Haas 1968) where a phonemic alveolar stop with strong velar aspiration [t^x] has merged with the velar aspirated stop /k/ in younger speakers.

The other remarkable feature of the younger speech (y.s.) is the radical shortening of words by assimilation and deletion. Thus Li's (1946) ʔi̧ɬá-unę́na̧ 'ten' has collapsed to ɬuna̧.[2] In this paper I examine this phenomenon to determine the constraints on contraction and discuss the possible motivations and consequences of this contraction.

It must be taken as axiomatic that no language may change such that speakers can no longer communicate with each other. If this should occur, then dialects arise. Within one community any change across living generations must maintain communicative ability. Thus generation I must be able to communicate with the preceding generation II and perhaps III but not necessarily with deceased generations IV or V.

The 't-k shift' illustrates this. Younger speakers no longer 'hear' t and interpret both [t] and [k] as k. Thus homonyms may arise, but this does not seem to create any difficulty. The older speakers, on the other hand, are well enough versed in the language that a younger speaker's [k] is unambiguously assigned either to t or to k as required. [kən] is assigned the value tën 'ice' and [kun] is interpreted as kun 'fire' there being no kën or tun in conservative speech.

In word shortening the process of interpretation is not as clear and it must be assumed that context plays a much larger role. In Canadian English [væn] may mean one of several things, but in the context 'I'm going to [væn] next week' the interpretation is unique: [væn] is a shortened form of Vancouver. Similarly, in Chipewyan weléche (y.s.) is derived from bewúli desche 'Yellowknife (N.W.T.)'. The origin of bewúli is unclear[3] but desche refers to a large river. In the abbreviated weléche the morphemes have collapsed to the point where there is now only one morpheme which refers to the town Yellowknife. The deleted syllables be- and des- are probably the possessive pronoun and river respectively, but this information is no longer required if the name is learned holophrastically and is thus subject to collapse.[4]

Among the younger speakers, several phonemic deletions are widespread which lead to word shortening. Most likely to be deleted are g, ɬ, h, and initial vowels.

g-deletion

In younger speech g is frequently deleted. Intervocalically this results in contiguous vowels which then assimilate.

1. tl'og = tl'o   'grass'
2. segaiɫchu = saiɫchu   'give it to me'

In verb stem initial g never deletes and in noun stem initials it may alternate with w.

3. segu = sewu   'my tooth'

The thematic prefix egála in egálana 'he works' appears to resist deletion. g deletes only stem finally or in particles.

4. digį = dį   'four'

ɫ-deletion

In younger speakers ɫ appears to be deleted when it is used as the verb classifier, but not in other positions except for certain cases discussed under 'vowel initial deletion' below.

yaɫti = yaki   'he speaks'

Some speakers replace ɫ classifier with h.

yaɫti = yahki

It may be this h which is deleted as a secondary process.

ɫ is also deleted when the syllable vowel is deleted.

įɫk'etagi = geka   'six'
įɫk'edįgį = gedį   'eight'

This appears to be the result of the constraint on consonant clusters within a syllable. Note the g deletion, vowel assimilation, t-k shift and de-glottalization of k'. ɫ is sometimes replaced in children's speech with s in one word.

ɫekën = sekëm   'sweet'

Other examples appear below under 'vowel initial deletion'.

h-deletion

It was already mentioned that h as an alternate of ɫ classifier may delete, especially in children's speech. h also deletes optionally initially as epenthetic h which is normally inserted to preserve a conjunct CV syllable before the verb stem. It seems this is not always necessary, even among older speakers.

hįxël   įxël   2 sg. 'hit' (e.g. a drum)
hįgá   įgá   2 sg. 'hurry'
híle   įle   'no'

Vowel initial deletion

Initial vowels may be derived from a prefix deletion, h deletion, or as an alternate of ʔV- . In younger speech, many initial vowels are deleted, though it appears that specific morphemes resist deletion.

iɫage	= ɫa	'one'
ebą̈dzagá	= bandza	'apple'
ʔedlági̧	= dlą̈e	'who?'
asą̈t'ile	= są̈t'ile	'right, correct'

Some cases where initial vowel deletion does not occur are:

eɫgëne	= egëne	'dry meat'
ʔeɫdzas	= ʔedzas	'trap'

The verb egálana 'he works' usually does not delete the initial vowel although one speaker produced forms with and without vowel initial.

egélasna	'I'm working'
dechën gálana k'óri̧ą̈	'Do you know carpentry?' (wood-working)

n deletion

Intervocalically n sometimes nasalizes the preceding vowel and deletes, providing an environment for assimilation. In other cases, n deletes without nasalizing an adjoining vowel.

