PAMAPLA 21

Papers from the 21st Annual Meeting
of the
Atlantic Provinces Linguistic Association

Mount Saint Vincent University
Halifax, Nova Scotia, Canada
7-8 November 1997

ACALPA 21

Actes du 21ième Colloque annuel
de
l'Association de Linguistique des Provinces Atlantiques

Mount Saint Vincent University
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7-8 Novembre 1997

Edited by/Rédaction
Marie-Lucie Tarpent

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AUTHORS' ADDRESSES/ADRESSES DES AUTEURS-E-S

Ronald Cosper
Department of Sociology
St. Mary's University
Halifax, NS B3H 3A1

Raymond Mopoho
Department of French
Dalhousie University
Halifax, NS B3H 3J5

Robert L. Rankin
Department of Linguistics
University of Kansas
Lawrence, KS 66045-2140

Walcir Cardoso
McGill University
1 - 804 Tupper
Montréal, PQ H3H 1N4

Christopher Culy
Linguistics Department
University of Iowa
Iowa City, IA 52242

Michael Gregory
RR #1
Mount Uniacke, NS B0N 1Z0

Lise Lapierre
Department of French
Dalhousie University
Halifax, NS B3H 3J5

Pierre Larrivée
Secteurs Arts et Lettres
Université de Moncton à Edmundston
165, boulevard Hébert
Edmundston, NB E3V 2S8

Donna L. Lillian
Languages, Literatures & Linguistics
South 561 Ross Bldg.
York University
North York, ON M3J 1P3

Anthony C. Lister
Département d'études françaises
Université du Nouveau-Brunswick
Fredericton, NB E3B 5A3

Virginia Motapanyane
Division of Humanities and Languages
University of New Brunswick
Saint John, NB E2L 4L5

Lewis J. Poteet
604 les Erables
Laval, PQ H7R 1B6

Carol Stanley-Thorne
71 Gibson Road
Moncton, NB E1E 2K4

Noni Warner
Nova Scotia Community College
1825 Bell Road
Halifax, NS B3H 2Z4

Language Diversity and Language Origins

La diversité des langues et leur origine

THE EVOLUTION OF LANGUAGE AND LINGUISTIC THEORY

Ronald Cosper
Saint Mary's University

Introduction

Where does language come from? Granted that it is a distinctive and perhaps defining human attribute, how did it arise? Was it given to us as a fait accompli, or does it have a history? Earlier in the history of linguistics, these issues were discussed, but the unproductiveness of these efforts, together with the development of synchronic structuralism after Saussure, led to a virtual taboo on consideration of questions of language origin. Recent times, however, have seen a resurgence of interest; archaeology has taught us much about human evolution, and linguists have reintroduced biological considerations into linguistic theory. Language is now seen as a species characteristic, and we have thoroughly investigated the anatomy, physiology, and neurology of speech production. Generative linguists take for granted that language is an intrinsic human attribute and have proceeded to study its universal psychological underpinnings.

However, there are odd omissions in our current view of language. For one, although biologists have provided much additional data and theoretical work, linguists have failed to study language in the broader perspective of comparative animal communication as a species characteristic and as an evolutionary product. Second, although linguistic researchers have called attention to the omnipresence of language change, in linguistic theory the study of language change remains isolated from mainstream theory, which is still generally synchronic.

The Ritualization of Communication in Animals and Humans

In the same way linguists now view language as a species characteristic, biologists understand that the communication systems of many animals, including mammals, birds, fish and insects are distinct and universal for each species. Patterns of so-called expressive movements arise, according to ethologists, when earlier motor patterns are converted into expressive patterns through a process known as **ritualization**. These changes occur as part of the phylogeny or development of the species as well as more individually and locally as part of the animal's adaptation to its environment. Presumably in species where learning is a more important part of adaptation, ritualization of movements can occur in response to social, biological and material needs. Practically any type of motor behaviour can be ritualized, including locomotion, feeding, drinking, grooming, nest-building, caring for offspring, sexual postures, sleeping, fighting, defense, respiration, urination, defecation, movements of hair or feathers, and blushing. Various

sensory channels can be used for communication (Wilson, 1975), such as chemical, auditory, tactile, visual, and electrical. Auditory communication is also the product of ritualization, although functional changes are not as great or as obvious as in visual signals. Auditory signals may originate as accidental by-products of some instrumental activity, which can then take on more social functions with ritualization. Birdsong, for example, can be said to be a form of ritualized respiration, but the sound patterns used for communication must have begun either accidentally or by some other means, such as playful activity.

Expressive movements change during the process of ritualization in several ways (Eibl-Eibesfeldt, 1975). First, the **function or meaning** of the movements changes. In the first instance, the function changes from instrumental to communicative, and subsequently the process of ritualization continues to effect change in the meaning of communications. For example, ducks may make use of the initial movements in flying to display danger and the desirability of fleeing. Signals may concern the external environment, such as the availability of food, or warning or distress calls, or they may concern aspects of group life, such as fighting, threats and cohesion. The latter meanings are quite complex and may involve courtship, greeting, submission or dominance and maintaining contact. In the case of human language, what began as ritualized respiration probably became emotionally expressive in the first instance, and subsequently communicative of emotion and then of more complex social and environmental needs. Progressive ritualization led to semantically more complex and differentiated utterances.

During ritualization movements become **motivationally independent** of their origins or autonomous (Hess, 1965). That is, the communicative need, for example in birds (Lorenz, 1966), becomes a strong instinct in itself that can overpower other phylogenetically earlier motivations, such as sex and hunger. In the case of our own species, we are certainly strongly motivated to speak, as in situations of greeting, and the absence of communication can cause conflict or mental distress. Language is also motivationally independent in that the performance of the ritual becomes an end in itself, in which exact repetition is vital to maintaining the communicative function of the ritual. Linguistic conformity is important because of the complex semantic content of our messages. This uniformity results from the speaker's acquisition in childhood of the phonology, lexicon and grammar of the mother tongue and from the modifications to it resulting from group membership and interaction throughout life. Speaking among humans is a drive in its own right, and good linguistic performance is inherently gratifying.

Another characteristic of ritual refers to **modifications in the movements** themselves in relation to the original instrumental action or the previous ritual. The movements can be exaggerated in frequency or amplitude. Ritual actions are often rhythmically repeated. The movements are frequently slowed down or sped up. The number of movements can increase or decrease, and the sequence of the units may also

change. Sound production in crickets has been carefully studied (Huntingford, 1984: 288). The movements producing the sounds originally evolved from sounds produced accidentally during flight, but with progressing evolution, the sounds became modified as amplitude modulations broke up the sounds into chirps, which became less variable and more systematic. Such changes in ritualized movements are similar to the properties of sound used to transmit meaning in language. Modification in sound quality is, of course, the fundamental mechanism by which meaning is transmitted in language. The basic motor units of ritual consist, in human language, of sound segments or phonemes. The segments are created by the mechanisms of ritual modification of sound quality, in which auditory distinctions result from exaggeration, increase, decrease, repetition, rate regulation, and changes in sequencing of sound units. The simplification of ritual movements is reflected especially in vowel sounds where modification in the first two formants may be adequate to keep vowel sounds apart. The rhythmic repetition of ritual underlies the syllabification of language utterances, or the alternation of stressed and unstressed syllables. In tonal languages modification in pitch also functions to keep meanings distinct.

An important quality of ritual in animals is its **discreteness**: the behaviour assumes a constant intensity, with an all-or-nothing quality. Discreteness is generally characteristic of dual-level codes; Morse code is an example where the sound bit is a dot or a dash, with no intermediate signals. This characteristic of ritual, a stereotypic quality, is related to its motivational independence, in which the ritual separates from its semantics and becomes an end in itself. Actually, in the animal world, some signals are graded, rather than discrete. In fact other primates tend to have graded signalling systems, where nuances of meaning are communicated by continuously differentiated signals. Other species, however, have discrete signalling systems, which are the more ritualized ones. In the case of human language then, we are distinct from other primates in the dual patterning of language into phoneme and morphemes. However, this duality merely makes use of a more ancient evolutionary device, that of ritualization. It has been suggested that some birds, for example, have developed true duality of patterning (Livingstone, 1973). In human beings, it is our paralinguistic communication that retains the old graded quality of other primate call systems. Other linguistic phenomena, such as phonetic symbolism and instances where vowel changes have semantic or morphemic functions, as in the vowel ablaut of Proto-Indoeuropean, may be analyzable as remnants of the earlier graded signalling system.

In animal ritual, formerly variable sequences of movements become stereotyped into **fixed sequences**. In human language the order in which basic units (phonemes and morphemes) occur is rigidly specified and essential to successful communication. It is possible that the hierarchical nature of linguistic constructions is an innovation of human language; this question must await further study of both animal and human communication systems. Since the number of possible messages that human language can convey is far greater than the number of phonemes or morphemes, it is the

constructions defining the sequencing of these elements that convey much of the meaning.

In animal ritual, **bodily organs** have developed and changed in such a way that they facilitate communication. Ducks may evolve colors on their wings that show prominently during flight displays. For humans the central nervous system as well as the vocal and auditory organs appear to have features that are mainly specialized for speaking or hearing language. Cerebral lateralization appears to have evolved in human and not in other primates, presumably in part to perform a linguistic function. Our control over breathing is well suited to speaking, but it is likely that breath control was an evolutionary pre-adaptation to language, have evolved in the first instance in response to selective pressures for long distance locomotion. It is interesting that birds also have developed a degree of hemispheric specialization, and that they also engage in prolonged long distance locomotion. It is likely that the rhythmic control over organs of locomotion was also an evolutionary preadaptation to rhythmic sound production in both species.

In birds, especially passerine song birds, the ontogeny of vocal communication is similar to that of humans in that there appears to be a critical period for the acquisition of song, after which it is difficult or impossible for the bird to acquire a normal set of calls and songs. Passerine birdsong appears also to be differentiated into dialects, in which social learning is a key component in transmission.

Some Directions for Linguistic Theory

The foregoing discussion would suggest that it is an error to restrict linguistic theory to a synchronic perspective. Indeed, the burden of our remarks is that the analysis of language as a **changing** institution would likely be at the centre of linguistic theory. If we take seriously the suggestion that there are universals of language and that language has a biological basis as a species characteristic, we must try to study language in the context of animal communication systems, generally. It would be quite appropriate to study variation among languages from a more exclusively human perspective, but theory that purports to be about language in general, as a human adaptation, must necessarily be comparative in an inter-specific sense. In science we must attempt to explain our subject matter, using the most general theory available, before resorting to more specialized theories. Moreover, to understand universals in language, it is necessary to use comparison with communications systems of other species in order to attain a degree of variation in what it is we are trying to explain. In the study of language, this maxim directs us to first explain what we can about language using the most general, pan-specific theory, and to fall back on theories that concern only human language, when the explanatory power of the more general theories has been exhausted.

In this paper, I have tried to show that the theory of ritualization can account for various universal aspects of language, including its use of discrete yet meaningless phonemic units, the semanticity of its constructions, its use of sequencing and hierarchy

to convey meaning, and numerous related issues, such as the evolution of language, its phonetic qualities, and cerebral lateralization. This line of investigation also would suggest that the synchronic and diachronic aspects of language may not be so different from one another. Moreover, the same tendencies toward ritualization that gave rise to much of the form of language should continue to operate today in influencing the use made of language and its changing form.

John Haiman (1994) suggests that repetition is a key aspect of language behaviour. It is repetition, in this view, that has lead to the shifts in meaning of linguistic symbols. Phonemes arose through the gradual loss of meaning that accompanied the change of morphemes first to bound affixes and then to meaningless sounds. This is an interesting and highly suggestive theory that is consistent with the theory of ritualization. In the earliest phases of the evolution of language, though, rather than morphemes, we have a graded call system, similar to that of pongids (great apes) today, which gradually loses semanticity and becomes stereotyped and discrete.

The theory of phonemicization is a special instance of the theory of **grammaticalization** in which erstwhile productive constructions become fixed through repetition, and some of the morphemes lose lexical meaning and take on a grammatical function. For example, the word "do" in the phrase "I do not know" is simply part of the construction indicating negation. There is no added sense of doing or making something. In West African languages serial verb constructions show evidence of undergoing a process of grammaticalization, in which verbs undergo reanalysis as (for example) adverbs, prepositions, complementizers. As meanings of these elements change, they typically move along a continuum from lexical verbs to grammatical function words or particles (Lord, 1993). In a number of languages prepositions have begun as words for body parts: for example, English 'in back of', Hausa 'a kan' "on top of", literally "at the head of". This general theory of the origin of grammatical particles is consistent with much research and is also consistent with the general theory of language as ritual being developed here.

Much less well developed than the theory of grammaticalization is work on **lexicalization**, another type of ritualization in language. In lexicalization, a combination of morphemes comes to take on a specialized meaning that is not deducible from the meanings of its component morphemes. For example, gréen house has a specialized meaning as a noun compound that is not deducible from its components; it stands in contrast with gréen hóuse, which means just what it says. Through repetition the first phrase has lost some of the meaning of its components and added a meaning for the phrase as a whole. The word 'bloody' cannot be used to characterize just any presence or quality of blood (it refers only to blood outside the body); 'earthy' has little to do with earth, and so on. The affix /-i/ in these instances functions only grammatically to mark the lexeme as an adjective; meaning can only be assigned to the lexeme and it must be learned as a whole. These examples illustrate the way in which the ritualization of

language leads to the loss of meaning of parts of behaviour sequences, and that new combinations take on meanings of their own. It is noteworthy that both these processes in language have implications for language change and for the ontogeny of language. Viewing language as ritual helps not only to understand the structure of language, but also its phylogeny and ontogeny.

The theory of ritualization aids in the interpretation of certain problems in morphology. Some morphology is very transparent and productive, and other instances are more opaque. It is easier to explain these variations diachronically; yet contemporary theory struggles with synchronic interpretations that are embarrassingly bad. Another instance is the first and second level affixes of English, where second level affixes, such as '-ness' are highly productive and demonstrate characteristics of syntactic constructions, such as the phonological property of gemination of consonants on the word boundary: for example, 'thinness' and 'thin neck' both involve gemination. It is often difficult to distinguish morphological from syntactic constructions: why do we ordinarily consider Swahili 'alimpiga' to be a word, while its English equivalent /hijhItIm/ is a sentence? Inflected languages are difficult to analyze morphologically, if we insist on a synchronic approach, and everyone knows a diachronic analysis is more fruitful.

The most general view of language that is consistent with the theory of ritualization has been called **construction grammar**. In its most basic form, construction grammar considers that language consists of phonemes and constructions. A construction is a unit or pattern that must be learned (Goldberg, 1995). Meaning is only conveyed by constructions. Lexemes are one type of construction, the minimal construction with distinctive substantive meaning. Grammatical morphemes and lexemes can be used to make larger constructions, which must also be learned. For example, "John sees Bill" is a transitive verbal construction which conveys the meaning "first noun does the action of the verb to second noun" ; it contains three lexemes and a grammatical morpheme. So-called lexical semantics could not predict the meaning of this utterance, because the construction, itself, is required to convey a full understanding of what happened in this situation.

Constructions develop and become elaborated through the process of ritualization, i.e., they develop meanings and change as lexemes do, through extension, restriction and metaphor. Idioms are an interesting type of construction, in which phrases develop lexeme-like qualities; some idioms are open patterns, and others are fixed in form and meaning. It is noteworthy that in his discussions of construction grammar, Fillmore (1988) makes all of these distinctions and yet maintains a synchronic, ultimately structuralist view. He finds it necessary to discuss the diachronic development of idioms in a footnote, as if it were theoretically irrelevant. In more recent statements of construction grammar, the importance of historical development is beginning to be recognized (Round Table on Construction Grammar, 1992). In fact linguists recognize implicitly, as Bloomfield (1933) did explicitly, that 'construction' is a useful, in fact, an

indispensable concept, although the theoretical implications of the idea are not generally appreciated (see, for example, Nam, 1996; Matsumoto, 1997).

It is clear that some communication systems are more open and productive than others. Insect ritual is very fixed, and that of fish seems relatively unproductive as well. More intelligent mammals tend to accomplish a degree of openness in their communications by the use of graded signs to indicate strength of a message, typically in response to strength of an emotion. Primates can combine two or more signs in various grades of importance to attain quite a degree of variation in message content. Humans have an extremely complex and open communication system in language, but its openness is accomplished by co-opting an evolutionarily ancient mechanism: ritualization.

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Origines et Définition du *WEST AFRICAN PIDGIN-ENGLISH*

Raymond Mopoho
Université Dalhousie

Par rapport à l'ensemble des études créolophones, il existe relativement peu de travaux sur le West African Pidgin-English (WAPE), et encore moins sur son origine. En dehors de Hancock (1986), les rares publications consacrées à la genèse du WAPE tendent en général à présenter ce dernier comme une entité homogène dont les variétés remontent à la même source, et ce malgré leurs différences phonologiques, morphologiques, voire sémantiques. En outre, alors que de nombreuses théories sont avancées pour expliquer la genèse des pidgins et créoles dans d'autres régions du monde, la thèse de l'origine monogénétique et de la relexification semble l'emporter ici. Or, nous pensons qu'une recherche rigoureuse sur la genèse du WAPE passe par la prise en compte d'éléments pertinents des principales théories existantes. Avant d'aller plus loin, nous examinerons succinctement quelques-unes de ces théories.

Théorie du langage enfantin et de la simplification

Défendue entre autres par Jespersen (1922) et Bloomfield (1970), celle-ci soutient que les Européens débarquant sur les côtes d'Afrique, d'Asie ou d'Amérique avaient l'habitude de parler aux autochtones dans un langage extrêmement simplifié, afin de se faire comprendre aisément. Ils étaient en effet convaincus que leurs interlocuteurs «sauvages», dotés de capacités intellectuelles «inférieures», ne pouvaient acquérir une langue «supérieure». C'est dans ce sens que Bloomfield (1970:446) a pu écrire :

> «Des locuteurs d'une langue inférieure peuvent si peu progresser dans l'acquisition de la langue dominante, que leurs maîtres, pour communiquer avec eux, ont recours au *langage enfantin*. Ce *langage enfantin* est l'imitation par les maîtres du discours incorrect de leurs sujets».

Le pidgin naîtrait de la stabilisation de ce langage. Cette théorie, depuis considérée comme paternaliste, est rarement évoquée aujourd'hui. Bickerton (1975:168) trouve qu'elle n'est rien d'autre que «...a reflect of the racist syndrome that called black males of all ages *boy*». Il note qu'il y a peu de similitude entre la grammaire enfantine et celle du pidgin. Le langage du créolophone débutant consiste en un système totalement articulé dont on peut se servir pour débattre de questions présentant différents degrés de complexité, tandis que le langage enfantin est un système partiel et inadéquat dans lequel on peut discuter de très peu de sujets, et où il n'est pas possible d'éviter les ambiguïtés.

Contrairement à l'hypothèse ci-dessus, trois théories attribuent une origine commune à tous les créoles.

Théorie de l'origine monogénétique et des universaux linguistiques

Selon la thèse de l'origine monogénétique, tous les pidgins ont pour ancêtre une langue véhiculaire dénommée *lingua franca*, dont se seraient servis les croisés lors de leurs échanges commerciaux avec les peuplades orientales (Hall 1966: 3; Todd 1974: 33; Whinnom 1965: 509-527). Cette langue, aussi appelée *sabir*, résulterait du contact entre diverses langues parlées dans les ports méditerranéens au Moyen-Age, dont notamment certaines langues romanes, ainsi que le grec, l'arabe et le turc (Perego 1968: 598). Elle se serait ensuite propagée dans le monde grâce aux navigateurs portugais, qui en auraient utilisé une version sur les côtes africaines, asiatiques et américaines. À partir de la fin du 16^{e} siècle, à la suite des contacts réguliers entre les indigènes des côtes et les Européens d'autres nationalités, les mots portugais auraient été progressivement remplacés par ceux du hollandais, de l'espagnol, du français et, dans le cas spécifique de la côte occidentale d'Afrique, de l'anglais. C'est le phénomène de relexification. Mais tous les auteurs qui défendent la théorie du jargon nautique ne soutiennent pas l'idée de la relexification. S'appuyant sur l'histoire de la naissance du créole sur les côtes de la Gambie et de Sierra Léone, Hancock (1986) suggère que le créole à base d'anglais a été introduit parallèlement au sabir portugais qu'il a simplement fini par supplanter.

Selon la théorie des universaux linguistiques, il existe une grammaire universelle qui sous-tend toutes les langues. Il en découle que le processus d'acquisition et le procédé de simplification des langues sont les mêmes chez tous les individus. Ainsi, les pidgins résulteraient de la disposition naturelle des êtres humains à intégrer différentes structures linguistiques pour satisfaire leurs besoins de communication (Todd 1984: 26).

Théorie des lois psychologiques et physiologiques universelles

Il s'agit d'une hypothèse essentiellement acquisitionnelle et biologique, avancée au siècle dernier par Coelho, puis soutenue par Schuchard et Hesseling, et aujourd'hui défendue par Bickerton avec son «Hypothèse du bioprogramme linguistique» (LBH). Elle se veut l'alternative de la thèse des universaux créoles de simplification. Elle a pour fondement l'expérience et le comportement de l'individu, et fait recours aux principes de la psycholinguistique, de la psychologie, de la neurologie et de la génétique.

Théorie des universaux de l'interaction culturelle et des contraintes sociales

L'approche ici est sociologique et anthropologique, l'interaction sociale étant considérée comme la clé de l'émergence du créole. Le centre d'intérêt n'est plus l'individu, comme dans la théorie précédente, mais le groupe social. Les protagonistes de cette théorie sont Kroeber et Herkovits, tous deux disciples de Boas. Hall affirme (1966: xiv), dans le cadre de cette hypothèse, que la créolisation est la manifestation d'un processus plus global qu'il désigne sous le nom de «nativisation». Toute créolisation, précise-t-il, implique par définition la nativisation d'un pidgin, ce dernier étant une langue rudimentaire (*sharply reduced language*) utilisée par des locuteurs dont elle n'est pas la langue maternelle. La nativisation elle-même apparaît comme un acte social et non

individuel, et la nature de l'interaction sociale détermine le degré de créolisation de la langue.

Bickerton (1981) rapproche les deux dernières théories sus-évoquées, en intégrant la distinction entre nativisation sociale et nativisation individuelle dans l'hypothèse des lois psychologiques et physiologiques universelles. Comme le remarque Gilbert (1986: 22), Bickerton considère que la créolisation constitue une régression vers un état «optimalement non marqué» (*maximally unmarked*) et non comme une évolution vers le stade atteint par les variétés «avancées» des langues non créoles.

Depuis le début des années quatre-vingts, la recherche semble se polariser autour de deux hypothèses qui mettent l'accent sur l'importance capitale tantôt du substrat et tantôt du superstrat dans la naissance et l'évolution des pidgins et créoles. Toutes ces théories, anciennes et nouvelles, peuvent-elles s'appliquer avec quelque bénéfice au WAPE? Pour essayer d'apporter des éléments de réponse à cette question, nous avons interrogé non pas tant la structure interne des langues, que l'histoire des circonstances entourant leur émergence. Ce faisant, nous avons distingué quatre grandes périodes dont chacune marque soit l'implantation, soit le développement d'une variété du WAPE dans une région donnée de la côte occidentale d'Afrique. Nous nous empressons de reconnaître qu'il est difficile de retracer rigoureusement et de manière non équivoque l'origine du WAPE, tout comme celle d'ailleurs de nombreuses autres langues, qu'elles soient «naturelles» ou «non naturelles».

1) La Période pré-esclavagiste et esclavagiste

Les premiers contacts (ou tout au moins ceux pour lesquels il existe des traces écrites) entre les Occidentaux et les habitants des côtes africaines remontent au 15^{e} siècle. Il s'agit dans un premier temps de contacts sporadiques, lors desquels les problèmes de communication sont résolus de différentes manières :

- Utilisation d'une langue africaine

Il pouvait arriver que les visiteurs apprennent la langue de leurs hôtes africains. Ainsi, d'après I.P.A.M. (1970 : 29), aux 17^{e} et 18^{e} siècles, dans les «Républiques Po-po» de la Côte des Esclaves, les Européens de diverses origines ont appris la langue *mina* pour communiquer avec les populations autochtones. Les premières études ethnolinguistiques sur l'Afrique noire furent d'ailleurs l'oeuvre d'Européens qui avaient appris des langues du continent.

- Recours à une langue européenne

Des autochtones pouvaient aussi acquérir une langue européenne. Des documents historiques attestent qu'entre 1785 et 1788, un chef efik de la région de Calabar (Nigéria) tenait un journal intime en anglais. D'après Bouchaud (1956), l'explorateur hollandais Samuel Braun, voyageant en 1614, rencontra au Congo un roi indigène parlant français et marié à une ancienne esclave originaire du Cameroun qui, elle, parlait flamand. Mveng (1963 : 162) quant à lui relate l'histoire d'un certain Jacob Elisa Capitein, originaire de la Côte d'Ivoire qui, vendu en esclave à l'âge de sept ans, fut

emmené en Hollande où il fut baptisé et envoyé à l'école. En 1742, il soutint à l'Université de Leyde une thèse en théologie intitulée *De Servitude liberati christianae non contraria* («L'esclavage ne s'oppose pas au christianisme»). Revenu en Afrique au courant de la même année, il inaugura sa chaire de prédication le 21 octobre sur la nécessité de la résignation... à la servitude. Les historiens Kake et M'Bokolo (1977-1978) soutiennent également qu'au 15^{e} siècle, des Africains furent enlevés au Congo et emmenés au Portugal pour y apprendre le portugais afin de servir éventuellement d'interprètes. Les Européens d'autres nationalités semblent avoir recouru aussi à cette pratique, car Todd (1984 : 23) note que «It was in no way unusual for European traders and explorers to take local people to Europe and train them as interpreters». Hancock (1986 : 74) abonde dans le même sens :

> «We know from printed sources that Africans were being taken to England to learn English and then returned to Africa to serve as interpreters, as early as 1554, though it is unlikely that these individuals were in sufficient numbers to have provided a basis for any emerging creole».

Malgré sa fréquence, ce phénomène s'avère toutefois assez marginal d'un point de vue sociolinguistique.

- Emploi d'un pidgin ou émergence d'un créole

Les premiers Occidentaux à fréquenter les côtes africaines sont surtout des marins, ce qui pourrait accréditer certains aspects de la théorie du jargon nautique et de la relexification (Hall 1966; Whinnom 1965; Hancock 1986). Le pidgin parlé à cette époque serait ainsi un pidgin à base de portugais. Ce qui est arrivé par la suite à ce pidgin fait moins l'unanimité : pour les uns, avec le déclin de la puissance marine du Portugal, le lexique du sabir portugais aurait été remplacé par celui de l'anglais, donnant ainsi naissance au Pidgin-English; pour les autres par contre, le Pidgin-English, médium déjà existant, aurait été introduit plus tard à côté du pidgin portugais, et aurait progressivement supplanté ce dernier pour diverses raisons.

Quand le contact entre Européens et Africains devenait fréquent ou permanent, comme ce fut le cas lors de la traite négrière ou encore dans l'embouchure des fleuves Gambie et Sierra Léone, le pidgin se développait pour mieux répondre aux besoins accrus de communication. Lorsque Jobson visite l'embouchure de la Gambie en 1620-1621, il y trouve huit Anglais qui y sont installés depuis trois ans (Hancock 1986 : 76). Cependant, la plupart des Européens vivant en Afrique occidentale à cette époque choisissent de s'installer sur des îles aux larges de la côte gambienne et sierra-léonaise. Ils exercent principalement des activités commerciales à titre personnel ou pour le compte de sociétés métropolitaines comme la *Royal African Company* ou la *St. George Bay Company*. Entre l'arrivée de deux bateaux, ils pratiquent l'agriculture. Des autochtones pratiquent eux aussi des activités commerciales, servant surtout d'intermédiaires entre les commerçants Européens de la côte et les populations de l'intérieur. Les Européens sédentarisés épousent des femmes noires autochtones.

Selon Hancock (1986 : 80), on trouve au début du 17e siècle cinq catégories de résidents à l'estuaire des fleuves Gambie et Sierra Léone et sur les côtes adjacentes : les Européens résidents temporaires ou permanents (ces derniers étant appelés *lançados*); les mulâtres afro-européens; les *grumètes* ou *laptots*, employés au service des Européens et des métis; les populations indigènes et, enfin, les esclaves. Le pidgin se développe et s'affirme comme langue maternelle des mulâtres dont le nombre, dès la fin du 17e siècle, est supérieur à celui des Européens. De nombreux *grumètes* épousent les mulâtres et parlent le créole tout en gardant leur langue africaine. Il est possible que le créole ait été transmis aux esclaves par ces *grumètes*. En effet, en plus de leurs fonctions de domestiques, guides, ouvriers ou matelots occasionnels, ils constituent le plus important groupe de convoyeurs d'esclaves entre l'intérieur et la côte. C'est à eux qu'il revient, dans les «entrepôts», de veiller sur les captifs jusqu'à leur embarquement. Ainsi, entre leur capture et leur départ pour l'Amérique, les esclaves passent de longues périodes en compagnie des *grumètes* qui communiquent avec eux en pidgin.

Il s'agit d'un pidgin principalement basé sur l'anglais et dont l'usage est répandu sur toute la côte occidentale d'Afrique au début du 18e siècle. Cependant, selon des témoignages historiques, ce pidgin comporte encore un nombre relativement élevé de mots portugais. Par exemple, dans ses récits de voyage le Britannique Moore (1734 : 297) se plaint de ce que «The English have in the Gambia much corrupted the English language, by Words or Literary translations from the Portuguese[...]». De même, le Hollandais Bosman (1770 : 543) affirme avoir rencontré dans la région de Grand Cess (Libéria) un autochtone du nom de «James» qui s'exprime «in a confused set of language, being a mixed jargon of English and Portuguese». Quelle que soit la thèse avancée pour expliquer l'origine de ce pidgin, il paraît indéniable qu'il s'est parlé un pidgin portugais sur la côte ouest-africaine entre le 16e et le 17e siècles, qu'un pidgin anglais a été introduit probablement au début du 17e siècle, qu'il y a eu une période d'«attraction» entre les deux langues au cours du 17e siècle, et qu'au début du 18e siècle le pidgin anglais s'est déjà imposé aux dépens de son concurrent portugais.

2) La période post-esclavagiste

Lorsqu'au 19e siècle la traite négrière est enfin abolie, les Anglais s'érigent en gendarmes de la mer, arraisonnant tous les bateaux soupçonnés de transporter de la «marchandise humaine». Les esclaves libérés des négriers sont généralement ramenés à Freetown (Sierra Léone). Mais il existe d'autres centres de réinstallation secondaires le long de la côte, de la Guinée Équatoriale en Gambie. En raison de la grande diversité ethnolinguistique de leurs origines et à cause probablement de l'habitude acquise en captivité, les esclaves ainsi libérés ont pour langue commune le pidgin, principal médium véhiculaire utilisé dans les zones d'«entreposage» et sur les bateaux. Les esclaves libérés forment donc des communautés créolophones partout où ils s'installent. Ces communautés sont linguistiquement similaires à celles constituées en Sierra Léone par les anciens esclaves venus de Jamaïque, et au Libéria par les Noirs venus des États-Unis d'Amérique. Bien que désignées sous l'appellation générique de «créole», les langues de ces communautés émergent et se développent dans des conditions particulières. Au Libéria, elle est le résultat d'une «repidginisation» du Black English. Le créole

jamaïquain connaîtra des modifications sous l'influence des langues africaines locales. Ailleurs, étant donné son faible poids démographique, la communauté créolophone se fondra dans la population autochtone et sa langue devra soit disparaître, soit connaître de profondes transformations au contact des langues locales.

3) La période coloniale

La troisième et dernière ère d'implantation du pidgin en Afrique occidentale correspond à la période coloniale. Ici, les principaux acteurs sont les missionnaires, et les administrateurs coloniaux. Les missionnaires (toutes nationalités confondues) qui introduisent le christianisme dans cette région recourent abondamment au pidgin/créole anglais qui, à cause de la traite, est la langue véhiculaire la plus répandue sur toute la côte occidentale d'Afrique. Certains missionnaires sont eux-mêmes des créolophones natifs, originaires de Sierra Léone ou de Jamaïque. Cependant, chez la plupart des missionnaires, l'utilisation du pidgin se veut une solution temporaire, l'objectif ultime étant l'évangélisation des populations dans leur propre langue. Les administrateurs coloniaux recourent eux aussi au pidgin pour communiquer avec les indigènes, en attendant que les écoles forment assez de locuteurs indigènes du français, de l'anglais, de l'espagnol, du portugais ou de l'allemand. Pour la première fois, le pidgin se répand en dehors de son aire naturelle de la côte et pénètre dans l'arrière pays.

À la lumière de ce qui précède, on peut constater que le WAPE désigne en fait une variété de langues qui, bien qu'ayant pour dénominateur commun l'anglais, sont loin d'avoir la même origine. Dans l'embouchure des fleuves Gambie et Sierra Léone, cette langue remonte au 16^{e} siècle, et aurait pour superstrat le portugais. Deux siècles plus tard, le pidgin parlé sur toute la côte ouest-africaine a pour superstrat l'anglais. Au Libéria, le créole (Liberian English) est lourdement tributaire du Black English. En Sierra Léone, il est influencé au 19^{e} siècle par le créole jamaïquain dont les origines remontent à la côte africaine. Au Bénin, au Nigéria et au Cameroun, le pidgin s'implante surtout dans la deuxième moitié du 19^{e} siècle et il découle directement du créole sierra-léonais.

Problème de définition

La question de la définition des pidgins et créoles est aussi complexe que celui de leur origine. L'histoire de ces langues est étroitement associée à celle de l'esclavage et des contacts multiraciaux empreints de ségrégation. Cette réalité se reflète dans les définitions que certains auteurs donnent à ces langues. Ainsi, selon Valdman (1978 : 5) le pidgin est

> «[...] une reproduction approximative d'une langue jouissant d'un prestige social supérieur de la part d'un alloglotte appartenant à un groupe servile ou considéré comme socialement inférieur».

Tout comme la théorie du langage enfantin, ce genre de définition a perdu tout crédit de nos jours. La plupart des auteurs se contentent désormais de dire, comme Todd (1974 : 1), que le pidgin est une langue rudimentaire née des besoins de communication restreinte entre des locuteurs de langues différentes. C'est donc une langue de contact, qui est en principe appelée à disparaître quand celui ce dernier est rompu. Selon DeCamp (1971 : 16),

> «The only way in which a pidgin may escape extinction is by evolving into a creole; i.e. the syntax and vocabulary are extended and it becomes the native language of a community».

Le créole serait donc un pidgin plus «développé» qui, par les processus de nativisation et de vernacularisation, tient lieu de langue maternelle à une communauté donnée.

Cependant, le critère de nativisation (émergence d'une communauté de locuteurs natifs) qui est généralement donné comme essentiel dans la distinction entre pidgin et créole n'est pas un critère linguistique mais sociologique, ou même historique. Il ne prend en considération ni la structure interne des langues en question, ni leurs fonctions. Il s'ensuit, à notre avis, qu'un tel critère manque de pertinence, et toute distinction qui s'y appuie apparaît comme étant artificielle. L'exemple du WAPE illustre et justifie cette assertion. En effet, à l'exception probablement du pidgin libérien, toutes les variétés du WAPE présentent certaines similitudes sur le plan du lexique, de la phonologie et de la syntaxe. C'est ce qui explique d'ailleurs leur relative intelligibilité mutuelle. En outre, partout elles remplissent à peu près les mêmes fonctions : langue véhiculaire, langue de communication interethnique, langue plus utilisée dans les villes (habituellement hétérogènes) que dans les villages, langue formelle pour les analphabètes et les semi-lettrés, bref langue de grande vitalité aux ressources immenses. La distribution sociolinguistique des locuteurs montre qu'en Sierra Léone le créole est la langue maternelle de 10% de la population (472 600 locuteurs), alors qu'il sert de langue véhiculaire ou de langue seconde à 95% de la population (4 millions). Au Cameroun (Koenig *et al.* 1982) et au Nigéria, le pidgin est la première langue acquise par 15 à 25% des enfants dans les régions côtières fortement pidginophones, tandis que le reste de la population le parle dans une proportion variant de 80 à 95%.

La distinction entre créole et pidgin semble finalement résider au niveau de la présence (ou de l'absence) d'une communauté «historique» de locuteurs natifs : les créolophones natifs sont des descendants d'anciens d'esclaves jamaïquains en Sierra Léone, et américains au Libéria. L'existence d'une communauté qui se sert de ce médium comme langue maternelle semble ne pas suffire pour qu'il soit défini comme un créole selon les critères traditionnels. Le lien avec une ancienne communauté d'esclaves est indispensable. En raison des insuffisances d'une telle distinction, on gagnerait peut-être à ne s'en tenir qu'à des critères linguistiques pour classer les pidgins et les créoles. Une telle approche permettrait d'affecter la même dénomination à l'ensemble des variétés des créoles à base d'anglais parlées en Afrique occidentale. On pourrait alors réserver le nom de pidgin aux langues de contact effectivement rudimentaires, marginales et précaires.

En conclusion, il semble que la naissance du West African Pidgin-English ait été favorisée par plusieurs facteurs dont les contacts fréquents entre les Occidentaux et les autochtones de la côte, l'existence d'une langue véhiculaire antérieure, l'hétérogénéité linguistique qui caractérisait le milieu de la traite négrière, l'émergence de communautés créolophones constituées d'anciens esclaves libérés des négriers ou revenant des États-Unis et de la Jamaïque, la colonisation. On pourrait, ne serait-ce qu'en partie, attribuer le développement et l'expansion subséquente de cette langue à l'introduction de l'anglais dans les colonies britanniques. Plusieurs faits peuvent étayer une telle hypothèse : le Pidgin-English et l'anglais standard forment généralement un continuum (Mopoho 1993); au Cameroun, pays dont le territoire a été divisé entre la France et l'Angleterre, l'aire pidginophone principale correspond à la région anglophone et à ses zones limitrophes; le WAPE ne s'étend pas au Sénégal (ancienne colonie française), alors que sa région côtière a connu d'intenses activités lors de la traite des esclaves. Toutefois, cette hypothèse mérite d'être nuancée compte tenu du fait que d'autres facteurs --tels que la volonté commune (tacite ou explicite) de n'acquérir que l'anglais standard, et l'existence de langues véhiculaires concurrentes-- peuvent compromettre l'implantation ou l'expansion du pidgin, comme le montrent le cas du Ghana, ancienne colonie anglaise où le WAPE est quasi inexistant, et celui de la partie septentrionale du Nigéria où le haoussa règne en maître absolu.

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GRAMMATICAL EVIDENCE FOR GENETIC RELATIONSHIP AND THE MACRO-SIOUAN PROBLEM

Robert L. Rankin
University of Kansas

Genetic relationship and how to discover and/or prove that one exists between two or more languages has become one of the really controversial, not to say "hot", topics in linguistics. To many of us who had practiced comparative linguistics quietly for decades, this came as a great surprise. It began following publication of Joseph Greenberg's book *Language in the Americas* (LIA) in which he tried to fit all the native languages of the western hemisphere into three large language families. This stirred up a storm of debate between linguists and scholars from other disciplines regarding the historical reliability of Greenberg's methods and results. That debate spilled over into the popular press with articles on genetic relationship of languages appearing in the *Atlantic, Scientific American, Science, Discovery,* even *U.S. News and World Report.* There was also a BBC television documentary on language relationships followed by a revised and more balanced presentation on the Public Broadcasting program *Nova* in the United States.

Although LIA was generally not well received by linguists, our judgments of one flawed attempt to solve the puzzle of the linguistic peopling of the Americas should not be allowed to cast a chill on the continued search for new genetic relationships in the western hemisphere and indeed throughout the world. As historians of language it is our duty to continue the search. Terry Kaufman (1991:14-15) elaborates: "The central job of comparative-historical linguistics is the identification of groups of genetically related languages, [and] the reconstruction of their ancestors...." he also emphasizes the "political weakness of most of the surviving [linguistic minorities]." We (both ethnic minorities and the community of linguists) stand not only to lose the world's endangered languages but also all of the understanding of the prehistory of the various ethnicities that comparative linguistics can provide. Kaufman (p. 31) concludes by pointing out that "it should be clear that while archeology, genetics and comparative ethnology will help flesh out and provide some shading in the picture of pre-Columbian ... Man, it is comparative linguistic study, combined with some of the results of cross-cultural study, that will supply the bones, sinews, muscles, and mind of our reconstructed model of early folk and their ways...."

The work of the comparativist can be quite significant; among other things linguists are able to demonstrate connections between prehistoric ethnic groups at a time depth exceeding that at which archaeology can achieve similar goals. One only need examine Benveniste's work on Proto-Indo-European culture and society to realize how much can be learned from comparative linguistics. But linguists have pretty much exhausted language classification based on casual inspection of word lists, which as

Greenberg correctly points out has been one of the classic methods of discovering such relationships. Most linguists are familiar with his chart (Greenberg 1957, 1987) showing how it is possible to identify the Indo-European languages in relation to the rest of the languages of Europe simply by inspecting the translations of just nine very basic words in various Indo-European, Uralic languages and Basque.

Obviously his method of casual inspection of basic vocabulary, whether we compare languages in groups or just two at a time, can often give us tentative answers at a time depth of a few thousand years. The relationships illustrated on his chart are quite obvious at the depth of Latin, Ancient Greek, or Common Slavic, i.e., at between 2 and 3000 years. One can even see the outlines of the Indo-European language family, probably at a depth of about six thousand years. The break between IE and Uralic is especially clear, and of course his last language, Basque, looks totally different from all the others. This method has always had its problems however, even at relatively shallow time depths, so that if we collect Greenberg's same basic words in a group of languages from a different part of the world, we obtain false readings!