ɫegánai̧dër = ɫą̈i̧dër	'he died'
není̧k'e = naik'e	'store'
ʔi̧ɫá-unéna = ɫą̈una = ɫuną̈	'ten'
naunéna = nuna	'twenty'
húniɫk'éθ = hiɫk'éθ	'I shot it'
ts'enesθir = ts'esθir	'I wake up'

The last two examples may be deleting the ne-aspect prefix.

r deletion

There are few examples of r deletion.

darí̧yesɫini = dáisɫi̧ne	'devil'
horelyų̈ = alyų̈	'all'

These may have r derived from d of di- or de-.

Morpheme deletions

Not only are phonemes deleted on a regular basis but it appears that certain morphemes can also be dropped. It has already been suggested that ne-and di-are two modal/aspect morphemes which can be deleted.

t'a deletion

The morpheme t'a- which seems to act somewhat as indefinite pronoun is sometimes deleted.

t'así hestsi = sí hestsi	'I make something'

This may actually be a result of the alternation of t' with ? and subsequent ?V- deletion.

be-deletion

The definite pronoun object prefix is sometimes deleted.

beresdzay = resdza	'I'll try it'
segáné bek'eté = segan k'eke	'My arm is broken'
bek'óreshą = k'óreshą	'I know it'

As stated earlier, this may be the morpheme deleted from bewúle desche.

ha-, ho- deletions

The prefixes ha- and ho- also delete occasionally. These prefixes are indefinite or temporal-local in meaning.

hatsáɬ = tsále	'nail' (noun)
t'ay hórel?į̇ = t'arel?į̇	'he wants s.t.'

This seems to be deletion of a specific morpheme rather than h deletion followed by initial vowel deletion. ho- deletion has two interesting effects. In the verb homą 'it stinks' when ho- is deleted there is left a verb stem with no prefixes. It has long been considered a basic of Chipewyan grammar that there must be a CV prefix before verbs, though we have already seen two examples of #V + stem. In addition to mą another example of a bare stem occurs in

(seyí) xeθ	'(my throat) is dry'

These examples appear to indicate that a verb prefix is no longer mandatory.

The second effect of ho- deletion appears in the words

horadzį̇ = radzi	'spider'
horátθén = ratθén	'grasshopper'

r (an alveolar tap) in final position is derived from -d and does not contrast in this position. Medially d alternates with its derivation r except in stem initial position where r is not reversed to d and now contrasts phonemically with d initially. At this time no minimal pairs have been recorded.

Finally, there are contractions and deletions which are inexplicable.

ɬésuyalgedeze = ɬíodes	'Murky River'

deze is obviously shortened to des but the first nine phonemes have collapsed to three with no obvious pattern. The only comment here is that neither form is likely to be confused with any other word and thus communication within a generation level is not disturbed.

There is no evidence available to indicate whether these forms are understandable across generation levels, although when presented with the longer form, younger speakers immediately produced the shorter form which they preferred. Similarly, the older form mį̇tsage 'owl' is rejected in favour of mútsa by most younger speakers.[5]

We have seen that word shortening is a process resulting from

deletion of certain phonemes (g, $ł$, h, n, r, V) and morphemes (ne-, di-, t'a, be-, ho-). These deletions are restricted in their applications to certain environments. There seem to be no cases where ambiguity arises from the shortened form. In the case of the verb aspect prefix deletions, younger speakers seem to be developing a pattern of using tense-marking suffixes instead, possibly an influence from English.

Motivations

One question which arises is the motivation for the phenomenon of shortening.[6] Several factors may be involved.

Phonological change

Certain phonological alternations can create an environment for extension of a certain deletion. For example, if t' weakens to ? which does not prohibit initial vowel deletion, then forms such as t'a- are easily deleted.