Greenberg's (1957, 1987) mass comparison list for some other languages:[1]

	Lg1	Lg2	Lg3	Lg4	Lg5	Lg6	Lg7	Lg8	Lg9
one	cīq	i	ǐ	ti?	iči	il	?et	muəy	môt
two	ñii	ər	nəŋ	hni?	ni	i	sɔ̀ɔ́ŋ	pii(r)	hai'
three	sum	san	sã	'θouŋ	san	sam	sàám	bəy	ba
head	qo	tɔu	tău	gàun	atama	mɔli	hùá	kbaal	dầu
eye	mĩ	yɛn	mačiu	myɛ?	me	nun	taa	phnɛ'•k	măt
ear	amcɔɔ'	ər	ĩâ	'na	mimi	kui	hùú	traciək	tai'
nose	nəquù	bi	pĩâ	hna	hana	kho	ǰamòo	crɑmoh	mũi'
mouth	qha	kɔw	tsui	pəsa?	kuči	ip	pààk	moət	miệng
tooth	so	ya	tsuiki	θwà	ha	i	fan	tmin	răng

The problem here is that languages like Japanese and Korean, both language isolates with no close relatives, have borrowed some of their most basic vocabulary, including lower numerals, from one of the Chinese languages. Thai shares basic vocabulary with both Chinese and Khmer but is related to neither, while Khmer and Vietnamese, which are possibly related, share additional similarities. So Greenberg's technique gives entirely wrong answers in East Asia, and we see that his list, so convincing when applied in Europe, was devised with that continent in mind.

Moreover, were we to add to Greenberg's original list of Romance languages (in his 1957, 1987 European language list) we would also encounter additional problems.[2]

	Span-ish	*Portu-guese*	*Ital-ian*	*Roma-nian*	*French*	*Mitchif*	*Hatian Creole*	*Cape Ver-de Creole*
one	un	ũ	uno	un(u)	œ̃	æ̃n	yun	ũ
two	dos	doiš	due	doi	dø	dü	de	dos
three	tres	treš	tre	trei	trwa	trwa	twa	tres
head	kabesa	kabɛsa	kapo	kap(u)	tɛt	tɛt	tɛt	kabɛsa
eye(s)	oxo	oʎu	ɔkkjo	oǩ(u)	œj	zyü	je	oje
ear	orexa	oreʎa	orekkjo	ureǩe	oʁɛj	norej	zɔrɛj	oreja
nose	naso	nariž	nazo	nas(u)	ne(z)	ne	nẽ	naris
mouth	boka	bɔka	bokka	gurə	buš	yül	buš	bɔka
tooth	diente	dẽči	dɛnte	dinte	dã(t)	dã	dã	dẽte

In the above sample, the last three languages are historically not Romance languages at all even though their most basic vocabulary suggests that they are. They began as West African or Native American languages which were relexified with French or Portuguese vocabulary.

Obviously there are problems with Greenberg's essentially pre-Neogrammarian methodology. The easy work is done now, and there is little place left for casual inspection, for "word list linguistics." And to anticipate a little, what we would need in order to clarify the relationships among these Romance and non-Romance languages, that superficially look so much alike, is solid information from the inflectional morphology of each one. As the noted Indo-Europeanist, Antoine Meillet (1948 [1914], 1964), pointed out,

> ...bien que la possession en commun d'un certain fonds de vocabulaire indique le plus souvent une parenté. Là où l'on n'a pas d'autres données, on peut provisoirement, et en faisant les réserves nécessaires, se servir des indications ainsi obtenues. L'observation attentive du vocabulaire conduit du reste presque toujours en pareil cas a relever quelques coïncidences grammaticales qui achèvent la démonstration." (1948 [1914]:94-5) "...le vocabulaire ne peut servir qu'à orienter la recherche; la preuve se trouve ailleurs."[3] (1964:97)

But the preceding charts show that even what I have called the "easy work" of genetic classification at relatively shallow time depths is not always so reliable. We

are familiar with the problems Creolization can generate. It can even cause problems to more sophisticated methodologies, but nevertheless, most of the relatively shallow genetic relationships have been successfully unraveled by specialists and we are now left with much less yielding tasks.

And here I include at least two sorts of problems, (1) language relationships older than Indo-European and (2) the sorting out of instances of large-scale borrowing and the diffusion of areal traits. The east Asian languages charted above exemplify what can happen if there is extensive borrowing. Very ancient relationships present additional problems. Many of these have to do with simple attrition of cognates. Cognates may undergo semantic change and/or considerable phonological alteration, as has for example French in contrast to other Romance languages. Additionally, as the centuries pass, the *number* of cognates shared by two or more related languages simply shrinks until finally either we cannot locate them any more or we lose the ability to distinguish them from mere chance resemblances.

There are textbook examples. The English words *bridegroom, werewolf* notoriously contain examples of cognates that are now hard to find. *Groom,* Old English *gu:ma,* is our cognate for Latin *homo* 'person', and *were-* is our cognate for Latin *vir* 'male', and both cognates are preserved only in non-productive, isolated compounds that take a specialist to discover.

Lexicostatisticians have claimed that cognates are irretrievably lost between pairs of related languages at a rate of around 15% per thousand years. At this rate the percentage of shared cognates between any two related languages would have dropped beneath the percentage of similarities we expect from chance resemblance alone after perhaps 15,000 years, and we would completely lose our ability to discriminate cognacy from other sources of similarity.

But because phonological erosion and semantic change also play roles, several linguists have suggested that there is a *practical* limit of only about seven to ten thousand years on our ability to detect relationships and to use the comparative method. These include prominently Kaufman (1991:23) and Nichols who makes the claim in her 1992 book *Linguistic Diversity in Space and Time.* But, while we believe that such limitations may hold in the typical case, we also know there are atypical languages that have retained 100% of the standard basic vocabulary over the past millennium. Bergsland and Vogt found this to be the case for Icelandic and Norwegian for example. So some languages are naturally conservative and others innovate at a great rate. Therefore I think we should keep an open mind. The important point is that we are probably no where close to such a ten millennium limit in much of North America, so there should be a lot that can be accomplished yet.

Comparativists have found that *grammatical evidence* can often simultaneously solve many of the problems introduced by borrowing (even to the point of Creolization) and the problems introduced by the ravages of time. To clarify,

grammatical evidence is *not* merely the comparison of isolated grammatical morphemes like prepositions, articles or tense-aspect suffixes. Such comparisons would be even less convincing than lexical comparison, because such grammatical morphemes are generally both short and unaccented and, as such, usually contain only the least marked subset of vowels and consonants. This merely increases the likelihood of chance resemblance among languages. For example in Siouan languages there is typically an aspirated, a glottalized and a plain series of stop consonants in the phonological inventory. Yet grammatical morphemes almost never contain either glottals or aspirates, only the plain series. Grammatical evidence of the sort that is convincing must not only contain the proper phonological and semantic matches but must also exhibit *syntagmatic* and/or *paradigmatic,* or certain *idiosyncratic morphophonemic* and/or *semantic* behavior in order to decrease the likelihood of chance resemblance.

Idiosyncratic behavior was discussed at length by Meillet who is said to have remarked that a linguist could tell if a language was Indo-European or not simply by looking at the conjugation of the verb 'to be,' which is notoriously irregular. Edward Sapir also often mentioned what he called "submerged features," and he stated in a letter to Alfred Kroeber (Golla 1984:71) that he searched for "morphological resemblances of detail which are so peculiar as to defy all interpretation on any assumption but that of genetic relationship."

Paradigmatic comparisons are discussed extensively by Johanna Nichols (1996:51ff.), who points out that "Paradigmaticity imposes co-occurrences and an ordering on a set of forms each of which, if taken individually, would be much too short for its consonantal segments to reach the individual-identifying threshold." Multidimensional paradigmaticity is even better. Take for example this partial paradigm from Spanish:

habla- 'to speak'
habl- -o '1st *person*, sg. *number*, present *tense*, indicative *mode.*
habla- -s '2nd *person*, sg. *number*, present *tense*, indicative *mode.*
etc.

but:

habl- -é '1st *person*, sg. *number*, past *tense*, perfect *aspect*, indic. *mode.*
habla- -ste '2nd *person*, sg. *number*, past *tense*, perfect *aspect,* indic. *mode.*

Here suffixes encode multiple categories in such a unique way that if one finds similar paradigms in any other language, it virtually has to be a Romance language (and creoles are highly unlikely to work this way unless there has been true language shift).

So this kind of grammatical evidence is the most important kind, the most binding kind. It is in fact exactly the kind of evidence that impressed Sir William

Jones (1967 [1786]), who first stated the relationships among the core Indo-European languages in modern terms:

> "The Sanskrit language, whatever be its antiquity, is of a wonderful structure; more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to both of them a stronger affinity, ***both in the roots of verbs and in the forms of grammar***, than could possibly have been produced by accident; so strong indeed, that no philologer could examine them all three, without believing them to have spring from some common source, which, perhaps, no longer exists: there is a similar reason, though not quite so forcible, for supposing that both the Gothic and the Celtic, though blended with a very different idiom, had the same origin with the Sanskrit; and the old Persian might be added to the same family, if this were the place for discussing any question concerning the antiquities of Persia." (emphasis mine -- RLR)

What impressed him was not sound correspondences in basic vocabulary. It was the morphological paradigms.

Paradigmatic grammatical evidence for genetic relationship is also found in discussions by Goddard of the relatedness of Algonquian to Ritwan, i.e., the Yurok and Wiyot languages of California (Goddard 1975, 1991). There is a paradigm of person prefixes that match among the languages, but in addition the morphotactic order of Algonquian, Wiyot and Yurok person prefixes and number suffixes, as well as other suffixal grammar forms an important part of the evidence (Goddard, personal communication). So syntagmatic evidence can also be quite convincing on occasion.

Workers from Meillet to Goddard all reject the mere existence of particular grammatical categories arranged in a particular affixal or clitic order as probative. In other words, the fact that *person, number, tense, aspect,* and *mode* may occur in just that affix order would be meaningless. The actual morphemes within the paradigms or syntagms must match phonologically between languages also: just having the same basic categories in a similar order isn't enough. Meillet (1966 [1925]:) observed:

> "...on ne peut guère faire usage de ces types généraux pour démontrer une «parenté de langues»." (pp. 22-3) "Ce qui est probant pour établir la continuité entre une «langue commune» et une langue ultérieure, ce sont les procédés particuliers d'expression de la morphologie." [4] (p. 25)

So Meillet, whether discussing the establishment of relationships or proving their continuity, always looked to basic morphology. Such inflectional morphology was found in Algonquian and Ritwan and resulted in a situation in which Goddard (1975, 1991) states:

> "...it will be argued here that the kinds of similarities which are most valuable for showing genetic relationship are those which involve details of the morphological structures of the languages." (1975:250)

> "The resemblances between the pronominal prefix systems of Algonquian, Wiyot, and Yurok would be sufficient to demonstrate the genetic relationship of these languages." (1975:253)

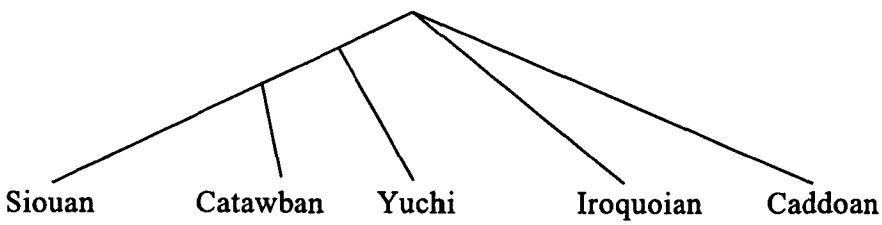
And he was comparing a person-number paradigm containing only three or four members, 1st person, 2nd person, 3rd person and indefinite 3rd person. In 1991 he adds:

> "...it is methodologically instructive to note that this is a case in which the comparative method produces a proof of genetic relationship without there being a reconstructed phonology or phonological history beyond what is implied by a handful of equations of identity, or near identity." (1991:64)

Yet even with the backing and demonstrable accomplishments of so many of our most illustrious predecessors and colleagues, real grammatical evidence is seldom discussed seriously in most historical linguistics textbooks. It is looked upon as a kind of side-show to the search for basic vocabulary with recurrent phoneme correspondences. Our students are often left with the idea that we *only* look at vocabulary, maybe relying on some kind of sound correspondences (or maybe not), and that grammatical comparison merely involves the comparison of isolated affixes or clitics. Unfortunately this was generally the way Greenberg has practiced grammatical comparison too.

Since I believe Greenberg proceeded the wrong way in North America, I have been looking at some of the proposals that have been made for distant relationships but which have remained unproved. And since I also believe, along with Bloomfield, that "if you're going to compare two languages, it helps to know one of them," I have opted to search for external relationships for the Siouan languages.

One of the more inclusive language phyla or stocks proposed by Edward Sapir was called Macro-Siouan. Macro-Siouan was projected tentatively by Sapir to include the Siouan and Catawban languages, which everyone now agrees are related, and three other groups for which there has been little or no agreement, Iroquoian, Caddoan and a language isolate, Yuchi:[5]



I will not discuss Iroquoian or Caddoan further here. Suffice it to say, there is no consensus today that these two language families are related to Siouan-Catawban or to Yuchi. Instead I will concentrate on a possible relationship between Siouan-Catawban and Yuchi. During the colonial period Yuchi was spoken in what is now

eastern Tennessee. Today it is spoken near Tulsa, Oklahoma and there are fewer than twenty speakers left. Several linguists who have subscribed to the Macro-Siouan hypothesis believe that Yuchi is more closely related to Siouan-Catawban than either Iroquoian or Caddoan and that notion is reflected in my very tentative *Stammbaum* summarizing the Sapir proposal.

Using Greenberg's method, we can construct a table much like those found above for the other families, just to see what it suggests for Siouan, Catawba and Yuchi. The single Woccon example is marked with a W. Woccon is related to Catawba.

	Proto-Siouan	*Catawban*	*Yuchi*
one	*nų́•sa	dəpę́	hit?e
two	***nų́•pa**	**nąpre**	**nǫwę**
three	***rá•wrį**	**ná•mna?**	**nǫk?æ**
head	***ahpá**	W. **pa**ppe	tho
eye	*ištá	ɟtu•?	čhi
ear	*ną-atpá	-duksú•?	čup?æ
nose	*ahpá	-pįsu•?	tõp?i
mouth	*?í•he	-sumu•?	dakha
tooth	*i-hí•	-ya•p	gæ̃

The numeral *two* and perhaps the first syllable of *three* look interesting, but we recall the diffusion of Chinese numerals into Japanese, Korean and other languages (which included *three*), and this should give us pause. To be truthful there is not really much here that would seem to relate Siouan even to Catawba. That proof was done by Frank Siebert (1945) using primarily grammatical evidence, although there *is* shared vocabulary. There have also been numerous earlier attempts to find Siouan and Yuchi cognates in vocabulary and thus to demonstrate a genetic relationship between them.

A fairly typical example of such an attempt is the assemblage of putative Yuchi and Siouan cognates in Elmendorf (1964).[6]

YU	s?ę	bite off
BI	dase	bite
BI	sǫ	sharp point
OF	ta fe	bite
YU	špi	black
YU	ispí	black
PS	*sepi	black
PS	*sipí	black
YU	khasa	cut
PS	*ksa	cut
YU	pha	cut open, saw, chop
PS	*pa	by cutting
OF	aspá	chop
CA	pase	axe

YU	š?ia	excrement
PS	*š?e	drip, drop
YU	šu•	fish
YU	wo	to fish
PS	*ho	fish
YU	haphá	flat
YU	hapha?é	broad
PS	*p-ra	flat
YU	go-tho	head
PS	*nątu	hair, head, brain
YU	go-twá	kill
PS	*t?é	die
YU	če	stomach
PS	šípe	intestines

The list goes on for a total of about forty seven items the rest of which are of approximately the same quality and quantity. Most sets show resemblance of a CV sequence with a precise semantic match perhaps half the time. And although terms like BLACK provide a little more substance, overall what we have here falls well within the range of what we might easily expect from chance resemblance. In numerous instances the author could not even decide which of several Siouan possibilities to compare the Yuchi forms to. There certainly is not enough evidence to provide recurrent phoneme correspondence sets. This is not to denigrate Elmendorf's efforts. It merely shows how difficult a job it has been for scholars to demonstrate this relationship using basic vocabulary.

Concentrating instead on grammatical evidence, I want briefly to outline two aspects of grammar in which Siouan languages, Catawban and Yuchi all agree in interesting paradigmatic and semantic detail with additional support from syntagmatic and morphophonemic evidence. The two aspects are a set of noun classifier prefixes and a paradigm of person-number prefixes.

These grammatical matches were not noticed by earlier researchers because they are not visible to the observer who only looks at synchronic data from the modern languages. Only by comparing *Proto-Siouan* noun classifiers with Yuchi counterparts can systematic identity be detected, and only by comparing Proto-Siouan person/number prefixes with *internally reconstructed* Yuchi pronominals can we see the similarities there. Our reconstructive methodologies therefore play a central role in this research.

Although the modern Siouan languages have noun classification according to shape and position, Proto-Siouan had an entirely different system, and one which seems to be shared by Siouan, Catawban and Yuchi. Siouan and Catawban are clearly related, but at the moment it is hard to tell whether the classificatory system was genetically based and constitutes partial evidence of a Siouan-Catawban relationship with *Yuchi*, or whether it was areal in nature, with Yuchi included only because of prehistoric contact with Catawba or Siouan.

The classificatory prefixes were as follows:

	Proto-Siouan	Catawban	Yuchi
human:	*ko-	ko-/ku-	go-
animals:	*wi-	wi-	we-
foodstuffs:	*wi-	wi-	we-
nature phenomena:	*wi-	wi-	we-

This classificatory scheme was not based on shape or position but on a number of other characteristics, and perhaps originally an animacy hierarchy.

There was a prefix, Proto-Siouan **ko-*, Yuchi *go-*, that was used with *human* nouns. In Siouan ***ko-*** marks '3sg impersonal possessor for kin terms'; Yuchi ***go-*** marks '3sg impersonal possessor for human nouns; and as a verb agreement prefix, 3sg impersonal actor. Our data for Catawba are sketchy, but Catawba ***ku-*** is found with several kin terms;

The following chart illustrates the Siouan prefix ****ko-***. Mandan has preserved these best (MA forms are unlabeled below), but it is also found in Tutelo and as a suffix in Lakota and Ofo.

košųka	his younger brother	**ko•mihą•**	girl (Tutelo)
sųkaku	younger brother (Dak.)	**kotą́•ka her**	younger sister
əkifhųtku	little brother (Ofo)	**korį́ks**	his son
kosíke	woman's brother-in-law	**kotúts**	his son-in-law
korų́hi	man's daughter	**e•-kowe•i**	(their) chief (Tutelo)
korų́hąke	man's daughter	**kotá wįrųka**	man's friend
kohų́•we	his mother	**khota, khola**	man's friend (Dak.)
hų́ku	his mother (Dak.)	**hiča-kóro**	friend (WI)
kotuhąka	woman's sister's child	**hkóra**	friend (Dhegiha)
kotawį́he	his sister		

The next chart gives those Catawba kin terms that we have with ***ku, ko-*** or one of their reduced forms

.

kuri•	son	**kɑtiyí•se**	youngest so
kukó•	uncle	**kotóne**	host
ya **kure** nanéwa	her father		
kəneyana	his father		

The next chart gives the Yuchi forms, and here the analogous prefix ***go-*** is very widespread.[7]

gohánexæ	ancestor	**gołę**	ghost
got?e	husband, man	**gočhałá**	Indian
gotané	brother	**gop?a**	Creek Indian
gotčyane	brother-in-law	**gǫt?e**	Yuchi people, someone
gotho	child	**gonę́**	baby
gočohǫ́	sister-in-law	**goyuho**	prisoner
golaha	grandmother	**gowetsoné**	dwarf
gok?alá	relatives	**goǰiłæ̨**	giant
gowoné	spirit	**gogo**	servant
goewoné	soul (& spirit?)	**gowádo**	corpse
goyáłine	young man	**gohǽtone**	God, breathmaster (*goha* 'breath')
godilé	spinster		
gotægǽ	orphan		

There was a second classificatory prefix, Proto-Siouan-Catawban *wi-*, Yuchi *we-*, that marked precisely three rather distinct semantic groupings in all three languages: *animal names, common foodstuffs,* and *nature* or *weather-related phenomena.* This strange juxtaposition is perhaps not as surprising as Lakoff's "women, fire and dangerous things," and it may have developed from a class of non-human animates, but this particular idiosyncratic semantic grouping can scarcely be the product of independent innovation. There must be a historical reason for its presence in both Siouan-Catawban and Yuchi. The following charts gives a number of examples of *wi-/we-*. The Proto-Siouan list is exhaustive, i.e., all PSi. words that begin with the syllable ***wi-*** are included, so the categories are unmistakable.

Animal, food and nature-related terms with the classifying prefixes: Siouan ***wi-***, Catawba ***wi(t)-***, Yuchi ***we-***. The first chart gives Siouan forms: (primarily Proto-Siouan):[8]

***wiyá•pe**	beaver	***wihú•te**	bear
***wihté•**	bison	***wišą́•ka**	frog
***wihtá•**	deer	***wišíka**	squirrel, flying
***wišų́ke**	dog	***wihké**	turtle
***wihó•**	fish	***wihkí•(se)**	turtle
***wihé~wįhé**	female animal	***wihtóxka**	fox
***wihé(-ka)**	raccoon	***witrų́** (?)	wildcat (diffused)
***wiró•(ka)**	male animal	***wihtą́** (?)	wildcat (diffused)

There are two additional PSi terms referring to natural phenomena that have **wi-*:

***wirá•**	fire	***wí•rą**	sun, moon, orb

And in addition, individual Siouan languages have preserved additional instances of **wi-* in a number of additional nature-related terms, e.g. Crow: *'Spring, Summer, snow, water, sun, moon, rainbow, lake, frost'*. (Gordon and Graczyk 1985) Crow and Winnebago also still mark common items of food with *wi-* including: *'gooseberries, currants, tomato, carrot, oats, onion'* and in Winnebago, *'squash'*.

The second chart gives the Catawban classification which includes animals, birds, some basic food items, 'fire' and 'night'.

widé•	bison, cow	**wídwe**	dead animal
witką	turkey, chicken	**witka**	owl
widəbo•ye	deer	**wimba**	barred owl
widəbó?bo?	goat (introduced)	**wičikčí•**	eagle
witkerą́	hog (introduced)	**wí•spakpak**	robin
witsagwą́	horse (introduced)	**witkurą́**	whippoorwill
witsa	horse (introduced)	**withę**	fly (insect)
wikto•ne	ghost	**witro**	child
wįtą?	rat		

food:		**Nature-related:**	
wídyu	meat	**wirą**	burn (may be denominal)
wihá•š	milk (also *witás*; cf. *has* 'breast')	**wičawa**	night
witəkí•	Indian potato		

The third chart gives the Yuchi examples. [9] Many animal terms have the analogous prefix *we-*, and as in Siouan-Catawba, several nouns denoting foods and natural (often weather-related) phenomena are also included in the category. [10]

wedi	ruminant, cow	**weč?ę**	panther
wedįga	bison	**wey?ǫ́**	deer
wedzá?	opossum > hog	**wenę**	animal offspring
weɬá	hawk	**węt?e**	female of species
wečhá	turkey > chicken	**weša**	louse

foods		**weather**	
weyú	grease, cooking oil	**wečhæɬ?æ**	lightning
weši	sofki, soup	**wesǫp?o**	whirlwind
weto	breast (cf. Catawba 'milk')	**weštǫ́**	winter
		wet?æ	rainbow

Beside the existence of this very short paradigm of two sets of prefixes, the most important contribution of this classificatory system to establishing a relationship between Siouan and Yuchi is the *idiosyncratic semantic division* within the *wi-/we-* class.

The other aspect of Siouan/Catawban and Yuchi grammar that is relevant here is the set of person-number marking prefixes. The use of pronominal affixes to establish relationships *has* been controversial, and for good reason. Meillet believed that pronouns were too short and too common to make good comparanda, and numerous linguists have pointed out that they often contain the same set of labial and dental elements, especially nasals, so often found in nursery terms.[11] Nevertheless, matching pronominal paradigms are probably the strongest evidence for families like Algonquian-Ritwan. The idea is to find paradigmatic and/or syntagmatic pronominal evidence, preferably involving consonants with more novel places and manners of articulation than the all-too-common nasal sonorants *m* and *n*.

The Proto-Siouan system had only *first, second, third,* and *inclusive* person among its prefixed categories, and third person was generally marked with zero. It is possible that there was also an *exclusive* first plural, but if it existed, it is retained only in Mandan (a Siouan language now spoken by only about five individuals in North Dakota) and in the distantly related Catawba. Therefore paradigmatic evidence must be restricted to a comparison of three or four prefixes (Algonquian is similar in this regard). We would like to find matches between Siouan-Catawban on the one hand and Yuchi on the other for *all* possible members of the paradigm, because with such short forms, chance resemblance is always a real danger.[12]

A cursory examination of prefix inventories reveals several superficial similarities but not a lot of real uniformity. The Yuchi pronominals labeled "set II" here are used if there is an extra argument for the verb (direct or indirect object, benefactive or other). In these, "-o" is the applicative element and what precedes it is the pronominal.

Actor/agent pronominals:[13]

	PSi[14]	CAT	YU		
			set I	set II[15]	
1sg	wa-	dV-	di-,	do-	
2sg	ya-	ya-	nę-,	yo-	
3sg					
1pl	ʔų(k)-		ʔǫ-,	ʔǫ-	(inclu.)
1du	rų-(?)		nǫ-,	nǫ-	(exclu.)

Patient pronominals:

	PSI	CAT	YU	
1sg	mį-	ni-	ce-,	zio-
2sg	yį-	yV-	nęze-,	nęzio-
3sg	į-			
1pl	?ų-(?)		?ęze-,	?ęzio- (incl.)
1du	rų-(?)	nę-	nęze-,	nęzio- (excl.)

The patient pronominals differ from the agent set in Siouan by their vowel (at least in 1sg and 2sg) and in Yuchi by a segmentable suffix, so I have "deconstructed" those and will really only be dealing for the most part with agent pronominal set.

Internal reconstruction can also be done on the more basic agent or actor set in both Siouan/Catawban and Yuchi. And here it pays to leave the regular, productive paradigms behind and examine the set of irregular verbs. It is this set of verbs that has the historically most revealing allomorphs of the pronominals.

The next chart gives three Proto-Siouan irregular conjugations. And the fusion of the pronominal with the verb root is clear especially with 'go' and 'come', both of which are cognate between Siouan and Catawban, with the verb root 'go' perhaps cognate with Yuchi also. Siouan and Yuchi verbs 'be, do' are also probably cognate.

	pronom.	**go**	**be, do**	**come**
		*re•	*?ų•	*hu•
1sg	*w-	***b***ré•	***m***ų•	***p***hu•
2sg	*y-	***š***ré•	***ž*** ų•	***š*** u•
3sg		ré•	?ų•	hu•
1incl	*?ų(k)-	***?ų***-ré•	***?ųk***?ų•	***?ų***hu•

The next chart gives Catawba irregular conjugations with similar fusion or replacement of root-initial consonants.

	pronom.	**go**	**dig**	**come**
		da•?	*ya•	*hu•?
1sg	*d-	***č***a•?	***d***a•	***č***u•?
2sg	*y-	***y***a•?	***y***a•	***y***u•?
3sg		da•?	ya•	hu•?
1pl	?	***h***a•?	ya•	?

The next chart gives some Yuchi irregular verbs, again with the characteristic fusion of the prefix with the root.

	pronom.	**go**	**be**	**kill**
		-ła	-ʔǫ	-thwaʔ
1sg	*d-	*da*	*tǫ*	-*c*hwaʔ
2sg	*y-	*ša*	*yǫ*	-*č*hwaʔ
3sg		-ła	-ʔǫ	-thwaʔ
1incl	*ʔǫ-	*ʔǫ*-ła	*ʔǫ*-nǫ	*ʔǫ*-thwaʔ
1 excl	*nǫ-	*nǫ*-fe	*nǫ*-nǫ	*nǫ*-thwaʔ

Note that in the first and second persons, Siouan, Catawban and Yuchi irregular conjugations generally agree in three ways. The pronominal prefixes:

1. are *morphophonemically syncopating* (they lack or lose their vowels),
2. they are *fusional* (the allomorphs of the person-number prefixes generally fuse with or replace the initial consonant of the verb root), and,
3. syncopation products *obstruentize* (glides often becoming the corresponding obstruents).

In contrast the *inclusive* and/or *exclusive* persons show no such syncope or fusion and their morphotactics are different in both groups of languages. So there *is* some shared morphophonemic idiosyncrasy here, and the first person dual or plural forms systematically behave quite differently from the first and second person singulars.

Yuchi has about 14 of these irregular verbs and Siouan and Catawban perhaps a few more. The regular verbs use prefixes from the productive paradigms listed above. Internal reconstruction of the pronominal sets is relatively straightforward if we follow Meillet's advice and take the irregular paradigms to be the more conservative. Reconstruction within Siouan has been worked out over several decades and Siouanists are now agreed on the forms. Catawba forms are clarified to the extent possible. I will argue that, among the Yuchi pronominals, it is the -o-forms, the applicative set (set II), that continue the proto forms. This is borne out by an examination of irregular Yuchi verbs.

In the first person singular both Catawba and Yuchi pretty clearly have **d*. It sometimes affricates and/or devoices, but the irregular allomorphs can be easily reconciled with the productive *di-*. The set II pronominals in Yuchi also support 1st person sg. **d-*. Siouan innovates in the first person with unrelated **wa-* which has various consonantal allomorphs, but these allomorphs do not fuse as easily as the second person forms do and so surely represent the more innovative pronominal.

Second person singular (agent) forms clearly had the shape **y-* in Proto-Siouan and in Catawban. No one argues about this. The second singular prefix is the most difficult of the Yuchi pronominals to deal with however. Among the regular allomorphs we find both *nę-* and *y-*. *Nę-* is the allomorph with the broadest distribution. *Y-* occurs only in the set II pronominals that indicate an extra nominal

argument in the verb, i.e., the "o" set of pronominals. *Nę-* is also the productive prefix, in that, among the irregular verbs, it is *nę-* that appears whenever an extra 2sg pronominal is "layered" as a redundant marker in cases where the irregular allomorph was no longer recognizable by speakers (Yuchi verbs *do, cause* and possibly *say*).

But productivity of this sort plays no role in determining the older or reconstructed form of the morpheme. In fact it is the non-productive, irregular allomorphs that are more likely to represent relic forms. In 2sg the Yuchi pattern is **č-* with root-initial stops, with contextual voicing to *ǰ-*, **š-* with the verb-initial fricatives (with subsequent fusion of the sequences), and *y-* in the case of 'be' and one or two other irregular verbs.

The choices then are to reconstruct the productive second person prefix, *nę-*, or the less productive *y-* of the set II applicative prefixes. Clearly the obstruentized irregular allomorphs, *š, č* and *ǰ*, can easily be thought of as

assimilation products of **y-*, as they are in Siouan. The irregular verbs show no trace of the nasalization of *nę-*, but there is plenty of precedent for reconstructing **y* for such a variable group of *palatal* allomorphs.[16]

The inclusive and exclusive pronominal prefixes require discussion. Existing grammatical categories do not correspond precisely between Siouan and Yuchi. Yuchi has distinct prefixes for inclusive and exclusive first person. In Siouan there is a single prefix and it signals 1st person dual inclusive.

Second, there are certain internal irregularities with the Siouan forms that have led me to speculate (Rankin 1996) that Proto-Siouan **ʔų-* was reanalyzed as **wųk-*, from the Proto-Siouan root for 'person, man', **wa-ʔųke*, in some paradigms of some languages where it shows the *w-* and/or *-k* of *wa-ʔųke*.[17]

Mandan alone within Siouan marks 1du/pl with the prefix *rų-*, phonetically [nų], which has no clear etymology within Siouan. It seems then that there are two distinct 1st dual or plural markers in Siouan, *ʔų(k)-*, with messy (but definite) cognates throughout Ohio and Mississippi Valley Siouan and *rų-*, found only in the Mandan subgroup. Mandan branches directly off from Proto-Siouan, and there is a phonological match for Mandan *rų-*, which can represent either agent or patient roles, among the Catawba pronominals, where *nǫ-* is the independent 1st pl. pronoun and also marks 1st pl. objects. There is also a match among Yuchi pronominals, where *nǫ-* marks 1st person plural exclusive.

There is also a match for the more general Siouan *ʔų(k)-* '1st dual inclusive' in Yuchi *ʔǫ-* '1st person inclusive', where Catawba has no apparent cognate. So, confining our observations to inventory and phonetic/semantic similarity, we do have matches for 1sg, 2sg, 1du/incl. and 1excl., with the third person probably unmarked. In other words, the entire paradigm of pronominal prefixes that can be shown to have

existed in Proto-Siouan-Catawban seems to have close phonetic-semantic analogs (not to say 'cognates') in Yuchi. So after performing an internal reconstruction on the pronominal sets, it seems apparent that we may adduce the following formulae:

	PSi	CAT	YU
1sg	*w-	*d-	*d-
2sg	*y-	*y-	*y-
3sg	Ø	Ø	Ø
1excl.	*rų-	*nǫ-	*nǫ-
1 incl.	*ʔų(k)-		*ʔǫ-

Statistically, the probabilities of finding such paradigmaticity must be rather small, but perhaps not small enough by itself to guarantee genetic relationship of Yuchi with Siouan-Catawban. Callaghan (1980:337) reminds us that such similarities can occasionally occur by accident in her well known tabulation of Proto-Eastern Miwok and Indo-European personal endings:[18]

	Proto-E. Miwok declarative suffixes	Late PIE secondary active suffixes
1sg	*-m	*-m
2sg	*-ş	*-s
3sg	*-Ø	*-t < **Ø
1pl	*-maş	*-me(s)/-mo(s)
2pl	*-to-k	*-te

Borrowing, as may have occurred between Salishan and Alsea, is another possibility, although the matching morphophonemic idiosyncrasies in Siouan-Catawban and Yuchi make this much less likely in the present case I think.

	Alsea	Proto-Salishan[19]
1sg	-an	-n
2sg	-ax	-x^w
1pl	-aɬ	-ɬ
2pl	-ap	-p
3pl	-aɬx	-(ɬx)

Since borrowing remains a possibility, an additional important argument that can be adduced relative to person and number marking is syntagmatic (or morphotagmatic). In both Siouan and Yuchi the inclusive/exclusive pronominals

occupy a distinctive slot in the morphological template of the verb. It is well to the left of the slot occupied by 1st and 2nd person singular prefixes and is generally the leftmost prefix on the verb. This can be seen diagramatically in the Siouan and Yuchi verb templates. Arrows emphasize the slots of the relevant prefixes.

Siouan verb template:

				1ST & 2ND				
		INSTRU.	OUTER	PERSON AGENT	DATIVE	INNER		
ABSO-	DUAL	&LOCA-	INSTRU-	& PATIENT	VERT.	INSTRU-	VERB	(ASPECT,
LUTIVE	INCLUS.	TIVES	MENTALS	PRONOMINALS	REFLX.	MENTALS	ROOT	MODE SUFF.)
wa-	*ʔų(k)-,rų-*	*a,o,í-*	*po,Wa,Ra*	*w-, y-*				

Relevant categories in the Yuchi verb template:[20]

INCLUSIVE EXCLUSIVE PRONOMINALS	INCORPORATED OBJECT 'SOMETHING'	INSTRU-MENTAL	1SG & 2SG AGENT AND PATIENT PRONOMINALS	VERB ROOT
ʔǫ-, nǫ-	*kʔa-*	*hí-*	**d- *y-*	

Among the elements that may intervene between the two different pronominal positions in both language families are (a) an incorporated deictic and (b) the prefix signaling instrument, Siouan *í-* and Yuchi *hí-*.

A very few relic verbs in Siouan and at least one in Yuchi incorporate a demonstrative element. The inclusive/exclusive pronominals precede this element while the first and second person elements follow it, directly preceding the verb root.

The Siouan verb *ʔé•he 'say something' compounds the general demonstrative, *ʔe•*, with the verb root *-he*, and the conjugation is as follows. Note the placement of the person-number prefixes. Both *ʔųk-* and (Mandan) *rų-* =[nų] precede the demonstrative element, whereas the first and second person prefixes follow it.

	Proto-Siouan	Modern Dakotan[21]	Mandan[22]	
1sg	ʔe•-p-he	e-p-hA	é•-p-e-ʔš	
2sg	ʔé•-š- e	e- -hA	é•-t -e-ʔš	
3sg	ʔé•- -he	é- yA	é- he-roʔš	
1du	ʔų-ʔé•- -he	ʔųk-é- yA	r-é•- he-roʔš	*re•- < rų+e•*

Ballard (1975:176), exemplifying the irregular Yuchi verb *kʔą-ła* 'carry something', shows both inclusive and exclusive prefixes outside of the incorporated

element *k?a* 'something', while the first and second person prefixes are inside it and precede the verb root:[23]

1sg	k?ą-**d**-a	I carry something
2sg	k?ą-**š**-a	you/sg. carry something
1incl	**ǫ**-k?ą- ła	we/incl. carry something
1excl	**nǫ**-k?ą- ła	we/excl. carry something

In the interest of accuracy however, it is important to point out that the same inclusive and exclusive prefixes appears *inside* the identical particle, *k?a*, in the verb *k?a£æ* 'eat something' (*k?a-?ǫ-łæ* 'we eat something'). So while there is some evidence of a Siouan-like split in the pronominal morphotactics between an "inner" 1sg and 2sg on the one hand and an "outer" inclusive and exclusive 'we' on the other in the case of this incorporated deictic, more data are badly needed on just what these prefixal orders in Yuchi are. The irregular pattern shown with 'carry something' may be the older pattern however, since, if paradigmatic leveling had taken place in Yuchi, we would expect most verbs to reanalyze the different person/number prefixes into the same order. That we find an exceptional case such as 'carry something', makes us think of Meillet's dictum that we reconstruct on the basis of the exceptions, not on the basis of the rule.

A much more certain split in the pronominal set shows up in the instrumental. The instrumental prefixes, Yuchi *hí-*, Proto-Siouan **í-*, both of which attract primary accent, also precede 1st and 2nd singular prefixes but again follow the 1st dual/plural forms. Unlike the incorporated demonstratives, this pattern is productive in both languages.[24] Siouan examples are from Dakotan and Mandan:

	Dakotan 'drink with'	Mandan 'forget'	
1sg	í-**b**-latke	í-**wa**-kihą•xik	
2sg	í- -**l**atke	í-**ra**-kihą•xik-o?š	
3sg	í- -yatke	í- -kihą•xik-o?š	
1du	**?ų́k**-í- -yatke	**r**-í•- -kihą•xik-o?š	*ri•- < rų + í-*

Yuchi examples are from Wagner (1934:335-336). Note the paradigms of irregular *hí-ła* 'to find' and regular *hí-ša* 'to steal with', in which the inclusive and exclusive prefixes have assimilated the following instrumental, *hí-*.

1sg	hí-**c** -a	I find			
2sg	hí-**š** -a	you find			
1in	**?é**- ła	we (incl.) find	*?é-*	<	*?ǫ + hí-*
1ex	**né**- ła	we (excl.) find	*né-*	<	*nǫ + hí-*

1sg	hí-	di-ša	I steal with			
2sg	hé-	nę-ša	you steal with	*hé-nę-*	<	*hí+nę-*
1in	ʔé-	ša	we (incl.) steal with	*ʔé-*	<	*ʔǫ+hí-*
1ex	né-	ša	we (excl.) steal with	*né-*	<	*nǫ+hí-*

It can be seen, by comparing the two singular forms of 'to steal with', that the vowel of the left suffix harmonizes with, or assimilates to, the vowel to the right with *hí-* becoming *hé-*. This in turn shows that the allomorphs *ʔę-* and *nę-* of the 1st inclusive and exclusive prefixes are assimilated variants of *ʔǫ+hí-* and *nǫ+hí-* respectively.[25]

To summarize quickly, I believe the grammatical evidence shows that a Siouan-Catawban-Yuchi relationship is a strong probability and that this version of Macro-Siouan will gain acceptance. What modest success I may have attained here has been achieved using tried and true reconstructive techniques. The comparative method was the primary tool used in the reconstruction of *Proto-Siouan,* which provided most of the forms compared here with Yuchi. Comparing, say, modern Dakota with Yuchi, something that has been tried several times, would have revealed nothing of the classificatory system and very little in the way of pronominal prefix matches.

Internal reconstruction, with a reliance on the *irregular verb paradigms* of all three languages, cleared away the products of innovation, reanalysis and analogical extension and enabled us to see the essential identity of most of the system.

The search for matching paradigmaticity, syntagmaticity and idiosyncratic phonological and semantic patterns has been of paramount importance throughout. The pronominal and classificatory paradigms form the main thrust of the argument. The syntagmatic parallels in the treatment of the Siouan and Yuchi first plural forms further support it, and the eccentric semantics of the classificatory *wi-/we-* prefix sets and the syncopating, fusional morphophonemics of the irregular person-number prefixes provide matching idiosyncrasies that sustain my belief in this version of Macro-Siouan.

I do not underestimate the importance of systematic, recurring phoneme correspondences in linguistic reconstruction, but it seems to me that Algonquian-Ritwan and Siouan-Catawban-Yuchi both show that it is possible to prove genetic relationship even with a rather incomplete understanding of such correspondences. I believe grammatical evidence must play a central role in the search for additional genetic relationships among languages.

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[1] Some of these languages have tones and these have sometimes been omitted: this is not inconsistent with Greenberg's practice in LIA. The languages are: (1) Tibetan, (2) Mandarin, (3) Min, (4) Burmese, (5) Japanese, (6) Korean, (7) Thai, (8) Khmer, (9) Vietnamese. The vocabularies were obtained by the author from students at the University of Kansas.

[2] My thanks to Rich Rhodes and to Jonni Bartholow for providing the Mitchif and Haitian Creole forms respectively. I have adapted their transcription to my own norms. Cape Verde Creole forms are adapted from Lopes da Silva (1984 reprint). His transcriptions are narrowly phonetic and I have made certain simplifying assumptions about the phonological system which may not be justified. The forms serve their purpose as examples in any event.