Ignorance

Younger speakers may not hear more conservative speech. In the Snowdrift community children appear to have a large degree of freedom and independence and seem to associate little with older speakers, preferring to roam in peer groups. Thus the forms they are most exposed to are those of casual speech or 'slang' and they are unaware of underlying forms.[7]

Isolation

Snowdrift is the northeasternmost of the Chipewyan communities and is composed largely of migrants from Fort Smith and Fond-du-Lac over the past forty years. It is close to Dogrib and Slave communities, especially Yellowknife where much of the Snowdrift population shops and drinks. A number of Snowdrift residents profess an ability to speak Dogrib and some are of Dogrib descent and have learned Chipewyan as a second language. Thus speakers are in closer contact with related Dogrib than with Chipewyan communities.

Cultural disintegration

Until very recently alcoholism was an extremely damaging problem in Snowdrift. With community prohibition the extent of drinking has been reduced, but no cultural activities are sponsored except for English movies, gambling, and very infrequent dances with 'country and western' music. No traditional dances seem to have been held for quite some time. English is becoming more and more dominant so that even preschool children often speak to each other in English. The advent of television in the next few years will undoubtedly hasten this trend. The emergence of English is already causing some speakers, particularly those who have been 'out' to high school in Fort Smith or Yellowknife to interpret some of the phonemes according to the English system. Thus the plain stops and affricates are becoming voiced as in English. The deletion of g and replacement of $ł$ with h or s and the reinterpretation of nasal vowels as Vn or Vm may also be part of this process.

It is not clear whether the forms recorded by Li, Scollon and Richardson are actual forms for all speakers in their communities or whether they are idealized and possibly somewhat stilted. Scollon (1978: 15) indicates that Li's informant initially gave variants but quickly established norms which he then maintained throughout the remainder of the work. Scollon's own work states he also used one informant primarily, one who was a recent arrival from an outlying area and that neither of them established close contact with the whole community.

Haas (1968) and Rice (1978) also give citations from single speakers which may or may not reflect the norms of their respective communities. But when all the sources are examined together some of the processes of word shortening and phoneme alternation become clearer.

Haas, Rice and Scollon all refer to the t-k shift whereas Li and Richarson do not. Li (1933:122) describes t as having a 'gutteral spirantal glide'. Richardson makes no mention of it at all, but speakers on the accompanying tapes clearly have a velar glide with accompanying rounding, e.g., [ya̱t^{xw}i] 'he speaks'. Perhaps the t-k shift is a northern Chipewyan areal feature. Thus the older Snowdrift speakers, being originally from the south (e.g. Fond-du-Lac) have not adopted it where the younger speakers have. Speakers in their late twenties or thirties alternate between t and k.

As for word shortening, Haas gives an example ka̱γɛ, ka· 'three' which corresponds to the Snowdrift forms and shows that –ge deletion is active in YC. A comparison of all 'dialects' for the word 'five' is illustrative.

Li (1932)	sasu̱láge
Haas (1968)	sa̱u̱láge
Richardson (1969)	so̱láge
Snowdrift (o.s.) (1979)	su̱lage
Rice (1978)	sulaa
Snowdrift (y.s.) (1979)	su̱lá

It is obvious that Li's medial -s- is deleted in all the other forms. Haas has not yet assimilated the vowels but the nasalization has been extended. Richardson and SD (o.s.) have deleted a. In SD u̱ is often o̱ in y.s. This appears to be the case in Richardson as well. Rice has dropped g and assimilated the vowel (and denasalized u). SD (y.s.) has dropped –ge.

One possible motivation which has not been pursued is that as speakers become older and more proficient in the language they adopt the more conservative forms and are more aware of underlying formations. Thus the shortened forms are not a recent phenomenon but are characteristic of younger speakers in each generation and only a few of the changed forms are adopted in each generation to contribute to permanent change. The t-k shift appears well established, at least in northern Chipewyan. ho- deletion is established in at least some words and may eventually expand. The other variations discussed appear only in younger SD speech and it cannot be determined at this time whether these changes are permanent.

Footnotes

[1] Li's classic monographs on Chipewyan (Li 1933, 1946) are often considered as definitive of the language. However it is seldom realized that they are based on information from one speaker and cannot reflect the variations which occur among speakers. Thus any variation has been considered a new 'dialect' of Chipewyan (cf. Haas 1968, Rice 1978).