[3] "...possession in common of a stock of vocabulary most often does indicate genetic relationship. Where one has no other data, one may provisionally, and with the necessary reservations, make use of the clues thus obtained. Moreover careful observation of vocabulary in such cases nearly always serves to bring out grammatical matches which complete the demonstration." (pp. 94-5) But, he admonishes us, "...vocabulary can only serve to point the way; the proof is found elsewhere." (p. 97)

[4] "...one may not simply make use of such general traits in order to demonstrate 'genetic relationship'. (pp. 22-3) What does constitute proof in establishing continuity between a 'proto-language' and some later language, are the individual properties of morphological expression." (p. 25)

[5] Greenberg simply accepted the Sapir classification of macro-Siouan uncritically. He presents no evidence for it at all in *LIA*.

[6] Wagner's Yuchi symbols have been modernized and Siouan transcription has been modernized in some cases if in so doing the proposed forms are made to look even more alike. I have not altered Elmendorf's cited forms in ways that would make his proposed cognates look less attractive.

[7] Yuchi body parts marked with *go-*- include 'anus, arm/wrist, back of neck, back, body, breath, buttocks, backbone/rib, chin, claw, flesh, forehead, goiter, knuckle, navel, penis, belly, testicles'. Many other body parts lack this prefix however.

[8] Additional animal terms in Crow (which preserves the classification yet today) include '*mallard, female animal, nit, goose, beaver, sparrow hawk, screech owl, corpse, butterfly, heifer, dog, monkey, worm, musselshell, locust*'.

[9] Other important animals show no trace of the prefix: '*badger, bear, beaver, bird, crawfish, dog, otter, raccoon, wolf*'. They do however require the subject agreement prefix *we-* on verbs.

[10]Lastly, in Yuchi, there are several body parts which do not involve soft tissue, but which have the initial syllable *we-*. These may involve either homophony or polysemy; at the moment it is difficult to tell. In Siouan these are found in the class of inanimates: cf. PSi **wa?i•*, CA *i•t* 'blood'.

we?i	blood	weč?ę́-	bone (in 'dice';
wedzæ	hair, hide	cf. YU *goč?ę* 'spine, rib')	
wehi	feather	wep?á	fin
weč?iá	dung	weti	bile
wetæ	breast bone	wešta	claw

[11] *Viz.* Indo-European, Uralic and Altaic first and second person *me/te, me/se, men/sen, bi/či*. In western North-America the dentals are frequently found in the first person and the labials in the second.

[12] For example, compare Yuchi pronominals *nǫ-* and *?ǫ-*, both meaning roughly 'we' (1st pl.) with French *nous* and *on* with roughly the same meaning! So the longer the paradigm, the better the proof.

[13] The Siouan reconstructions herein are my own although their reconstruction owes much to my fellow Siouanists and to the other senior editors of the Comparative Siouan Dictionary, Dick Carter and Wes Jones. Catawba pronoun prefixes are taken from Siebert (1945) and from Voorhis (1984). The Yuchi data presented difficulties of interpretation. I have used Wagner (1934 esp. pp. 372-3 and 334ff.) as a primary source for verb forms but have tried to adapt his transcription to more modern standards. I have also used Ballard (1975, 1978) and several other sources as standards for transcription of the prefixes but again have modified the transcription to conform with current Americanist norms. This has no doubt created some inconsistancies in some of the forms, but these should not in any way affect the analysis. (It will turn out to be inconsequential whether we transcribe the most productive 2sg prefix with a nasal *ę* or a nasal *æ̨* for example.) This paper owes much to discussions of Yuchi morphology held via electronic

mail with William L. Ballard in Japan. I greatly appreciate the time and effort he has spent on my behalf and the additional data that he has contributed. Conversations with Mary S. Linn and with David Skeeter were also very helpful. Interpretations (or *mis*interpretations and mistakes) herein are, of course, my own.

[14] Siouan 1st sg **wa-* must be a product of innovation. Evidence for considering the Siouan prefix an innovation but the Catawba *dV-* archaic comes from irregular verb paradigms in which the Siouan allomorphs (*wa-, m-, p-, b-*) are transparent in their phonological conditioning, assimilating features from the initial phoneme of the verb root. The Catawba allomorphs (*d-, n-, c-*), on the other hand, are true mutations which replace the initial consonant of the verb (like Yuchi irregular verbs) (Siebert 1945; Voorhis 1984). I am equating transparency (as in Siouan) with innovation and opacity (as in Catawba) with conservatism. Thus I consider the Catawba 1sg pronominal to represent the Proto-Siouan-Catawban state and the Siouan form to represent an innovation in just that subbranch of the larger language family.

[15] Type I Yuchi pronominals are apparently used to signal the person/number of the subject when the verb is either intransitive or is transitive with an object. Type II pronominals are used when there is an increase in the valence of the verb, often with a dative but apparently with some other argument types as well. These might best be treated in terms of an *applicative* analysis but more information is necessary before the precise use of the set II prefixes is clarified.

[16] Ballard treats a number of distinct pronominal prefix series as *subject* pronouns in Yuchi. But the notion subject is somewhat lacking in meaning in active/stative and ergative/absolutive languages. Mary Linn (personal communication) states that, although Yuchi is not fully an active/stative language, Yuchi active verbs virtually all require the agent/actor set of pronominal prefixes. Thus it is highly unlikely that any of the patient or other oblique pronominals played a part in the inflection for subject of the vast majority of these irregular verbs. Although active verbs are treated relatively uniformly (as possessing "active" morphological marking), Yuchi verbs of state are mixed, and Linn points out that some may take the agent set. It is the active verbs whose inflection is critical for this study however. Wagner's and Ballard's work on Yuchi pronoun selection antedate the current discussions of active vs. stative verb classes and so do not discuss this issue extensively.

[17] For example the phonological rules governing the appearance of the *-k* differ radically in the several Siouan subgroups. And the *-k* is missing entirely in Ofo and in certain paradigms of some of the other languages, e.g., Dhegiha instrumental paradigms with stem-initial *i-*.

[18] These are taken secondarily from Campbell (forthcoming).

[19] M. Dale Kinkade's paradigms are taken secondarily from Campbell (1993:5).

[20] Wagner (1934:314) did not notice the discrepancies in the pronominal orders. Unfortunately the author does not know the relative order of Yuchi *instrumental* and the indefinite object labeled 'something' and Wagner does not discuss this problem either. Each of the several field workers on Yuchi has reelicited most of what the preceding generation had done, and this has meant that, although we now have good, verified accounts of many aspects of the language, much of the morphotactic complexity of the language is yet to be described thoroughly. The

order of these two morphemes does not affect the morphotactic arguments being made here in any event.

[21] Dakotan mixes two verb roots in this conjugation. The first and second persons are formed from *ehA* 'say' while the third and inclusive persons are formed from *i(y)A* 'speak'. *-A* signals that the final vowel alternates under grammatical conditioning between *-a* and *-e*. Etymologically it is *-*e*. Quapaw similarly mixes the two roots.

[22] In Mandan the vowel of the inclusive prefix is replaced by the stem-initial vowel of the verb. In the case of 'say' that vowel is *e-*, while in the case of the instrumental, below, it is the instrumental prefix, *i-*. The same replacement pattern holds regularly in Mandan for all three locative-instrumental prefixes. Subsequent denasalization of *n* to *r* is a regular process in Mandan, in which consonant nasality is totally dependent on the nasality of the following vowel.

[23] The multiplicity of innovated and presumably non-cognate Yuchi 3rd person noun class agreement prefixes as well as the 2pl prefix (with no analogs in Siouan) also precede the incorporated element (Ballard 1975:176). In the interest of accuracy however, it is important to point out that the same inclusive and exclusive prefixes appears *inside* the identical particle, *kʔa*, in the verb *kʔa-łæ* 'eat something' (*kʔa-ʔǫ-łæ* 'we eat something'). So while there is some evidence of a Siouan-like split in the pronominal/deictic morphotactics between an "inner" 1sg and 2sg on the one hand and an "outer" inclusive and exclusive 'we' on the other, more data are badly needed on just what these prefixal orders in Yuchi are. The irregular pattern shown with 'carry something' may be the older pattern however, since, if paradigmatic leveling had taken place in Yuchi, we would expect most verbs to reanalyze the different person/number prefixes into the same order. That we find an exceptional case such as 'carry something', makes us think of Meillet's dictum that we reconstruct on the basis of the exceptions, not on the basis of the rule. If the morphotactics of this incorporated deictic are unclear, those of the instrumental prefix are very clear and productive.

[24]For a full description of the Dakotan orders see Buechel (1939:41). My thanks to David Rood and John Koontz for discussion of instrumentals. The actual meanings of what both Siouanists and Wagner (for Yuchi) call 'instrumental' can be very abstract as well as quite concrete. In Dakota the meaning 'because of' is quite common. Both prefixes obviously have a long derivational history.

[25] The verb *-yusti* 'deceive' shows a different assimilation pattern with *hi-* first-merging with the following /y/ of *-yusti,* which then prevents assimilation to the pronominals (Wagner 1934:336).

hí-**do**-sti	I deceive someone with	*do* < *do+yu-*
hí-**yo**-sti	you deceive someone with	
ʔǫ- yústi	we (incl.) deceive with	*yú-* < *hí+yu-* presumably
nǫ- yústi	we (excl.) deceive with	

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THE DOMAIN OF GLIDING IN FRENCH
An Optimality Theoretic Approach

Walcir Cardoso
McGill University

Abstract
Gliding Formation is a domain-sensitive phonological process of European French in which the high vowels /i/ /y/ /u/ become their corresponding glides [j] [ɥ] [w] in the presence of a following vowel, within the domain of the Prosodic Word. Previous studies have either ignored the fact that the phenomenon is sensitive to prosodic domains, or have established an unnecessary prosodic domain, i.e. the Clitic Group, in order to account for the behavior observed in prefix + root sequences. In such analyses, usually unstressed prefixes are erroneously assigned the status of Prosodic Words by default in order to comply with the Strict Layer Hypothesis. A more updated study, conducted by Noske (1996), proposes an Optimality Theoretic account for the phenomenon without any consideration to prosodic domains. As a result, illicit forms are predicted. The purpose of this paper is to provide an analysis for Gliding in French in which prosodic domains serve as loci for phonological processes. Accordingly, the study complements the work of Noske for Gliding in French, within the same theoretic framework.

I Introduction:

This paper offers an optimality theoretic analysis to determine the prosodic domain in which Gliding or Semivocalization applies in European French. Gliding is a phonological phenomenon in which the high vowels /i/ /y/ /u/ become their corresponding glides [j] [ɥ] [w] when followed by another vowel, as I illustrate in (01).

(01) *je joue [ʒu]* → *[ʒwabl]* 'playable'
colony [kɔlɔni] → *[kɔlɔnjal]* 'colonial'

Phonological environment, however, is not enough to account for Gliding in French, since the process is also sensitive to prosodic domains. In this paper, I argue that Gliding occurs at the lexical Prosodic Word level. Prefixes, contra Hannahs (1995), are prosodicized as unstressed (i.e. unfooted) syllables, which are both sisters and daughters to Prosodic Words. Suffixes, on the other hand, right-align with the stem, and consequently follow the stress pattern of French, that is, the rightmost vowel of the word receives a higher degree of accentuation. Following Charette (1991), I assume that the domain of word stress assignment in French is the Prosodic Word. Suffixes, therefore, are licensed as internal to the Prosodic Word domain.

I.a The data:

In (02) and (03) I show the relevant data for my analysis, and the phonological and morphosyntactic contexts in which Gliding applies. Observe that in (02)a Gliding occurs within a

monomorphemic word, and between a root and a suffix in (02)b. In (03)a through (03)c, I illustrate the morphosyntactic contexts in which the process does not apply: Gliding does not apply in sequences of a prefix plus a root, as in (03)a, between the two members of a compound, as I illustrate in (03)b, and across words in higher morphosyntactic domains, shown in (03)c.

(02) **Gliding APPLIES:**[1]

a. In monomorphemic words:		*/uɛst/* → *[wɛst]* 'west'
		/nyaʒ/ → *[nɥaʒ]* 'cloud'
b. In suffixation:	*/atriby + abl/*	→ *[atribɥabl]* 'attributable'
	/ty + e/	→ *[tɥe]* 'to kill'

(03) **Gliding DOES NOT APPLY:**

a. In prefixation:	*/mi avril/*	→ *[miavril]* **[mjavril]* 'mid April'
	/semi arid/	→ *[səmiarid]* **[səmjarid]* 'semi-arid'
b. In compounding:	*/sezi arɛ/*	→ *[seziarɛ]* **[sezjarɛ]* 'garnishment'
	/tisy epɔ̃ʒ/	→ *[tisyepɔ̃ʒ]* **[tisɥepɔ̃ʒ]* 'sponge-cloth'
c. Across words:	*/ʒu o futbɔl/*	→ *[ʒuo]* **[ʒwo]* 'play (at)'
	/dy atɑ̃dr/	→ *[dyatɑ̃dr]* **[dɥatɑ̃dr]* '(he) had to wait'

I.b Previous studies:

Previous studies in generative phonology have failed in their attempt to satisfactorily explain the Gliding phenomenon in French. Bibeau (1975), Dell (1973) and Kok & Spa (1978) present linear analyses for Gliding which do not fully capture the phenomenon, since they do not refer to domains and besides predict elicit forms for the rules they propose.[2] Johnson (1987), inspired by the work of Mohanan's (1982) Lexical Phonology, proposes that prefixation (since it does not trigger word-internal processes in French) and compounding occur at a third lexical level, while Gliding occurs at levels 1 and 2. He rejects the possibility of prefixation applying at the post-lexical level since he believes that such a category changing morphological process must occur in the lexicon. He also notes that certain prefixes behave as "separate words" insofar as phonological processes do not operate across the boundaries which divide them from their stems. The first real attempt to explain Gliding through Prosodic Domains was that of Hannahs (1995), in which stressed and unstressed prefixes are assigned the status of Prosodic Words, bearing the same status of other stressed, lexical words. Thus, prefixes and roots would both constitute Prosodic Words, strictly dominated by the Clitic Group in order to comply with the Strict Layer Hypothesis. The problem in Hannahs' analysis is the assignment of Prosodic Word status to non-lexical words such as prefixes. In the analysis I propose here, however, prefixes do not constitute Prosodic Words, and are only licensed by the higher Prosodic Word together with the base or root. Finally, Noske (1996) proposes an Optimality account for Gliding in French without any consideration for what happens between prefix and root sequences, and between the two words that form a compound. In his analysis, he wrongly predicts the illicit forms in (03), since there is

no reference to domains. My study, then, complements that of Noske (1996) in an OT framework.

I.d Motivations for Prosodic Phonology in an Optimality Theoretic Approach:

As I have demonstrated previously, the Gliding process is sensitive to prosodic domains, since its application cannot be determined purely on a phonotactic basis. This way, I assume Selkirk's (1978 et seq.) and Nespor and Vogel's (1986) view that phonological constituents are a hierarchically arranged set of phonological domains, and phonological phenomena must refer to the edges of these constituents, to the constituent itself as a whole, or to the juncture between two constituents. Nevertheless, such an approach makes rigid use of the Strict Layer Hypothesis (see (05) below), as originally proposed by Selkirk (1978), and therefore results in the assignment, by default, of Prosodic Word Status to usually unstressed, non-lexical words in order not to violate the Strict Layer Hypothesis. Within this context, an OT approach is preferable because it presents a more elegant analysis in which constraints are violable, and the violation of well established principles, such as the Strict Layer Hypothesis, is best accounted without recurrence to the Weak Layering Hypothesis (Itô and Mester 1992) or Stray Syllable Adjunction (Hayes 1980).

Optimality Theory, as proposed by Prince and Smolensky (1993), is a theory that deals with how an input is matched with its corresponding output, selected from a set of candidates generated for the input. This set of candidates is then submitted in parallel to a hierarchy of constraints for evaluation, and the candidate that "best satisfies" the constraint hierarchy of the language emerges as the optimal form. These constraints against which the candidates are evaluated are part of Universal Grammar, and form a set of constraints. Thus, cross-linguistic variation is a result of how these constraints are ranked in a specific grammar. The three most relevant principles of OT are: *Violability*, that is, constraints are violable in order to satisfy higher ranked constraints, but violation is minimal; *Ranking*, which states that constraints are ranked on a language-particular basis; this way, the notion of minimal violation is defined in terms of a language specific ranking; and *Parallelism*, which says that the best satisfaction of the constraint hierarchy is computed over the whole hierarchy and the whole candidate set. In other words, there is no serial derivation.

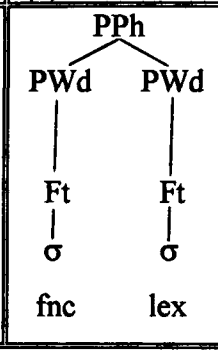
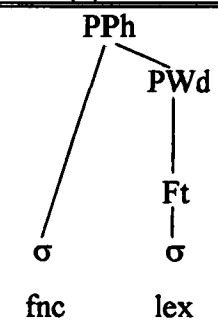
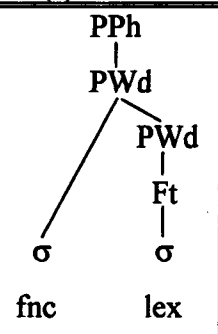
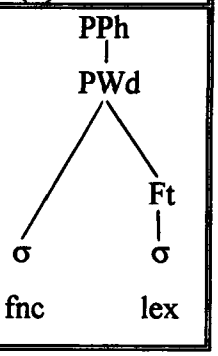
II The analysis:

II.a The domain of Gliding in French:

Following Selkirk (1995), I believe that function or non-lexical words may appear in a variety of prosodic configurations, depending on the interaction of well-attested types of constraints on prosodic structure. According to the author, non-lexical words may be licensed as prosodic words, free clitics, affixal or internal to the prosodic word, as I illustrate in Table 1. I assume here that *lex* designates a free root belonging to a lexical category, that is, Noun, Verb,

Adjective, etc., excluding all other non-lexical categories (represented here as *fnc*) such as affixes, pronouns, determiners, etc.

(04) Table I: Prosodic forms for [Fnc + Lex] sequences:

Clitic Status	(a) Pros. Word	(b) free	(c) affixal	(d) internal
Prosodic Form				

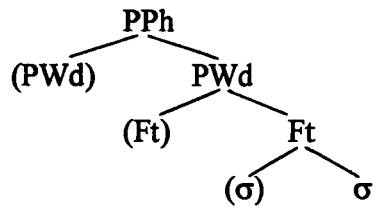
In order to account for these possibilities in an OT approach, I assume Selkirk's decomposition of the Strict Layer Hypothesis in (05), into four more primitive constraints, each with an independent status in the grammar, as I show in (06). In her view, the Strict layer Hypothesis should be considered as a family of constraints, and not as a monolithic, inviolable device in which each non-terminal constituent of the prosodic hierarchy is exclusively composed of one or more constituents of the immediate lower category. The advantage of such an approach is that violation of the Strict Layer Hypothesis may no longer be accounted for by devices such as Stray Syllable Adjunction (Hayes 1980) and Weak Layering Hypothesis (Itô and Mester 1992).

(05) The Strict Layer Hypothesis (SLH - Selkirk 1984):
The categories of the Prosodic Hierarchy may be ranked in a sequence $C_1, C_2, \ldots C_n$, such that
a. all segmental material is directly dominated by the category C_n, and
b. for all categories C_i, $i \neq n$, C_1 directly dominates all and only constituents of the category C_{i+1}.

(06) Constraints on Prosodic Domination (Selkirk 1995):
(Decomposition of the SLH, where C = some prosodic constituent)
a. **Layeredness:** No C^i dominates a C^j, $j > i$
e.g. No foot dominates a PWd.
b. **Headedness:**[3] Any C^i must dominate a C^{i-1}
e.g. A PWd must dominate a Ft.
c. **Exhaustivity (ExhC):** No C^i immediately dominates a constituent C^j, $j < i-1$
e.g. No PWd immediately dominates a σ.
d. **Nonrecursivity (*RecC):** No C^i dominates C^j, $j = i$.
e.g. No PWd dominates a PWd.

In this paper, I argue that the postulation of a further domain between the Prosodic Word and the Phonological Phrase, i.e. the Clitic Group, is unnecessary to determine the prosodization of non-lexical words, as I show in the prosodic Hierarchy that I adopt in (07):

(07) The Prosodic Hierarchy (Selkirk 1978):



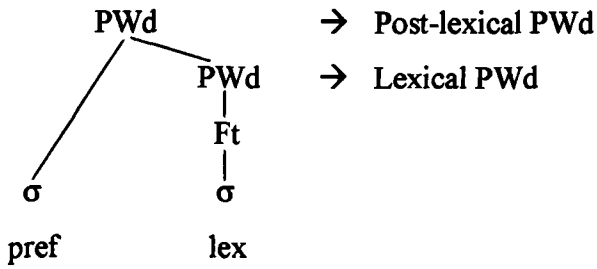
Phonological Phrase
Prosodic Word
Foot
Syllable

In agreement with Hannahs (1995), I believe that the domain of Gliding in French is the Prosodic Word. Under the assumption that main stress assignment in French occurs at the Prosodic Word (Charette 1991), prefixes cannot form independent Prosodic Words (contra Hannahs 1995), since they surface unstressed. I argue therefore, along the lines of Peperkamp (1995), that Prosodic Words are built at the lexical level. Post-lexical prefixation induces the construction of a new Prosodic Word, which includes the prefix plus the root, as I show in (08). In her view, syllabification applies in two steps: "at the lexical level, prefixes form independent syllabification domains, in accordance with the requirement that syllables be nested within prosodic words. Postlexically, however, resyllabification applies across prosodic words" (Pepperkamp 1997: 105), which accounts for the post-lexical Prosodic Words that prefixes form concomitantly with their bases in French. As it is evident, Pepperkamp argues against an output-output version of OT, and favors a version in which at least a lexical and a post-lexical level are recognized. Her main argument for such a view is grounded on resyllabification processes across Romance languages, which lead to a "readjustment" of Prosodic Word boundaries when resyllabification applies. Consequently, post-lexical Prosodic Word boundaries no longer coincide with morphological word boundaries, an alignment type of violation. For instance, the two morphological words (represented here by MWd) *bar* 'bar' and *aperto* 'open' form two Prosodic Words at the lexical level. When resyllabification applies (for compounding), the two words become a single morphological word, and a readjustment of the lexical Prosodic Words is required, as I show below:

- Lexical → $([bar]_{PWd})_{MWd}$ $([aperto]_{PWd})_{MWd}$ 'open bar'
- Post-lexical → $([ba]_{PWd}$ $[raperto]_{PWd})_{MWd}$

Based on Pepperkamp's arguments, I argue that Gliding in French applies exclusively within the lexical Prosodic Word, shown in (08). The configuration also illustrates why Gliding is not possible between prefix plus root sequences, and between the two members of a compound, for the resulting Prosodic Words that they constitute are invisible for the Gliding phenomenon.

(08) *The domain of Gliding in French:* the lexical Prosodic Word



In the following sections I show how the prosodization of suffixes, prefixes and compounding stems are obtained in order to determine the prosodic domain in which Gliding occurs in French.

II.a.1 The Prosodization of Suffixes:

I initially provide an analysis for the prosodization of root plus suffix sequences in French. In order to account for affixation, another family of constraints is necessary besides the Family of Constraints on Prosodic Domination, illustrated in (06). The Constraints on Alignment of Edges of constituents, formalized by McCarthy & Prince (M&P) (1993ab), are able to capture the match between phonological and morphological constituents, more specifically how a designated edge of a prosodic or morphological constituent coincide with a designated edge of some other prosodic or morphological constituent.

The first alignment constraint is the one that assigns the status of Prosodic Word to every stem: the AlignStem/Prosodic Word constraint (AlignStem/PWd), illustrated in (09). According to this well-attested constraint, the left and right edge of every stem must be aligned with the left and right edge of a Prosodic Word. In other words, every stem must form a Prosodic Word. Assuming that this pair of constraints is equally ranked in the grammar of French, I will simply group them into one single constraint. Notice that it is this constraint, more specifically the left-alignment of the Stem with the prosodic Word (09i), that forces the recursive Prosodic Word structure for prefixation illustrated in (08).

(09) *The Stem Alignment Constraint* <AlignStem/PWd> (McCarthy & Prince 1993ab):
(i) Align (Stem, L; PWd, L)
(ii) Align (Stem, R; PWd, R)

Based on stress assignment, I assume that suffixes form a Prosodic Word together with the root, domain to which word stress is assigned in French, as proposed by Charette (1991). According to the author, stress is assigned to "the rightmost expressed vowel of a word", and all the other vowels have a lesser degree of accentuation, as Nagy (1995) claims is the pattern for romance languages. Since word stress is assigned at the PWd domain, I assume that suffixes prosodicize as internal to lexical Prosodic Words. According to the constraint in (10), suffixation in French is

nothing but the alignment of the left edge of a suffix with the right edge of a root, both of which form a stem and consequently a Prosodic Word, by AlignStem/PWd.

(10) *The Suffix Alignment Constraint (McCarthy & Prince 1993b, Bullock 1996)*
- Align (Suffix, L; Root, R) <AlignSuf>

In (11) and (12) I show data which capture the fact that stress (indicated by a pre-syllabic ') is stem-final in French. Notice in the derived stems in (11), that even with the addition of a suffix, stress shifts to the rightmost syllable of the stem, a case of stress-dependent suffixation, as Kager (1996) defines such cases of prosodically governed morphology. In (12), notice that prefixes behave differently in which they do not interfere in stress assignment; in Kager's (1996) terminology, prefixed words are characterized by "stem stress" in French.

(11) Suffixation:

Underived stems:	*Derived stems:*
(a) ['djab] 'devil'	[djabɔ'lik] 'devilish'
(b) ['parl] '3sg. speaks'	[par'le] 'to speak '

(12) Prefixation:

Underived stems:	*Derived stems:*
(a) ['mɛ] '3sg. puts'	[rə'mɛ] '3sg. replaces'
(b) ['prɔpr] 'clean'	[mal'prɔpr] 'dirty'

Based on these facts, I adopt the AlignStem to Foot constraint (AlignStem/Ft) in (13), that captures the fact that stress is stem-final in French. In order to satisfy this constraint, stress is shifted to the rightmost syllable of the stem in suffixation. In prefixation, however, stress is preserved since prefixation does not affect the right edge of the stem, as I showed in (12). According to the constraint in (13), the right edge of every stem must coincide with the right edge of some Foot. The leftover syllables are then parsed by a higher constituent in the prosodic hierarchy, that is, the Prosodic Word.

(13) *The Stem-to-Foot Alignment Constraint (Kenstowicz 1995, Garrett 1996):*
- Align (Stem, R; Foot, R) <AlignStem/Ft>

The Prosodic Word constraint (PWdCon) in (14), originally proposed by McCarthy and Prince (1993a), accounts for the fact that, universally, each Prosodic Word must contain a free root. In fact, it is based on this constraint that I, in agreement with Selkirk (1995), reject the Clitic Group as a prosodic domain. In her view, prefixes are not X^0s and therefore should not be visible for the mapping rules of morphosyntactic constituents onto prosodic constituents (Selkirk 1984). The prosodization of prefixes, therefore, is driven by a secondary mechanism,[4] which requires all segmental material to be part of prosodic constituency. According to PWdCon, every prosodic Word must be right and left aligned with a lexical word. This way, I am able to explain why I

reject Hannahs' (1995) analysis for prefixes in French as bearing the status of Prosodic Words, right and left-aligned with non-lexical words.

(14) *The Prosodic Word Alignment Constraint* <PWdCon> (Selkirk 1995, M&P 1993b)
(i) Align (PWd, L; Lex, L)
(ii) Align (PWd, R; Lex, R)

In view of the facts and constraints discussed, I propose the constraint ranking in (15), in which constraints are organized in terms of hierarchy, going from highest ranked on the left, to lowest ranked on the right. Double arrow heads indicate that the constraints are crucially ranked and commas indicate that the ranking is indeterminate between the two constraints.

(15) Constraint ranking$_1$:
AlignSuf, Align Stem/PWd, AlignStem/Ft >> PWdCon, ExhC, *RecC

In Tableau I, from which I exclude all irrelevant structure for expository reasons, I show the competing candidates and the optimal form of the input [root + suffix]. In the tableau analysis, I make use of standard OT conventions: a straight line in the tableau indicates that the constraints are ranked with respect to each other. A dotted line indicates that the ranking is indeterminate. The hand on the leftmost column of the tableau indicates the winner candidate, that is, the one with the fewest violations of highly ranked constraints, the output form. Each violation is indicated by an asterisk. An exclamation mark after an asterisk illustrates a fatal violation and indicates that that candidate lost to at least one other candidate on that point in the tableau. After a candidate loses out, the cells for the lower ranked constraints are shaded to emphasize the irrelevance of the constraints for the selection of the output candidate. In other words, the eyes of the reader should focus on the non-shaded areas of the tableaux.

Tableau 1: The prosodization of suffixes

[Root suf]	AlignSuf	AlignStem/PWd	AlignStem/Ft	PWdCon	ExhC	*RecC
(a) PWd ☞ Ft ∴ ʒwabl				*		
(b) PWd PWd σ Ft ∴ ʒu abl			*!	*	*	*
(c) PWd Ft σ ∴ ʒu abl			*!	*	*	
(d) PPh PWd Ft Ft ∴ ∴ ʒu abl		*!		**	*	

According to the ranking in (15), candidate (a) is the optimal candidate: it does not violate the highly ranked constraints that the other three candidates violate, and it is the one in which stress is shifted rightwards in order to satisfy the highly ranked AlignStem/Ft. In candidate (a), the suffix is prosodicized as internal to the Prosodic Word, and all phonological processes sensitive to this domain will apply if the phonological environment is adequate, as I showed in (01) and (02). The structure represented by candidate (b) is slightly similar to the one I argue holds for prefixation in French. Notice, however, that candidate (b) violates the undominated AlignStem/Ft constraint because the original stress of the root [ʒu] is preserved in the output form. Candidate (c) also illustrates the Foot left-aligned with the stem, thus violating the highly ranked AlignStem/Ft, and therefore is ruled out as the optimal candidate. Notice that the distinction between candidate (c) and the two first candidates lies in the recursive structure in (b), and the rightward shift of the stem stress in (a). Candidate (d), on the other hand, shows the

suffix bearing the status of a Prosodic Word. Such a configuration loses out because it violates the undominated AlignStem/PWd constraint.

II.a.2 The prosodization of prefixes:

For Prefixation, I adopt Bullock's (1995) and McCarthy and Prince's (1995) constraint for prefixation, formalized in (16). According to AlignPref, the base for prefixation in French is the Prosodic Word and the right edge of every prefix must correspond to the left edge of a Prosodic Word. This constraint also accounts for the recursive structure that I argue holds for prefixation: the AlignPref constraint demands that prefixes be right-aligned with a base Prosodic Word; by the AlignStem/PWd constraint, the stem formed by the prefix and the Prosodic Word must together form a recursive Prosodic Word.

(16) *The Prefix Alignment Constraint (McCarthy & Prince 1995, Bullock 1995)*
- Align (Prefix, R; PWd, L) <AlignPref>

In (17) I maintain the hierarchy proposed in (15), with the addition of undominated AlignPref to account for prefixation. Also, a further re-ranking of PWdCon above the two lowest ranked constraints is necessary so that I can explain why candidate (a) in Tableau 2 is the optimal prosodic representation for [prefix + root] sequences in French.

(17) Constraint ranking$_2$:
AlignPref, AlignSuf, Align Stem/PWd, AlignStem/Ft >> PWdCon >> ExhC, *RecC

Tableau 2: The prosodization of prefixes

[Pref Root]	AlignPref	AlignStem/PWd	AlignStem/Ft	PWdCon	ExhC	*RecC
(a) PWd ☞ PWd Ft σ ∴ mi u				*	*	*
(b) PWd PWd PWd Ft Ft ∴ ∴ mi u				**!*		**
(c) PPh PWd PWd Ft Ft ∴ ∴ mi u				**!		
(d) PWd Ft σ ∴ mi u	*!			*	*	

Candidate (a) is the optimal candidate, since it violates the PWdCon only once and does not violate any other highly ranked constraint. Notice that the root [u] is dominated by the lexical Prosodic Word. The prefix [mi] is only included at the post-lexical level, together with the lexical Prosodic Word, which explains why we do not find Gliding between a prefix and the following root. Candidate (b) is the equivalent of Hannahs' (1995) proposal: each lexical or non-lexical word forms a Prosodic Word. By the Strict Layer Hypothesis, both PWds are immediately dominated by the Clitic Group, replaced here by PWd. This configuration, however, fatally violates PWdCon and is ruled out as the optimal form. Candidate (c) illustrates both Prosodic Words directly dominated by a Phonological Phrase. Such a representation, however, violates PWdCon twice and consequently is excluded as optimal. Candidate (d) shows the prefix as internal to the Prosodic Word, leading to a fatal violation of AlignPref.

II.a.3 The prosodization of compounds:

For compounds, I adopt Charette's (1991) analysis for compounds in French, which is also in agreement with many other analyses for compounds across languages (cf. Inkelas 1989, McCarthy and Prince 1993ab, Pepperkamp 1997, among others). In Charette's analysis, each compounding stem bears a Foot and consequently forms Prosodic Words, both recursively dominated by another Prosodic Word. This approach to compounds can be easily captured by the constraint Word Alignment (WdCon) in (18), proposed by McCarthy and Prince (1993ab). WdCon requires that every lexical word be both left and right aligned with a Prosodic Word, and ensures that both members of the compound bear the status of Prosodic Words.

(18) *The Word Alignment Constraint <WdCon> (McCarthy & Prince 1993ab, Nagy 1995):*
(i) Align (Lex, L; PWd, L)
(ii) Align (Lex, R; PWd, R)

The same constraint ranking proposed so far, plus the addition of undominated WdCon, accounts for the prosodization of the two members of a compound as lexical Prosodic Words, recursively dominated by the post-lexical Prosodic Word. In (19) I show the final version of the constraint ranking responsible for the prosodization of the words involved in Gliding in French, followed by Tableau 3 in which I show how the prosodic configuration of a compounding [stem + stem] sequence is obtained.

(19) Constraint ranking for the Prosodic Domain of Gliding in French:

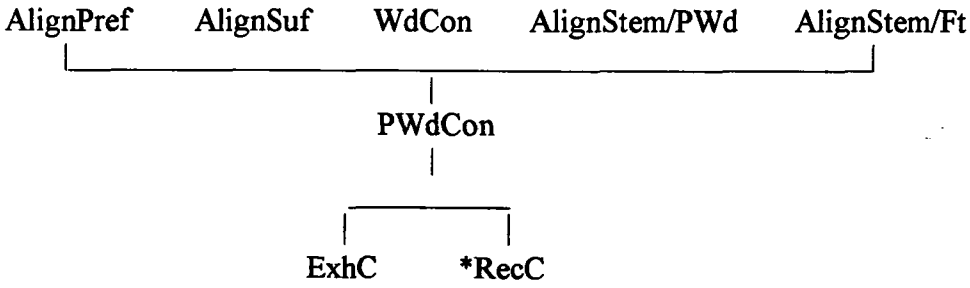


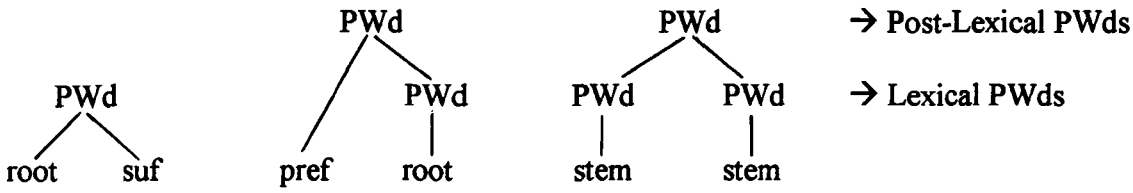
Tableau 3: The prosodization of compounds

[Stem Stem][5]	WdCon	AlignStem/PWd	AlignStem/Ft	PWdCon	ExhC	*RecC
(a) PWd ☞ PWd PWd Ft Ft ∴ ∴ tisy epɔ̃ʒ						**
(b) PWd PWd Ft Ft ∴ ∴ tisy epɔ̃ʒ	*!					*
(c) PWd Ft Ft ∴ ∴ tisy epɔ̃ʒ	*!*					

Candidate (a) minimally violates the NonRecursivity of a Constituent constraint, since the two lexical Prosodic Words formed by the two members of the compound are recursively adjoined to a higher, post-lexical Prosodic Word. Since NonRecursivity of C is ranked lower in the grammar of French, candidate (a) wins out among the competing candidates, and illustrates why Gliding doesn't apply between the two members of a compound, as I showed in (03)b. Candidate (b) violates the highly ranked Word Alignment Constraint, since the right edge of the first member of the compound does not right-align with the right edge of a Prosodic Word. Finally, candidate (c) fatally violates the Word Alignment Constraint and loses out among the competing candidates.

In summary, Gliding does not apply between prefix plus root sequences and compounding stems because the prosodic status that these constituents assume are invisible to the Gliding phenomenon. Suffixes, however, syllabify internally to Prosodic Words and therefore constitute, with the preceding root, the domain for Gliding. Below I illustrate the representation for suffixation, prefixation and compounding in French which illustrate the prosodic domain of the Gliding phenomenon in European French:

(20) a. Suffixation: b. Prefixation: c. Compounding:



III Conclusions:

In this paper I have presented data that confirm the significance of the Prosodic Hierarchy in determining domains for phonological processes. More specifically, I have provided further evidence to support Selkirk's (1995) view on the prosodization of non-lexical words in an Optimality Theoretic Framework. The main advantage of an OT approach is that constraint violability is minimal, and minimal violations of the Strict Layer Hypothesis, for instance, do not rule out "best formed" surface forms. In traditional phonology, violations of the Strict Layer Hypothesis have often been disguised by devices such as Stray Syllable Adjunction, or Weak Layering Hypothesis.

This paper presents a domain analysis for Gliding in French, a domain sensitive process that applies exclusively at the lexical Prosodic Word domain. The constraint PWdCon ensures that prefixes be defined with respect to the category Prosodic Word only, thereby rejecting the controversial Clitic Group. Also, PWdCon invalidates the unnecessary assignment of Prosodic Word status to regularly unstressed non-lexical words.[6] As a consequence, prefixes prosodicize as unfooted syllables, directly licensed by the post-lexical Prosodic Word. Ultimately, my analysis explains why we do not find Gliding between the two members of a compound and in higher prosodic domains.

* Many thanks to Professor Heather Goad for helpful discussion and input, and to the audience of the 21st Annual Meeting of the Atlantic Provinces Linguistics Association (APLA), Mount Saint Vincent University, Halifax, N.S. Canada.

Notes:

[1] As I have previously mentioned, the focus of this paper is to determine the prosodic domain in which Gliding occurs. For discussions concerning the phonological constraints involved in the phenomenon, see Noske (1996).

[2] Bibeau (1975) proposes the rule [+cld] → [-voc] / VC_V, which does not account for cases such as /uɛst/ → [wɛst], /virtyɛl/ → [virtɥɛl] and /ʒuɔ/ → [ʒwɔ]. Dell (1993), on the other hand, proposes the rule [+son, +hi] → [-syll] _V (or _[+syll]), which wrongly predicts /pyblie/ → *[py.blje] vs. ✓ [py.bli.e]. Kok and Spa (1978) account for the phenomenon by the rule [+voc] → [+cons] / _V [+hi, -mid, -stress]; however, for cases of obstruent + liquid sequences such as /pyblie/ → [py.bli.e], they propose the ad hoc universal constraint OLISEM: "if a syllable edge underlyingly begins with one or more obstruents plus one or more non-nasal sonorant consonants, plus a closed vowel, the edge of the syllable must be the same at surface level" (p 70).

[3] In Selkirk's (1995) view, the constraints Layeredness and Headedness are universally inviolable and therefore I do not include candidates in which they are violated in my analysis.

[4] In the OT approach that I use here, prefixes must be licensed by a prosodic constituent (in the case of French by the Prosodic Word) by the constraint PARSE, which requires that all segmental material be licensed by a prosodic constituent in the prosodic hierarchy.

[5] Compounds in French are formed by at least two stems, which in turn contain two or more stressed, and therefore footed Prosodic Words. Two possibilities for primary stress assignment arise: either all the members of the compound bear primary stress, or only one of these words' stress is preserved in the compound stem. Recall that stress is French is stem-final, as I imply by the constraint in (13). In order to satisfy the constraint AlignStem-to-Foot, the rightmost member of the compound stem must bear primary stress. Kager (1996) proposes the constraint UNI-PEAK to account for such patterns found in compounds: maximally, only one of the stems can bear Stress Peak. The choice in French is made for the rightmost foot by the constraint AlignStem-to-Foot, undominated in the language.

[6] I am not inferring here that there is not any language in which Prosodic Words dominate non-lexical words (see Selkirk 1995, Pepperkamp 1997). As I mentioned previously, the OT approach that I adopt here allows violation of constraints in order to satisfy higher ranked constraints, determined on a language specific basis.

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Takelma interrogative *ti*

Christopher Culy
The University of Iowa
chris-culy@uiowa.edu

1 Introduction

Takelma, a now extinct language formerly spoken in South Central Oregon, probably a Penutian language, was the subject of a grammar by Edward Sapir (Sapir 1922).[1] Sapir's grammar touches only briefly on questions, without saying much more than that

> "[t]he interrogative enclitic [*ti*] is consistently used in all cases where an interrogative shade of meaning is present, whether as applying to a particular word, such as an interrogative pronoun or adverb, or to the whole sentence ... Ordinarily [*ti*] occupies the second place in the sentence, less frequently the third" (Sapir 1922:277).

This quotation indicates two of the particularly interesting properties of the interrogative *ti*, namely that it occurs in all questions, not just constituent or polar questions, and that it has a somewhat variable position, and is not a strict positional clitic. Some examples illustrating these properties are given in (1-2). We can note from the examples in (2) that even if we take into account phrases instead of words, *ti* cannot be considered a strict second position clitic.