[2] Snowdrift citations are given in their orthographic forms. ch = /t̆š/; ë = /ə/; e = /ɛ/; g = /ɣ/; đ = /ð/ (cf. Cook 1979).

[3] Possibly from -guł 'to scrape', -guł 'to wrap' or -guł 'to roll'.

[4] This corresponds to the probable English /yəlnaif/ which is easily interpreted as 'Yellowknife' though /bUtšnaif/ cannot be interpreted as 'butcherknife'.

[5] This alternation is curious in that míł- does not become mín- as -bíl becomes -bin 'net' or teθeł becomes teθen 'axe'. This is the only case of initial m other than (ho)ma 'it stinks' and malay 'French'. łekëm/sekëm 'sweet' and nám 'candy' are the only cases of m final. Medially m results from a homorganic nasal, e.g. tsą, tsąmba 'metal'.

[6] I raise the issue but the answers lie outside the scope of this paper.

[7] A parallel in English is the contraction [šUda] 'shoulda' which is derived from should have but among younger speakers is often interpreted as derived from should of.

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Particle t'a in Snowdrift Chipewyan*

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0. Some problem has arisen in accurately characterizing the general na-
ture, the morphosyntactic description, and, in particular, the function
of the putative relative clause marking particle t'a in Chipewyan. This
paper attempts to provide a preliminary account of t'a, expanding on work
which has preceded.

Section 1 of the paper briefly describes the general nature of
Chipewyan syntax with concentration on word order and verb morphology.
Section 2 presents the research of Fang Kuei Li (1946) and Richard Carter
(1979), with a critical appraisal of the claims made by Carter. Section
3 provides the justification for positing two quasi-homophonous particles,
one serving as an instrumental/causative marker and the other marking sub-
ordinate constructions. Sections 4 and 5 present the data which were
collected in Snowdrift, North West Territories in June of 1979 and which
clarify and support the claims I make here. Section 6 presents the re-
sidual problems that remain concerning t'a, and Section 7 summarizes the
paper.

1. Chipewyan is generally a verb-final language. The verb-complex may
stand as an independent sentence in all circumstances. When nominal forms
occur with the verb-complex in a sentence, the ordering is subject/comple-
ment/verb-complex, with "complement" here understood to encompass nominals,
locative, instrumental, and/or temporal phrases, etc. The following ex-
amples illustrate simple sentences in Chipewyan:

1. ?eɣézé hesbes
   egg   I cook/boil it
   'I am cooking/boiling the egg.'

2. setθi   néðəl
   my head it is hot
   'My head is hot.' (i.e. 'I have a fever.')

3. nən sənaðər
   you you play
   'You are playing.'

4. a. hásθá
      'I do it.'

   b. hásθá-ile
      I do it-NEG[1]
      'I don't do it.'

5. ts'elt'ui bastθi
   tobacco   I want it
   'I want a cigarette.'

6. si tθ'áy hánasday-xa
   I   cup   I get it-FUT
   'I'll get the cup.'

7. sekuaze   ts'i-aze-*t'á*   sanahede
   children   boat-DIM-INSTR   they are playing
   'The children are playing with a little boat.'

8. diri ké   nái̧łní détí-(i)le
   these shoes you pay expensive-NEG
   'You can buy these shoes cheap.' (or 'These shoes are cheap.')

Examples (1) through (7) are relatively straightforward, illustrating various Chipewyan sentence constructions. I note that the independent pronouns are related to the pronominal prefixes in the verb-complex, as will be clear in the discussion of verb morphology below. Sentence (8) illustrates the fact that certain adverbial constructions may follow the verb. The verb may also be followed by suffixes which attach to the verb (e.g. -ile NEG; -xa FUT, etc.) (examples (4b) and (6)).

Chipewyan verb morphology is extremely complex and it is virtually certain that it is not yet fully understood. Li (1946) provides the best known and most complete description of verb morphology and I make use of his material extensively in the discussion to follow.

The following schematic diagram illustrates the positioning of prefixes, stem, and suffixes in the verb-complex:

10 - 9 - 8 - 7 # 6 - 5 - 4 - 3 - 2 - 1 + STEM + suffixes

Position	Category
10	Incorporated postpositions
9	Adverbial, adjectival
8	Iterative (aspect)
7	Incorporated nouns
#	Conjunct-disjunct boundary
6	3pl subject pronouns
5	Direct object pronouns
4	Mode
3	Aspect
2	Pronominal subject
1	Classifier

Prefix positions 7 to 10 are disjunctive and positions 1 to 6 are conjunctive. The conjunct-disjunct boundary defines a point over which no phonological assimilation may occur. There seem to be some phonological interactions at the boundary between the classifier and the stem, but these are at present poorly understood. The suffixes which may attach to the stem are, e.g. future (-xa), future intensive (-xa-si̧), negative (-(h)ile or -(h)i̧le), interrogative (-húsá̧, -ú, -á̧), etc.

Of primary interest here will be the pronominal subject and object prefixes, the remainder of the verb morphology being of little consequence to the discussion to follow.

The pronominal subject prefixes, appearing in position 2 (except for the 3pl prefixes which appear in position 6), are as follows:

	Singular	Dual/Plural
1	-s-(-i-)	-id-
2	-ne-(-n-)	-uh-
3	Ø (-i-)	-he-, -dá-

The singular prefixes in parentheses appear with the perfective (aspect) or with a voiceless classifier in position $\underline{1}$ (i.e. ɬ-classifier or ∅-classifier).

The pronominal object   prefixes, which appear in position $\underline{5}$, are as follows:

	Singular	Dual/Plural
1	se-	nuh-
2	ne-	nuh-
3	be-	be- , ye-
4	ye-	

The 4sg is used when there is a 3sg subject in the verb-complex.

The independent pronouns which appear in some of the examples in this paper are as follows:

	Singular	Dual/Plural
1	si	nuhni
2	nən	nuhni
3	(dem.pron.)	(dem.pron.)

The verb stem often changes between sg subject and dl/pl subject and may also alternate with mode and/or aspect of the verb. There are several complex phonological processes involved with verb constructions which may change the phonetic shape of the surface verb considerably. I will, in general, ignore these complex interactions as they are of no consequence to the discussion of the particle t'a.

Finally, I present a few examples of underlying morphology of the verb complex:

9. [suga saįɬtšu] <---- /se - γa - i - n - ɬ + tšu/
                         me   to asp. 2sg clas. STEM
   'Pass me the sugar' $\underline{5}$ - ($\underline{5}$) - $\underline{3}$ - $\underline{2}$ - $\underline{1}$ + STEM

10. [ɬuwe θiɬsá]   <---- /θe - i - ɬ + sá/
                          asp. 3sg clas. STEM
    'He catches fish' $\underline{3}$ - $\underline{2}$ - $\underline{1}$ + STEM
    (lit. 'fish he hooks it')

11. a. [hesθál] <----- /he - s - ∅ + ðál/[2]
                        peg 1sg clas. STEM
       'I yawn' $\underline{3}$ - $\underline{2}$ - $\underline{1}$ + STEM

    b. [heðál] <----- /he - ∅ - ∅ + ðál/
                       peg 3sg clas. STEM
       'He/she yawns' $\underline{3}$ - $\underline{2}$ - $\underline{1}$ + STEM

12. a. [ɬeγá̧sθir-xa] <-- /ɬeγá # na - s - ∅ + ðid + xa/
                          adv. asp. 1sg clas. STEM FUT
       'I will die' $\underline{9}$ # $\underline{3}$ - $\underline{2}$ - $\underline{1}$ + STEM + FUT

    b. [ɬeγá̧ðir-xa] <--- /ɬeγá # na - ∅ - ∅ + ðid + xa/
                          adv. asp. 3sg clas. STEM FUT
       'He/she will die' $\underline{9}$ # $\underline{3}$ - $\underline{2}$ - $\underline{1}$ + STEM + FUT

13. a. [desɣər] <----   /de # s - 1 + ɣəd/
                           adj. 1sg clas. STEM
        'I shiver'   9 # 2 - 1 + STEM

    b. [delɣər] <----   /de # ∅ - 1 + ɣəd/
                           adj. 3sg clas. STEM
        'He/she shivers'   9 # 2 - 1 + STEM

This completes the preliminary sketch of Chipewyan syntax and
morphology. The remainder of the paper is devoted to a discussion of the
particle t'a.