1. *ti* with different types of questions
a. Polar question (TT:26,17)[2,3]

henenakwàtʰəti̲?

eat_up-2sg-=Q

'Did you eat it all up?'

---

[1]I would like to thank Bill Davies, Daythal Kendall and Linda L. McIntyre for helpful discussion of this paper, though I take full responsibility for its contents. Following Kendall 1977 (cf. Shipley 1969), I have modernized and simplified Sapir's transcription by using standard IPA symbols and by indicating long vowels with a following colon (:).

[2]I will use TG to indicate Sapir 1922, the Takelma grammar, and TT for Sapir 1909, the Takelma texts. All page numbers are to the original editions, as indicated in the collected works edited by Victor Golla (Golla 1990). I will use S1 - S5 to indicate the 5 notebooks of Sapir's fieldnotes (Sapir 1906). Where examples occur in more than one source, I cite the published version, with the texts taking priority over the grammar. To the best of my knowledge, the only other work on Takelma syntax is Kendall 1977, which covers a lot of ground, but which was not able to cover all aspects of Takelma syntax, including questions.

[3]The glossing abbreviations for the Takelma examples are below. Glosses for other languages are from the original sources.

1	first person	fut	future	pl	plural
2	second person	inf	infinitive	=Q	interrogative enclitic
3	third perons	infer	inferential	recip	reciprocal
cp	Coyote Prefix	loc	location	sg	singular
emph	emphatic	neg	negative		

The Coyote Prefix is a meaningless prefix used to indicate a certain speech style. See Hymes 1979.

b. Constituent question (TT:142,9)

Nèk^{h}ti xepè?n

someone-=Q did

'Who did it?'

2. Variable position of *ti*

a. After second word/phrase (TT:124,18)

[Kane:] [hasukwinté:] ti mac'akà?n

now in-basket-1sg =Q put-1sg.trans

'Now shall I put him in my basket?'

b. After third word/finally (TT:170,5)

[[Sí:x xum] nakaí:t^{h}p^{h}] ti

venison dried think-2pl =Q

'Dried venison did you think it was?' (lit. 'Dried venison' did you say?)

c. After third word/second phrase (TT:27,6)

[wit^{h}atí] [c'elei wàk^{h}i?] ti: yú:k^{h} ?

1sg-aunt- eyes without =Q be-infer.3pl

'So my aunts are without eyes, are they?'

A third interesting property of interrogative *ti* is that it can appear in structures which Sapir calls incorporation,[4] occuring between an incorporated element and the verb with which it is incorporated. Some examples are in (3).

3. *ti* with incorporated prefixes

a. (TG:186)

i:-ti-laskìxant^{h}p^{h}-kulukwát^{h}p^{h}

hand-=Q-touch-2pl-intend-recip-2pl

'Are you going to touch one another?'

b. (TG:65)

pa-itè?titìnik'at^{h}

out-lip-=Q-stretch-2sg

'Did you stretch it out?'

The combination of the first two of these three properties, that *ti* occurs in all questions and is not a sentence level positional marker is a very unusual one typologically. There are many languages which have interrogative markers which occur in all types of questions, but in these languages the interrogative has a fixed position in the sentence (e.g. at the periphery, or in second position). An example from Lakhota is in (4). This example is ambiguous between a polar question and a constituent question in part because the interrogative marker occurs in both types of questions.

[4]But see Culy 1997 for arguments against incorporation.

4. Fixed position interrogative in all Lakhota questions (Williamson 1984:255)

Tuwa u kta he?

someone/who come FUT Q

i. 'Will someone come?'
ii. 'Who will come?'

It is also possible for languages to have an interrogative marker that occurs only with certain types of questions, usually favoring polar questions as opposed to constituent questions. Examples from Ute are given in (5). Here, the interrogative marker *aa* is distinct from the question word *'aa* 'who.'

5. Restricted interrogative marker in Ute

a. With non-interrogative word (Givón 1984:221)

mamá-ci-aa kɥaw tɥkúa-vi tɥká-qa?

woman-SUBJ-Q yesterday meat-OBJ eat-ANT

'Did the **woman** eat meat yesterday?'

b. Not with interrogative word (Givón 1984:226)

'aa wɥɥka-x̂a?

WH/SG work-ANT

'Who worked?/Which one worked?'

The fundamental issue that this paper addresses is thus the unusual fact that *ti* occurs in all questions but is not a positional marker. The solution presented here posits that *ti* restricts the focus of a question, and this analysis leads to a solution to the dual issues of universality and (lack of) positionality.

In addition, the solution presented here also sheds light on the third interesting property of *ti* mentioned above, namely that it can occur internal to incorporation structures. The account of *ti* presented here makes some different predictions about *ti* in incorporation structures than Sapir's positionally based description does. Data from the published Takelma texts (TT) as well as from unpublished data from Sapir's fieldnotes suggest that the predictions of the account here are borne out.

2 The nature of polar questions

The solution to the questions of *ti* is to be found by examining two types of polar questions: neutral questions and focussed questions.

It is generally accepted that a question delimits ("refers" to) a set of alternatives, the possible or anticipated answers to that question (Karttunen 1977, Levinson 1983). The speaker wants to know which of the alternatives is true. In the simplest case, there may be only two such alternatives, as in "Is it raining?", where the alternatives are either it's raining or it's not.

However, there are generally more than two alternatives. Consider the question in (6) and some possible answers to it in (7). The alternatives include the base proposition "I saw the dog" (a) and its negation (b.i), as well as all instances where one portion of the proposition has been replaced: the subject (b.ii), the verb (b.iii), or the direct object (b.iv).

6. Did you see the dog?

7a. Yes, I did.

b. No,
i. I didn't.
ii. Pat did.
iii. I heard it.
iv. (I saw) the cat.

The neutral interpretation of a polar question such as (6) with ordinary intonation is that the speaker is interested in the proposition as a whole, i.e. is expecting either (a) or (b.i) as the answer. However, as Givón (1984:220) notes,

> "In addition to the true/false bias, the speaker may also have different reasons for doubting the truth of a proposition. Perhaps some event occurred, but the speaker is not sure about the correct identification of one constituent of the event. Under such circumstances the focus of the yes/no question may be narrowed."
>
> Givón (1984:220)

This narrowing of the focus of the question presupposes that a portion of the event is known (or perhaps not of interest) to the speaker, and classifies certain responses as being inappropriate. In English, this narrowing of focus is done by stressing or clefting the relevant constituent. In Ute (Givón 1984), it is done by preposing the constituent, as seen in (5).

I will argue that the basic function of Takelma *ti* is to restrict the focus of the question. This view of *ti* can be extended to constituent questions, and it makes some predictions about the interpretations of questions with "incorporated" *ti*.

3 Polar questions in Takelma

3.1 Neutral

In examining the questions in the Takelma texts, we find that neutral questions in Takelma are formed with *ti* following the verb. While most neutral questions are verb final, (8) (see also (1-2) above), it is also possible for *ti* to follow a non-final verb, as shown in (9)-(10). We will return to the issue of why *ti* follows the verb in the neutral interpretation after we have discussed non-neutral polar questions.

8. Verb final neutral question
a. One word (TT 194,1)

Xemelàtʰəti

wish_to_eat-2sg-=Q

'Dost thou wish to eat?'

b. Multi-word (TT 14,9)

Ke yá:x wili nakàitʰəti

there graveyard house say-2sg-=Q

'Is that a graveyard house there, did you say?'

9. Post-verbal but non-final *ti*
a. Sn 1:52 know di IQ

yo:k'o:yòtəti nek lekèxina?

know-2sg-=Q someone give_to_eat-2sg

'Do you know who gave you to eat?'

b. Sn 1:72 ask di IQ

yemèstamti kwiti nanakànta?

ask-1sg-2sg how do-1sg

'Did you ask me how I did it?'

10. Post-verbal but non-final *ti* (Sn 1:86)

ì:taka wa-ìk^{h} ti é:it

that sleep-infer =Q be.2sg

'Were you sleeping there?'

3.2 Non-neutral polar questions

In addition to the neutral polar questions, a number of non-neutral polar questions are attested in Takelma. As noted previously, Sapir himself noted that "[t]he interrogative enclitic [*ti*] is consistently used in all cases where an interrogative shade of meaning is present, whether as applying to a particular word, such as an interrogative pronoun or adverb, or to the whole sentence" (TG:277). While it might seem from this quote that *ti* follows only interrogative words and "the whole sentence" (presumably the one word sentences we have already seen), in fact, *ti* occurs with a range of non-interrogative categories, including nouns, personal pronouns, demonstratives, adverbs, and of course the verbs that we have already seen. Some illustrative examples are given in (11).

11. Non-neutral questions
a. Noun (TT:108,2)

Wa-iwì: ti eí:t^{h}

female =Q be.infer-2sg

'Are you a female?'

b. Personal pronoun (TT:27,5)

á:k^{h} ti haka xé:p^{h}k^{h}

3sg =Q that_one_yonder do.infer

'So it was he that did it?'

c. Demonstrative (TT:124,6)

Ka tì ná:k^{h}ik' wìham?á

that =Q say.infer 1sg-father-deictic

'So is that what my father meant, for his part?'

d. Adverb (TT:92,11)

Mi: ti samàxa lá:p^hk^h

now =Q summer-loc become.infer

'Can it have become summer already?'

Many of Sapir's translations of these *ti* questions cleft (or pseudo-cleft) the English element corresponding to the Takelma word that *ti* follows (cf. (11b). Furthermore, none of the examples with *ti* following the verb are translated with a cleft or pseudo-cleft. This is not surprising if *ti* is restricting the focus of the question to a particular item: clefting is a way to focus material. In his translations Sapir was using the mechanisms available in English to capture the essence of the Takelma questions.

However, Sapir's translations do not always give us the idea that *ti* is being used to restrict the focus of the question, as the examples in (11) show. While there are several kinds of evidence that these types of questions are indeed non-neutral, for reasons of time, I will focus here on the strongest kind of evidence, answers to the questions. Although there are relatively few responses to the questions in the texts, there are some suggestive examples, given in (12). In all of these examples, the response corresponds to the element that *ti* follows in the question. Compare these answers to the answer to the neutral question in (13).

12. Non-neutral question-answer pairs

a. (TT:114,4)

Emè?tà?x ti ?ei yúk^h

here-only =Q canoe be-infer

'Is it only here that there is a canoe?'

Response:

Ti:?lo:mi: yà: eí:, ani:? eme?tàx eí:?á

T. emph canoe neg here-only canoe-deictic

'Right at Ti:?lo:mi: is there a canoe, not only here is there a canoe indeed' (i.e. There's a canoe at Ti:?lo:mi: too, not only here.)

b. (TT 158,2)

Ki: tí hàmi?t^{h}pan tó:mk^{h}a? ?

1sg =Q father-2pl kill.infer-1sg

'Was it I that killed your father?'

Response:

ani:? ki: t'omomà?n hamì?t^{h}pan

neg 1sg kill-1sg father-2pl

'I did not kill your father' (lit. 'Not I killed your father')

c. (TT:184,1)

Kani mi: tì henè?n ?

then now =Q used_up

'Are they all gone now?'

Response:

Hà-u mi: henè?n, mi: àni:? k^{h}ái

Yes now used_up now neg something

'Yes. Now they are all gone, there are none now.'

13. Neutral question-answer response (TT:134,19)

kè?a kaya-u tí

there-deictic eat =Q

'Have they been eating it over there?'

Response:

Hí:t^{h}, àni:? kayaú:

No neg eat

'No, they have not eaten it'

To sum up this section, *ti* is used in non-neutral questions to narrow the focus of the question to the element that it follows. In such questions, the rest of the elements in the event being described are presupposed, and only the element preceding *ti* is being questioned. Thus, a response centered on that element is the expected one.

3.3 Neutral polar questions revisited

We have just seen that in non-neutral questions *ti* functions to restrict the focus of the question to the element that it follows. The natural question, as it were, is how this view of *ti* fits with the use of *ti* in neutral questions, where it follows the verb. Shouldn't these questions too be non-neutral, with the focus restricted to the verb?

There are two answers to this question. The first answer involves the verb as the identifier of the event of the sentence. Recall that the neutral interpretation of a polar question is to question the simple truth or falsity of the base proposition. Now as Givón (1984:221) discusses for Ute, "it would make little sense to identify firmly all elements in an event while not knowing what kind of event it was." In this light, the cliticization of *ti* to the verb in neutral questions is reasonable.

The second answer to the question of how *ti* can be used in neutral questions is to suggest that *ti* was originally only a focus marker used in questions and has been extended to all questions as a general interrogative marker. This possibility will be explored further later on.

3.4 Internal *ti*

There is one remaining type of polar question, and that is the case where *ti* is internal to an incorporated structure, as we saw in (3), repeated here as (14).

14.(=3). Internal *ti*
a. (TG:186)

i:-ti-laskìxanthph-kulukwáthph

hand-=Q-touch-2pl-intend-recip-2pl

'Are you going to touch one another?'

b. (TG:65)

pa-itè?titìnik'ath

out-lip-=Q-stretch-2sg

'Did you stretch it out?'[5]

Sapir's positional view of *ti* and the "restrictive" view of *ti* advanced here make different predictions about where *ti* should occur in case there are multiple incorporated prefixes. On Sapir's account, we would expect *ti* to occur after the first incorporated prefix, while on the account advanced here, we would expect *ti* to occur after the prefix that is the focus of attention.

One wrinkle is that in some cases, the prefix preceding *ti* does not seem to be contrastive. In other words, the verb occurs only with that prefix. Even though the prefix may contribute semantically to the meaning of the verb, if there is no contrast in prefixes, it is not clear how the prefix could be the focus of attention in a question. Compare this with the (unsuccessful) focus of the meaningful particle "up" in the English examples in (15).[6]

15. Focus of English particle
a. ?? Did you look the number UP?
b. *Was it UP that you looked the number?

The evidence about internal *ti* is mixed. Sapir's initial discussion (TG:66) contains the three contrasting examples in (16), of which only (16a) is an example of internal *ti*. Certainly the contrast between *kinikáth* with no prefix as 'go' (16c) and with the adverbial prefix *mè* ʔhither' as 'come' (16a) allows for the possibility that the adverbial could be the focus of attention in a question.

16. Internal and non-internal *ti* (TG:66)
a. Internal

mè?-ti-kinikáth

hither-=Q-go_to-2sg

'Did you come?'

---

[5] *tè* ʔlip' is part of the complex verb meaning 'stretch out.'

[6] See Culy 1997 on the comparison of Takelma prefixes and English particles.

b. External

hoità?s ti mè?kinikáth

dancer =Q hither-go_to-2sg

'Did you come as singer[sic] i.e. to sing[sic]?'
(Did you come to dance?)[7]

c. External

kinikàthəti

go_to-2sg-=Q

'Did you go (somewhere)?'

There is also an interesting question-response example in H.H. St. Clair's unpublished notes on Takelma (St. Clair 1903),[8] given in (17). In this example, *ti* occurs after a prefix *al* 'face, eye; to' which is not contrastive with the verb stem.[9] There is also an overt direct object, "dog."

17. Question-response with internal *ti* (St. Clair 1903:7.24)
a. Question

c'ìxì altìxì:kìt

dog face/to-Q-see-2sg.tr

'Did you see the dog?'

b. Response

hau: alxì:

yes face/to-see-1sg.tr

'Yes, I saw it'

What makes this example interesting is that even though there is an overt direct object as in (16b), *ti* does not occur after it but after the prefix. The response also suggests that the dog is not the focus of attention, but rather something about the seeing. In other words, the position of *ti* is indicating the focus of attention, and it is not the dog.

I have found 14 examples of internal *ti* in Sapir's work. They can be summarized as in (18). An example of each type is given in (19-21).[10]

18. Number and types of prefixes preceding internal *ti* in TT[11]

One contrastive prefix	5
Non-contrastive prefix	6
Two prefixes	4

[7]In the grammar, Sapir inexplicably translates *hoità?s* as 'singer', but in his notes (Sn 1:56) it is translated as 'dancer' and in the texts (TT:209) the verb root *hoyod-/hoid-* is translated as 'dance'. The root for 'sing' is *helel-* (TT:207).

[8]St. Clair worked with the same consultant as Sapir, but two years before Sapir.

[9]Daythal Kendall (p.c., 3 November 1997) suggests that *al* may have been contrastive here as well, but with the contrasting prefix(es) unattested.

[10]Notice that the same prefix *al* 'face, eye, to, at' may be contrastive in some verbal complexes (21), but non-contentful in others (20).

[11]Note that one non-contrastive case has two prefixes.

19. *ti* after one contrastive prefix (TT:188,17) cf. (14a)

Kelti:yàlxalt^{h}k'eí:t^{h}

breast-=Q-lose-?-indir-infer.2sg

'Did you forget him?'

cf. (TT:237)

yala:-x-alt-

lose-?-indir

'lose' [transitive]

20. *ti* after a non-contrastive prefix (Sn1:70)

al-ti-hu:yú:xtau

face/to-=Q-hunt-2sg

'Do you hunt?'

21. *ti* after two prefixes (cf. (14b)) (Sn 1:38)

al-sal-ti: t^{h}pakàtpaksant^{h}p^{h}

to-foot-=Q give_a_blow-recip-2pl

'did you folks kick each other'

cf. (TT:224)

al-ʔi:-t^{h}pà:k-(i-)

face/to-hand-give_a_blow-apm

'hit, strike'

While at first glance the two analyses seem to be a wash, there are two facts that mitigate in favor of the restrictive account presented here. The first fact is that the information about the semantic content of the prefixes is incomplete. It is possible that the prefixes do indeed contribute semantic content, but we don't have the right data to tell.

The second fact that mitigates in favor of the account presented here is the non-contrastive example that contains two prefixes. It is given in (22). Sapir comments (TG:75) that the first prefix *tak^{h}* 'head, on top of' is similar to English *under* in *understand* and *undergo*. The second prefix *ta* 'mouth' could then be contentful, which might explain the position of *ti* after it, if there were another (unattested) prefix occurring with the verb stem. Thus, the restrictive focus analysis presented here seems to account for the cases of internal *ti* better than Sapir's positional analysis does.

22. Internal *ti* after two prefixes, one semantically vacuous (Sn 2:30)

tak^{h}-ta-ti-halàhita?

head-mouth-=Q-answer

'Are you going to answer him?'

4 Constituent questions

4.1 Constituent questions in Takelma

As mentioned previously, Takelma is unusual in that the same (non-positional) interrogative is used with interrogative words as well as with polar questions. As with other elements, *ti* follows the interrogative words. Takelma resembles many languages in that these "interrogative" words are actually general indefinites, and can be used in non-interrogative senses as well.[12] Some of these Takelma interrogative/indefinites are listed in (23), and examples are given in (24).

23. Some interrogative/indefinites in Takelma (cf. TG:254-255, 270)

Indefinite		Interrogative	
nek^{h}	'someone'	nèk^{h}-ti	'who'
k^{h}ai	'something'	k^{h}à-ti	'what'
kwi	'somewhere'	kwì-ti	'where'

24. Constituent questions in Takelma

a. "Who" (TT:186,10) (cf. (2b))

nèk^{h}ti yowò?s

someone-=Q start_up

'who starts up?'

b. "What" (TT:158,1)

k^{h}atì t'omomanák^{h} haxiyá

something-=Q kill-1pl in-water

'what did we kill in the water'

c. "Where" (TT:56,2)

Kwiti se:nti wilì:

somewhere-=Q panther house-3sg

'Where is Panther's house?'

Takelma is unusual in having an interrogative marker which follows both interrogative words and non-interrogatives. As discussed at the beginning of this talk, more common patterns are to have a sentential level interrogative marker which occurs at one edge of the question or an interrogative marker which occurs only polar questions. We will see next how the preceding account of *ti* can be extended to constituent questions.

4.2 The nature of constituent questions

We have seen that for non-interrogative words, *ti* functions to restrict the focus of the question to the element that it follows. The issue now is how to account for its use with the interrogative/indefinites.

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[12]It is interesting to note that negation in Takelma resembles interrogation, in that 1) sentential negation is associated with the verb 2) negation occurs with all types of phrases, and 3) negation occurs with the indefinites to give negative indefinites, e.g. neg + something = nothing (cf. TT:255).

First, consider the polar question in (25), and some possible answers to it in (26). Just like the polar question in (6), the answers correspond to the various alternatives at issue.

25. Did you see something?[13]

26a. Yes, I did.

b. No,
   i. I didn't see anything/I saw nothing
   ii. Pat did
   iii. I heard something

There is however, one type of alternative that is not available, and that is where the object varies. In other words, the sentences in (27) are not legitimate responses to the question in (25). The object is always fixed as the indefinite.[14] We can also note that it is difficult at best to stress or focus the indefinite in a question, as in (28).

27a. No, I saw a/the dog.
b. No, I saw everything/every dog.

28a. ??Did you see SOMETHING? (cf. Did you see ANYTHING?)
b. ??Was it SOMETHING (that) you saw?

It is worth noting that there are Takelma examples in which there is an indefinite which is not questioned, as in (29). Here *ti* does not follow the indefinite, but the negator *ani* , which is what is questioned.

29. Non-interrogative indefinite in question (TT:90,8)

ànti nek^{h} ke wí:t^{h}

neg--=Q someone there go

'Is not someone going about over there?'

Now let's consider the meaning of a constituent question in English, as in (30). A constituent question has as its presupposition its declarative counterpart with an indefinite in place of the interrogative (Levinson 1983:184).

30. What did you see?
   Presupposed: you saw x
   Question: what is x?

These observations give us an understanding of how *ti* functions when it follows an interrogative/indefinite. As with the polar questions, the focus of a constituent question is restricted (to the argument position marked by *ti*) and there is a presupposition with a focus of attention (formulated here in terms of "x"). But while polar questions ask

[13]There is a subtle difference between "Did you see someone?" and "Did you see a/some person?", but this is beyond the scope of this paper. Interrogative/indefinites quite generally seem to be interpreted more like "someone" than "a/some person."

[14]In logical terms, it is existentially bound. Note that a reply of the form "Yes, I saw the dog" is answering not only the overt question, but the implicit one, viz. if you did see something, what was it? This does not affect the point being made. Thanks to Linda McIntyre for pointing out this type of reply.

"Is it the case that x=...?", constituent questions ask "What is x?". This difference is due to the quantificational nature of the interrogative/indefinite, that it is always fixed as an indefinite.

The nature of the solution to the universal non-positional nature of *ti* is worth expanding upon. On the analysis presented here, it is precisely because *ti* restricts the focus of questions that it can be used with the interrogative/indefinites in the same way as with other non-interrogative words. Contrast Takelma with the Ute examples in (5), repeated here in (31). In Ute, the interrogative marker *aa* does not serve to restrict the focus of the question (word order does), and hence it does not occur with interrogative words. In short, it is the focus nature of *ti* which allows it to occur with interrogative words.

31. Restricted interrogative marker in Ute
a. With non-interrogative word (Givón 1984:221)

mamá-ci-aa kʉ́aw tʉkúa-vi tʉká-qa?

woman-SUBJ-Q yesterday meat-OBJ eat-ANT

'Did the **woman** eat meat yesterday?'

b. Not with interrogative word (Givón 1984:226)

'aa wʉ́ʉka-x̂a?

WH/SG work-ANT

'Who worked?/Which one worked?'

5 The broader context

The general issue remains as to why *ti* "is consistently used in all cases where an interrogative shade of meaning is present," to use Sapir's phrase. I have argued that *ti* serves to narrow the focus of the question, and it is this narrowing of focus which allows *ti* to occur with interrogative/indefinites. However, in other languages, e.g. English, no such narrowing is necessary (stress or clefting is not necessary in a question). The question is why Takelma seems to require this narrowing of focus in all questions.

The short answer is that *ti* is not used in *all* cases of interrogation, contrary to Sapir. The most obvious exception is indirect questions, where *ti* is usually not used.[15] Some contrasting examples are given in (32).

32. Indirect questions in Takelma
a. With *ti* (TT:78,7)

mi:hi hono? má:n tʰì:s mixaltí t'omomanà? má:n

now-indeed again count gophers how_many-=Q kill count

'again indeed he counted the gophers, counted how many he had killed'

b. Without *ti* (TT:100,8)

tʰì:s má:n mìxal haloho:nanà?

gopher count how_many trap

'how many gophers he had trapped he counted'

[15]Only 3 out of 18 indirect questions in TT used *ti*.

There are also 19 clear examples in the published texts of direct questions without *ti*.[16] These examples consist of one sentence which occurs 9 times (33a), all spoken by the same character in a single story, and another sentence type which seems to be an idiomatic phrase, and which occurs 10 times in various stories (33b). It is also worth pointing out that it is difficult to make grammatical sense of (33a), as Sapir himself hints (TT:86, fn3).

33. Direct questions without *ti*
a. (TT:86,2)

nek^{h} ʔalʔit^{h}pè:ʔxtaʔ

someone hit-1sg-2sg
'who's going to hit me?'

b. (TT:56,9)

K^{h}ài nakaĭ:t^{h}

something do/say-2sg
'What did you say?'

The lack of obligatoriness of *ti* in indirect questions, and its absence in fixed expressions leads one to speculate that the obligatory nature of *ti* in direct questions may be a later development. It is possible that *ti* was originally a focus marker which occurred (only?) in questions, and was later generalized as an interrogative marker.[17] The lack of obligatoriness of *ti* in indirect questions would then be an indication of the change not yet being completed, and the fixed expressions would be a remnant of the earlier stage of the language when *ti* was not a general interrogative marker.

One further piece of evidence that *ti* was originally only a focus marker comes from the example in (34), which contains *ti* but which does not seem to be a question.[18]

34. Non-interrogative *ti* (TT: 26, 12)

Mi:i k^{h}ati tà:ʔakán t^{h}ut^{h} t^{h}ut^{h} t^{h}ut^{h}

now something-Q heard
'Now they heard something, "t^{h}ut^{h} t^{h}ut^{h} t^{h}ut^{h}"'

There is some evidence from other languages that these proposed stages are possible, which makes the hypothesis of the grammaticalization of *ti* more plausible. First, in Yokuts, the Yaudanchi (Kroeber 1907) and Wikchamni (Gamble 1978) varieties have bare interrogative/indefinites, with different interrogative markers for neutral and possibly focussed questions.[19] Examples from Yaudanchi and Wikchamni are in (35).

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[16]St. Clair 1903:17.27 also has an example of a direct question without *ti* but it is not clear from the context that St. Clair didn't make a mistake (e.g. his translation is incorrect).

[17]cp. French *est-ce que* which is the (inverted) form of the focus construction, but which is now a more general question marker.

[18]Thanks to Daythal Kendall for reminding me of this. He also suggests (p.c., 3 November 1997) that the examples in (11) may be further examples of non-interrogative *ti* as opposed to non-neutral questions.

[19]The data from Yaundanchi and Wikchamni is not absolutely clear that these are indeed focussed questions, however the comparative evidence from Yawelmani strong suggests that that are. Kroeber (1907:294) states explicitly that Yaudanchi *ti* is cognate with Yawelmani *gi*.

Closer to Takelma, Siuslawan (Oregon Coast Penutian: Frachtenberg 1922) may also be of this type.

35. Yaudanchi/Wikchamni questions
a. Bare interrogative/indefinites (Kroeber 1907:261, line13)

hide´e ma tanāat

where you go

'Where are you going?'

b. Neutral question (Gamble 1978:114)

hin nim ʔiništhaʔ maŋisŋiṭh

Q 1sg sleeping good

'Can I go to sleep?' (lit. 'Is my sleeping good?')

c. Focussed question (Kroeber 1907:276, line 18)

tawi´dji ti-ma

died Q-you

'Died, did you?'

Next, the Yawelmani (Kroeber 1907, Newman 1944) variety of Yokuts has etymologically the same marker for focussed questions and neutral polar questions,[20] but a different marker with interrogative/indefinites. Examples from Yawelmani are given in (36).

36. Yawelmani questions
a. Focussed question (Newman 1944:237)

ma' gi' ṭan dɔshin

you Q dem report

'Was it you who reported it?'

b. Neutral question (Newman 1944:237)

'angi' ma' ṭan dɔshin

Q you dem report

'Did you report it?'

c. Interrogative/indefinite (Kroeber 1907:300)

hā-n-uk ma cil-āhin

what-obj-Q you did-see

'What did you see?'

Schematically, we can represent these states as in (37). Yaudanchi, Wikchamni, and Siuslawan have no overlap among interrogative markers, while Yawelmani has

[20] *gi* for focussed questions, *'angi'* for neutral questions (cf. imperative negative *'a·ni*)

overlap between the focussed polar questions and the neutral polar questions. Finally, Takelma uses the same marker for all three types of questions.

37. Markers of neutral polar, focussed polar, and interrogative/indefinites

Markers for:			
focussed polar	neutral polar	simple i/i	Language
ti	ti	ti	Takelma
gi'	< gi'	uk	Yawelmani
ti	hin	Ø	Yaudanchi, Wikchamni, Siuslawan?

Following the idea that Takelma *ti* was originally only a focus marker, the relationship in Yokuts between Yawelmani on the one hand and Yaudanchi and Wikchamni on the other is particularly interesting, since the neutral polar marker is derived from the focussed polar marker. In addition, Whistler and Golla 1986 argue that Yaudanchi and Wikchamni are (phonologically) more conservative than Yawelmani is. While all this is not proof that Taklema *ti* was a simple focus marker that has been generalized, the limited typological evidence presented here makes the change seem plausible.

6 Conclusion

This paper is not meant to address all the issues of Takelma questions. There are a couple "minor" types of questions which have not been discussed at all.[21] Whatever the status of the minor types of questions, the functional account of *ti* presented here, that it serves to narrow the focus of the question, does seem to account for the major questions. Specifically, it accounts for the three interesting properties of *ti* noted at the beginning of this paper: *ti* occurs with all (most) questions because it has evolved from a focus marker to a general interrogative; it is not limited in position, but rather to the element being focussed; and it can occur within incorporation structures to the extent it is focussing a contrastive element.

[21] e.g. "What kind of ... ?"

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THE USE OF IMMIGRANT DIALECT IN ISRAEL ZANGWILL'S *CHILDREN OF THE GHETTO*

Lilian Falk
Halifax

ABSTRACT

When London-born Israel Zangwill (1864-1926) approached his first major novel, CHILDREN OF THE GHETTO (1892), he faced the task of creating a style which would not only reflect the immigrant speech of Jewish East End, but which would also render the essence of Jewish culture intelligible to general readership. Zangwill's task, therefore, was to represent local speech as accurately as possible, and, in addition, to indicate instances of code switching between English, Hebrew, and Yiddish according to the background of the speakers and the circumstances of specific conversations.

The paper examines Zangwill's use of various linguistic elements needed for accomplishing his task, such as his way of representing Yiddish and Hebrew conversations via the medium of English, and his careful distinction between the uses of English, Hebrew, and Yiddish by the immigrants, as he charts the process of their acculturation.

Dictionary browsers bent on looking up the history of the word BAGEL who open volume II of the Oxford English Dictionary, Second Edition, under BEIGEL, will find that the earliest citation, 1892, runs as follows: "Moses...treating his children to some *Beuglich*, or circular twisted rolls" and the source of the citation is given as "Zangwill Childr. Ghetto I iii 96." If the browsers look up other words with Jewish connection they will find many more citations from Zangwill. Who, then, was this Moses, the father of those hungry children, and who was this Zangwill, who took the trouble to explain that a Beigel was a circular twisted roll, and who transposed Moses Ansell, the poor luckless Schlemihl of the London Ghetto, to the pages of a successful 3-volume novel, still considered a milestone in the history of Jewish fiction in English?

The book's author was Israel Zangwill (1864-1926). Born and raised in Whitechapel, the poor Jewish district of London, he had acquired an early renown as a promising Jewish writer by publishing humorous works on general topics, and serious articles on Jewish topics. His biographer, J.H. Udelson, tells how, when still a young man, Zangwill was approached by a representative of the Jewish Publication Society of America to write a "Jewish *Robert Elsmere*" (Udelson 1990: 81). Thus *Children of the Ghetto* (1892) came into being, though bearing only little resemblance to Mrs. Humphry Ward's novel of 1888. Zangwill's novel has no young minister engaged in a spiritual struggle; rather it describes the entire Jewish population of London's East End

engaged in a constant struggle, mainly economic, but also spiritual and social, and in no small measure linguistic.

Moses Ansell, the man who brought the circular twisted rolls to his children, is one of the novel's principal figures--he is a schlemihl, a poor widower, trying to provide for his six children and an old mother. The rolls were the only food he was able to scrape together for their supper on that cold December day, and that only after he had mustered enough courage to pay a visit to Malka, a prosperous, but fearsome cousin of his deceased wife, Gittel. Malka, a long-time resident in England, is able to speak English, but she speaks Yiddish to Moses, who is a more recent immigrant.

Malka invites Moses to step in, "speaking Yiddish for his behoof... 'Nu, stand not chattering there... Come in. Dost thou wish me to catch my death of cold?'"(*Children* 36). She goes on to explain why she is popping peppermints into her mouth: "'I must take peppermints... If I did not take peppermints I should have the spasms. My poor sister Rosina - peace be upon him! - who died of typhoid, suffered greatly from the spasms. It's in the family. She would have died of asthma if she had lived long enough. Nu, how goes it with thee?'" And she adds, speaking of the deceased Gittel: "'I told her thou wouldst never be able to keep her'"(37).

We see that Zangwill marks the language of the conversation in two ways: he begins by signalling at the outset which language is being used, and also the reason why the choice was made by the speaker. In the present instance, Malka chose Yiddish for the benefit of her poor relative. Malka's discourse, rendered necessarily in English, reflects some characteristics of Yiddish grammar and syntax: *thou* and *thee*, with appropriate verb endings are used to reflect the Yiddish distinction between singular and plural in the second person pronoun and verb forms; Malka even switches from *thou* to *you* in the course of the same conversation, and we are told that this is done to show Moses more respect. The question "How goes it?" is patterned on Yiddish idiom. Malka uses the particle *nu* which may have differing meanings, and so her first *nu* may signify impatience, and the second *nu* an encouragement to Moses to tell his story. "Peace be upon him" is an idiomatic expression taken from Hebrew, which in Yiddish is used in the masculine form regardless of the gender of the deceased person. This anomaly receives a comment a few lines further into the text, and also in the glossary.

Nevertheless, the rendition of Yiddish does not amount to literal translation, in spite of the presence of certain selected features, such as the use of *thou* and *thee*. "Dost thou wish me to catch my death of cold", for all its archaic flavour, does not resemble Yiddish at all: Yiddish forms questions without an auxiliary; "to catch one's death" is not idiomatic in Yiddish; furthermore, this particular instance would require a subordinate clause, not an infinitive phrase; "Wilt thou that I should become sick and die?" would be a closer rendition.

Zangwill's novel was subtitled "Portrait of a Peculiar People." Naturally, the "portrait" was not contemplated in visual terms only--even though the author's insistence on visual detail is very strong throughout--perhaps because of his own

interest in painting. One scene is said to be touched with "grotesque picturesqueness that would have delighted Doré"(11) and young Esther, the daughter of Moses Ansell, hurrying with her pitcher to the soup kitchen is said to resemble "a miniature Rebecca going to the well"(12). The visual quality blends with a theatrical approach: possibly because of his close connection with plays and playwrights of his time, and his own theatrical ambitions, Zangwill treats most episodes like well-constructed scenes, with dramatic action developed chiefly through dialogue, never failing to alert the readers as to the language used by the speakers at a given moment.

In his insistence on marking the language of the dialogue, Zangwill goes far beyond the efforts of his more famous predecessors, such as Sir Walter Scott in *Ivanhoe* (1819), Dickens in *Oliver Twist* (1837) and in *Our Mutual Friend* (1865), and George Eliot in *Daniel Deronda* (1876). These authors aimed rather at indicating that Jewish speech differed from the speech of the majority population, not at showing how it differed within the Jewish community proper. Jewish authors such as Grace Aguilar, Julia Frankau, and Amy Levy also did not concentrate their attention on the varieties of Jewish speech.

But Zangwill evidently viewed his task as requiring a representation of the complexities of the linguistic situation of the Ghetto. It appears that he viewed Jewish cultural identity as closely linked to Jewish linguistic tradition, since not only Jewish rituals and customs depended on that tradition, but all of Jewish history was, throughout the past, inseparable from it. The encounter with English, and the clash between English and the traditional languages, accounts for much of the dramatic tension of this novel.

The traditional Jewish languages were Hebrew and Yiddish, both far removed geographically from the regions in which they originated, and both for many centuries unchallenged in their separate functions: Hebrew as the language of learning and religious devotion, and Yiddish as the spoken language of the Jewish population, especially in Eastern Europe. Although the stability of the linguistic situation was already seriously disturbed by the influence of the European Enlightenment movement, the characters in Part I of the novel are for the most part depicted as traditional users of Yiddish and Hebrew, who must learn English if they are ever to prosper in the new country, but who stand to lose their ethnic identity, and indeed their personal integrity, if they abandon the traditional languages.

In Part I of the novel the older generation are shown as speaking Yiddish. The younger generation speak English and attend English-language schools, but still speak Yiddish to the elders, or, for the most part are able to understand it. Older men can read and write Hebrew, and are able to engage in debates regarding the meaning of sacred texts. The reading of Biblical texts necessitates some knowledge of Aramaic (called Chaldaic in the novel); this too is the province of the older men. Young boys are instructed in Hebrew so as to be able to read the Bible and Commentaries. Women's Hebrew education is more limited; young Esther Ansell is said to have learned to read and translate Hebrew (91), and even the formidable Malka speaks of having been taught to read and write in Hebrew, but she is said to know nothing of

more serious Hebrew studies (37). Old Mrs Ansell is always shown reading the traditional book of devotions for women, presumably the Yiddish book known as *Tzenah-Renah*. Mrs Ansell, as well as Malka, is much given to deprecating the school system for teaching in English only, and causing the children to be ignorant of Jewish traditions. Of Hebrew there were several varieties: apart from the difference between the Ashkenazi and the Sephardi tradition of ancient Hebrew, there was a nascent movement of Hebrew revival, represented in the novel by the character of the shabby and uncouth self-proclaimed genius: the neo-Hebrew poet Melchitzedek Pinchas. Only there seems to be a difficulty about using a new-born language: since Pinchas was the only person who knew it, he could not converse in neo-Hebrew with anyone else. Pinchas is said to be modelled on the poet Naphtali Hertz Imber, author of Israel's national hymn Ha'Tikvah. Zangwill and Imber had met when they both worked for the weekly newspaper the *Jewish Standard* (Udelson 71). The mixture of languages heard in the Ghetto is summed up by the narrator at the outset as follows "'Ici on ne parle pas Français' is the only lingual certainty in the London Ghetto, which is a cosmopolitan Quarter"(17). There are inner snobberies too: Polish Jews ridicule the "Litvok", or Lithuanian pronunciation of Yiddish, and everybody joins together in ridiculing the speakers of Dutch (17).

Zangwill's own linguistic background can be sketched as follows: born in London to an immigrant family, he most likely spoke Yiddish at home as a child, but his schooling was in English. He knew Hebrew, and was an able translator of Hebrew poetry into English. He received his BA with honours at the University of London in Moral Science, English and French in 1884 (Adams 1971: Chronology). He was therefore as well equipped as anyone could hope to be, to become the interpreter of the Ghetto's linguistic diversity to the world at large.

Part I of the novel follows the fortunes of several families, whose customary language use is outlined at the outset. Moses Ansell, to begin with, knows very little English, but knows Hebrew and Yiddish very well. His oldest child, Benjamin, is a boarder in a charity school, where he gains a general education, acquires a racy schoolboy slang, and soon forgets his Yiddish entirely. Esther, a bright girl of ten, and the central character in the novel, is a fine student, speaks English with her siblings and Yiddish with her father and with the Grandmother, who is a more recent immigrant and speaks only Yiddish. The younger children speak English among themselves, but understand Grandmother's Yiddish scoldings, and willingly listen to their father's readings of Yiddish stories. The youngest girl wails in Yiddish when she receives any hurts--real or imaginary--from her brother. The father, Moses, not only knows Hebrew, but also teaches it to his younger son, Solomon, for purpose of prayer and study of Biblical commentaries. One of the exercises that Solomon is expected to perform correctly, is the oral translation of Hebrew texts into Yiddish. Solomon is no scholar and tries to get through these exercises as speedily as he can to be able to run out and play. His father must often resort to the strap to ensure the boy's cooperation. Solomon's English is also permeated by schoolboy slang. We are even told of the linguistic achievement of the children's mother, the late Gittel Ansell, "Olav

HaSholem" ('Peace be upon him'): "Mrs Ansell had diversified her corrupt German by streaks of incorrect English, being of a much more energetic and ambitious temperament than the conservative Moses, who dropped nearly all his burden of English into her grave"(55).

Of another family, that of Rabbi Jacobs, we are told "He and his wife spoke English with a strong foreign accent; in their more intimate causeries they dropped into Yiddish"(66).

Mr. and Mrs. Hyams "spoke English painfully and slowly, having been schooled by Miriam" (96). Miriam is the Hyamses' daughter-- she is a teacher in an English-speaking school, a hard-working young woman who yearns to move upward on the social ladder.

Most of the characters in the novel are able to speak, in some degree, more than one language. Switching from one language to another is explicitly marked, and the circumstances are often specified. In the following examples, the speakers switch from English to Yiddish:

"'God be thanked' said Simcha [i.e. Mrs. Jacobs] fervently in Yiddish"(66).

"'One woman is more than thou canst support,' said the Rebbitzin irritated into Yiddish"(67).

"'Droll person,' cried Malka, addressing Sam angrily in Jargon. 'What hast thou done?'"(52).

"[Rabbi Jacobs stumbled]into Yiddish in his anxiety ... [Hannah] answered, unwittingly adopting his dialect ... "(177).

..."'Thou dog!' shrieked Mrs. Shmendrik, falling back on the more copious resources of her native idiom" (207).

Finally, in a tragic moment, young Benjamin, who had "deliberately put the jargon out of his mind as something degrading and humiliating"(129), reverts to Yiddish on his deathbed "grown a child again"(197).