2. Scrutiny of Li's (1946) traditional taxonomic analysis of
Chipewyan yields several listings for the particle t'a, which are summar-
ized as follows:

14. t'á (high tone): a postposition meaning "by means of" (p. 403)

15. a."The relative pronouns are t'ahi 'that which', t'ạhį 'the one
       who', t'ahú 'the time when', which are used to introduce a
       relative clause..." (p. 421)

    b. "-i relative suffix. The verb with this suffix is often
       introduced by the particles [listed in (15a) above]." (p.
       419)

Li's examples for this function are listed in (15c) and (15d):

15. c. t'ạhį   sas-xɛ́ɬ   θɛtị-i
       the one bear-with he is sleeping-who
       'the one who is sleeping with the bear'

    d. t'ahú   sas-xɛ́ɬ   nɛ̌ðtị-i   hots'į
       the time bear-with he has lain down-when it-from
       'since the time when he slept with the bear' (p. 420)

16. hị̀t'ǔ [<-- hị̀t'ùú] 'while' (p. 421)

17. ʔɛdlá·t'ǔ [<--- ʔɛdlá·t'ùú]; ʔɛdlá·t'ɛ 'how?' (p. 421)

18. "The indefinite pronouns are: t'asî [<--- t'asîî] "anything,
    something," nahɛ̂i "something, some of the things," nǎ·ne
    "some one, some of them," etc." (p. 421)

19. a. ʔɛt'axạ 'suddenly'
    b. ʔeyit'a 'therefore'
    c. kút'a   'enough' (p. 422)

Finally, in a section which briefly describes Chipewyan word order,
Li gives the following example of a sentence containing a subordinate
clause:

20. t'ahú   sas-xɛ̂ɬ   nɛðtị-i   hots'į, ʔɛkú·
    the time bear-with he has lain down-when it-from then

    hụɬdụ́ú   sas yɛts'ə́n xáyaɣiɬtei
    afterwards bear him-to he spoke

    'Since the time when he slept with the bear, only then the
    bear spoke to him.' (p. 423)

Many of these listings ((16), (17), (18), (19a), and (19c)) are not relevant at present.[3] That is, considerable research would be required to relate all of these listings, if, indeed, they are all related.

Carter (1979) presents a more contemporary treatment of t'a, terming it "a clause-initial relative subordinator" (p. 2) which acts in conjunction with the clause-final complementizer -i. The following sentences are examples from Carter's paper (his examples (5) and (6)):

21. denəyu [t'a ɬį he'eð-i]   bə́r ɣąšétį
    man   REL dog kicked-COMP meat ate
    'The man who kicked the dog ate the meat.'

22. ɬį [t'a denəyu yé'eð-i]   bə́r ɣąšétį
    dog REL man   kicked-COMP meat ate
    'The dog that the man kicked ate the meat.'

It is apparent both from Li's paper and from the Chipewyan material which we collected in Snowdrift that this is an incomplete statement of the ways in which t'a functions.[4]

3. At the outset, it must be stated that the existence of two quasi-homophonous particles must be accepted, one being an instrumental/causative marker and the other serving as a subordinate clause marker. These two particles, assuming that there are two, differ in the tone which marks them. The instrumental/causative marker commonly appears with high tone and the subordinate clause marker commonly appears with low tone. It is the case, however, that the correlations between phonemic tone and grammatical function are not perfect. Athapaskan tone systems are largely unresearched to date, hence leaving open the question as to whether some phonological or morphological conditioning is operating to mark the particles for tone. For the purposes of exposition, I will assume that the instrumental/causative postposition is marked with high tone and that the subordinate clause marking particle is unmarked for tone.[5]

4. It seems reasonable to assume both the causative and the instrumental functions of t'á under one semantic class. The justifications for doing so are (1) there is a single semantic characterization which is sufficiently broad to include both uses;[6] (2) the particle always appears as a postposition in this function; and (3) the particle almost invariably appears with high tone, thus making the instrumental marker phonetically indistinguishable from the causative marker. The following are examples of the instrumental/causative usage of t'á:

23. ʔeyi-t'á xąt'e kúlú   yets'ə́n daθeya   hik'ela
    this CAUS it was though to it he went up it is said
    'Despite this fact, he went up to it, it is said.'

24. húštšu   yeheniðən   k'ít'á yets'ə́n he?as
    we take it they thought it-CAUS to it they went
    'Because they thought they would like to take it, they went to [the rainbow].'

25. ts'ą́kui   adiú, "dúwela, seteθ'əne-t'$\acute{a}$ hesal-xa   dúwela"
    old woman said   NEG   my leg-CAUS   I walk-FUT NEG
    'The old woman said, "No, because of my leg I won't/cannot
    walk."'

26. ts'ą́kui   teθ-t'$\acute{a}$ yeka   héya
    old woman cane-with   for it she went
    'The old woman went with a cane.'

27. bįlá-t'$\acute{a}$ yekarelniy
    her hand-with she was feeling him
    'She was feeling [the baby] with her hand.'

28. detšən-t'$\acute{a}$ yeǫ̨-ɣe natθiy   hik'éla
    stick-with den-in   he felt/prodded it is said
    'It is said that he prodded inside the den with a stick.'

29. sas heðáθ   kon-t'$\acute{a}$
    bear they singed/cooked fire-with
    'They cooked the bear meat with fire.'

To summarize briefly, instrumental/causative t'á (1) operates as a
postposition following nominal elements (although it can follow verb
forms);[7] and (2) the particle appears more often with high tone in this
function.

5. T'a as a subordinate clause marker (with unmarked or low tone) operates
in the following narrow classes: (1) marking indirect questions; and (2)
marking subordinate qualifying clauses.[8] Sentences (30) to (34) are ex-
amples of the former:

30. [t'qy ʔeɣálana] bek'óREšyą-ile
    PART he works I know it-NEG
    'I don't know who is working.'

31. [t'ay horél?į̨]   bek'óREšyą-ile
    PART he wants it I know it-NEG
    'I don't know what he wants.'

32. [t'a-ts'ə́n ʔeɣálana] bek'óREšyą-ile
    PART-LOC   he works I know it-NEG
    'I don't know where he works.'

33. [t'o yuɣé   nade-xa]   bek'óREšyą-ile
    PART (over)there he goes-FUT I know it-NEG
    'I don't know when he's leaving.'

34. [ʔeɫ-t'ay   ʔeltθ'i]   bek'óREšyą-ile
    RECIPROCAL-PART it is right I know it-NEG
    'I don't know which one is the right one.'

Examples (30) and (31) illustrate a minimal semantic (morphological)
contrast in that the only distinctive difference between t'ay and t'ay is
the nasalized vowel, which is underlyingly a nasal consonant as Cook (1979)
points out.[9] The underlying nasal consonant marks the feature [human], as

it does with the interrogatives ?edláye 'what?' versus ?edláyi 'who?'
The incorporation of -u into the particle t'a yields t'o 'when' (in ex-
ample (33)), analogous to the interrogative ?edláu or ?edló 'when' (i.e.
[temporal]).

These phenomena are consistent throughout the data, as are the
general principles for the formation of indirect questions. The following
rule is a first approximation for the formation of these constructions:

> 35. a. Place t'a at the beginning of the embedded clause.
>   b. Attach the appropriate morpheme which marks the feature
>   [human], [temporal], or [locative].

Some problems arise with trying to accurately determine the prin-
ciples for the use of t'a as a subordinate qualifying clause marker.
Several strategies seem to be possible and we see a considerable amount
of variability in the surface forms for the subordinate structures. Con-
sider the sentences in examples (36) through (38):

> 36. [t'ay nék'e   ?ahet'i-sł]   yek'órelya-ile
>   PART country they were-PART they knew it-NEG
>   'They didn't know what country they were in.'
>
> 37. [eteén   łaiłde-ú   t'ólasł] ?egəne
>   caribou they killed them-NOM PART   dry meat
>
>   héhetsi-ú   bér-ú   łúw-ú   t'ólasł[10]
>   they made-NOM meat-CONJ fish-CONJ PART
>   'Having killed the caribou, they made dry meat, meat, and fish.'
>
> 38. [t'ohú tsąba sets'í   lası] bewuli-destše-ts'én   nast'ay-xa
>   PART money I have it PART Yellowknife-to(ward) I fly-FUT
>   'When I have money, I will fly to Yellowknife.'