Hebrew is another language into which speakers switch on various occasions, apart from formal situations of prayer or ritual observance; for instance, Mrs. Jacobs "switches piously to Hebrew"(65), the Shalotten Shammos greets a visitor in Hebrew and then relapses into Yiddish (127), one learned man is said to be so pious, that he speaks nothing but Hebrew on the Sabbath, and a very shy young man is so tongue-tied when he finds himself alone with his sweetheart, that instead of opening a conversation in Yiddish, as he may be expected to do, he launches into a long recitation of the Afternoon Prayer in Hebrew (156).

Switching into English is rarely marked. For instance, Mr. Hyams drops from Yiddish into English when his snobbish daughter, Miriam, enters the room. Other conversations are understood to be in English, if they are not marked. To be sure, the English of recent immigrants is characterized by certain features of sound and grammar intended to mark their speech as different from that of second-generation speakers. For instance, the substitution of "v" for "w" in the written representation is intended to suggest the distinctive sound of immigrant English; e.g., " ve English valk about in all vedders" (25).

As remarked above, prayers and various rituals are understood to be in Hebrew, and they are usually signalled at the outset; their rendition in English tends to echo Elizabethan English, as we can see in the following scene describing the ceremony of Pidyun-ha-Ben--the Redemption of the first-born son:

> "'This, my first-born son,' said Ephraim in Hebrew as he handed [the infant] over, 'is the first-born of his mother, and the Holy One - blessed be He! - hath given command to redeem him, as it is said, and those that are to be redeemed of them from a month old shalt thou redeem according to thine estimation for the money of five shekels after the shekel of the sanctuary, the shekel being twenty gerahs: and it is said, 'Sanctify unto me all the first-born, whatsoever openeth the womb among the children of Israel, both of man and beast, it is Mine.'
>
> Ephraim Phillips then placed fifteen shillings in silver before old Hyams [the Cohen], who thereupon inquired in Chaldaic:
>
> 'Which wouldst thou rather - give me thy first-born son, the first-born of his mother, or redeem him for five selaim, which thou art bound to give according to the Law?'"(45).

To this the young father replies with another formula in "Chaldaic" and the ritual dialogue continues until its satisfactory conclusion, but it is difficult to ignore the ironic disparity between the ancient coins solemnly named in the ceremony, and the actual payment being effected in British shillings.

Immediately after the Pidyun-ha-Ben ceremony a secular conversation breaks out, conducted in the usual mélange of languages. But it is in this scene and in other ones in which Hebrew rituals are recited, that Zangwill underscores a much more serious difference between the uses of Yiddish and Hebrew than a mere choice between two traditional languages. In his representation Yiddish is a living language used by the speakers in a variety of ways for normal human communication, and for important social and cultural functions such as local politics, local press, and even theatre, whereas Hebrew, the language of sacred texts, blessings and prayers, is the fossilized language of an ancient race, and, as such, while it still serves to bind the Jewish population to its ancient roots, it binds them with a rigidity which can have tragic results. It therefore seems to be no mere coincidence that the central dramatic incident of Part One of the novel stems from the Hebrew marriage formula rashly spoken by a frivolous young man to one of the young women, which turns out, in the opinion of the learned men present, to be as fully binding as a formal marriage ceremony. Although the two young people duly follow up with a proper divorce procedure, they soon discover that the young woman is forever forbidden to marry the man she really loves, because that young man is a Cohen, and as such is forbidden to marry a divorced woman.

In Part II of the novel English dialogue dominates. The setting is among the prosperous middle classes, settled comfortably in Kensington, far from the poor district of Whitechapel. They speak entirely in English, using traditional Yiddish or Hebrew words only when necessary in discussions of religion or ritual, or in the course

of religious observances. They express shock and disgust at a recent novel, published anonymously, about Jewish life which uses Yiddish expressions - "There are actually Jargon words in it. Such vulgarity," they say (244). Indeed, in the rich Goldsmith household, Yiddish is studiously avoided by all except their old-time servant, Mary O'Reilly, who uses Hebrew and "Jargon" expressions frequently and without any embarrassment (239).

On the whole, the English spoken by the middle classes, is suited to individual character: the Goldsmiths, Mr. Percy Saville, Mr. and Mrs. Montagu Samuels speak English with upper class pretensions, and only the incorrigible Melchitzedek Pinchas continues to speak an appalling mixture of German and English: "No, no I go write my lecture; oh, it vill be a great lecture. You vill announce it in the paper?(331)". Esther Ansell who has gained higher education, and in fact was the author of the anonymous novel, and her suitor, Oxford educated Raphael Leon, and Joseph Strelitsky, the idealistic Reform minister, speak as befits earnest young intellectuals.

The concluding chapters of the novel give the impression that English, and not Yiddish or Hebrew, will become the vehicle for reviving the spirit of Judaism by bringing it more in line with the enlightened ways of the dawning twentieth century. The future is in the hands of serious young individuals like young Esther Ansell who, as a novelist, has held up a mirror to the Jewish middle classes in order to cure them from meanness and snobbery, Raphael Leon, the energetic journalist who is able to bring urgent matters to the attention of the Jewish public, and Joseph Strelitski who is determined to spread his own enlightened views on matters of religion.

The novel enjoyed success on both sides of the Atlantic and while the third edition was being prepared for print, Zangwill was prevailed upon to provide a glossary of the Yiddish words used in the book. In a Preface to the third edition he also explained that for each word he had added "an indication of the language from which it was drawn", and that "most of these despised words are pure Hebrew" (Zangwill *Children* 1893).

This attempt to vindicate Yiddish on one hand, and various references within the novel to Yiddish as jargon, called 'quaint' at best, and 'hopelessly corrupt' at worst, by the novel's narrator, and felt as vulgar or embarrassing by several of the characters, creates the impression that Zangwill himself held conflicting views on the matter of the status of Yiddish as a language. Meri-Jane Rochelson in her article "Language, Gender, and Ethnic Anxiety in Israel Zangwill's *Children of the Ghetto*" (1988) explores Zangwill's ambivalent attitude towards the Yiddish language and links it with the novelist's anxiety with regard to his position as an English writer who is also a Jew and as such obliged to write in a manner which marks him as "other" and thus different from the larger group with which he wishes to be identified. Rochelson's analysis helps explain the seeming contradictions encountered in reading the novel.

However, since Zangwill continued to deal with Yiddish also in several of his later articles, in which he offered a spirited defense of Yiddish, it might be appropriate to look into the changing attitudes towards Yiddish, as they evolved from a negative

perception of Yiddish as a jargon to a positive perception of Yiddish as a national language.

At the time when the novel was published, in 1892, Yiddish was not recognized as a language at all. It was called a jargon by its champions and critics alike. Comparative Germanic Grammars did not include Yiddish as one of the members of the Germanic family nor did Jewish scholars take it up as a subject of research. (See Weinreich 1972). First serious works of literature in Yiddish by writers like Mendele Mocher Seforim, Shalom Aleichem and I.L. Peretz were only just beginning to gain a readership. In fact the very same Jewish Publication Society of America, which had invited Zangwill to write the "Jewish *Robert Elsmere*", subsequently published the works of I.L. Peretz in an English translation, with the intent showing the world that Yiddish is a living language and that a Yiddish writer can produce works equal in merit to those of Zangwill himself (Schweid 261). It may be said that, in a sense, Zangwill's novel paved the way to the recognition of one of the greatest of Yiddish writers.

Reference works like The Funk Wagnalls Jewish Encyclopedia (1901, reprinted 1912 and 1916) continued to identify Yiddish writers, e.g. Mendele Mocher Seforim (Solomon Abramowitsh) as writers in the "Judaeo-German Dialect." Early philological studies of Yiddish also referred to it as a dialect, as can be seen in the bibliography prepared by Dovid Katz for Harkavy' Yiddish Dictionary (Katz 1988).

A formal recognition of Yiddish as a language came in consequence of political pressures rather than as result of cultural or scholarly activity. Yiddish was recognized officially as a European language by the Cape Colony in 1904, for purposes of immigration--prospective immigrants were obliged to show that they were literate in at least one European language--a very pressing matter following recent European Pogroms. Transvaal followed suit in 1907 (The *Forward* 1997). Eventually a special gathering of Jewish intellectuals and activists called for this purpose to a convention at Czernovitz (Roumania) in 1908 passed a resolution declaring Yiddish to be a language - one of the national languages of the Jews (see Weinreich 1972).

So, when Zangwill wrote an essay entitled "Language and Jewish Life" in honour of the jubilee in 1904 of Zionist leader and Hebrew journalist Nahum Sokolov, he was both moving with the ideas of the time, and helping to shape them. Here Zangwill spoke with enthusiasm of Yiddish as the "truest repository of specifically Jewish Sociology." He also underscored his opinion that Yiddish was truly a living language, with a flourishing literary and journalistic activity, and an admirable capacity for absorbing foreign vocabulary. In his view, Hebrew came a poor second. He voiced serious doubts whether Hebrew really had the potential to flourish as a living language (Zangwill 1920).

At the time of working on CHILDREN OF THE GHETTO Zangwill may have given little thought to the formal status of Yiddish, but he showed a novelist's true instinct for appreciating its potential as an artistic medium. When his characters speak Yiddish--even though it must be rendered in a specially adapted English--their speech is a natural form of expression, and is full of pathos, drama, and comedy. The

"Yiddish" scenes are full of life and suggest a closeness between family or friends, as, for instance, when Moses reads Yiddish stories to his children, while, by contrast, some of the "Hebrew" scenes depict alienation, and even a breakdown in human relations: the boy Solomon must be spanked into the pursuit of Hebrew studies, the shy young man substitutes a prayer for lovers' talk, Hannah must renounce her lover; old Mendel Hyams, despairing of improving his relations with his children, forges a letter in Hebrew which he knows his children won't be able to read, in order to lay ground for his departure to America.

Whatever opinions Zangwill may have held about the status of Yiddish as folk-speech, about ancient Hebrew as a relic of the past, and about English as the language of the future, he did succeed in creating a portrait--a portrait of a Peculiar People, and their Peculiar Languages.

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DOING FORENSIC LINGUISTICS: ENDANGERED PEOPLE IN THE COMMUNITY

Michael Gregory
York University, Toronto and
St. Mary's University, Halifax

This could well be called an existential account of being a forensic linguist. It is intended to complement the more scientific paper of Elissa Asp also presented at this conference.

My first appearance in court as an expert forensic linguist was in Toronto in the late 'seventies. It came about this way: a former student of mine was working as a junior to a defence counsel appearing for a Jamaican immigrant standing trial on two counts of robbery with threats. Much of the police evidence was circumstantial; there were, however, two confessional statements allegedly made, and taken down verbatim by police officers and then signed by the accused. He had told counsel that he had never made the statements attributed to him and that the detectives on the case had written them: a different detective for each case and each statement. He had been encouraged to sign them by physical threats and abuse, including the plastic garbage bag over the head gambit - it doesn't leave a mark but is very uncomfortable and unsettling, particularly to anyone vulnerable to claustrophobia.

Both the counsel and his junior didn't believe that the "verbals" were made by their client. They had been witnessed by two different C.I.D. sergeants; one statement was in policese: "At about 9 p.m. on the 5th of June I was proceeding west along Lawrence Avenue when I observed a smoke shop on the south side with nobody in it except a tall elderly man behind the counter." And so on and on.

The other statement was much the same except that it had several features of a non-standard, non-Canadian English scattered incongruously throughout it.

The junior counsel called to mind his former linguistics professor and recalled that I recently had published a book (with Susanne Carroll) entitled *Language and Situation: language varieties in their social contexts.* He persuaded his senior to consult me as a potential expert witness.

When I had interviewed the accused and then read the two confessions, I laughed. Whatever they were, they were not a verbatim report of anything the accused would or could have said. His dialect was "Jamaica Talk"; he had been in Canada within the Caribbean community for less than two years and had picked up just a few Canadian features. He was only a step away from being illiterate and he was most certainly not a master of policese. Moreover, the non-standard features in the second confession were not Jamaican English, but characteristic of Pakistani English!

I gave evidence at the *voir-dire*, that part of the trial that deals with the admissibility of evidences before the judge with the jury absent, and gave my "considered opinion" as regards the non-authenticity of the alleged "confessions". In doing so I sketched out concepts of register or diatype, dialect and idiolect, and using grammatical terms that were, at that time at any rate, in the public domain of educated people, showed the major differences between the accused's dialect configuration and that of the statements. The judge was fascinated and told the Crown prosecutor that he could forget about presenting these so-called "confessions" as evidence.

A postscript: the accused was found guilty on one charge and not-guilty on the other. A few years later in a store in Toronto I was tapped on the shoulder by this large Jamaican. He had just got out of prison. He told me that he had been very grateful for my evidence. He *had* done one of the robberies: the one of which they had found him not guilty! He had confessed to neither of them, he assured me.

Another postscript - a not very amusing one. As I was leaving the courthouse after giving my evidence in this trial, I was followed by the officer in charge of the squad that had arrested the accused. He was the one who had written the first confession.

"Professor, he did them you know!": he shouted after me.

I replied: "He may have, but he never said he did, did he?"

His blood pressure rose visibly but he made, significantly, no reply.

A number of points about this first case:

1. It was apparent to me that the police were producing "to the best of my ability" verbatim reports of alleged confessions that had no implication of utterance by the accused.
2. These were presented as a major part of the evidence for the Crown prosecution.
3. Defence counsels knew about this as a not irregular practice but had not succeeded in convincing judges to throw the evidence out.
4. As an expert qualified by the court I had been able to do so.
5. An ethical point: people raised the question: "Supposing your evidence got a guilty person acquitted?". My reply was and always will be: "I am not judging the accused's innocence or guilt, I am judging the authenticity of linguistic evidence. I had rather that a guilty person was acquitted than (s)he was convicted on spurious evidence."

Any person charged with a crime in our judicial system is an endangered person.

During the 'seventies I also did some civil work on semantic ambiguity in contracts and other legal documents taking a contextual, functional view of meaning.

The next criminal trial I took part in was most important and to a large extent set the pattern for much of the forensic work Dr. Asp and I have done over the last fourteen years. It is the core of this paper.

In June, 1983 I was contacted by a Mr. Jack Pinkofsky, a defence lawyer in Toronto, concerning certain evidences to be presented by the prosecution in a forthcoming trial for First Degree Murder of one Raza Khan, a twenty-one year old

Pakistani immigrant, a Punjabi. On August the 28th, 1982, a car with four people in it, had stopped at the side of a highway just outside Toronto. All four passengers were immigrants from the Indian sub-continent who had spent the earlier part of the evening at a dance. They were Raza Khan, Anees Chaudhary, Moshin Baig, and Lucky Uppal. All four got out and Lucky Uppal was killed by two revolver shots fired by Anees Chaudhary. On September the 20th, 1982, the police interviewed (their euphemism for interrogated) and then arrested Chaudhary, Baig and Khan and charged them all with First Degree Murder. So it was, nearly a year later, in June 1983 (such is the speed with which the Canadian Justice system works) that Pinkofsky retained me as a forensic linguistic expert, a "verbal sleuth" as the Globe and Mail called me. He gave me what was the main evidence presented by the police to the prosecution:

1. a statement Khan had made at an early interview soon after the body was discovered in which, as he later admitted, he had lied in saying that he had gone straight home after the dance and, the really crucial evidence,

2. a ten-page statement "confessing all" and

3. a thirty-four page interview transcript of a "confessional" i.e. self-inculpatory nature, both 2. and 3. allegedly verbatim, word for word what Khan had said and signed by him.

They contained two important admissions:

1. that, when he had left the dance they had all been at, he had got into the car with Chaudhary and Baig in order to do violence to the victim, Lucky Uppal, and

2. that, when they had left the car and Chaudhary was holding a gun on the victim, he, Khan, had attempted to stop the victim running away.

These two admissions of complicity and accomplicity were enough, under Canadian law, for a First Degree Murder charge.

Jack Pinkofsky had interviewed Khan several times in prison. Khan had admitted lying to the police at his first interview but had denied making the two admissions. Rather he vehemently protested that he thought, when he got in the car, that they were going for a ride to pick up some cassettes and some beer, and that he had shouted to Lucky to run away when Chaudhary pulled the gun. Khan said that he had signed the confession because the two detectives had slapped him in the face repeatedly until he had fainted (helped by an active duodenal ulcer), and that the police had promised him that they would give him back his ulcer medicine and that he would be back at work the next day if he signed. Pinkofsky sensed, as he put it, that the style of the self-inculpatory interview and statement was "North American small time hood with crude Paki touches" rather than Khan's speaking style, that of a foreign speaker of English with no criminal record and scant experience of North American gangster talk.

I examined the police documents and there was indeed something suspect about them. Pinkofsky's characterization of their style was fairly accurate. I told him I would have to get some comparable data from Khan in a similar situation to a police interview. So Pinkofsky arranged that I should interview Khan in a hostile manner in the West End Detention Centre having been presented to him as an investigator from Pinkofsky's office. The impression I would give was that if I was not satisfied with Khan in the interview I

would advise Pinkofsky to drop his case. That is why I questioned him in detail about the events of August the 28th, and the different accounts he had evidently given the police and Pinkofsky. Now the object of this subterfuge was to establish a context of situation which was generically similar to that from which the police data purportedly arose: the same *experience* to relate to: the events of August the 28th, the *field of discourse*, the same *medium* relationship or channel of communication: face-to-face question and answer, *mode of discourse*, and the same *interactional relationship*: minus power for him, plus power for me, *tenor of discourse* (cf Gregory 1988). His overall *communicative function* was to give a convincing narrative of what had happened. So I hoped to get comparable data. Well, I 'blew' it . . . I overdid the inquisitional hostility. Khan spent a lot of the time weeping while speaking very fast, and this, combined with a micro-tape recorder that was being temperamental, meant that one and a half hours of tape was hardly worth transcribing. But that interview did serve to make me seriously doubt that Khan was the author of the statements attributed to him by the police. I told Pinkofsky that I had to re-interview Khan to get some transcribable data. He said: "Don't bother, old boy. I've just been told that he's changed his lawyer." I wondered if it had had anything to do with my very nasty interrogation. But, no, evidently Khan was always bossed around by his father and elder brothers and they had decided that they wanted a lawyer of Pakistani origin.

However, in September, Pinkofsky telephoned me that we were back on the case. On October 8 I re-interviewed Khan, accompanied by Elissa Asp, who was then my research assistant, and by an efficient tape-recorder. This time I was somewhat less hostile, for two reasons: first, on re-examination of the verbal evidences I had realised that the police had represented themselves, in the alleged transcripts, as rather nice, although firm, interviewers and I wanted a situation and a text that would be accepted by the court as comparable to the police data; and secondly I wanted to get a tape without too much weeping on it.

I did: thirty-five minutes of tape, twenty-eight pages of transcript, and the only weeping was when Khan described how the police had repeatedly hit him, denied him his ulcer medicine and lied to him.

When Asp and I described this data in semantic, syntactic, morphological and lexical detail and compared it to our description of the police-presented interview and statement, we were convinced not only that the police documents were spurious, rather bad creative writing, definitely not authored by Khan, but also that I could demonstrate that opinion in court: particularly the fact that the damaging admissions were in the language of cheap, "Wasp" crime fiction, not that of Raza Khan.

The trial began in late November 1983 and, for various reasons, did not end until late February 1984.

One reason the trial took so long was that it had a lengthly *voir-dire*. Pinkofsky, known to his clients as "the Great Defender" and to the police and Crown Attorneys as "the Prince of Darkness", did not want to rush things. He thought it likely that the judge would admit the confessions even though the defence would argue that they were not voluntary. However, he wanted me to have plenty of practice with the particular judge

(the late Mr. Bowlby) and for the judge, in turn, to get familiar with the theoretical and descriptive constructs I would be explaining to the jury later, so that he, the judge, would be able to explain things to the jury when he saw fit, and be avuncularly helpful. Judges like that. Pinkofsky knew his man. Bowlby had been a defence counsel and Pinkofsky reckoned he would be fascinated by my evidence, and he was. So, I had a lengthly "rehearsal" during the *voir-dire* of the evidence I would later give in front of the jury. It meant, of course, that the prosecution would get a preview of my evidence but Pinkofsky was of the opinion that there would not be much they could do about it. Forewarned would not, in this case, necessarily mean that they were fore-armed in any significant way.

During the *voir-dire* I gave detailed evidence over a couple of days concerning the spurious nature of the police verbal evidence, and was cross-examined for most of another day.

In brief my evidence was that the language attributed to Khan in the police documents was not anything like the language of Khan that Elissa Asp and I had tape-recorded in prison in a similar interview situation.

In the police documents Khan's language was inter-actionally unmarked except for a few "tough-guy" remarks. Its logico-textuality was largely hypotactic, and the main predicates were material and verbalization type processes. In the data we collected, the discourse was full of modalities and attitudinals, tagged mood options with intimacy signals and silence-fillers; the overall organization was consistently paratactic, and the main predicates were mental processes: perception, reaction and verbalization; the material processes were in dependent clauses at complement. So the discourses consistently differed inter-actionally, experientially and in their textual organization despite the similarities in generic situation. There was nary a trace of Mickey Spillane "tough guy" talk.

At the end of the *voir-dire* the judge decided that as the police swore that their interview and statement transcripts were authentic, their evidence would have to go before the jury and, if you like, be "judged" by them.

Now, during this first part of the trial, as it became increasingly apparent to the judge and the prosecution that the authenticity of this central part of the police evidence was to be attacked in a detailed, explicit and comprehensive way, when it became clear that, in front of jury, press and public, Pinkofsky and I were going to dismantle any claims the police officers might have had to credibility, *then* plea bargaining was raised. Khan was offeed manslaughter if he would plead "guilty" to that charge. This meant he could have been free after a couple of years instead of twenty-five. He refused. They then offered him manslaughter with time served, i.e. the nearly two years he had already spent in prison waiting for the trial. He could have "walked", as they say, in a few weeks. Those of us working and appearing for the defence saw this itself as a signal victory. To our surprise, Khan refused.

He is reported to have said something like this: "Since this matter began I have lost faith in this country Canada; I have lost faith in the police; I have lost faith in my

mother and father and brothers. If I plead guilty to something I didn't do, I'll lose faith in myself, the only faith I've got left. I'm not going to do it."

So the trial continued in front of the jury for First Degree Murder. The police officers on oath swore roundly that Khan had said every word attributed to him. And I gave my evidence-in-chief and was cross-examined and re-examined; that took a couple of days. And then Khan gave his testimony and, lo and behold, his language was the type of language I had described and predicted to the jury on the basis of the data we had collected and analysed. It had the characteristic semantic, syntactic and lexical features I had said it would. It was not anything like the language attributed to Khan in the police evidence. And by this time, the jury had, I hoped, been made conscious enough of language to recognize this.

In his closing address Pinkofsky put it to the jury that they had a choice between two conspiracies: one, a conspiracy of the police to get a First Degree Murder conviction out of mere presence at a killing, and that a reluctant presence; the other, a conspiracy involving a professor of linguistics, a senior prison guard and two prison visitors (who had testified to Khan's innocence, gentle humanity, and consistent denial of guilt), a conspiracy to free a murderer.

And to our great joy - the "our" I refer to comprised at least Khan himself, Jack Pinkofsky and Susan Scott, his lawyers, Elissa Asp and myself and Karen Malcolm who transcribed our tapes, the prison guard and the prison visitors - to our great joy, the jury brought in a verdict of "not guilty" and Raza Khan was a free man again.

The wider significance of this event was that in a single issue trial: whether police presented evidences of "confessional" statements made by the defendant were authentic or not, linguistic description of a multi-functional kind, had been decisive.

In all the cases Asp and I have worked on we have had a decisive impact on the trials and we have also shown that linguistics can provide evidences as well as destroy them. Throughout our work we have been greatly helped by having a model of linguistics which is explicit about both formal and functional motivation, which involves theorizing about both form and usage, and which has an articulate and consistent theory of dialect and diatype, and scales of rank, delicacy and realization in grammatical analysis. This provides a rich classificatory framework with which to show the similarities and dissimilarities amongst instances of language, which is what forensic linguistics, like much applied work, demands. (cf Enkuist, Spencer & Gregory 1964, Gregory and Carroll 1978, Gregory 1982-88, Gregory 1988, Cha ed. 1995, Asp 1992, Asp 1995).

I have not written widely about forensic linguistics because it is not theoretically or indeed descriptively, very interesting. It is, however, a very important contribution linguistics can make to the community of endangered people, those who stand before the courts to be judged on suspect evidences.

A final postscript to give pause for thought, or that speaks volumes:

In the next to last case I worked on prior to leaving Toronto, the crown prosecutor withdrew the verbal evidences, a "confession" presented by the police, when he heard that

I was going to be called to question them. The case itself was dismissed for lack of evidences. O ye of little faith!

In the last case I was consulted on there was not sufficient data for me to be able to form an opinion as to whether the self-inculpatory statement was genuine or not: it was far too brief. The defence lawyer invented a pretext for me to meet him at the courtroom anyway, even though I was not to appear. When the police officers saw me in the courtroom, they went to the crown prosecutor and had him withdraw their verbal evidences. That case, too, was dismissed by the judge for lack of evidences.

There is certainly a need for forensic linguistics, and for linguists who will take on the experience and challenge of testifying.

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LA DIVERSITÉ DES DISCOURS : L'*INTRODUCTION À L'ÉTUDE DE LA MÉDECINE EXPÉRIMENTALE* DE CLAUDE BERNARD ET « LE ROMAN EXPÉRIMENTAL » D'ÉMILE ZOLA

Lise Lapierre
Dalhousie University

L'*Introduction à l'étude de la médecine expérimentale* de Claude Bernard paraît pour la première fois en 1865[1] et doit servir de préface aux *Principes de médecine expérimentale* qui resteront inachevés. Quinze ans plus tard, en 1879, Émile Zola fait paraître un recueil qui s'intitule *Le roman expérimental* et qui s'ouvre par une étude du même nom. Dans cette étude, Zola se déclare le disciple de Bernard : « Je n'aurai à faire ici qu'un travail d'adaptation, car la méthode expérimentale a été établie avec une force et une clarté merveilleuses par Claude Bernard, dans son *Introduction à l'étude de la médecine expérimentale* » (Zola:59). Zola ajoute qu'il lui suffira le plus souvent de remplacer le mot « médecin » par le mot « romancier » pour donner à sa pensée la rigueur d'une vérité scientifique. Ce qu'il se propose, c'est « d'appliquer dans la littérature, et, en particulier, dans le roman, les procédés de la science » (Pellissier:203). En cette deuxième moitié du dix-neuvième siècle, la méthode scientifique a renouvelé la critique et l'histoire littéraires, et le naturalisme y verra une méthode capable de renouveler l'art même; pour le romancier naturaliste, l'activité intellectuelle et sentimentale de l'homme, tout comme les autres phénomènes naturels, sont soumises au déterminisme universel (ibid.).

Qu'un auteur se réclame aussi nettement d'un autre, plus encore lorsque l'un est écrivain et l'autre médecin et savant, invite à la comparaison. Et l'on a comparé l'*Introduction* et « Le roman expérimental » ; mais on s'est surtout penché sur la thématique, sur les idées exposées dans ces ouvrages. Dans la préface au recueil de Zola, Aimé Guedj écrit que « [c]'est le même esprit qui règne dans l'*Introduction* et dans *Le Roman expérimental*; la même idéologie – le positivisme – imprègne ces deux textes » (Zola:23). C'est ici la lettre, l'appareil formel, qui sera observé. Malgré l'enthousiasme de Zola, on sent bien que son recueil et l'ouvrage de Bernard ne relèvent pas tout à fait des mêmes pratiques discursives: a priori, l'*Introduction* semble se ranger parmi les textes qui forment le discours didactique ou théorique, et « Le roman expérimental », parmi ceux que regroupe le discours polémique. Zola présente d'ailleurs ses textes comme « des articles de combat, des manifestes, [...] écrits dans la fougue même de l'idée [...] » (:55).

On peut caractériser le discours en se fondant, par exemple, sur la visée ou sur l'objet représenté. Ce sont ici quelques-unes des traces, des marques de surface, laissées par cette visée ou par cet objet qui seront examinées. Nous nous arrêtons à la segmentation, à l'appareil de citation et à quelques-unes des opérations énonciatives (les marqueurs personnels et le système temporel).

[1]Nous nous servons du texte publié par Flammarion dans la collection « Champs » mais nous avons également consulté le texte de 1867, relu et corrigé par Claude Bernard.

La segmentation et l'appareil de citation

Avant de regarder la segmentation et l'appareil de citation, voyons brièvement les titres. L'ouvrage de Bernard et celui de Zola sont présentés à l'aide de groupes nominaux mais de groupes dont la structure est très différente. *Introduction à l'étude de la médecine expérimentale* est un long syntagme où la tête est le mot « Introduction » et où les autres éléments constituent une expansion de ce nom-tête; s'il est bien question de la médecine, le sujet est néanmoins bien circonscrit : il s'agit de la médecine *expérimentale* et, avant tout, d'une *introduction* à ce type de médecine. Le titre de Bernard est donc « une expression précise et rationnelle du contenu du texte » (Kocourek:67), comme l'est normalement un titre scientifique. « Le roman expérimental », par contre, est un syntagme bref, dont le déterminant (l'article défini) laisse entendre que la question sera traitée à fond. Mais il s'agit d'un texte d'une quarantaine de pages et l'on se rend vite compte que le titre choisi est plus évocateur que précis. D'emblée, Zola s'écarte du modèle qu'il s'est donné.

L'*Introduction* s'élabore à partir d'un plan très détaillé. L'ouvrage est d'abord découpé en quatre segments : une courte introduction et trois grandes parties divisées en plusieurs chapitres qui sont eux découpés en sections (Bernard 1865:315-318). À l'exception de quelques brefs paragraphes d'introduction, tous ces segments – peu importe le niveau qu'ils occupent – portent un titre. Ce sont d'ailleurs ces titres que Zola décrit comme « la carcasse de l'*Introduction*, dépouillée de sa chair » (Zola:61) et qu'il reprend quand, au début de son étude, il offre un résumé de l'ouvrage de Bernard.

Les intertitres de l'*Introduction* sont très variés : quelques-uns sont des syntagmes nominaux ou prépositionnels assez brefs et prennent la forme à laquelle on s'attend, étant donné le type d'ouvrage et l'époque où il paraît: « Définitions diverses de l'observation et de l'expérience » (Bernard 1865:34); « Du doute dans le raisonnement expérimental » (:83); « Du principe du critérium expérimental » (:87); « De la preuve et de la contre-épreuve » (:91); « De la comparaison des animaux et de l'expérimentation comparative » (:181); « De la critique expérimentale pathologique et thérapeutique » (:271). D'autres, par contre, sont des phrases complètes, parfois longues et grammaticalement complexes : « Acquérir de l'expérience et s'appuyer sur l'observation est autre chose que faire des expériences et des observations » (:39); « Dans les sciences biologiques comme dans les sciences physico-chimiques, le déterminisme est possible, parce que, dans les corps vivants comme dans les corps bruts, la matière ne peut avoir aucune spontanéité » (:120).

Bien des intertitres ne possèdent plus la structure d'un titre : ils sont trop longs, trop détaillés, souvent très lourds; ils ressemblent aux encadrés par lesquels on met un message, une idée, en valeur. Quelques-uns tiennent même de l'aphorisme, du précepte: « L'expérimentateur doit douter, fuir les idées fixes et garder toujours sa liberté d'esprit » (:68); « Dans les sciences des corps vivants comme dans celles des corps bruts, l'expérimentateur ne crée rien; il ne fait qu'obéir aux lois de la nature » (:128). En relisant les intertitres de l'*Introduction*, on saisit l'essentiel du message que Claude Bernard veut transmettre. Si souvent le titre renferme un verbe et des connecteurs, c'est que l'émetteur

souhaite qu'il n'y ait aucune ambiguïté. Il s'agit de communiquer d'une manière précise: le fond prime la forme.

De nouveau, Zola s'écarte de son modèle : son étude se présente en six parties : une introduction non numérotée et cinq parties présentées uniquement par des chiffres romains. On ne peut retracer le cheminement de sa pensée qu'en lisant tout le texte.

Bernard et Zola renvoient leur lecteur à d'autres auteurs, d'autres textes. L'appareil des notes occupe chez Bernard une grande place. Les notes ont entre autres pour fonction de « présenter les sources du savoir » (Beacco et Darot:100) et de permettre au lecteur qui le souhaite de refaire l'analyse à partir des données brutes. Dès la première phrase de l'*Introduction*, cet appareil est mis en œuvre : on trouve en effet un renvoi à une note en bas de page, invitant le lecteur (par l'impératif de la deuxième personne du pluriel: « Voy. » [Bernard 1865:25]) à consulter les *Medical Times*, la *Gazette médicale*, la *Revue des cours scientifiques* (des revues médicales et savantes). En plus de renvoyer à la source, cette note est un premier indice quant au destinataire de l'ouvrage.

Cette première marque de renvoi fait d'ailleurs référence à des travaux de Bernard, chez qui l'auto-citation est un procédé fréquent[2] et dont il s'explique à son lecteur : « Dans tous ces exemples, je me suis, autant que possible, cité moi-même, par cette seule raison qu'en fait de raisonnement et de procédés intellectuels, je serai bien plus sûr de ce que j'avancerai en racontant ce qui m'est arrivé » (:215). Le plus souvent, Bernard se sert d'une formule conventionnelle : « C'est ce qui nous a fait dire ailleurs [...] » (:72); « [...] ainsi que j'ai déjà eu l'occasion de le faire souvent dans mes cours » (:145). Le lecteur prévenu, les guillemets ne sont plus nécessaires ou utiles et Bernard ne les emploie pas.

Notons que Bernard se sert fréquemment de l'italique et qu'il le fait d'ailleurs d'une façon très remarquable. Dans la première phrase de l'*Introduction*, pour indiquer sa présence dans le texte, Bernard a recours à ce que Beacco et Darot (:100) nomment « italiques "à valeur énonciative" »; l'auteur-énonciateur assume tout particulièrement, ou au contraire n'assume pas, ce qui est ainsi mis en évidence : « *Conserver la santé et guérir les maladies* : tel est le problème que la médecine a posé dès son origine et dont elle poursuit encore la solution scientifique » (Bernard 1865:25).

Chez Bernard, les renvois sont riches, variés. Bernard fait référence à de nombreux scientifiques, certains connus uniquement des spécialistes;[3] d'autres connus aussi du public cultivé.[4] Il renvoie également son lecteur à des philosophes: Pascal (:307), Descartes (:86), Francis Bacon (ibid.). Bernard utilise deux procédés: la plupart du temps, il exprime en ses mots les idées ou les résultats en question et renvoie son lecteur à l'ouvrage dont il s'agit (ceci à l'aide d'une note qui renferme d'habitude l'auteur, le titre, l'année, la page). Parfois mais plus rarement, Bernard rapporte les mots mêmes, en se servant des guillemets (:189, 190; 307).

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[2]Nous avons relevé une vingtaine de renvois (:72, 75, 104, 145, 159, 163, 167, 180, 187, 201, 219, 221, 223, 227, 229, 234, 236, 249, 251, 253, 278, 302), dont l'un (:187) à l'*Introduction* même.

[3]Zimmermann (:34), Beaumont (:36), Lallemand (:38), Jenner (:47), Hope-Seyler (:227).

[4]Les médecins Portal (:209), Pinel (:165), Virchow (:166), Vulpian (:252) et les savants Cuvier (:100), Euler (:80), Laplace (:47).

Il se passe quelque chose d'intéressant lorsque Bernard fait référence à Goethe : en rapportant une réflexion générale de Goethe (« "L'expérience, dit Goethe, corrige l'homme chaque jour" » [:40]), Bernard ne se sent pas tenu de nous donner la source, bien qu'il emploie les guillemets et donne ainsi l'impression que la forme même de l'énoncé est importante; quand, par contre, Bernard transmet la pensée scientifique de Goethe, il s'exprime en ses mots à lui mais en se montrant précis quant à la source : « *Œuvres d'histoire naturelle*, traduction de M. Martine. Introduction, p. I » (:64).

Dans « Le roman expérimental », c'est surtout à Claude Bernard que Zola renvoie son lecteur et, étant donné la mission avouée de l'écrivain, le procédé est justifié. Dès la première partie (I), Zola nous présente un extrait de l'*Introduction* : « "On donne le nom d'observateur à celui qui applique les procédés d'investigations simples ou complexes à l'étude des phénomènes qu'il ne fait pas varier et qu'il recueille par conséquent tels que la nature les lui offre [...]" » (Zola:62). Si l'on veut situer ce passage, on ne trouve pas de page : on doit consulter la table des matières et chercher un intertitre qui corresponde (la composition très détaillée de la table de Bernard facilite cette tâche mais ne la rend pas entièrement simple). Zola adopte d'ailleurs des formules très vagues : « Il [Bernard] dit *quelque part* [...] » (:65) (nous soulignons).

Zola apporte en outre des changements au texte de Bernard : il modifie la ponctuation, ajoute ici un mot, en retranche là un autre. Prenons un exemple intéressant : « Je citerai encore cette image de Claude Bernard, qui m'a beaucoup frappé : "L'expérimentateur est le juge d'instruction de la nature." Nous autres romanciers, nous sommes les juges d'instruction des hommes et de leurs passions » (ibid.). Ce qu'écrit Bernard est beaucoup plus modéré :

> Il [l'expérimentateur] est en quelque sorte le juge d'instruction de la nature; seulement, au lieu d'être aux prises avec des hommes qui cherchent à le tromper par des aveux mensongers ou par de faux témoignages, il a affaire à des phénomènes naturels qui sont pour lui des personnages dont il ne connaît ni le langage ni les mœurs, qui vivent au milieu de circonstances qui lui sont inconnues, et dont il veut cependant savoir les intentions (Bernard 1865:64). (Nous soulignons.)

Vers la fin de son étude, Zola se cite, guillemets et points de suspension à l'appui :

> Bien souvent, j'ai écrit les mêmes paroles, donné les mêmes conseils, et je les répéterai ici. "La méthode expérimentale peut seule faire sortir le roman des mensonges et des erreurs où il se traîne. Toute ma vie littéraire a été dirigée par cette conviction. Je suis sourd à la voix des critiques qui me demandent de formuler les lois de l'hérédité chez les personnages et celles de l'influence des milieux; ceux qui me font ces objections négatives et décourageantes, ne me les adressent que par paresse d'esprit, par entêtement dans la tradition, par attachement plus ou moins conscient à des croyances philosophiques et religieuses... La direction expérimentale que prend le roman est aujourd'hui définitive. En effet, ce n'est point là le fait de l'influence éphémère d'un système personnel quelconque; c'est le résultat de l'évolution scientifique, de l'étude de l'homme elle-même. Ce sont mes convictions à cet égard que je cherche à faire pénétrer dans l'esprit des jeunes écrivains qui me lisent, car j'estime qu'il faut avant tout leur inspirer l'esprit

scientifique et les initier aux notions et aux tendances des sciences modernes" (Zola:88).

Le procédé est étonnant; peut-être Zola veut-il donner plus de force à ce qu'il écrit car c'est son credo littéraire qu'il expose dans ces lignes. Quoi qu'il en soit, « Le roman expérimental » s'écarte souvent des règles propres à un ouvrage didactique alors que l'*Introduction* s'y conforme.

Les opérations énonciatives

Les pronoms personnels sont l'une des marques fondamentales par lesquelles l'auteur signale le mode de sa présence dans un texte. Nous examinons ici les pronoms *je*, *nous* et *on*, auxquels nous ajoutons les déterminants possessifs.

Bernard et Zola emploient tous deux le pronom *je* et la valeur en est transparente puisqu'il ne s'agit pas de textes fictifs : l'*Introduction* et « Le roman expérimental » appartiennent à l'espace discursif du commentaire, ou « discours » chez Benveniste. Mais ces deux auteurs emploient le pronom *je* d'une manière bien différente.

Nous avons vu que, dès la première phrase de l'*Introduction*, Bernard signale sa présence par l'emploi de l'italique et par l'auto-citation. Dans cet ouvrage, le *je* ne paraît qu'à la troisième page, dans l'avant-dernier paragraphe de la brève introduction à l'*Introduction* : « Mais avant d'entrer dans les descriptions spéciales des procédés opératoires, [...], *je* crois utile de donner dans cette introduction quelques développements [...] » (Bernard 1865:27) (nous soulignons). Ce *je* est toutefois précédé d'un *nous* de modestie,[5] c'est-à-dire qui ne renvoie qu'à l'émetteur et auquel nous reviendrons.

Zola, par contre, signale d'emblée sa présence. On trouve *je* et le déterminant possessif de la première personne dès la première phrase : « Dans *mes* études littéraires, *j*'ai souvent parlé de la méthode expérimentale appliquée au roman et au drame » (Zola:59) (nous soulignons). C'est d'ailleurs l'une des premières marques qui nous feront examiner son discours d'une manière critique.

Chez Bernard, la valeur du pronom *nous* est plus difficile à cerner : *nous* est parfois *je*, et souvent *nous*. Il y a peu de marqueurs, comme l'accord de l'adjectif attribut par exemple, dans l'*Introduction* et il faut souvent s'en remettre au hors-texte.[6] Outre le pronom sujet, il y a aussi plusieurs occurrences du *nous* complément et du déterminant *notre*. Ces formes peuvent être associées soit à l'émetteur seul ou à l'émetteur et son destinataire. Le sens des énoncés nous invite à accorder souvent une valeur inclusive au *nous*; les notes en bas de page, entre autres, qui sont à l'impératif de la deuxième personne du pluriel (« Voy. » [Bernard 1865:25]), renforcent cette intuition. On trouve pourtant un *nous* de modestie dans les premières pages de l'*Introduction* : « C'est aujourd'hui, suivant *nous*, ce qui importe le plus pour les progrès de la médecine » (:27) (nous soulignons).

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[5]Nous pourrions aussi dire « magistral » mais le mot veut également dire « péremptoire », « solennel », « doctoral » et nous préférons employer « *nous* de modestie ».