In examples (36) and (38), clause-initial t'a is associated with
a clause-final particle -sí (or -łasi). This latter particle seems to
distinguish indirect question forms from subordinate qualifying clause
forms. Sentence (36) is not entirely clear, however, in that it has an
identical structure to the sentences containing indirect questions (ex-
amples (30) to (34)). The best suggestion at this point is that either
(1) the particle -sí (or -łasí) does distinguish indirect questions from
subordinate clauses and there is some subtle semantic distinction which
is not apparent in the English translation; or (2) the appearance of sí
(or -łasí) is in some way dependent on the main verb form, i.e. in (30)
through (34) the verb is lsg subject, while in (36) the verb is 3pl sub-
ject.

Sentence (37) shows the interesting fact that t'a does not invari-
ably appear clause-initially. It seems reasonable to predict that there
is an optional movement rule which either (1) fronts the particle t'a to
the left of the embedded sentence, or (2) moves the clause-initial par-
ticle to a position between the verb form in the embedded construction
and the clause-final particle -sí (or -lasí).

The general principles involved in the formation of this type of

subordinate clause are quite similar to those employed in indirect question formation:

39. a. Place t'a at the beginning of the embedded clause and sí

Footnotes

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[1] The following abbreviations will be used: NEG-negative; FUT-future; DIM-diminutive; INSTR-instrumental; REL-relative (marker); COMP-complementizer; CAUS-causative; PART-particle; LOC-locative; NOM-nominalizer; CONJ-conjunction; asp.-aspect (prefix); clas.-classifier; adv.-adverbial (prefix); adj.-adjectival (prefix); dem. pron.-demonstrative pronoun; dl-dual; 1sg-first person singular (prefix); 3pl-third person plural; etc. The particle t'a/t'á is italicized in full sentence examples.

[2] The peg prefix he- appears when no other aspect, mode, adverbial, etc. prefixes are present.

[3] I list the seemingly irrelevant forms only for the purpose of completeness. It is to be hoped that one day all of the forms can be related through some abstract semantic concept such as 'source.'

[4] The reasons for claiming this are (1) we were completely unable to elicit examples of the form of Carter's (sentences (21) and (22)); and (2) Carter did not mention that t'a/t'á serves as an instrumental/causative marker as well.

[5] There are some examples in the data to follow which do not adhere to this "ideal" phonemic contrast.

[6] Furthermore, it is translated into English as "by means of" in virtually all cases.

[7] Although they are seemingly rare, the following are examples of t'á following a verb:

    (i) yuní-təð e-k'é ʔedláɣį nek'e naįdðər-t'á   ts'éni
         last night   who   there he fought-PART he is (my) friend
         'The fellow who fought last night (at your place) is my friend.'

    (ii) kú bebíaze adiú, "setsuné   ʔedlá-nedža-t'á
         so baby   said   my grandmother what happened to you-PART

         adinit'á   ʔenaɣá-tšo(g) ʔonídelya lasį" héni   k'e bebíaze
         you say that eye-big   PART he said   baby
         'So the baby said, "Grandmother, what happened that led you to say 'ʔenaɣá-tšo(g) ʔonídelya?'"'

[8] It may be the case (in the final analysis) that there is no distinction between these classifications in Chipewyan.

[9]

paper (in preparation). A large body of text material will provide the basis for the analysis. This paper is only a preliminary working version.

[12]Examples (42) and (43) are termed "intensive" (i.e. "emphatic") because of the glosses we were given. In (42), beyą translates as 'give to him' although it is simply the 3sg objective pronoun be- and the post-position -yą 'to.' In this case, it serves as a verbal form as evidenced by the postverbal suffixes -xa FUT and -híle NEG. In example (43), ʔaįni 'you say it' followed by -t'a yields "emphatic saying" (i.e. 'you expect it').

[13]I.e. I have circumvented these problems in anticipation of a definitive statement concerning t'a/t'á (Jehn, in preparation).

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