[6]L'introduction, par exemple, à la traduction anglaise de l'*Introduction*, écrite par Lawrence J. Henderson, professeur de chimie biologique à Harvard, qui souligne l'immense contribution de Claude Bernard à la médecine; les ouvrages encyclopédiques, etc.

Laissons de côté que Bernard emploie *suivant* au lieu de *selon*[7] et voyons par quels indices le lecteur saisit ce glissement du *nous* inclusif au *nous* de modestie.[8] Il n'y a en fait qu'une seule marque vraiment textuelle et c'est l'autre marqueur personnel dans le long paragraphe où se trouve l'expression « suivant nous » : il s'agit du pronom *on* et il se peut que ce *on* ait été employé pour éviter que deux occurrences de la même forme, proches l'une de l'autre, possèdent une même valeur. Il n'y a pas d'autres marques personnelles jusqu'à l'unique *je* de cette partie et ce *je* amorce une série de *nous* non inclusifs. À la rigueur, le *nous* dans *suivant nous* pourrait renvoyer non seulement à Bernard mais aussi à ses collègues et ses élèves (Bert, Dastre, Gréhant, Ranvier, etc.). Il demeure que le sens des énoncés en réduit la portée et qu'ils ne peuvent être pris en charge que par un très petit groupe. Plus qu'à tout autre indice, on doit ici s'en remettre à l'intertexte; notons que *suivant nous* est traduit dans le texte anglais par l'expression « I believe » : « Nothing, I believe, is to-day so important to the progress of medicine » (Bernard 1927:3).

Il n'est pas rare, par contre, que la valeur du *nous* soit nettement indiquée dans le texte : « Nous avons dit [...] que l'homme ne connaîtrait jamais ni les causes premières ni l'essence des choses » (Bernard 1865:61). Voici ce qu'on lit à la page précédente : « En instruisant l'homme, la science expérimentale a pour effet de diminuer de plus en plus son orgueil, en lui prouvant chaque jour que les causes premières, ainsi que la réalité objective des choses, lui seront à jamais cachées [...]. » (:60). Voyons un autre exemple : « On a cité des exemples analogues à celui que nous avons rappelé plus haut [...] » (:152); ce que le destinateur de l'*Introduction* a rappelé, à la page précédente, c'est « l'histoire de l'archer de Meudon [...], qui reçut sa grâce parce qu'on pratiqua sur lui la néphrotomie avec succès » (:150).

Bernard se désigne par *je* ou par *nous* avec une fréquence très semblable. Quand il emploie le *nous* inclusif, Bernard le fait souvent pour s'adresser à son destinataire; l'expression « comme nous le verrons », par exemple, signifie vraiment : « je vous le montrerai et vous le verrez ».

L'emploi alternatif du *je* et du *nous* de modestie est l'un des traits propres au texte théorique (Simonin-Grumbach:110) où le repérage s'opère d'une manière qui n'est celle ni commentaire ni du récit, mais qui tient plus du commentaire. On a déjà noté (Heslot 1983; Lapierre 1994) cette alternance dans les *Leçons*; ici, dans l'*Introduction*, Bernard paraît employer *je* là où c'est l'homme, au lieu du savant, qui prend à son compte ce qui est énoncé. Certains choix lexicaux viennent à l'appui de cette interprétation; c'est ainsi qu'on trouve avec *je* un assez grand nombre de verbes subjectifs : *croire*, *supposer*, *penser*, *admettre*, *être persuadé* (Bernard 1865:67); ce n'est toutefois pas toujours le cas. Tout compte fait, le texte à lui seul renferme peu d'indices qui signalent vraiment le passage d'un *nous* pluriel à un *nous* singulier.

Chez Zola, le *nous* est toujours inclusif : *nous* n'est jamais *je*. C'est l'emploi fréquent du *je* et sa proximité qui indique que le *nous* ne peut avoir le même référent. Ce

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[7] *Suivant* signifiait « d'après l'opinion de » (1661) jusqu'à ce que l'usage en décide autrement.

[8] On trouvera aussi *suivant moi* (Bernard 1865:141, 142, par exemple). Une fois engagé dans l'ouvrage, l'auteur/destinateur est peut-être moins conscient de s'imposer qu'il ne l'est dans les premières pages du texte.

pronom représente parfois l'émetteur et le destinataire, mais Zola se sert aussi du *nous* pour parler au nom des autres romanciers de son « école »; les exemples sont nombreux : « Nous autres romanciers, nous sommes les juges d'instruction des hommes et de leurs passions » (Zola:65); « Un reproche bête qu'on nous fait, à nous autres écrivains naturalistes, c'est de vouloir être uniquement des photographes. Nous avons beau déclarer que nous acceptons le tempérament, l'expression personnelle, on n'en continue pas moins à nous répondre par des arguments imbéciles [...] » (ibid.); « Pour nous, romanciers expérimentateurs, qui balbutions encore, l'hypothèse est fatale » (:92). Plus que Bernard, Zola se fait le porte-parole de ses collègues. Notons que c'est là un des traits du discours polémique.

Bernard et Zola emploient également le pronom *on*, dont la valeur est plus nuancée que celle du *nous*. Le *on* peut en effet représenter : soit un groupe presque identique à celui auquel réfère le *nous*; soit un groupe dont l'émetteur ne fait pas partie mais avec lequel il n'entre pas en opposition; soit, enfin, un groupe antagoniste. Dans l'*Introduction* et dans « Le roman expérimental », le *on* prend toutes ces valeurs. Voyons quelques exemples : « Peut-on faire des expériences ou des vivisections sur les condamnés à mort? On a cité des exemples analogues à celui que nous avons rappelé plus haut, et dans lesquels on s'était permis des opérations dangereuses en offrant aux condamnés leur grâce en échange » (Bernard 1865:152). Le premier *on* est général : il représente un groupe plus grand que celui auquel appartient l'émetteur tout en incluant ce dernier; le deuxième et le troisième, par contre, excluent le groupe de l'émetteur comme en témoigne le texte : les exemples ont été cités par Leclerq dans son *Histoire de la médecine*; par Celse, etc. (:150, 151). Notons que le texte anglais offre *we* pour le premier *on*, une construction passive sans agent pour le deuxième et un nom (*men*) pour le troisième : « May we make experiments on men condemned to death or vivisect them? Instances have been cited, analogous to the one recalled above, in which men have permitted themselves to perform dangerous operations on condemned criminals, granting them pardon in exchange » (Bernard 1927:101).

Le *on* de l'exemple suivant représente un groupe antagoniste : « [...] on n'en continue pas moins à nous répondre par des arguments imbéciles [...] » (Zola:65). Le texte anglais traduit évidemment *on* par *they* : « [...] they continue to reply to us with these imbecile arguments [...] » (Zola 1893:11).

Voyons maintenant quelques marques ayant trait au destinataire. Bernard et Zola emploient l'impératif, Bernard de la première personne surtout, et Zola de la deuxième et de la première personne. L'impératif deuxième personne est un procédé qui signale l'importance du destinataire. C'est encore là un trait du texte polémique, dont l'un des objets est de convaincre : « Mais voyez quelle première clarté jaillit [...] » (Zola:65); « Voyez la physiologie [...] » (:71); « Voyez le résultat final [...] » (:78); « [...] admettez qu'on puisse guérir Hulot [...] » (ibid.); « Et voyez, à côté de la nôtre, la besogne des écrivains idéalistes [...] » (:80); « Écoutez ces lignes de l'*Introduction* [...] » (:83). Quand la première personne est employée, « Le roman expérimental » se rapproche alors du texte didactique. Notons aussi l'emploi du subjonctif à valeur impérative : « Que l'on compare un instant la besogne des romanciers idéalistes à la nôtre [...] » (:76).

La phrase interrogative est un autre procédé par lequel Zola, plus que Bernard, met son destinataire en scène : « Mais va-t-on s'arrêter là? » (Zola:70); « Que dire alors des

difficultés que doit rencontrer le romancier expérimental [...] ? » (:71); « [...] que sera-ce donc pour le roman expérimental, où les phénomènes sont plus complexes encore? » (:82); « Que devient donc le génie chez le romancier expérimental? » (:84); « [...] que penserait-on d'un poète qui adopterait l'ancienne croyance, le soleil tournant autour de la terre? » (:95).

Ce que l'on retiendra des pages précédentes, c'est que Bernard se met moins expressément en texte que ne le fait Zola; que ce dernier ne se retranche pas derrière le *nous* de modestie; et que les deux auteurs font un usage très semblable du *nous* inclusif et du *on*.

Il nous reste à examiner les temps verbaux. Si l'on compare la brève introduction à l'*Introduction* aux quelques pages sur lesquelles s'ouvre « Le roman expérimental », voilà ce que l'on constate : chez Bernard, on trouve le passé composé, le présent et le futur mais on trouve aussi quelques instances de l'imparfait et du conditionnel; on trouve en outre un passé simple : « L'expérimentation est incontestablement plus difficile en médecine que dans aucune autre science; mais par cela même, elle ne *fut* jamais dans aucune plus nécessaire et plus indispensable » (Bernard 1865:27) (nous soulignons). On ne trouve chez Zola que le passé composé, le présent et le futur. Dans toute l'*Introduction* et dans « Le roman expérimental », ce sont ces trois temps qui dominent;[9] on verra toutefois que ces textes offrent des différences plutôt remarquables quant à l'emploi des temps.

On sait que le présent, le passé composé et le futur sont les temps principaux du « discours » ou du « commentaire », plan énonciatif qui s'oppose à l'autre plan, celui de l'histoire ou du récit (on peut aussi parler de temps commentatifs et de temps narratifs). Voyons comment sont répartis les temps dans le chapitre premier (:215) de la troisième partie de l'*Introduction*. Ce chapitre commence aussi par une introduction sans titre dans laquelle on ne trouve que le passé, le futur et le présent, dans cet ordre. Cette brève entrée en matière est suivie d'une section qui s'ouvre elle-même par un paragraphe d'introduction où, de nouveau, n'apparaissent que les trois principaux temps commentatifs. Puis on trouve le *Premier exemple* (clairement présenté comme tel, en italique) dans lequel il y a une suite de verbes au passé simple : « On *apporta* un jour dans mon laboratoire des lapins venant du marché. On les *plaça* sur une table où ils *urinèrent* et j'*observai* par hasard que leur urine était claire et acide. Ce fait me *frappa* [...] » (:216) (nous soulignons). Cette suite au passé simple est interrompue par quelques verbes au présent dans des subordonnées (circonstancielles et complétives). On trouve aussi le plus-que-parfait et l'imparfait, puis des verbes au passé simple et à l'imparfait. Ce *Premier exemple* se termine par l'énoncé suivant : « J'arrivai ainsi, à la suite de mes expériences, à cette proposition générale qui alors n'était pas connue, à savoir, *qu'à jeun tous les animaux se nourrissent de viande*, de sorte que les herbivores ont alors des urines semblables à celles des carnivores » (:217) (en italique dans le texte).

On constate que le texte, après un passage commentatif, devient narratif et présente un réseau temporel du même type que ceux que l'on trouverait dans les romans de Zola par

[9]Weinrich (:36) a dépouillé les formes temporelles dans l'*Introduction* et a noté « une nette dominance des temps commentatifs. Avec leurs 787 occurrences, ils représentent 91 % de l'ensemble des formes temporelles ».

exemple, avec l'alternance passé simple/imparfait. On rencontre la même alternance dans d'autres ouvrages de Bernard, dans les *Leçons* par exemple; et dans une moindre mesure, parce qu'ils sont presque nos contemporains et que la langue savante aussi a changé, chez des scientifiques comme Jacques Monod et François Jacob. Il n'est donc pas rare qu'un texte scientifique théorique renferme des segments narratifs.

L'emploi des temps verbaux dans l'*Introduction* se conforme, à peu de choses près, au modèle proposé d'abord par Benveniste : l'émetteur indique sa distance au texte en adoptant soit le système temporel du commentaire soit celui du récit. Bernard ne suit pas toutes les règles puisqu'il emploie souvent *je* avec le passé simple, une paire exclue du récit proprement dit. L'emploi du passé simple dans l'*Introduction* ne peut avoir pour unique fonction de signaler la distance entre le présent et les expériences ou les résultats rapportés puisque des expériences et des résultats plus éloignés du moment de l'énonciation (c'est ici le temps de l'écriture) sont souvent rapportés au passé composé. Le passé simple et les autres temps narratifs sont employés, nous semble-t-il, pour souligner l'importance des faits : pour établir une coupure entre ce qui appartient déjà, au moment de l'écriture, à l'histoire de la science et ce qui en est encore exclu. (Notons qu'en se servant du *je* avec le passé simple, Bernard se désigne lui-même comme personnage historique, comme un savant responsable de découvertes importantes.)

Dans « Le roman expérimental », cette alternance commentaire/récit ne se produit pas: les seuls passés simples qu'on y trouve sont dans un passage tiré de Bernard (Zola:82, 83). Si Zola n'emploie pas les temps narratifs, c'est qu'ayant choisi le plan du commentaire, le romancier se garde peut-être d'employer les moyens qu'il met à l'œuvre dans ses écrits romanesques.

Conclusion

Nous avons examiné quelques-unes des marques de surface présentes dans deux ouvrages liés par une époque et par une idéologie; liés aussi par l'admiration devant la science d'un écrivain qui se voulait savant; et l'admiration devant la littérature d'un savant qui se voulait écrivain. Mais deux ouvrages tout de même séparés par des traits qui les rattachent à des modes discursifs différents, par les conventions de ce qui dépasse un style et que l'on peut appeler sous-langues.

D'emblée, le titre d'un ouvrage signale son appartenance à un univers discursif. Nous avons vu que le titre de Bernard, par sa structure hiérarchique, opère une sélection et restreint le domaine envisagé; que celui de Zola est plus évocateur que précis. Nous avons en outre constaté que l'*Introduction* s'échafaude à partir d'un plan détaillé, minutieux; que les intertitres de l'ouvrage nous livrent l'essentiel du message de Bernard (chez Zola, le texte est bref et doit être lu en entier). Déjà, dans ces marques tout extérieures, l'*Introduction* se conforme aux normes du discours scientifique/didactique et reflète un mode de pensée logique, systématique. Dans « Le roman expérimental », par contre, le lexique et la syntaxe réitèrent l'intention de l'auteur, qui présente ses textes comme des articles de combat; par divers procédés (phrases exclamatives et interrogatives, narration en *je*, etc.), Zola s'adresse directement à son lecteur, lui fait appel, requiert sa complicité.

Pour caractériser le discours didactique/théorique et le discours polémique, on peut dire, comme Catherine Kerbrat-Orecchioni, que le premier veut avant tout apporter au récepteur une information qu'il ignore alors que le deuxième tend à lui faire rejeter une information qu'il admet ou qu'il pourrait admettre (Kerbrat-Orecchioni:10, 11). On a, en étudiant de grands corpus, associé certaines marques à la visée du discours théorique : une organisation textuelle serrée; un appareil de citation complexe et rigoureux, des références à l'interdiscours, c'est-à-dire aux autres textes théoriques/didactiques; une certaine réticence de l'auteur à se désigner uniquement par *je*; la dominance des temps du discours mais souvent employés avec les pronoms de la troisième personne; l'absence de marques dénotant l'émotion. Et l'on a aussi repéré des marques propres au discours polémique, dont les plus évidentes sont un lexique dénotant la passion, la violence, et la présence dans le texte de connecteurs emphatiques.[10]

À la fin du XIX^{e} siècle, on a écrit que « [b]on gré mal gré, M. Zola est non pas l'analyste que lui-même prétend être, mais un lyrique et surtout un épique » (Pellissier:212). Plus récemment, dans le *Dictionnaire des littératures de langue française*, on présente ainsi *Le roman expérimental*[11] : « [...] un texte composite, mélange de citations [...], de commentaires et de diatribes » (:1612). Ni le lyrisme ni les diatribes ne sont le propre du texte scientifique. Mais, si « Le roman expérimental » ressemble peu au modèle que son auteur s'était donné, on constate toutefois que Zola et Bernard se servent souvent des mêmes procédés et que leurs textes appartiennent au même grand ensemble discursif : celui du commentaire.

Les études typologiques ont pour but de repérer la « dominante » d'un texte, et non pas d'en réduire la complexité. Rappelons-nous la conclusion de Jean-Michel Adam (:43) : « [...] il n'existe guère (pas?) de discours réels qui n'actualisent, en même temps, plusieurs types textuels ».

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[10]On trouve chez Zola, à maintes reprises, le connecteur emphatique « Eh bien! » (Zola:63, 65, 72, 76; etc.).

[11]Bien que l'auteur de l'article sur Zola fasse référence au recueil, c'est en fait de l'article qu'il offre une critique.

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DE LA POLARITÉ NÉGATIVE À LA CONCESSION: L'HISTOIRE NATURELLE D'UN PARCOURS INTERPRÉTATIF

Pierre Larrivée
Université de Moncton à Edmundston

0. Résumé

Cet article analyse le sens de la forme *qui que ce soit*, et propose à partir de quatre de ses valeurs référentielles en contexte, qui peuvent être dégagées par le biais de gloses et de paraphrases, que ces références se rapportent à une série commune de propriétés qui caractérise la valeur de la forme en propre comme étant celle d'un choix arbitraire d'une occurrence humaine indéfinie et qui permet de par l'interaction de ce concept avec le cotexte de produire les différentes valeurs contextuelles observées. L'article entend ainsi contribuer à expliciter la méthodologie pour l'analyse du sens linguistique, à substantier les aspects qui le structurent en illustrant le rôle de représentations opérant à des niveaux distincts et en donnant des indications sur la nature des relations entre ces représentations, visant par là à articuler et à rendre compte des aspects systématiques du sens linguistique.

1. Introduction

Le problème de la polysémie des formes linguistiques - soulevant les questions de l'invariant conceptuel d'une forme, de sa variation de valeur selon les contextes d'emploi et des facteurs qui permettent et induisent telle valeur d'emploi dans un contexte particulier - se trouve au centre des recherches actuelles sur la nature et le fonctionnement des représentations que met en cause le sens linguistique. Ce problème trouve une illustration dans le comportement d'un indéfini comme *qui que ce soit*, dont la valeur conceptuelle qui le caractérise de façon stable, concordant avec sa constitution interne qui y contribue, est modulée selon la valeur de sa fonction syntaxique et de son interaction avec les autres termes du cotexte où l'indéfini s'insère et livre ainsi différentes références.

La section 2 de cet article prend acte de la pluriréférentialité de *qui que ce soit* et dégage quatre valeurs de référence sur la base du travail de paraphrase et de caractérisation de ces sens en contexte. La section 3 pose la question des rapports entre les références en cause et à partir du fait que ces références s'attachent à une même unité pour d'autres termes en français et dans d'autres langues génétiquement non apparentées et que peuvent en être déterminé des propriétés conceptuelles communes, avance qu'elles sont des exploitations contextuelles de la valeur conceptuelle caractérisant *qui que ce soit* en propre; la section 3.1 met ce concept en relation avec la constitution de l'indéfini dont la contribution à cet égard est analysée. La section 4 donne une illustration rapide de la façon dont ce concept permet de rendre compte de chaque référence, et précise des facteurs syntaxiques et sémantiques déterminants dans chaque cas. Il s'agit donc non seulement de montrer par l'étude de *qui que ce soit* que le sens linguistique fait appel à différents niveaux de

représentation, mais que ces niveaux sont liés étroitement par des mécanismes sémantiques répondant à une systématique linguistique.

2. Les références de *qui que ce soit*

Le sens en contexte de la forme *qui que ce soit* montre un certain degré de variation, comme l'illustrent les énoncés suivants:

(1) a. En général, le directeur aime partager ses vues avec qui que ce soit.
b. Parfois, si le directeur pouvait partager ses vues avec qui que ce soit, il s'en sentirait mieux.
c. En général, le directeur n'aime pas partager ses vues avec qui que ce soit.
d. Si le directeur ne pouvait pas partager ses vues avec qui que ce soit, il s'en sentirait moins efficace.

Dans le premier cas, est évoqué le fait qu'une certaine personne apprécie le fait de communiquer ses opinions à une personne, quelle qu'elle soit; dans le second est envisagé que cette personne apprécierait le fait de pouvoir les communiquer à une personne, sans égard à son identité ou son statut; le troisième rend que le directeur en cause n'apprécie de les communiquer à aucune personne; le dernier cas livre l'hypothèse que ce directeur puisse communiquer ses opinions seulement à certaines personnes et non à toutes. Par ailleurs, le sens de ces énoncés n'a pas nécessairement l'univocité que supposent ces premières gloses, et ils peuvent recevoir d'autres interprétations; par exemple, le premier cas peut mettre en cause que le directeur évoqué apprécie la possibilité qu'il a de communiquer ses vues avec toute personne, le troisième que ce même directeur apprécie de les communiquer avec certaines personnes et non toutes, et le dernier l'hypothèse qu'il n'ait la possibilité de s'ouvrir à aucune personne quant au contenu de ses réflexions. Ces modulations sémantiques peuvent être appréhendées par le recours systématique à des paraphrases, qui explicitent les sens en cause. Ainsi, des énoncés précédents et à partir de l'appréciation de leur valeur, on pourra proposer les paraphrases suivantes:

(1') a'. En général, le directeur aime chaque occasion qu'il a de partager ses vues avec (une personne / la moindre personne / n'importe qui / quelqu'un, qui qu'il soit / *certaines personnes seulement / ?*toute personne / *tout le monde / *personne).
a". En général, le directeur apprécie la possibilité qu'il a de partager ses vues avec (une personne / la moindre personne / n'importe qui / quelqu'un, qui qu'il soit / *certaines personnes seulement / toute personne / ?tout le monde / *personne).
b'. Parfois, le directeur apprécierait d'avoir la

possibilité de partager ses vues avec (?une personne / la moindre personne / n'importe qui / quelqu'un, qui qu'il soit / *certaines personnes seulement / toute personne / ?tout le monde / *personne).

c'. En général, le directeur n'apprécie de partager ses vues avec (*une personne / ??la moindre personne / *n'importe qui / *quelqu'un, qui qu'il soit / *certaines personnes seulement / *toute personne / *tout le monde / personne).

c". En général, le directeur n'apprécie de partager ses vues qu'avec (*une personne / *la moindre personne / *n'importe qui / *quelqu'un, qui qu'il soit / certaines personnes seulement / *toute personne / *tout le monde / * personne).

d'. Le directeur déplorerait le fait éventuel de n'avoir la possibilité de partager ses vues qu'avec (*une personne / *la moindre personne / *n'importe qui / *quelqu'un, qui qu'il soit / certaines personnes seulement / *toute personne / *tout le monde / * personne).

d". Le directeur déplorerait le fait éventuel de n'avoir la possibilité de partager ses vues avec (*une personne / ??la moindre personne / *n'importe qui / *quelqu'un, qui qu'il soit / *certaines personnes seulement / *toute personne / *tout le monde / personne).

Les paraphrases permettent donc de saisir le sens de l'énoncé de départ en le mettant en relation avec un énoncé second plus ou moins éloigné de celui qu'il entend rendre - *Le directeur déplorerait de n'avoir la possibilité de partager ses vues avec personne* en (1'd") ne livre que la partie du sens de *Si le directeur ne pouvait pas partager ses vues avec qui que ce soit, il s'en sentirait moins efficace* en (1d) qui converge avec les autres paraphrase - dans lequel commutent un ensemble de formes pouvant rendre une valeur plus ou moins proche du paraphrasé - comme en (1'b') où *une personne* est moins bon et moins proche de *qui que ce soit* que *n'importe qui* - ou ne le pouvant pas - le quantifieur négatif *personne* étant inacceptable en (1'b') comme paraphrase de (1b). Les formes commutantes et les paraphrases elles-mêmes ne sont évidemment jamais strictement équivalentes à l'énoncé de départ, et c'est pourquoi il faut parler de proximité de valeurs plutôt que d'équipotence. À partir du travail de paraphrases cependant, et dans les limites des difficultés qu'elles peuvent éventuellement soulever, peuvent être identifiées trois grandes valeurs contextuelles de *qui que ce soit*: une valeur universelle positive, typiquement paraphrasable par *tout le monde*, où l'ensemble des occurrences humaine est susceptible de satisfaire à la prédication en cause; une valeur singulière, que peut rendre *n'importe qui*, où une seule occurrence humaine indéfinie à

la fois est susceptible de répondre aux exigences référentielles du cotexte; une valeur universelle négative, généralement paraphrasable par *aucune personne*, où aucune occurrence humaine ne satisfait à la prédication.

Cette série ne contient pas nécessairement toutes les références possibles de *qui que ce soit*, et seule une considération minutieuse, le travail de paraphrase et l'explicitation de la valeur de toutes les occurrences d'un corpus élargi - comme le fait l'étude de Valiquette (1996) sur le verbe *devoir* - permettra de la compléter, ce qui n'est pas l'objet de cet article. En tout cas, elle ne comprend pas la valeur qui pourrait être caractérisée comme étant concessive, où l'identité de l'individu évoqué est posée comme étant sans influence sur la situation dans laquelle il est impliqué, identité qui était supposée devoir influer négativement sur cette situation; en somme, une occurrence humaine prise comme cause de ce qu'elle était crue devoir empêcher. Cette interprétation peut être rendue par des paraphrases comprenant d'autres concessifs comme *quand même* ou *fût-ce* et qui, appliquées aux exemples suivants:

(2) a. Qui que ce soit, le directeur prendra le temps de le rencontrer.
b. Le directeur prendra le temps de rencontrer le prochain client, qui que ce soit.

donneront:

(2') a'. Fût-ce (?*une personne / ?la moindre personne / ??qui que ce soit / ?n'importe qui / ?*quelqu'un, qui qu'il soit / *certaines personnes seulement / *toute personne / *tout le monde / *personne), le directeur prendra le temps de (le / la) rencontrer.
a". Quand même ce serait (?*une personne / la moindre personne / ?qui que ce soit / ?n'importe qui / ?*quelqu'un, qui qu'il soit / *certaines personnes seulement / *toute personne / *tout le monde / *personne), le directeur prendra le temps de (le / la) rencontrer.
b'. Le directeur prendra le temps de rencontrer le prochain client, fût-ce (?*une personne / (?)la moindre personne / ?qui que ce soit / (?)n'importe qui / ?*quelqu'un, qui qu'il soit / *certaines personnes seulement / *toute personne / *tout le monde / *personne).
b". Le directeur prendra le temps de rencontrer le prochain client, quand même ce serait (?*une personne / (?)la moindre personne / ??qui que ce soit / (?)n'importe qui / ?*quelqu'un, qui qu'il soit / *certaines personnes seulement / *toute

personne / *tout le monde / *personne).

Ces paraphrases, bien qu'elles soulèvent la question de l'originalité de *qui que ce soit* dans cet ensemble puisque des concessifs typiques comme *bien que* ou *encore que* ne semblent pouvoir en livrer une paraphrase, montrent néanmoins que *qui que ce soit* compte une valeur de plus à son parcours interprétatif, celle de concession.

La considération de quelques contextes où apparaît *qui que ce soit* ainsi que le travail de paraphraser et de caractériser son sens dans ces contextes permet d'identifier quatre valeurs référentielles, universelle positive, singulière, universelle négative et concessive.

3. La valeur conceptuelle de *qui que ce soit*

La forme *qui que ce soit* manifeste donc plusieurs références, et la question se pose par conséquent de savoir si cette pluralité de références s'associant à une même forme tient d'un rapport de contingence entre elles ou bien d'un rapport marqué par la régularité, autrement dit si ces sens relèvent d'une analyse homonymique ou d'une analyse polysémique.

Trois arguments permettent de poser que les rapports entre les références universelle positive, singulière, universelle négative et concessive ne sont pas dues au jeu du hasard, qui ont trait à ce que ces interprétations apparaissent comme des exploitations de propriétés communes, à ce qu'elles se trouvent associées pour d'autres formes du français et pour des formes d'autres langues plus ou moins génétiquement éloignées.

Comme le montrent les paraphrases de la section précédente, les interprétations en cause se retrouvent dans certaines formes en français autre que *qui que ce soit*. Ainsi, le groupe nominal *la moindre personne* peut évoquer des références universelle positive, singulière et universelle négative:

(3) a. En général, le directeur apprécie de pouvoir partager ses vues avec la moindre personne. (≈ tout le monde)
b. Parfois, le directeur apprécierait de partager ses vues avec la moindre personne. (≈ n'importe quelle personne)
c. Le directeur déplorerait le fait éventuel de ne pouvoir partager ses vues avec la moindre personne. (≈ aucune personne)

De même, le coordonnant *ou* manifeste des valeurs référentielles où les choix qu'il propose se trouvent affirmés ensemble, affirmés disjointement ou niés ensemble (Jennings 1994):

(4) a. En général, le directeur apprécie de pouvoir partager ses vues avec les administrateurs ou les

actionnaires. (≈ L'appréciation du directeur vient de la possibilité qu'il a d'échanger à la fois avec les administrateurs et les actionnaires)

b. Parfois, le directeur apprécierait de pouvoir partager ses vues avec les administrateurs ou les actionnaires. (≈ L'appréciation du directeur se manifesterait à l'occasion d'un échange ou bien avec un administrateur, ou bien avec un actionnaire)

c. Le directeur déplorerait le fait éventuel de ne pouvoir partager ses vues avec les administrateurs ou les actionnaires. (≈L'appréciation du directeur n'aurait pas lieu d'être puisque le partage de vue ne se manifesterait ni avec les administrateurs ni avec les actionnaires)

Par ailleurs, certains termes font montre de deux de ces interprétations sans manifester la troisième; ainsi, *n'importe quel employé* et *tout employé* peuvent livrer des références proches de l'universelle positive et de la singulière:

(5) a. En général, le directeur apprécie de pouvoir partager ses vues avec n'importe quel employé. (≈ tous les employés)

b. En général, le directeur apprécie de pouvoir partager ses vues avec tout employé. (≈ tous les employés)

c. Parfois, le directeur apprécierait de partager ses vues avec n'importe quel employé. (≈ un employé quelconque)

d. ? Parfois, le directeur apprécierait de partager ses vues avec tout employé. (≈ un employé quelconque)

Tous les employés peut évoquer l'ensemble d'une série d'occurrences, certes, mais aussi une occurrence singulière:

(6) a. Le directeur a obligé son adjoint à rencontrer tous les employés. (≈ tout employé)

b. ? Le directeur a permis à son adjoint de rencontrer tous les employés. (≈ n'importe quel employé)

Un employé quant à lui référera à une occurrence singulière et universelle négative:

(7) a. En général, le directeur apprécie de pouvoir partager ses vues avec un employé. (≈ tous les employés)
b. Parfois, le directeur apprécierait de partager ses vues avec un employé. (≈ n'importe quel employé)

Par ailleurs, outre *qui que ce soit*, le coordonnant *ou* peut rendre une référence concessive, comme l'illustre l'exemple suivant:

(8) -Il y a quelqu'un à la porte. Ce doit être un administrateur ou un actionnaire.
-Administrateur ou actionnaire, le président le rencontrera sans doute.

De plus, la forme *n'importe* associée au complémenteur *comment* sert de concessif dans certaines variétés de français:

(9) N'importe comment, le président le rencontrera.

Les références en cause se trouvent également associées à une même unité linguistique dans un grand nombre de langues différentes sans que cette association puisse être rapportée à une influence génétique ou historique comme l'emprunt, par exemple. Ainsi, non seulement le *qui que ce soit* français, mais ses équivalents anglais *anyone* et *anybody* peuvent avoir une référence universelle positive, singulière et universelle négative:

(10) a. If he could really meet [anybody] at all, the president couldn't do his work.
S'il rencontrait réellement qui que ce soit, le président ne pourrait faire son travail.
b. If he could talk about it with just [anyone], he would feel relieved.
S'il pouvait parler de cela avec qui que ce soit, il se sentirait soulagé.
c. He doesn't want to talk about it with [anyone].
Il ne veut pas en parler à qui que ce soit.

et, comme pour *n'importe comment* en français, *any* lié à *way* ('façon, manière') marque la concession:

(11) [Anyway], the president will meet him.
Quoi qu'il en soit, le président le recontrera.

Les formes correspondantes en tamil manifestent également les même valeurs de référence, comme le montrent les exemples suivants (qui m'ont été communiqués par Subhadra Ramachandran, que je remercie; les voyelles en majuscule notent leur caractère haut et central, les consonnes majuscules leur rétrofléxion, HON marque un honorifique, NEG, la négation et DAT, un datif):

(12) a. Janaadipathi [yaarai-veNaalum] paarka-muDinjadu-naal, avaraala velai paNNa mudiyaadu.
président [qui que ce soit]
verrait-si, il(HON) travail faire ne le pourrait
Si le président rencontrait réellement qui que ce soit, il ne pourrait faire son travail.

b. Avan [yaar-uDai-aavdU] pesa muDinjadu-naal, tripti-aaka irUkkum
il [qui que ce soit] parler pouvoir-si, soulagé sera
S'il pouvait parler à qui que ce soit, il se sentirait soulagé.

c. AvanukkU adai partri [yaar-uDai-um] pesa piDikka (v)-illai
il(DAT) ce à-propos qui que ce soit (avec) parler-souhaiter-NEG
Il ne veut pas en parler à qui que ce soit.

d. Janaadipathi [yaaraium] varaverpaar
président qui que ce soit accueillera(HON)
Qui que ce soit, le président le recevra sans doute.

Les mêmes rapports à une forme entre certaines de ces références s'observent également en néerlandais et en serbo-croate (Ramachandran 1996), et entre toutes en coréen (Larrivée et Lee 1997, Lee 1996).

De par leur variété et par la constance des recoupements qu'elles rendent tangibles, ces données suggèrent qu'il existe une relation non accidentelle entre les références de *qui que ce soit*. Deux modèles de relation entre références peuvent être posés (Larrivée 1997b), selon que telles références constituent des modulations contextuelles des mêmes propriétés conceptuelles qui caractérisent en propre une unité linguistique (Larrivée 1997a), ou que telle autre se construit dans un contexte à partir d'une autre référence de la forme dans un autre contexte, suivant que des propriétés communes peuvent être identifiées entre une série de références et un concept hypothétique ou bien seulement entre une référence et une autre. L'examen des données initiales de cette étude montre que c'est la première analyse qu'il faut adopter ici, dans la mesure où les traces d'une même série de propriétés se retrouvent dans chaque emploi:

(1) a. En général, le directeur aime partager ses vues avec qui que ce soit.
b. Parfois, si le directeur pouvait partager ses vues avec qui que ce soit, il s'en sentirait mieux.
c. En général, le directeur n'aime pas partager ses vues avec qui que ce soit.
d. Si le directeur ne pouvait pas partager ses vues avec qui que ce soit, il s'en sentirait moins efficace.

(2) a. Qui que ce soit, le directeur prendra le temps de le rencontrer.
b. Le directeur prendra le temps de rencontrer le prochain client, qui que ce soit.

D'une part, dans chaque cas, outre la valeur humaine de l'occurrence à laquelle il est fait référence, une valeur d'indéfinition s'appliquant à cette occurrence peut être identifiée: ce qui est envisagé, ce n'est pas une personne dont l'identité ou l'existence serait établie qu'il s'agira de rencontrer ou avec laquelle aura lieu un échange de vues, mais bien seulement un vis-à-vis éventuel. De plus, une valeur de choix arbitraire quant à cette occurrence caractérise chacune des références en cause: c'est une personne, n'importe quelle personne pour ainsi dire, avec laquelle il fait plaisir au président d'échanger (1a,d), avec laquelle il lui ferait (1b) ou non (1c,d) plaisir de discuter, qu'il prendra le temps de rencontrer (2).

Donc, *qui que ce soit* possède une valeur conceptuelle représentant un choix arbitraire d'une occurrence humaine indéfinie et qui se reflète dans chacune des quatre références retenues pour cette étude, qui sont des exploitations conceptuelles de cette valeur (Hirtle 1988, Lee 1993). Montrer comment les références de la forme mènent à sa valeur propre ne constitue néanmoins que la première partie du travail, et la façon d'en arriver à partir de ce concept à chacune des références reste à être établie, ce que nous nous proposons dans la section 4, après avoir considéré comment la constitution de l'unité contribue à sa valeur conceptuelle.

3.1 La valeur conceptuelle et la constitution de *qui que ce soit*

L'item *qui que ce soit* a une composition complexe et à propos de laquelle il sera avancé - comme il l'avait été fait au sujet de *quelqu'un* dans Larrivée (1995b) - que cette composition contribue à sa valeur conceptuelle. *Qui que ce soit* se constitue d'un verbe le plus souvent au subjonctif, d'un déicitique sujet, de la conjonction *que* et d'un *qui* dit relatif libre puisqu'il évoque une occurrence humaine sans qu'il y ait référence à un groupe nominal comme dans le cas du relatif ou de l'interrogatif; syntaxiquement, *qui* a statut d'extraction (Gunnarson 1986, Ruwet 1982: 42-44, Kayne 1983: 98), construction qui implique une distorsion entre le rapport syntaxique qu'un terme entretient avec sa tête et la position de ce terme qui se situe dans une proposition hiérachiquement supérieure à celle où se situe la tête syntaxique en cause, et

qu'illustrent les exemples suivants:

(13) a. Qui que ce soit, le président le rencontrera
b. Qui as-tu dit qu'il rencontrera?
c. Je n'ai rien demandé qu'il fasse.

où *Qui, Qui et rien* apparaissent en principale tout en se rapportant syntaxiquement au verbe de la subordonnée, comme le suggèrent ces phrases analogues aux précédentes:

(14) a. Que ce soit n'importe qui, le président le rencontrera.
b. Tu as dit qu'il rencontrera qui?
c. J'ai demandé qu'il ne fasse rien.

où le terme en cause est alors adjacent à ce qu'il détermine.

Il ne s'agit pas de relativisation de *qui* ou de *rien*, contrairement à ce que soutient Olivier Soutet (1992, 1989), puisque ces termes n'ont pas de fonction identifiable dans la principale en (13b) et (c) - *avoir dit* et *avoir demandé* ayant *tu* et *je* comme sujet et la complétive comme objet -, qu'ils ne peuvent être repris par aucun relatif - le seul candidat à ce titre étant le complémentiseur qui introduit la complétive qui est un conjonctif, comme le montre son maintien plutôt que sa disparition dans les séquences (14b) et (14c), et spécialement en (14a) où, si *que* était un relatif, il devrait s'effacer, comme c'est le cas du relatif dans le passage de *l'idée que j'ai présentée* à *j'ai présenté une idée* -, et que les *qui* peuvent s'associer à la préposition que commande le verbe de la subordonnée:

(15) a. Par quelque bout que commençât notre conversation, celle-ci finissait toujours par aboutir au même résultat. (Kobo Abe. 1969. Le visage d'un autre. Paris: Stock. 103)
b. En si bonne condition que se trouvât primitivement sa famille, elle n'en tirait aucune vanité [...]. (Xueqin Cao. 1981. Le Rêve dans le pavillon rouge. Tome 2. Paris: Gallimard. 1242)
c. Par qui as-tu dit qu'il a commencé?
d. En quelle condition se trouvait-il?

groupe prépositionnel que ne peut reprendre un relatif. Également, la relativisation ne peut être retenue comme analyse de *qui que ce soit* du fait que cette construction n'admet guère de relations à distance mettant en cause le sujet de la subordonnée (Ruwet 1982: 42-44), comme le suggèrent ces exemples:

(16) a. Qui qu'il arrive, ne le laissez pas entrer.
b. * Qui que arrive, ne le laissez pas entrer.

c. ?* Qui qui arrive, ne le laissez pas entrer.

où le *qui* est acceptable quand il est complément du verbe subordonné, non quand il en est le sujet. Donc, si *qui* dans cette construction est relativisé, il n'y a aucune explication pour ce contraste, qui découle naturellement d'une analyse en termes d'extraction pour laquelle la relation syntaxique à distance avec le sujet de la subordonnée reste agrammaticale:

(17) a. Je n'ai rien demandé qu'il arrive.
b. * Je n'ai rien demandé qu'arrive.
c. * Je n'ai rien demandé qui arrive.

ou très marquée:

(18) a. Qui as-tu dit qu'il rencontrera?
b. * Qui as-tu dit que sera rencontré?
c. ?? Qui as-tu dit qui sera rencontré?

L'extraction contribue à la valeur de l'ensemble sous deux rapports, celui de la portée du terme extrait, et celui de sa valeur d'indéfinition. D'une part, le terme extrait étend sa portée au-delà de la subordonnée dont il détermine syntaxiquement le verbe jusqu'à la proposition qui la domine où il se situe, ce qui apparaît particulièrement perceptible quand ce terme est une négation comme *rien*, qui inclut dans sa portée la proposition supérieure lorsqu'extrait, mais la voit limitée à la subordonnée quand il s'y situe (Larrivée 1995c), comme le suggèrent les exemples suivants:

(19) a. Je n'ai rien demandé qu'ils fassent.
b. J'ai demandé qu'ils ne fassent rien.

où le locuteur nie dans le premier cas le fait qu'il y ait quelque chose dont il ait demandé qu'il soit fait, alors qu'il affirme avoir demandé quelque chose dans le deuxième cas, que rien ne soit fait par un certain groupe de personnes.

Cette variation de portée pourrait servir à rendre compte de la nominalisation du tour (Pierrard 1992: 59), du fait que, bien qu'il ait la constitution d'une proposition, l'extraction de *qui* permet à l'item de fonctionner comme nominal, comme le montrent la comparaison de ce qui suit:

(20) a. Il apprécierait qui que ce soit.
b. Il apprécierait que ce soit n'importe qui
c. Il apprécierait que ce soit qui que ce soit.

où le *qui* extrait confère à la construction le statut de nominal qui évoque alors une occurrence humaine indéfinie (a) qui est appréciée, le *qui* non extrait lui laissant le rôle d'une complétive qui réfère à un événement (b, c) qui est apprécié. Cependant, la

nominalisation d'une proposition ne passe pas nécessairement par l'extraction, puisque *n'importe qui* et *Dieu sait qui* ont valeur de nominal sans que le relatif libre en soit extrait, et que, malgré l'extraction, *qui que ce soit* peut avoir un statut non pas nominal mais bien propositionnel dans le cas de son emploi concessif. Ce qui permet de passer d'un statut à l'autre pour une construction formellement phrastique constitue une problématique largement ignorée, qui aura à être abordée dans une étude ultérieure.

D'autre part, le terme prend dans l'extraction une valeur particulière. Le *qui* extrait de *qui que ce soit* acquiert une nuance de virtualité (Rubattel 1987: 396, Soutet 1989: 31), qui le distingue de ses autres emplois comme relatif libre (Larrivée et Lee 1997). C'est pourquoi sa paraphrase sans extraction doit rendre cette indéfinition du *qui* extrait, par l'utilisation de *n'importe* par exemple, comme le suggère la phrase suivante:

(21) Elle le poursuivait tout de même où qu'il allait... n'importe où... où qu'il montait [...]. (Louis-Ferdinand Céline. 1989. Mort à crédit. Paris: Gallimard. 205)

où l'auteur joue de la valeur analogue de *où que ce soit* et de *n'importe où*. C'est bien l'extraction qui est à l'origine de cette valeur, et en considérant l'exemple analogue suivant:

(22) Il appréciera quelqu'idée qu'elle présentera.

qui est ambigu entre une relativisation (*Elle présentera des idées et il appréciera sans doute quelqu'une de celles-là*) et une extraction (*Quelles que soit les idées qu'elle présentera, il les appréciera sans distinction*), il apparaît nettement que seule la structure d'extraction induit une virtualisation de la valeur de *quelqu'idée*.

Ainsi, la structuration interne de l'ensemble *qui que ce soit* contribue non seulement à son organisation en tant que construction, mais aussi à sa valeur conceptuelle et, par là, à ses valeurs de référence.

4. Du concept aux références

Qui que ce soit possède donc une valeur conceptuelle qui se définit comme la sélection arbitraire d'une occurrence indéfinie, qui est non seulement le principe par lequel s'apparentent les références de cette forme mais également la matrice qui par ses interactions avec certains ordres de facteurs cotextuels génère telle ou telle de ces références. Il y a lieu de donner quelques indications quant aux interactions en cause permettant de passer du concept à une référence, à partir des cas suivants par exemple:

(23) a. Le directeur apprécie la possibilité qu'il a de partager ses vues avec qui que ce soit.
b. Le directeur apprécie chaque occasion qu'il a de rencontrer qui que ce soit.

c. Le directeur déplorerait de ne pouvoir partager ses vues avec qui que ce soit.
d. Qui que ce soit, le directeur prendra le temps de le rencontrer.
e. Le prochain visiteur, qui que ce soit d'ailleurs, le directeur prendra sans doute le temps de le rencontrer.

L'interprétation universelle positive est corrélative en (23a) à l'expression de la possibilité, possibilité d'agir générique, non bornée à un seul événement, dont l'itérativité, en s'exerçant à propos d'une occurrence humaine indéfinie dont le choix reste ouvert, peut finir par affecter l'ensemble de ces occurrences, d'où la valeur de quantification universelle. Dans le cas de l'interprétation singulière telle qu'illustrée en (23b), l'agir est ramené à un événement ponctuel et unique, sa singularité ne pouvant affecter qu'une occurrence humaine, le libre choix s'exerçant sur l'identité de cette occurrence, et l'implication que l'ensemble des occurrences pourra être concerné ne tient plus. L'interprétation négative universelle (23c), comme il l'a été montré ailleurs (notamment Larrivée et Lee 1997, Larrivée 1996a, Larrivée 1995a), tient de ce que l'implication négative propre à ces contextes dits à polarité négative s'applique à la valeur de sélection arbitraire indéfinie qui inclut jusqu'à l'occurrence qualitativement la plus modeste pour rejeter toute occurrence de cet ensemble, valeur universelle rendue également possible par l'expression contextuelle de la virtualité permettant d'inférer que l'ensemble des occurences humaines sera affecté. Quant à la concession (23d, e), cette référence est corrélative à la fonction d'adjonction de la construction à une phrase ou à un nominal: le choix arbitraire s'exerce à l'égard d'une occurrence constituant une modalité de la phrase ou du nominal qui sont assertés. La référence concessive de *qui que ce soit* tire parti à la fois de la valeur de choix arbitraire de l'item et de la valeur de la fonction, mais n'est pas entièrement conditionnée par ces facteurs, qui ne déterminent pas en eux-mêmes si la modalité de phrase par exemple aura une référence causale ou évaluative comme *heureusement* par exemple; il faut penser ici à un phénomène de convergence entre la structuration conceptuelle des items et des fonctions, qui sont reconduites à une catégorie référentielle non par nécessité mais par convenance, suivant les indications abstraites que fournit le concept dans cette fonction, qui pourrait par ailleurs se prêter à d'autres référence. Une illustration analogue de la distinction entre conceptuel et référence, qui sont intégrés, certes, mais par des opérations de convergence plutôt que de mise en correspondance directe, se trouve dans l'interprétation causale des expressions de temps, expressions qui donnent des conditions nécessaires à l'expression de la cause, en particulier la précédence temporelle d'un événement par rapport à l'autre, sans donner l'ensemble des conditions qui ne les rendraient compatibles qu'avec l'expression de la cause.

5. Conclusion

Cet article donne une analyse de la polysémie *qui que ce soit*, et montre que quatre des références de cette forme sont des déformations contextuelles d'une même valeur conceptuelle représentant le choix arbitraire d'une occurrence humaine indéfinie,

concept qui livre ces références selon sa fonction syntaxique - l'adjonction livrant une référence concessive - et le sens des facteurs contextuels auxquels il s'associe - notamment, un événement générique rendant possible une référence universelle, positive ou négative selon l'absence ou la présence d'une implication négative s'étendant à l'indéfini, un événement borné orientant vers une interprétation singulière.

Cet article entend ainsi contribuer à expliciter la méthodologie pour l'analyse du sens linguistique, à substantier les représentations qui le constituent et à donner des indications sur la nature des relations entre ces représentations, visant par là à articuler et à rendre compte de la complexité du sens linguistique, qui relève d'une systématique, sans laquelle le langage est un gant vide abandonné sur un piano mort.

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TRANSITIVITY AS AN IDEOLOGICAL TOOL: THE DISCOURSE OF WILLIAM J. GAIRDNER

Donna L. Lillian
York University

William D. Gairdner, a popular Canadian writer of political and social commentary and one-time professor of English at York University, gains part of his appeal from his use of a "tell-it-like-it-is" style of writing. To date, he has authored four popular books promulgating his right-wing social, political, and economic views: *The Trouble With Canada*, *The War Against the Family*, *Constitutional Crackup*, and *On Higher Ground*. In these books, he is, of course, telling it as *he* thinks it is and virtually everything he writes can be challenged by competent sociologists, anthropologists, economists, psychologists, and/or statisticians; nevertheless, his readers appear to be drawn to his books in part because of the non-academic style in which he writes, and his explicit rejection of academic conventions of scholarship:

> ... it is not an academic study or research document - there are too many of those available already on every subject in this book. For the most part, no attention is paid to them, or they preach to the converted, or they are countered by further research, equally ignored. So I'm not trying to add to the academic uproar by writing a book in which the risk of offending is reduced to zero. That can result in a dull book and endless equivocation. Rather, this is a book meant to change minds. (Gairdner 1990: 1)

Although this description came from his first popular book, it aptly describes the style he employs in his subsequent books as well.

Describing, delineating, and critiquing Gairdner's style is the larger project of which the present paper forms a part[1] (see also Lillian 1997). Here, I examine Gairdner's use of transitivity as a tool with which he attempts to discredit feminists and homosexuals (by which he means homosexual *men*) and thereby to undermine their demands for fair and equal treatment in Canadian society. By placing homosexuals as subjects of transitive predicates, he heightens the impression that he is seeking to create, that homosexuals are responsible for choosing their sexual orientation (rather than it being, for example, something that they are born with), and by not placing feminists as subjects of transitive clauses he portrays them as powerless and misled, rather than as agents responsible for their own fate.

The present paper utilizes the framework of Critical Discourse Analysis (CDA) and draws heavily on the insights of Fowler (1985), Simpson (1993), and Sykes (1985), all of whom employ a Hallidayan notion of transitivity as something much broader than the traditional notion that a verb can be either transitive (having a direct object complement) or intransitive (having no direct object complement). Rather, within CDA, transitivity is a relative concept which is applied to a clause rather than just to a verb.

Thus, rather than a clause simply being either transitive or intransitive, it can be judged as being highly transitive, somewhat transitive, relatively low in transitivity, etc. Clauses that are deemed to be very highly transitive will have three main characteristics: an animate subject, who deliberately performs an action, which affects a patient. The transitivity of the clause diminishes as one alters, obscures or removes any of these three criteria. For example, the following sentence could be judged as being highly transitive:

(1) James Smith stabbed the police officer four times.

It contains an animate subject, James Smith, who deliberately performed an action, stabbing (one stab might have been an accident, but four stabs is almost certainly deliberate), which affects the patient, the police officer.

Example (1) can be rendered less highly transitive by any number of different processes. For example, one could make the sentence passive, as in (2), shifting the agent from subject position into a prepositional phrase, or even deleting it as in (3). Both (2) and (3) give greater prominence to the patient, thus necessarily reducing the prominence of the agent (or deleting it entirely).

(2) The police officer was stabbed four times by James Smith.
(3) The police officer was stabbed four times.

Transitivity could also be lowered by describing the same incident using a different, less explicit verb, as in (4). The vagueness of the verb leaves open the possibility that the police officer was not seriously injured, as well as the possibility that the injury was inflicted accidentally.

(4) James Smith injured the police officer.

Yet another way to lower the transitivity of the sentence would be to obscure the patient, possibly calling into question whether there really was anyone affected.

(5) James Smith stabbed someone.
(6) James Smith waived around a knife while resisting police.

Examples (1) - (6) by no means exhaust all the ways in which transitivity can be utilized. They are merely illustrations of the notion that transitivity can be manipulated in a variety of ways to highlight or to obscure certain aspects of a situation or an event. Simpson (1993) formalizes the transitivity scale by characterizing it in terms of four types of processes, listed from highest to lowest levels of transitivity: material processes, verbalization processes, mental processes, and relational processes.

According to Simpson, material processes are processes of *doing*, characterized as consisting of ACTOR PROCESS (GOAL). Sentence (1) above would fall into this category, as shown in (7):

(7)	ACTOR	PROCESS	GOAL	
	James Smith	stabbed	the police officer	four times.

Verbalization processes, or processes of *saying*, consist of SAYER PROCESS VERBIAGE (TARGET), or SAYER PROCESS TARGET VERBIAGE. Processes of saying are observable, they involve no ACTOR and are thus less highly transitive than are material processes. Sentences (8), (9), (19) (from Simpson 1993:90) illustrate this type of process:

(8)	SAYER	PROCESS	VERBIAGE	
	He	said	that.	
(9)	SAYER	PROCESS	VERBIAGE	TARGET
	They	announced	the decision	to me.
(10)	SAYER	PROCESS	TARGET	VERBIAGE
	John	told	Mary	his life story.

Mental processes are processes of *sensing*. These are internalized processes, involving perception, reaction or cognition. As such, they are less transitive than either of the first two types of process which are at least observable. Mental processes require a SENSER PROCESS PHENOMENON (or CIRCUMSTANCE), as seen in the following examples (from Simpson 1993:91):

(11)	SENSER	PROCESS	PHENOMENON
	John	saw	Mary.
(12)	SENSER	PROCESS	PHENOMENON
	She	likes	Bach.
(13)	SENSER	PROCESS	PHENOMENON
	She	considered	the question.
(14)	SENSER	PROCESS	CIRCUMSTANCES
	I	thought hard.	

Simpson's final category involves relational processes, processes of *being*, which are categorized as intensive (15), possessive (16) and circumstantial (17) and which consist of CARRIER PROCESS ATTRIBUTE (Simpson 1993:92):

(15)	CARRIER	PROCESS	ATTRIBUTE
	Mary	is / seems	wise.

(16)	Gill	has / owns	a guitar.
(17)	Bill	is	at home.

By applying Simpson's taxonomy of processes to three chapters from Gairdner's *The War Against the Family*, we can describe how Gairdner attempts to discredit both feminists and homosexuals. Excerpts (18) - (29) are from Gairdner 1992, Chapter 11: "The Feminist Mistake: Women Against the Family", and Chapter 12: "Women at War: On the Military, Daycare, and Home Fronts".

(18) "Every age seems to have its peculiar intellectual cancers, and this chapter is meant to serve as a kind of anti-carcinogen. Like so many, I find myself increasingly surrounded by strident, petty, whining feminist arguments that have by now nibbled their way into every organ of our society... in order to achieve their objectives, modern radical feminists are increasingly relying on political, economic, and legal stratagems that in any other age would rightly, and without delay, have been labelled extremist, even totalitarian." (p. 296)

(19) "When studied carefully, it becomes increasingly obvious that their arguments, taken as a whole, amount to a virulent, cultish, man-hating, and family-hating program that threatens the fundamental health of our society, which is what it is intended to do." (p. 296)

(20) "Radical feminist views are by now so pervasive and illogical ... a cultlike belief system..." (p. 296-297)

(21) "The balance of this chapter will examine in detail some of radical feminism's interlocking, and embarrassingly contradictory, assumptions, which form a kind of architecture of ideology. From false foundations, the whole structure quickly tumbles." (p. 302)

(22) "But mainstream unrepentant radical feminists continue to wiggle inside their own logical confusion..." (p. 308)

(23) "Angry, narrow-minded feminists have been extremely influential, despite the blatantly ideological, political nature of their program and their shoddy science - not to mention their perverse values." (p. 312)

(24) "...small groups lobby vociferously for changes that will benefit them..." (p. 322)

(25) "... feminists have captured the media..." (p. 346)

(26) "From this perspective, the modern liberated woman is the muttonhead dupe of the State as it creates a cycles of deceptive compassion and dependency that in turn creates more power for the State." (p. 335)

(27) "We shall see that lesbianism is but the logical end-result of feminist autonomism, which, pushed further, leads to the glorification of masturbation as self-assertion and freedom from males, to self-insemination, and to single parenthood as the crowning liberty." (p. 301)

(28) "It is no simple coincidence that homosexuality is thriving in a time of sexual egalitarianism and feminism. The two go together like the two sides of a coin." (p. 318)

(29) "In short, 'polygyny produces homosexuality.' [quote from George Gilder, 1986, *Men and Marriage*, p. 77] It does this both by liberalizing the choices of strong males (thus destroying the equal apportionment of mates, leaving too many men with a poor choice of females), and by setting the female ethos against the male ethos (thus encouraging a man-hating culture of sexual resentment - and hordes of uncertain males who will turn to each other for sex, instead of to challenging females)." (p. 319)

Material processes are potentially the most highly transitive of the four types of processes, but (18) - (29) contain just 4 examples that might be said to represent material processes associated with feminists and even these examples represent lower levels of transitivity than might typically be associated with material processes. In (18), we get the process "nibbled", but there is no animate agent or actor, since the process is attributed not to actual feminists, but to the pseudo-agent "whining feminist arguments". Thus, it appears that it is the arguments, not the feminists, which are responsible, though ultimately the State is deemed responsible since it is purportedly responsible for informing feminism (see (26)). The second material process, "tumbles", is found in (21), but again, it is not feminists themselves that carry out any action, but feminism which metaphorically tumbles. Transitivity is once again minimized through the use of a pseudo-agent. In (22) "feminists" are finally made the subject of a material process verb, "wiggle", but as an intransitive verb, and one which is furthermore used figuratively to represent what is really a mental process, "wiggle" does not attribute to feminists an agency which is at all highly transitive. The final candidate for a material process is found in (25). As in (22), "feminists" is the subject, this time of a transitive verb, "have captured", but as in (22), the action is metaphorical not literal, so the level of transitivity is lower than it may at first appear.

Verbalization processes are second highest in transitivity after material processes, and there is only one example in this corpus in which feminists are portrayed as taking part in a verbalization process, in this case "lobby", in (24). Mental processes, deemed to be the second-lowest category in terms of transitivity are represented three times in the corpus. In (18), feminists are "relying on" [stratagems], in (19) they are the logical 'intenders' of the passive, "it is intended to do", neither giving any active agency to feminists. The situation in (29) is more complex, though no more highly transitive. In (29), "polygyny", as the purported goal and result of feminism, stands in for "feminism" and acts as antecedent for "It", the logical subject of "liberalizing", "setting ... against", and "encouraging". What is most interesting about (29) is that in it, Gairdner is effectively claiming that feminism causes homosexuality, but even in making such a strong claim, he obscures the transitivity, hence the agency, of feminists so that paradoxically, he ends up not holding them individually responsible.

The least highly transitive are the relational processes, which constitute fully half (8 of 16) of the processes attributed to feminists in this corpus. In (19), their arguments "amount to"; in (20) their views "are"; in (21) their assumptions "form"; in (23) they

"have been ... influential"; in (26) individually she "is"; in (27) lesbianism (for Gairdner virtually a synonym of feminism) "is"; in (28) homosexuality and feminism "go together"; and in (29) polygyny, standing in for feminism in much the same way as lesbianism does in Gairdner's prose, "produces" [homosexuality].

Taken together, these examples illustrate a pattern. Gairdner almost never places feminists as agents of highly transitive clauses, and even the material processes attributed to them are weakened through the use of pseudo-agents rather than real human agents, and through the use of verbs in their metaphorical rather than their literal senses. Paradoxically, considering how little overt agency is given to feminists, feminism is portrayed as being responsible for causing homosexuality. The key to unlocking this paradox lies in example (26), in which "... the modern liberated woman is the muttonhead dupe of the State..." According to this, feminists are merely the creation and the puppets of a State which is attempting through any and all means available to break down society in order to allow socialism to thrive. As such, they are devoid of power or agency of their own.

It is my contention that Gairdner does not want to ascribe power to feminists themselves and one way he accomplishes this is to associate them as often as possible with relational processes and to avoid portraying them as agents or actors in highly transitive clauses. Even without explicitly saying that feminists are "muttonhead dupes of the state", Gairdner's use of low transitivity leaves little doubt that he sees them as lacking the power to act independently in the world.

In contrast to feminists, who are given little agency but much responsibility for causing homosexuality among men, gays are often placed as agents of transitive clauses and especially as agents of violent acts. Taken together, this paints a picture of gay men as actively carrying out material processes, especially those resulting in real or perceived harm or injury. The excerpts in this section are all taken from Gairdner 1992, Chapter 13: "Radical Homosexuals vs. the Family."

(30) " [Canadian homosexuals'] increasingly strident platform..." (p. 357)

(31) "The issue is that homosexuals have broken the implicit pact of a conservative society, which has always been to tolerate unnatural private behaviour, but never to approve of it; nor allow it any public weight; and certainly never to force acceptance of it upon the citizens at large." (p. 357)

(32) "... homosexuals are intentionally attacking this pact..." (p. 357)

(33) " ... radical homosexuals want to destroy the natural family ... they clamour ..." (P. 361)

(34) "Thus, proponents of the activist group Queer Nation go public, feverishly chanting: 'We're Queer! We're Proud! We're Fabulous!' and threatening, like Toronto member Greg Pavelich, that 'we're not going to be good little boys and girls any more.'" (p. 369)

(36) "Young male homosexuals (14-21) commit suicide at two to three times the rate of heterosexuals [*Pediatrics*, June 1991]" (p. 375)

(37) "... a long and continuing homosexual campaign to alter the way the public thinks, by controlling the way it is allowed to speak and to read. (p. 377)

(38) "But what homosexuals wanted was a word that elevated their behaviour to an admirable status, and they achieved this by taking a perfectly good English word - now off-limits to normal people - and appropriating it for their specific use. (p. 377 - talking about the word "gay")

(39) "Once they have defined themselves anew by rejecting society's generic "homosexual" label and established the "dignity" of being "gay", the next choice was to position normal people as frightened, bigoted, and irrational. This was achieved by inventing the nonsensical but extremely effective word 'homophobic' and using it like a grenade to throw at anyone who dared to utter the slightest negative opinion." (p. 377)

(40) "But the major thrust of the homosexual movement in our society - and in this respect it is a movement of the liberal left - is to destroy all moral hierarchy so that homosexuals can escape criticism." (p. 378)

(41) "They needed to find a word which suggested that just as the magnetic forces of the earth pull the compass needle to North, something called "sexual orientation" directs homosexuals to indulge in the behaviours they enjoy as if they were a natural fact of life. Homosexuals have thus imported the notion of 'moral equivalence' into the 'orientation' dialogue, and even attempted to justify it scientifically..." (p. 379)

(42) "But as they are out in the open promoting their 'life-style' as good for your kids and mine, they've declared war against the family ..." (p. 387)

(43) "And whereas a normal couple may engage in some unnatural behaviour as a matter of a temporary detour or experiment, or in a fit of passion, or while intoxicated or using drugs, radical homosexuals choose such barren behaviours as a matter of routine and ideological preference." (p. 387)

(44) "... they perpetrate between one-third and one-half of all child molestations (Los Angeles Times survey, August 26, 1985), and ... homosexual teachers commit between 25 and 80 percent of all pupil molestations." (p. 388)

(45) "... likely to molest ... homosexually assaulted ... actively approached by adult homosexuals... perpetrators ... killed ... committed ... raped, killed, then raped them dead, and ate parts of 15 boys and young men ..." (p. 388-9)

(46) "Fully one-third admit to sado-masochism ... homosexuals frequently use whips and leather straps to tie up and beat, or 'punish,' their partners ... they enjoy violent pornography ... use ... are publicly beaten and 'sold' ... hurt, scratched, bruised and/or bloodied ... 'Gays hurt each other. They also hurt themselves.'" (p. 389)

(47) "... they seldom stop to disinfect and thus ingest fecal material ... licking ... inserting ... admit to eating ... rubbing themselves with feces ... ingest ... urinating on their partners ... defecating on them ... drank urine ... urinated on ... ate feces ... received sperm..." (p. 394-395)

Of the 47 predicates in (30) - (47) that I have assigned to the category of material processes, 8 represent metaphorical rather than literal actions: "... have broken the implicit pact ..." (31); "... are intentionally attacking this pact..." (32); "... to destroy the natural family..." (33); "... taking a perfectly good English word ..." (38); "... like a grenade to throw at ..." (39); "... to destroy all moral hierarchy ... can escape criticism ..." (40); "... have ... imported the notion ..." (41). The remaining material processes represent literal rather than figurative activities: "... homosexuals ... commit suicide ..." (36); "... indulge in the behaviours ..." (41); "... perpetrate ... child molestations ...homosexual teachers commit... pupil molestations ..." (44); "... likely to molest ... assaulted ... killed ... committed ... raped, killed,, then raped them dead ... ate ...' (45); "... use whips ... tie up ... beat ... 'punish' ... use ... are publicly beaten and 'sold' ... hurt, scratched, bruised ... bloodied ... hurt ... hurt ...' (46); "... seldom stop to disinfect ... ingest ... licking ... inserting ... eating ... rubbing ... ingest ... urinating on ... defecating on ... drank ... urinated on ... ate ... received sperm ...' (47). With the possible exception of the processes 'escape' and 'import', all these material processes, whether they are used literally or figuratively, convey violent or at the very least unhealthy (e.g. 'ingest fecal material') acts. This chapter paints a picture of homosexual men as violent and dangerous, a picture which is not altered by the disclaimer Gairdner makes near the beginning of chapter 13. "So this chapter is not about homosexual individuals who are minding their own business. Nor is it intended to hurt the feelings of otherwise proper homosexual citizens, many of whom are themselves extremely distraught by homosexual behaviour and the radical agenda" (p. 357). The import of this disclaimer is lost completely since throughout the chapter, Gairdner attributes actions simply to "homosexuals", effectively painting all homosexuals with the same brush.

Of the verbal processes attributed to homosexuals, several connote violence and aggression, as the following examples demonstrate: "... chanting ... threatening ..." (34); "... word 'homophobic' ... using it ..." (39); "... to justify it ..." (41); "... promoting ... declared war ..." (42); "... admit to sado-masochism ..." (46). The mental processes attributed to homosexuals are closely linked to the verbalization processes and tend to concern homosexuals' purported efforts to justify themselves and their actions and to convince other people to accept their views and actions. Thus we get: "... homosexuals want [to destroy] ..." (33); "to alter the way the public thinks ... controlling ..."(37); "... wanted ... a word ... appropriating it ...' (38); "... defined ... rejecting ... to position ... inventing ..." (39); "... needed to find a word ... enjoy ... attempted [to justify] ..." (41); "... choose ..." (43); "... enjoy ..." (46). The only relational process assigned to homosexuals is "they are out in the open" (42), but even that is linked to the verbalization processes "promoting their 'life-style'" and "declared war".

In excerpts (30) - (47), homosexuals are associated 47 times with material processes, many of which represent acts of violence (see esp. 44 - 47), 7 times with

verbalization processes, 14 times with mental processes, and only once with relational processes. Even without further analysis, the contrast between the types of processes attributed to gays and the types attributed to feminists (4 material, 1 verbalization, 3 mental, and 8 relational) is both striking and suggestive. Whereas feminists are almost always assigned roles low in transitivity (relational and mental processes), gays are most frequently assigned roles high in transitivity and are only assigned a relational process once.

The analysis of transitivity reported in this paper, preliminary as it is, reveals a striking difference in the degree of agency Gairdner assigns to homosexual men and the lack of agency he assigns to feminist women, the supposed puppets of a supposedly socialist State. While this grammatical analysis does not reveal information about Gairdner's views that in any way contradicts what he says directly in his book, it does demonstrate that he uses the grammatical properties of transitivity to reinforce his message. However, whereas a reader of this book may attempt to dispute or refute the overt statements made by Gairdner and may even do so with some skill, that reader may not be successful in fully discrediting Gairdner's views as long as Gairdner's subliminal message, the one conveyed through grammatical manipulation, is left unchallenged. Thus someone may question Gairdner's "facts", but even if Gairdner conceded that the actions he attributed to homosexuals were far from widespread, the readers would still be left with the inexplicable impression that gays were aggressive, violent and dangerous to children. Likewise, even if one got Gairdner to concede some point of principle that feminists advocate, the reader would still go away with the impression created by Gairdner through his use of low transitivity, that feminists are ineffectual and lacking the independent power to have a significant impact in the world. It takes a systematic analysis of the writer's linguistic choices to reveal how those impressions are communicated.

The present paper barely scratches the surface in its analysis of Gairdner's use of grammatical structures to reinforce the views that he is propagating, but it does illustrate the potential of this form of analysis for revealing significant ideological messages that lie below the level of most people's conscious awareness. Further research on Gairdner's grammatical and rhetorical choices will seek to demonstrate how his use of transitivity, modality, lexical choices and syntactic complexity work together to promote his right-wing, family values agenda, and to discredit any views which challenge his own.

NOTES

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AN ANALYSIS OF *JIANG* AND *BA* IN A HONG KONG CHINESE NEWSPAPER

Anthony Lister
University of New Brunswick

Jiang and *ba* are direct object markers when the direct object is in a pre-verbal position. *Ba* is used in Mandarin while it is replaced with *jiang* in Cantonese. In general, Cantonese is a spoken language and Mandarin is used by Cantonese speakers when they write their language. However, Cantonese *jiang* is often also used in the written language in Cantonese speaking areas.

The following sentence illustrates the use of the marker *jiang*:

Tamen zanshi *jiang* jihua gezhi
(lit. they temporarily *jiang* plan shelved)
'They temporarily shelved the plan.'

Here the direct object *jihua* 'plan'is transposed to a pre-verbal position. If the direct object followed the verb *gezhi* 'shelved' *jiang* would be dropped and the sentence would read:

Tamen zanshi gezhi jihua
lit. 'They temporarily shelved the plan.'

Any discussion of the direct object markers necessarily involves mentioning the question of word order in Chinese. Scholars are divided as to whether Chinese is a SVO or a SOV language. According to Zhong-Ying Lu (1995:100), "Whether the basic word order of current Chinese is SVO or SOV has long been discussed. Li and Thompson (1974, 1975), for example, consider it as SOV, while Huang (1982), Travis (1984), Sun and Givon (1985) as well as Lu (1991) argue that it is SVO." He also writes, "Assuming that SVO is the basic word order of the Chinese language--an order which is realized in the majority of Chinese sentences, we note that this basic word order has variants--derived forms where one or more elements move from the basic position to other positions." According to Richard Newnham (1971:91), "Western languages differ in the degree of their inflexion. Chinese, with no inflexions and 'grammatical case,' uses word-order--even the ordering of whole phrases--to make clear many of the situations which in other languages require inflexion. The normal order is subject-verb-object."

In fact Li and Thompson (1989) leave the question open as to whether Chinese is a SOV or a SVO language, but give three reasons why they find it difficult to classify the language in terms of word order. Firstly, they state (p. 19) that, "... the notion of subject is not a structurally well-defined one in the grammar of Mandarin." Thus (p. 16) "Nearly all English sentences must have a subject, and the subject is easy to identify in an English sentence, since it typically occurs right before the verb and the verb agrees with it in

number..... In Mandarin, on the other hand, the concept of topic appears to be quite crucial in explaining the structure of ordinary sentences in the language." Secondly, word order in Chinese is governed by meaning rather than strictly grammatical grounds as in French. Finally (p. 19), "... Mandarin is inconsistent with respect to the features that *correlate with* VO or OV order according to Greenberg's typological scheme." They conclude that languages can be categorized as VSO, SVO, SOV or one for which no basic word order can be determined and state that Mandarin falls into this last category. In fact they believe that the language may well be changing from a SVO order to a SOV order.

A cursory examination of modern written Chinese in newspaper reports would certainly lead one to opt for a SVO order. One of the main problems is que question of the verbs used passively, whether marked or not by *bei*. The 'subject' of such verbs is the logical object. However such constructions are not nearly as common as those where the logical object follows the verb. Moreover, even in English or French, word order can become complicated if one defines the object on logical as well as purely grammatical grounds.

The main difference in word order between English and Chinese is that all modifying phrases and clauses precede nouns. Thus the verb is often separated from the following object by a lengthy and complicated modifying clause, and the listener or reader often has to wait for the expected object noun at the end of the sentence in the same way as one has to wait for the verb at the end of a subordinate clause in German.

An additional factor which should be mentioned is that, while *jiang* and *ba* perform the grammatical function of marking a pre-verbal direct object, they are also verbs in their own right, *jiang* meaning 'to support; to take, to bring' and *ba* meaning 'to hold; to grasp.' Thus Tewsbury (1968:102) refers to the markers as co-verbs: "The co-verb *ba* serves to draw the object of the sentence up to just in front of the main verb, from which position it receives the action of that verb."

According to Li and Thompson (1989), the *ba* noun phrase is definite or generic and refers to something that has already been mentioned or that the hearer already knows about. However they qualify this by stating (p. 465), "Sometimes, however, the *ba* phrase need only to refer to something particular that the speaker has in mind but about which the hearer does not necessarily know." They add that such sentences are rare in actual speech. However when an object is indefinite, it cannot in general occur in a *ba* construction.

Since the *ba* phrase is the direct object of the verb, it follows that the verb has to be a transitive verb. Howwever, not all transitive verbs can be used with the *ba* construction. This is because the *ba* construction is what Wang Li (quoted by Li and Thompson p. 468) calls the "disposal" form and Li and Thompson describe the tern disposal as referring to "what *happens* to the direct object." Thus, they state that in general verbs of emotion, cognition, and perception are not used with *ba* since there is no idea of "disposal." Alleton (1973:121) writes, "*Ba* se construit avec la plupart des verbes

d'action (à l'exclusion des verbes d'existence et perception); il est incompatible avec les verbes de qualité."

Li and Thompson point out that while the usual pattern for *ba* sentences is S+*ba*+O+V another pattern also exists where there are two objects, one before the verb and the second after the verb: S+*ba*+O+V+O. In this case the direct object follows the verb and the pre-verbal object is related in some way to the direct object. They give several examples but one will suffice to illustrate this (1989:471):

> Wo ba *juzi* bo le *pi*
> I BA orange peel PFV skin
> 'I peeled the orange.'

A final point made by Newnham (1971:92) is that "a monosyllabic main verb cannot stand alone after *ba* plus object, but must have some other element" and Alleton expresses the same view (1973:121): "*ba* n'est pas suivi de verbes monosyllabiques simples (sauf à l'impératif); les constructions verbales complexes, la présence de modalités verbales (suffixes, termes limitatifs) ou de complément de degré entraînent souvent--mais pas nécessairement--une construction en *ba*." Li and Thompson (1989:489) explain this by suggesting that these elements "serve to elaborate the nature of disposal." They mention (1989:490) that in one study[1] of eighty-three *ba* sentences in colloquial essays, stories and speeches, 40 percent ended with a directional suffix, such as *xia* 'descend' or *qi-lai* 'come up' and 28 percent contained a directional phrase.

Concerning Cantonese *jiang*, Mathews and Yip write (1994:121-122) that it is a co-verb, and is "the nearest equivalent to the *ba* object construction in Mandarin." They state that unlike *ba* it may not be used with all transitive verbs, but is restricted to cases where motion is involved, and that "it is also applicable in metaphorical cases of movement or removal, such as exchanging places."

In this study of the use of *ba* and *jiang*, I examined all constructions containing these elements in 19 articles in three editions of the Hong Kong newspaper *Ming Pao* (May 30, June 6 and July 28, 1995). Only 38 examples were found, which indicates the relative infrequency of the construction, as compared with SVO sentences. There were 10 occurrences of *ba* and 28 of *jiang*.

There follow two sentences taken from the corpus which illustrate the use of *ba* and *jiang*. The first one is a simple construction of the type S+*ba*+O+V:

> Liang zei bing yong si wa *ba* shizhu shuang shou kunbang.
> (lit. two robbers also use silk stockings *ba* owner both hands tie up)
> 'The two robbers also used silk stockings to tie up the owner's hands.'

In this case the verb is in final position in the sentence and is dissyllabic.

In the next example, the object marker is *jiang* and the construction is more complex, though it is still of the type S+object marker+O+V:

> Zai ci weixian guantou, Meng jun de na yi ju, "bu yao si, bu yao zibei" jiang ta jihu shiluo le de shengcun yizhi zhong shihuilai.
> (lit. at this dangerous moment, Mencius Mr.'s that sentence, "not must die, not must feel inferior" *jiang* his almost lost existence will again brought back)
> 'At that critical moment, Mr. Mencius's sentence "you must not die, you must not feel yourself to be inferior" brought back again his will to exist which he had almost lost.'

In this sentence the subject is *Meng jun de na yi ju* 'Mr. Mencius's sentence', the verb is *shihuilai* 'brought back' and the object is *shengcun yizhi* 'will to exist'. In this case the pre-verbal object does not follow *jiang* directly but is separated from it by a modifying clause. This particular clause is quite brief but modifying clauses can be much longer and more complex.

In the above examples, the verbs are in final position. However, it is quite usual for the verb to be followed by a phrase or clause:

> Jingfang you quan zai lu mian dui jiashizhe zuo chuifeng ceshi, bing jiang huaiyi zuijiu jiashizhe zhuan wang yiyuan zuo jinyibu ceshi.
> (lit. police have power on road surface towards driver make blow air test, and *jiang* suspected drunk driver transfer to hospital do further test)
> 'The police have the power to do a breathalyzer test on a driver on the street and to transfer the suspected drunk driver to the hospital to make a further test.'

In this case, the verb *zhuan* 'to transfer' is followed by a locative phrase *wang yiyuan* 'to the hospital.'

In the corpus there was no occurrence of a monosyllabic verb in a *jiang* or *ba* sentence in final position. It is difficult to draw a clear dividing line between dissyllabic verbs and monosyllabic verbs followed by a suffix. If the latter are counted as dissyllabic then 20 of the 38 verbs were in final position and all were dissyllabic or polysyllabic. Of the other 18, 16 were followed by a preposition or a verb serving as a preposition and a noun phrase, the prepositions/verbs being *zhi* 'to, until' (6), *wang* 'towards' (2), *ru* 'to enter, into' (2), *wei* 'to become' (2), *ji* 'to reach, to' (1), *chu* 'to exit, from' (1), and *fan* 'to return, to' (1). 11 of the noun phrases were locatives, 4 contained dnumerical expressions and 2 contained a date. All but one of the 18 main verbs expressed physical or metaphorical movement. The fact that 29% of all the 38 main verbs were followed by a locative expression correlates closely with Goodall's study. However directional suffixes were far fewer than the 40% which occurred in Goodall's corpus. Only 5 of the 38 verbs ended in such suffixes, with 2 occurrences of *xia*, 2 of *lai*, and one of *qu*. This could probably be explained by the fact that Goodall's study concerned conversational

Chinese, while this research focussed on formal written Chinese. Concerning the 20 verbs which occurred in final position, only half expressed movement.

There occurred in the corpus two sentences which did not fit the normal patterns described earlier. In the first case, *ba* is followed by an indefinite noun modified by a noun phrase:

> Yisheng ba ta xiaotui de yi kuai rou qiexia, naqu huayan.
> (lit. doctors *ba* his shank's a piece flesh cut out, took away perform test)
> 'The doctors cut out a piece of flesh from his shank and took it away to test.'

Normally, *ba* is not used with an indefinite noun. The reason it occurs in this case can probably partly be explained by the fact that it does not follow *ba* directly. Furthermore, while the grammatical structure here is strictly speaking S+*ba* + modifier+O+V, it might also be possible to analyze the sentence as S+*ba*+O+O+V, since *ba* would be expected to govern the definite noun. Structures such as this, which would be considered loose and non-grammatical in English and French seem to be acceptable in Chinese, where sybntactic rules are less codified than in the major European languages. The structure here is probably related to the S+*ba*+O+V+O, mentioned above where there is a possessive relationship between the *ba* noun phrase and the direct object of the verb. Another feature of the sentence being examined is that the *ba* noun *yi kuai rou* 'a piece of flesh' is the direct object of three verbs, *qiexia* 'cut out', *naqu* 'take away' and *huayan* 'test.'

The second sentence in the corpus which may be at variance with the normal pattern is the following:

> Zhong Bao ni *jiang* dichan baoxian ye shangchang.
> (lit. China Insurance intends *jiang* property insurance business put on to market)
> 'China Insurance intends to put the property insurance business onto the market.'

In this sentence it would not be possible according to informants to delete *jiang* and transpose the object *dichan baoxian ye* 'property insurance business' to a post-verbal position. Normally the verb *shangchang* 'to put onto the market' is intransitive, while the verb in a *ba* sentence is normally transitive. However, Alleton, (1973:120-121) referring to two earlier articles states that the verb can be intransitive: "*Ba* qui introduit soit l'"objet" d'un verbe transitif, soit l'agent d'un verbe intransitif, est la marque de l'"inerte"", and she gives the following example:

> ba nei ge popo xinteng de hi nian Fo
> (*ba* - ce(la) - une - vieille femme - être chagriné - *de* - seulement - prier - Bouddha)

She writes: "D'après Lu Shuxiang, *ba* introduit dans ces cas-là une nuance causative. La traduction de cet example serait donc: 'on a tellement chagriné la vieille qu'elle ne fait plus que prier Bouddha'." Thompson and Li (1989) do not state explicitly that *ba* can be followed by a subject. However in a section in which they discuss "*ba* Sentences without a Subject," "subject" here referring to a preceding subject, they give some exammples (p. 480-481) in which the noun following *ba* is the subject of an intransitive verb. One such example, which is similar to that of Alleton quoted above, is as follows:

ba wo qi - si LE!
BA I angry - die PFV/CRS
'It made me so mad!'

It would appear in cases like this that *ba* is acting more like a verb, while in those cases where it is followed by an object, it has a more grammatical function.

A point which should be mentioned is that in Canonese, *jiang* which normally marks a pre-verbal object also serves as a marker for the future tense. When informants are asked to translate a *jiang* object marker sentence into English, they sometimes use a future tense. It is unlikely but possible that there could at times be interference between the two completely different uses of *jiang*. Another interesting point it that most informants who knew English grammar well but had not formally studied Chinese grammar or linguistics, found it difficult to translate *jiang* sentences, even very simple ones, into English. This is because they searched for an English verbal equivalent of what is a verb in Cantonese. One thought, for example, that it might be translated by the continuous present tense in English.

In conclusion, the *jiang* and *ba* sentences which occurred in the corpus generally speaking conformed to normal pattern of S+*ba*+O+V and S+*ba*+O+V+O. However, the structure of one sentence containing an unusual indefinite object was unclear and an argument could be made for a S+*ba*+O(1)+O(2)+V pattern. In the second case the object following *ba* could not be transposed to a post-verbal position, which is normally possible. The *ba* sentences were generally longer and more complex thatn the examples quoted in the reference works, and the grammatical structure was not always clear. For this article I did not examine the unmarked SOV construction, though it does exist. Zong-Ying Lu writes (1995:101), "In Chinese, an object can usually either be preposed to the medial position between the subject and the verb or be topicalized to the initial position of the sentence." A comprehensive study of *ba* and *jiang* should probably take the non-marked forms into account. It would be particularly interesting to know if the marked forms are becoming more frequent, in view of the general trend towards increased formal grammatical marking in Chinese.

I wish to thank Henry Chong and Shirley Leung for their advice and comments concerning the meaning of various items in the corpus.

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[1] This unpublished study was carried out by Grant Goodall.

TOPICALIZATION: A MARKED PARAMETRIC OPTION

Virginia Motapanyane
University of New Brunswick - Saint John

This paper examines clefts, as in (1a), and focus topicalization constructions, as in (1b), and argues that they have different underlying structures. On the one hand, this claim contradicts standard analyses (Chomsky 1977) which assign (1a, b) a similar structural configuration. On the other hand, acknowledging different underlying structures for (1a, b) leads to broader theoretical implications for the parametric options in English focus constructions.

(1) a. It is A BOOK (that) he wants (not a cassette).
b. THIS BOOK I would give away (not that one).

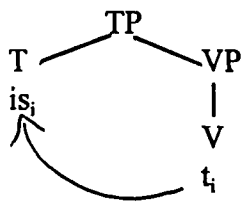
1. Theoretical background

The present analysis uses the concepts of the Minimalist Program (Chomsky 1995), especially, checking theory and morphological parameters. An overview of the latter concepts follows for convenience.

1.1. *Checking theory.* Morphological properties of lexical and functional categories must be licensed in syntax through feature checking (an operation through which those features are recognized by the mental computational system as belonging to the grammar). Feature checking is implemented through movement of constituents, according to two patterns:

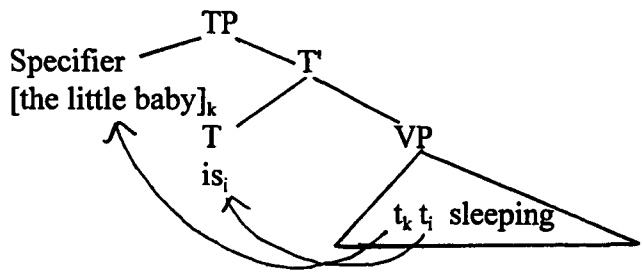
(i) head-to-head movement, when a bare category moves and merges with another bare category, as in (2). In (2), the auxiliary verb moves to the functional head T(ense) to check the [tense/agreement] features.

(2)



(ii) Specifier-head relation, when a phrasal constituent moves to a left position locally related to a head, as in (3). In (3), the noun phrase (NP) *the little baby* checks the nominal predicative feature of T (also known as [EPP]), as well as its Nominative [case] feature.

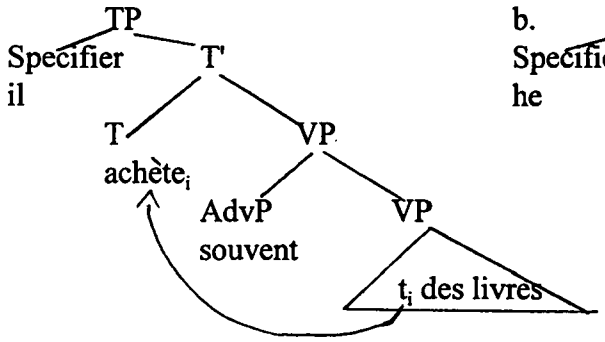
(3)



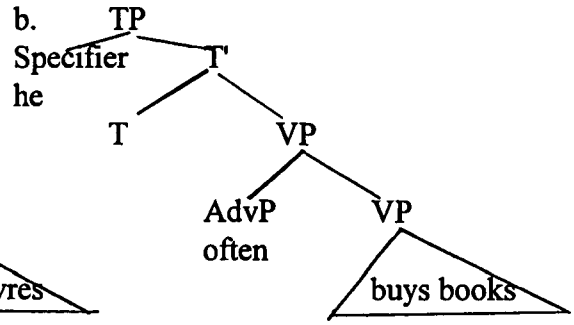
Therefore, a functional head like T has a set of features ([tense/agreement], [case], [EPP] which must be checked by constituents which move either to the head T or to its Specifier.

1.2. *Morphological parameters.* All languages have similar computational systems, that is, syntactic structures arise in the same way in all the languages. Variation occurs at the level of morphological features, specified on lexical or functional categories before they enter the syntax (at a level of the lexicon). In particular, one morphological feature may be strong or weak in a given language, which further constrains the checking operation: a strong feature is checked through overt movement, whereas a weak feature is checked more economically, through covert (or logical form) movement. For example, T in French has a strong [verb] feature, and attracts overt movement of the verb, across the location for adverbs like *souvent* 'often'. Conversely, T in English has a weak [verb] feature, and implements the movement in logical form, so that the physical location of the verb is lower than the location of adverbs like *often*. Hence, the variation of word order in (4), where verbs precede the adverb in French (4a) and follow it in English (4b).

(4) a.



b.



Along these lines, variation in the strategy for fronting to focus as in (1a) versus (1b) must also be morphologically driven, at a pre-syntactic level, to be determined.

2. Analysis

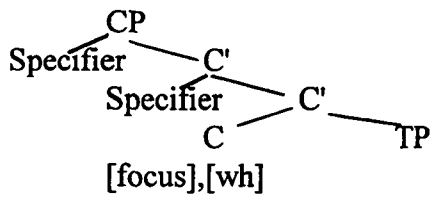
English focus constructions may display focus "in situ", as in (5a), or in a clause initial position, as in (1a, b).

(5) a. He wants A BOOK (not a cassette).
b. I would give away THAT BOOK (not this one).

Focus "in situ" maintains the constituents with focus stress in their basic position, as opposed to fronting, as in (1a, b), which moves the constituents to a preverbal position. Current studies (e.g., Drubig 1992, Rochemont and Culicover 1990) show that constituents in (5) also move to a clause initial position with scope over the sentence, but they do so in the logical form (covertly), not in overt syntax. The minimalist theory of grammar predicts that movement in logical form creates similar configurations crosslinguistically, whereas variation occurs only when the movement is overt. So, it is expected that (5a) has the same structure as (5b), whereas it is not obvious that (1a) has the same structure as (1b). Several facts of word order will prove that the latter rely on different configurations.

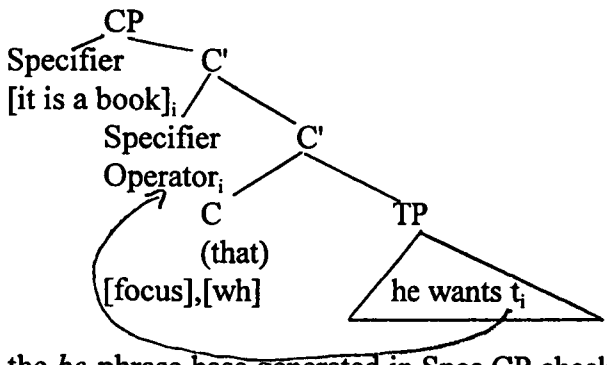
2.1. *Previous analyses.* Let us start with an analysis of clefting in (1a). First, (1a) involves a clause structure that goes beyond the inflectional level. That is, the TP structure in (2) and (3) projects to a higher level, of Complementizer (C). Complementizers are functional categories which set the interpretive features for the clause (e.g., whether it is a question, an exclamation, hypothetical etc.). In English, root C, as in (1a), carries a quantificational feature, [wh], which marks it as compatible with constituents that have semantic scope bearing properties (e.g., *who, which, everyone, nothing*). Other features may associate with the same head C, under specific conditions. In focus constructions, as in (1a), the [focus] feature optionally associates with [wh] in C. Hence, C in (1a) carries two strong features, which need overt checking, to be implemented by constituents moved to Specifier positions, as in (6):

(6)



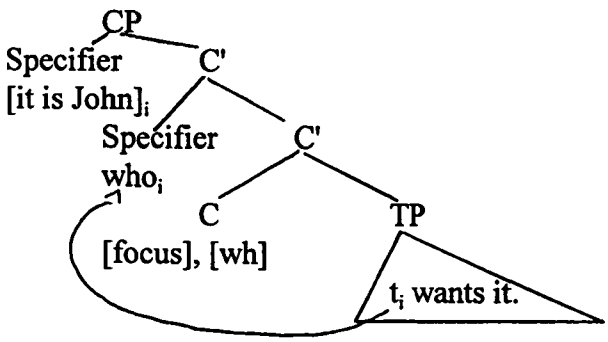
Along this line, the representation of (1a) is (7a)

(7) a.



In (7a) the *be*-phrase base generated in Spec,CP checks the [focus] feature of C and it is coindexed with an abstract wh-element, called the Null Operator. The Operator checks the [wh] feature of C and binds the variable trace of the focused object in the predicative domain. The Operator may also be lexical, as in (7b):

(7) b.



The analysis of fronting to focus through clefting proposed in (7a, b) follows the general lines in Chomsky (1977), with a few adjustments to the minimalist framework. A more

radical departure from Chomsky (1977) concerns the topicalization structures, as in (1b).

Let us consider (1b) in the light of the analysis in (7). If (1a) and (1b) have the same underlying structure, why is (1b) deleting the *be*-phrase? In Chomsky (1977), absence of *be*-phrase in topicalization follows because the topicalized constituent moves to Spec,CP, instead of being base generated in that position. However, this argument leads to further problems. First, it wrongly predicts that a *be*-phrase freely alternates with topicalization, as in (8).

(8) a. It was ON VACATION that I went there (not to work).
b. *?ON VACATION I went there (not to work).

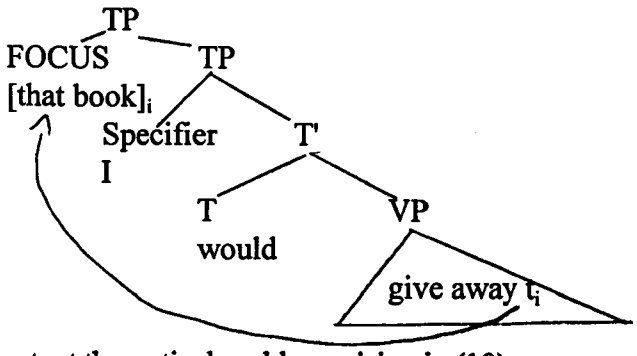
Second, movement of a constituent to Spec,CP in English entails movement of the verb to C, inducing subject verb inversion as in (9a), where the movement is triggered by the [negative] features. Or subject verb inversion is excluded in topicalization, as shown in (9b).

(9) a. [No book of mine] would I give away.
b. *THAT BOOK would I give away (not this one).

The contrast in (8) indicates that a non-movement analysis of topicalization excludes a configuration like (7), since it cannot freely alternate with *be*-phrases in Spec,CP. Then the contrast in (9) excludes a movement analysis to CP for topicalization, since it does not display the accompanying effects.

Rochemont (1986) proposed an alternative analysis for topicalization structures as in (1b), where the constituent is moved and adjoined to an inflectional clause structure (IP), which corresponds to TP, as in (2) and (3) in our model. So (1b) would have the configuration in (10), in which the constituent adjoins to TP, an operation which is distinct from landing into a Specifier.

(10)



An important theoretical problem arising in (10) concerns the prediction on what may move to that adjunct position. In principle, any constituent may move and adjoin to a maximal projection. However, in topicalization structures only nominal constituents (NP) may undergo this operation, whereas other types of constituents lead to various degrees of ungrammaticality, as in (11):

(11) a. *?TO THE BEST SCHOOL I sent him last year.
b. *?REGULARLY he plays bingo.

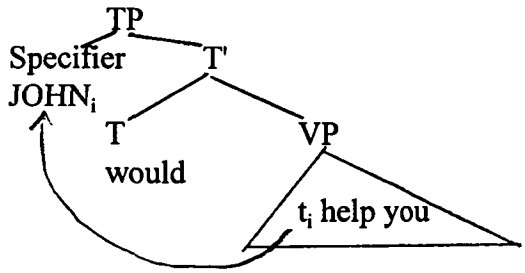
Rochemont's (1986) analysis cannot account for the contrast of grammaticality between

(1b) and (11).

2.2. *A multiple Spec,TP analysis.* The present analysis relies on the theoretical assumption that variation, such as (1a) versus (1b) in focus constructions, must occur in the morpho-lexical level preceding syntax. In particular, the [focus] feature must have properties which assigns it either to C or to T in syntax. Thus, in (1a), corresponding to (7a, b), [focus] associates with [wh] in C, and leads to focus through clefting. Conversely, in (1b) [focus] associates with [tense] in T, and leads to a different strategy for overt movement to focus. In these configurations, T has the following set of features, which must be checked in syntax: [focus],[case],[EPP], [tense/V],[agreement]. [Tense/V] features are weak in English and attract only auxiliaries in overt syntax. The other features may be checked by one or more constituents. For example, in (12a) one constituent may check all the remaining features, as in (12b).

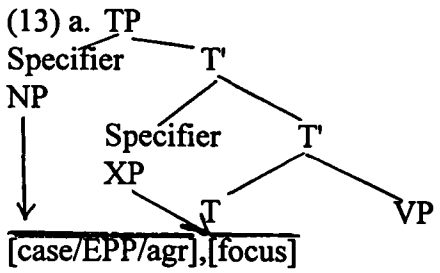
(12) a. JOHN would help you (not Helen).

(12) b.

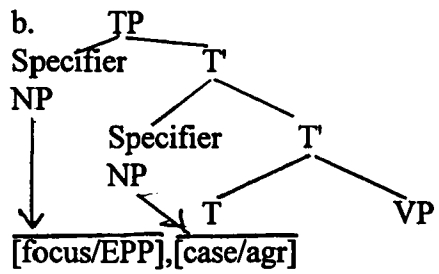


However, in (1b) the focus falls on a constituent that is different from the subject. So two constituents are needed to check on T, and both must be in a Specifier-head relation to T. This structural relation can be obtained in two ways, as shown in (13). In (13a) the constituent in the highest Spec,TP is the subject, and it checks the [case], [EPP] and [agr] features of T. The second highest Spec,TP receives the focused constituents, which checks the [focus] feature of T. In (13b), the focused constituent occupies the highest Spec,TP, and checks the [focus] and the [EPP] feature. The subject, in second highest Spec,TP, checks the remaining nominal features of T, that is, [case] and [agr]. In both (13a) and (13b), an auxiliary or lexical verb may further check the [tense/V] features of T, through head-to-head movement, as in (2) and (3).

(13) a.



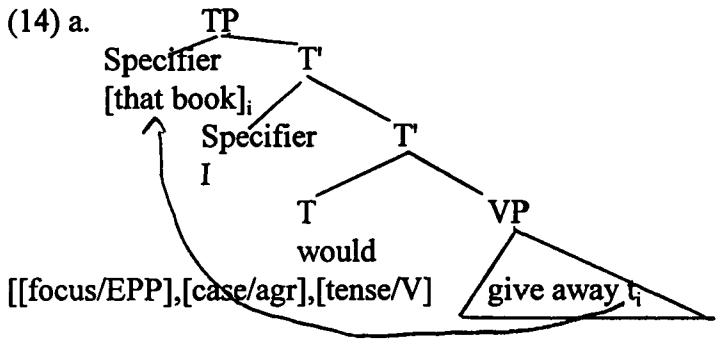
b.



The remarkable property of both (13a) and (13b) is that the [EPP] features must be checked from the highest Spec,TP. Furthermore, in English (and many other languages) only nominal constituents (NP) may implement this function.

Restrictions on word order indicate that English opted for the configuration in (13b), so (1b) has the representation in (14a):

(14) a.



Why does English opt for (13b) over (13a)? In other words, why is (14b) excluded in English?

(14) b. *I THAT BOOK would give away (not this one).

The answer comes from the interaction between movement to focus with certain language internal properties.

In (13) the Specifier positions are equidistant to the head T, so they should freely reverse their hierarchical order, and display either focus or subject first. However, reversal of the hierarchical order interferes with the checking requirements on T, in particular, the [EPP], as mentioned above. Since [EPP] constrains the class of constituents in the highest Spec,TP to nominals, sentences as in (11) are excluded because their topicalized constituents which land in the highest Spec,TP belong to lexical classes that are unable to check the [EPP].

On the other hand, if the highest Spec,TP hosts the NP subject, as in (13a), then the second Spec,TP is unrestricted with respect to the type of constituents, as long as they can check the [focus] feature of T. In fact, this option, which equates (14b), is implemented in Balkan languages, as illustrated in (15) for Romanian:

(15) Ion [CU TINE] va pleca (nu cu Elena).
John with you will leave not with Helen
'It is with you that John will leave not with Helen.'

The difference between Balkan languages and English lies not in the mechanism for focus movement, but in the properties of Spec,TP as focus position with sentential scope. In English syntax, scope positions are realized as a certain type of Specifiers, which host operator-like elements (or wh-elements), and head operator-variable chains. We had one such example in (7), where the second Spec,CP is a position for operators (either abstract or lexical), and the element in this position binds the variable left behind by the focused constituent in the predicative domain. A similar Specifier must be in place in a TP which licenses a location for focus, as in (13). Fronting to focus within TP, in (13), involves movement, as opposed to base generation, as in (7). In movement structures, the Specifier compatible with operators must be the highest in the configuration, as in (13b), to have sentential scope. If the Specifier for focus is second in the configuration, as in (13a), it does not qualify as a position for operators, unless it is specifically licensed as such. This

difference in the status of Specifiers targeted by focus and wh-movement is further reflected in the type of chains created by the respective operation. In English it creates obligatory operator variable chains, while in Balkan languages,the same operation creates pronominal chains, as in (16).

(16) a. THIS BOOK$_i$ John would give away t_i (not that one).// NP$_i$ ..... t_i

b. Ion CARTEA ACEASTA$_i$ o$_i$ poate dona t_i (nu pe aceea.)//NP$_i$.....pro$_i$ .....t_i
John book-the this it can donate not on-that

In other words, English focus movement must always create operator-variable chains, and this forces the choice of (13b), whereas focus movement in Balkan creates pronominal chains, that may end in a Spec,TP with non-operator properties, such as available in (13a). Therefore, when it comes to fronting to focus within TP (as in topicalization), the properties of the wh-movement and the properties of the Specifier it targets interact with the checking conditions on the [focus] feature in T, and determine the choice a language has between the configurations (13a) and (13b).

To conclude this paper, [focus] in English may associate either with C (which leads to clefting as in 1a), or with T (which leads to topicalization as in 1b). Economy considerations on local derivation indicate that association of [focus] with T (as in 1b/13b) is the less costly option, since it spares a CP projection. However, since (13b) is highly restrictive with respect to what can be focused, the more costly option is adopted in English, that is, the projection of C, in which the [focus] feature is merged. Thus, clefting is the most spread strategy for fronting to focus in English, whereas topicalization occurs as a marked option.

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DIALECT DIVERSITY AND DIALECT ORIGINS IN NAUTICAL AND AVIATION SLANG

Lewis J. Poteet
Concordia University

Whitman said English is not "an abstract construction of dictionary-makers, but is something arising out of the work, needs, ties, joys, affections, tastes of long generations of humanity, and has its basis broad and low, close to the ground."

But what of the argots of boats and airplanes, which leave the firm ground and cross water and air spaces? Particularly because they move from place to place, port to port, culture to culture, they must bridge different speech and language communities. One effect would be to consolidate their own private word-stock. But they may be expected to show diversity, as well, from the need to name new experiences, and to meet halfway other lingos they encounter.

Some general patterns may also be seen in their diverse origins--and here the special difficulties, of naming the perception of confusion and indeterminacy in these encounters, are handled by words derived from some origins which--say, religion--are land-based but were useful to the captain or pilot. From his lofty perspective, the leader of the speech community had to find a resolution that would be truthful, forceful, and clear. Lives were at stake. The slangs tell the story.

For obvious reasons, English railway and car/motorcycle slang are lexically very different in England and North America. Aviation slang, fueled by the WWII Allied effort, the postwar boom in global air travel, and the still-increasing interdependence ("risk-sharing") of aircraft manufacturers, may be expected to be more uniform. Especially after 1945, it is. Nautical slangs, however, old words for old ways that at slower pace made global travel possible much earlier than any other technology, employ a core of terms with wide provenance, but also exhibit some surprising regional differences. Economic, imperial, and even religious factors may explain this diversity. Like all slangs, nautical and av-chat have their origins in the history and experience of speakers, but an additional peculiarity arises from their common roots in feeling (exhilaration, fear) and a related perceptual problem about the nature of the physical world, its weather and topography. Additionally, these two related slangs are synergistic, exhibiting the creation of new terms derived from or by analogy with the related slang.

Jean Pierson, president of Aerospatiale, has said that the language of aviation is English. A high-risk industry, its imperative need for clear communication is compounded by the modern practice, now almost universal in aircraft manufacturing, of risk-sharing, whereby different parts of an aircraft are made by different manufacturers in different countries and on different continents. Pierson noted that the same set of English

words may be taken by the Germans as, in their view, empty of clear instruction, not forceful enough, and by the Spanish and Italians as "being too hard on us."

But even before the first famous word-book of aviation, Eric Partridge's 1945 *Dictionary of RAF Slang*, a cluster of technical but widely used words having to do with the engineering of the machine is derived from French: "aileron" (named by French airman Maurice Farman in about 1910, in the presence of an early American flyer named McCurdy, at Coney Island race track); "fuselage;" "canard" (French for "duck," because the forward winglets 'make the plane look like a duck in flight," though it should be noted that on the Mirage fighter, they are known to the French as "moustaches"); "empennage" (tail assembly, rudder, and horizontal stabilizers); "barbette" ("an external pod, a cylinder of armour, containing and protecting weaponry such as a machine gun or a cannon, usually mounted underwing or in the tail of a warbird"--a word which derives from the French for a "mound of earth or a protected platform from which guns fire over a parapet," and thence named "barbette," which means "little beard"); "nacelle" (protective casing of an aircraft engine); "pitot tube" (a wind speedometer device to measure flow of air, named for 18th century French physicist Henri Pitot); and "chandelle" (an abrupt climbing turn.) All these terms, originally from French, became standard technical names for parts and manoeuvres throughout the aviation world. Partridge, collecting slang, ignores them, and records only two words of French provenance, "recce," from "reconnaissance," and, most amusing, "peelo," spelled p e e l o, a deliberate English airmen's mocking pronunciation of the French word they and everyone else adopted from naval slang to name the driver. It was originally, in "obsolete French," "helmsman."

Partridge is alert to some of the diverse origins of his slang. He identifies as American such phrases as "give her the gun," meaning "to accelerate"; "Hoovering," for "making a clean fighter sweep"; and "gat," for a revolver or machine gun. He correctly finds "pukka" in "pukka gen," meaning "good information," Hindi in origin, as in "pukka sahib." He credits Canadians with "hop the twig," "to crash fatally," and, reflecting the massive pilot training operations in Canada, "snargasher" for "training aircraft," explaining that it was a corruption of "tarmac smasher," because student pilots tend to make lots of clumsy landings.

Of course Partridge, not native-born but of British stock, seems fondest of lexical items of British origin. "Duff," meaning "unserviceable, worthless, inferior," he attributes to underworld slang; it is originally from "dough," as in "plum duff."[1] "Gone for six," meaning "dead," is, he says, from cricket; "Orkneyitis," also known as "Scapathy," he calls "a depression arising from long being stationed in the Orkneys, and "Scapathy" is a neologism coined from the Scapa Flow, a sheltered area of water in the Orkneys, off Northern Scotland, where naval bases functioned in both World Wars. Surely a native English wit dubbed the Heinkel, Messerschmidt, and Junkers German aircraft "he, me,

[1]Duff-dough as in Arthur Hugh Clew-Clough-Cluff, the Victorian Poet.

and you." His explanation of "gone for a Burton," meaning "absent, because dead" identifies only the Burton-on-Trent ale as source; a story he does not tell traces the phrase to Blackpool, where riggers, mechanics and gunners were trained at a base that had no Guard Room or "glasshouse," so offenders were held in a room above a tailor shop, "Messrs. Burtons - the Fifty Bob Tailors." Thus to those stationed at Blackpool, "gone for a Burton" originally meant "thrown in the clink," but was later expanded to apply to a missing squadron mate. This alternative account comes from Bill *Hooper's Pilot Officer Prune's Picture Parade*, a wartime publication from His Majesty's Stationery Office designed to reinforce and make memorable the simplest rules of wise and safe flying by casting them in cartoon form and using a typical, slightly spacey student pilot character, "the doyen of all flying fools", with text by Anthony Armstrong. In fact, these publications were known as "training manuals," or "Tee Emm," cartoons for the poor young boys who were risking their lives, hardly prepared. Whether to give more credence to the official creator of instructive fictions or to the flyer who explicitly set out to collect the slang, I do not know. (There is also a report of some Burton beer ads which featured an empty chair, though I suspect here that advertising is following slang, cynically and manipulatively sentimental, not the other way around). Certainly Partridge is on solid ground in explaining that an "erk" (meaning "aircraftsman," was so named because of the Liverpool accent; it rhymes with "perk," and Canadian WWII flying crew have confirmed his explanation.

Because of the Allied joint air effort, several aviation slangs cross-fertilized each other in the years 1942-1945. Thus Berry and van den Bark's *1947 American Thesaurus of Slang* includes among its aviation words such British coinages as "Wraf" (member of the Women's Royal Air Force), "silk bloomer" (a parachutist), and even "les Rafes" ("French term for the Royal Air Force") alongside such obvious Americanisms as "Kansas" (any good flying country--flat, open fields"), "go Lindbergh" ("apply oneself to flying in the Lindbergh manner"), and "Lindying." Woodford Agee Heflin's *1956 United States Air Force Dictionary* lists "Boston" as a "British designation for the A-20" alongside "Coronado" (a popular name for the PB2Y Navy four-engine flying boat built by Consolidated and used in WWII for patrol, ambulance, and transport service). The most comprehensive attempt at an aviation dictionary until my own, Fred Hamann's 1946 *Air Words* lists both "erk" and "barbwire cluster," which is explained as "a cluster for a purple shaft," the latter designating "hard luck," visually and metaphorically a sarcastic medal for the "royal screw."

With the relative American dominance of aircraft manufacturing, commercial air travel, and military aviation after 1945, culminating in the first undisputed military victory attributable to air power, the Gulf War, it is no surprise that the glossary of new words arising to attention from that war is large (thirty pages in John Algeo's "Among the New Words" column in *American Speech*, followed by a supplement), and heavily coloured with American macho ("shit-hots," "buff" [the B-52 heavy bomber, or Big Ugly Fat Fucker], "scud buster," "Saddamize," and my personal favorite, "golden BB"

["Soviet-originated Iraqi defensive doctrine that if a large number of projectiles are shot into the sky, some will hit a target."]. Even the pidgin Australasian word for a jet aircraft, "boing," comes from the name of the leading American manufacturer of 'planes. Any student of this slang notices the vast increase in the number of acronyms in the last forty years, a hateful habit surely attributable to the Americans more than to anyone else. Gulf War slang is "crass," says one of Algeo's informants: Cryptic References, Acronyms, Slang, and Shorthand.

The flashy American aviation slang (it even offers a short word to describe the lingo -- "av-chat") makes RAF slang seem outdated. For anyone with an eye askance at American patriotic hype, perhaps it is a case of bad communications corrupting good manners, though of course to a linguist, there are no "evil words," and manners are best left to the freshman composition teacher.

But what may we say about nautical slang, particularly in juxtaposition with 20th-century top-gun talk? Boats are older than the Phoenicians, constructed everywhere, and used to go places aircraft never could go until helicopters were invented. I will not try to go back beyond the eighteenth century; thus it is reasonable to notice that British naval power dominated the world's seas at least after Napoleon's defeat by Wellington, and a case could be made for its earlier predominance, in the voyages of Raleigh, English privateers, and the little boats that defeated the Spanish Armada.

Here, too, British names for boat parts and practices, proverbs and rules of thumb, spread widely and lasted long. When on my first visit to Belize, the former British Honduras, I found a small paperback collection of Belizean proverbs[2] collected and explicated by Colville Young, then president of the University College of Belize and now Governor-General, I was so surprised and pleased to see among them virtually identical or closely analogous items to those I had included in *my South Shore Phrase Book: A Nova Scotia Dictionary* that I opened a long-lasting exchange with him. Both Belize and Nova Scotia were, of course, British colonies, administered by men who came by ship and were culturally proud of their British heritage.

The imperial legacy in language is a rich one among boat people. Rum is known to many non-sailing drinkers as "Nelson's Blood," from the tradition that his body was preserved in "grog," this other name for the liquor deriving from another Admiral, Sir Edward Vernon, who was nicknamed "Old Grog" because he wore a cloak made of grogham, a coarse cloth, and was in command in 1740, when the daily rum ration was introduced to the Royal Navy. A "cobbing," a word current only in Nova Scotia's old speech to mean "a beating," is an old British Navy term for a ritual punishment in the bad old days. "Bilboes" were "heavy iron bars fixed to the deck just abaft the mainmast, to which were attached iron shackles, used for confining prisoners." Named for Bilbao, the

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[2]Young, Colville N. *Creole Proverbs of Belize.* Belize City: National Printers, 1980.

Bay of Biscay port from which the Spanish Armada sailed, they were first used to confine English prisoners.

Old English feuds are memorialized in the dialect: an "Irish pennant" is very like a "Judas," a rope flying loose in the breeze when it should be tied down. "Dutch-built" was a term of derision among English sailors because the boats built in Holland were slab-sided, their extreme verticality preventing the "tumblehome" curving design of better ships, which gave them an increased wetted surface and thus higher potential boat-hull speed in the water. (I am indebted to Chris Beckett, once owner and sailor of a schooner and now a voyager from Mount Saint Vincent on the seas of distance education, for much of this material; he is yet another of those Limeys who crossed over to the New World and stayed here).

A Nova Scotia, though not exclusively, small-boat term, is "catching crabs," an insulting way of saying that your rower isn't very skilled, dipping the oars too far into the water, and can be very precisely defined as "getting an oar blade caught in the water with its forward edge lower than its after edge, so that the movement of the boat jams the oar in the rowlock." The point about "splicing the mainbrace" is that it is rarely or ever spliced; and the time to have that first drink is not when the sun is "over the yardarm," a time often marked as about four or five o'clock in the afternoon; but the phrase is rather "sun over the foreyard," meaning that, at eight bells in the forenoon watch, the officers could bend the elbow! "Rum, sodomy, and the lash" are old British naval customs, older than Oscar Wilde or Singapore.

Another pattern in boat talk which emerges from a study of books *like Nautical Terms Under Sail* (1978) is that a startling number of lexical items come in one way or another from religion. A "Jonah" (British form "Jonas") is a person whose presence on board is thought likely to bring misfortune to the voyage. The eponymous term is derived from the Biblical story of the man who, cursed for disobeying God's command to preach in the sinful city of Ninevah, had to be tossed overboard at sea, was swallowed by a whale, and so forth. In Nova Scotia, where terms from the sea come ashore like kiacks or caplin, "Jonah" is what my old Dodge van was called by a body-shop man, not a "lemon," but a "Joner."

A "Judas" to a sailor, though, is not a person but "any rope hanging down unfastened and so subject to buffeting by the wind." Other terms that have clear Biblical origins are the "Samson post," to which cables may be attached; the "tabernacle," a name for an enclosure around the foot of the mast; a "Noah's Ark" a "marshman's or wildfowler's hut built on the hull of an old fishing smack or ship's lifeboat;" "the bow pulpit," an elevated safety railing at the front of the boat, named long before Melville's *Moby Dick* fused sea-going and preaching memorably forever.

Even the "holystone," [pron. "holly-ston"] a white soft sandstone used to scrub the wooden decks, is clearly named from religion, though whether it derives from reverence or scoffing is debatable. One story has it that it is so called because the decks would be

"stoned" for Divine Service on Sunday. Another traces it to the source of the stones, St. Nicholas' Church, Great Yarmouth. But as the stones are porous, they are also "hol-ey"! And their nicknames are most revealing: ecclesiastical bricks, or hand Bibles. (Wilfred Granville, *Sea Slang of the Twentieth Century*, New York, 1950).

Why this connection between religion and those who go down to the sea in ships? Is it the natural reverence the sea inspires? I think it more likely that there were a lot of Quaker and other fundamentalist Christian captains with every reason to try to keep order at sea by more means than the traditional "rum, sodomy, and the lash." Also, the high point of activity among sailing ships was the nineteenth century, the clipper ship era, when Puritanism, always a force in England since Cromwell, grew robust, fed by the Victorian middle class desire for order in the face of bewildering moral anarchy and a diverse, changing world. Many Nova Scotia ships were skippered by men with names like Nehemiah, Obadiah, and Obed.[3]

Naturally not all boat talk is either British or Puritan/Quaker. Some may be traced to specific places, especially busy seaports. Though it does not appear in my *South Shore Phrase Book*, a "Liverpool steak" is, I've confirmed, a cured, dried haddock, as is an "Aberdeen cutlet," and by analogy but from elsewhere, PEI's "Rustico steak," in this case denoting herring.[4] "Patrick's pot," eponymic for the Saint, is clearly from Newfoundland and Ireland, meaning "a windfall," "someone buying you a drink," and in a contrary sense. "Patrick's batch" or "Patrick's broom" for "the surprise weather around 18 March {St. Patrick's Day plus one]," according to the DNE. "Scuttle," which dates from 1497 according to the OED with the sense "a hole or circular port cut in the ship's side..." is listed in Wilfred Granville's *Sea Slang of the Twentieth Century* as "technical" and "Navy"; in Australian boat talk it is apparently universally applied to what almost everyone else knows as a "port-hole." A "browl" is Australian for "gangway"; it does not appear in Granville's 20th century word-book, nor in my edition of the OED.

Much work remains to be done to take the often incomplete descriptions of some fascinating boat talk in books like Granville's and try to complete them. Why does he list "Jacksoned" as "foiled, baffled, disconcerted"? Why is "black coffee" called "jamoke"? If "the red rag" was "the pennant flying during meals," was this aboard all ships, or only

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[3]Another of my sailing informants, Bill Carpenter, occasional Dean of the College of the Atlantic in Bar Harbor, ME, a sailor, and I must say, a poet and writer of fiction, once wrote me that "pitchpole," the upending of the boat in heavy seas stern over bow, had originally been "bitchpole," a word, I hasten to say, I have not found in any of my word-books, and "referring to the penis or particularly as a verb referring to a sharp upward thrust of the above member in the way a boat will dive forward and catch its bow in an oncoming sea. Viz. 'I put the bitch-pole to her' or 'I bitch-poled her.'" Carpenter attributed the change in the initial consonant to "the cleansing influence of nineteenth-century Quakerism as more and more ship's masters embraced that faith."

[4]Pratt, *Dictionary of Prince Edward Island English* (Toronto: UTP, 1988). The similarity of certain patterns may be seen in Poteet & Poteet, *Car Talk* (Mtl.: Robert Davies, 1997), in the multiple analogies of cultural contact in "Oklahoma credit card" (in relation to Texas) and "New Brunswick credit card" (in relation to Quebec and Nova Scotia).

naval, or only merchant marine? It is clear why Québecois slang for "speedboat" is "un cigarette," particularly if one sails anywhere near the Kanesatake Indian nation territory in West Quebec. And it is certainly a Québec coinage that powerboaters call sailboats "guenilles," for the word means "rag," only as a Quebec slang term.

Nautical and aviation slangs are synergistic.[5] As related slangs, they accommodated the easy borrowing of terms, particularly from the older boat talk to the newer language of the skies. From the first, flyers, aircraft manufacturer public relations officers, and other airline executives turned to the lexicon of ships, which, despite the Titanic and other sea disasters, connoted safety in mass transport unparalleled in human history. So the "driver" of an airplane has sometimes been known by that term, but more often he is a "pilot," named for the specialist in marine navigation who was brought aboard only for the difficult and dangerous entrance to and exit from harbours. The aircraft itself was called a "ship" or an "airship," with a "rudder". Canadian Pacific named its first airliners as it had its ships, "Empress of ....., and Pan American named theirs "Clipper." The main pilot, when there was more than one, is the "Captain," as on a ship. He commands from the "flight deck."

Both these slangs have their origins in feelings--of fear, of the excitement of risk and danger, of the exhilaration of skill and success. From his lofty perspective, poop or bridge or flight deck, it must have been hard for the leader of the speech community to tell if the globe was under the command of God or the Devil: macho jet pilots have that problem, and more often choose a reading of reality which cast themselves as omnipotent. It is a vantage point which seems to me to resemble that of the preacher in *Moby Dick*, looking out over a sinful world. Whether macho pilot, fierce Captain, or Old Man on a fishing boat, looking out over a congregation of the elect and/or faithful and beyond them to a sinful world, a rolling ocean, or a roiling batch of clag, you don't know whether the Lord of the Winds is God or the Devil, or how he feels about you? As Albert Johnston, a swordfishing captain out of Gloucester, says, "'You're in God's country out there. You can't make any mistakes.'"[6] The language records this fear and uncertainty, and is full, as well, of black humour, of death that awaits, who knows when?

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[5]Other slangs in contact show this pattern: I am told that Western Canadian railway slang contained words that are hybrid Chinese and Indian, from late 19th-century Oriental workers' trading contacts with Chinook tribe native peoples.

[6]Junger, p. 63. Nautical and maritime slang contain several interesting inversions of "normal" semantic sense in relation to the land-sea axis: "God's country" is normally a Peaceable Kingdom; a "perfect storm" is in Junger's definition, "in the meteorological sense, a storm that could not possibly have been worse," and "a tempest created by so rare a combination of factors that meteorologists deemed it 'the perfect storm.'" Another example I heard on Sherose Island, Barrington, NS: sitting inside a closed porch with windows all around, looking out at cold wind, cloud, and whitecaps, someone complained that the weather was bad. A fisherman responded, 'Ah yes, but it's only good on the watah!'

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Compounds in Tikar

Carol Stanley-Thorne
Atlantic Baptist University
E-mail: cthorne@abu.nb.ca

1. Introduction

Most, if not all languages, have a class of constituents that are clearly compound words. However, the grammatical features which allow a distinction to be made between a compound word and a phrase, or a compound word and a simple word, are not the same in all languages. Stress patterns, for instance, are significant in English, but not in Tikar[1]. Compounding is a very productive process in Tikar. Although it is found mainly in the area of nouns, there are also a small number of adjectives, numerals, conjunctions, and interrogative pronouns which are the result of compounding. Unlike languages such as English and French, however, Tikar does not have compound verbs.

2. The identification of compounds in Tikar

There are numerous lexical items in Tikar which have been classified as compounds. In some cases, both constituents of the compound can be identified; however, in many cases, at least one member of the compound no longer exists in a free form, and is therefore no longer identifiable. In a language such as Tikar, which has no written tradition, there is no way of doing a diachronic study and looking at the etymology of a word. Therefore, one must rely on the general patterning of the language in classifying items as compound, or, in some cases, on the intuition of the native speakers of the language.

2.1 General patterning

The majority of Tikar nouns are either monosyllabic, or consist of a syllabic nasal followed by a CV or CVC syllable.[2] In the case of polysyllabic words, the inventory of consonants that can appear word-medially[3] in non-suspect items is very limited. Therefore, phonetic patterning is one of the easiest ways to identify compound words in the language.

As has already been noted, there are no compound verbs in Tikar. Again, as in the case of the nouns, the majority of verb roots are monosyllabic[4]. In the case of the disyllabic ones, the second syllable is

[1] Tikar is a Benue-Congo language spoken in west-central Cameroon. It is generally considered to be a bantoid language. For further information, see Stanley (1991:3-4).

[2] The syllable-initial consonants may be labialized, palatalized, or preceded by a non-syllabic homorganic nasal, as in gwì?, gyì, ŋgi They may also be accompanied by a combination of two or more of these prosodic features, as in the words ŋgyɔ? and ŋ*glwum*. (See Jackson and Stanley 1980)

[3] For purposes of this description, the word-initial syllabic nasals are not counted as full-fledged syllables, and therefore "word-medially" means the beginning of the second syllable after the initial nasal.

[4] The prefixation of a homorganic syllabic nasal to the root produces the infinitive form of the verb.

always identical to one of the possible derivational affixes which can be attached to a verb. Sometimes the inherent meaning of the affix is still decipherable in the overall meaning of the verb itself, even though the verb no longer exists without the "affix"; in other cases, there is no seeming relation between the two. Take, for example, the following verbs which have the causative suffix *-si* (or its phonologically-conditioned variant *-nzi):*

(1)	fȅ	"to clear a field"	fèsǐ	"to have a field cleared"
	sæb	"to wash (clothes)"	sæbsi	"to have (clothes) washed"
	yi	"to be afraid"	yisi	"to scare"
	ya?	"to exceed, surpass"	yasi	"to cause to overflow"
	kwan	"to leave, go out"	kwannzi	"to expel"

However, there are words such as zæbsi meaning "to persecute, mistreat", fyǐbsǐ meaning "to sauté (meat, for example)", *ʃɔ*sǐ meaning "to repair", and yɔsǐ meaning "to stand (something) up", all of which have a type of causative meaning, but for which there are no corresponding simple verbs *zæb, *fyǐb, *ʃɔ?, or *yɔ?.[5]

And, alongside these are verbs such as hwæsi "to greet" and hwùmnzì "to faint", in which it is difficult to see a causative meaning at all.

Similar examples could be given for each of the derivational affixes. There are a total of 10 possible Cs word-medially in the language in items which are clearly not compounds: *s/nz, t/nd, k/*ŋg,[6] *l, b, m, n.* In a CVC syllable, there are only four possible Cs which can occur in the second position: *b, m, n,* ?, and as has already been pointed out in Note 4, a syllable-final glottal stop drops when it is not in word-final position. Therefore, words such as: ŋgakyɔ?, ndanmgbea, næmmbyì?, kwǐnɓɔ?, ŋgyinyi, mlǎnwɔ̀?, and kǒnnjìbà? are definitely suspect, and are in fact all clearly compound words, with identifiable parts.

2.2 Tone patterns

Phonologically, Tikar has two level tones: high and low; and two modulated tones: high-low and low-high.[7] All of these tones can occur in monosyllabic words, but in the case of dissyllabic words which are not compounds, normally only the second syllable can carry a modulated high-low tone. Therefore, the presence of such a tone on the first syllable of a dissyllabic word signals the process of compounding, even though at the present stage of the language, one or both of the constituents of the compound is no longer found in its non-compound state.

Examples:

(2)	mbê-nji	"south"
	mæ̂-pùki	"kind of corn"
	tæ̂m-bǎm	"a lot"

[5] [ɔ] is always followed by a glottal stop in word final position. The glottal stop is dropped when a suffix is added. Ex.: ɗwɔ? "to close (something)" ɗwɔsi "to have (something) closed"

[6] The second element in each of these three pairs is a phonologically-conditioned variant of the first.

[7] For a detailled description of the tone system of Tikar, see Jackson and Stanley (1980:80ff).

2.3 A multiplicity of syllables

As has already been stated, nouns in Tikar normally are either monosyllabic with a CV or CVC pattern, with the possibility of an initial homorganic syllabic nasal, or else (N)CVCV, with a limited inventory of possible consonants in the second C position. Therefore, a word which has more than two syllables (not counting an initial syllabic nasal) are immediately suspect of being compound words, even if their constituents are no longer identifiable. Such is the case of words such as:

(3)	kìlikan	"spider"
	mwùtæ̀nmwù	"sweet potato"
	ganmgbìlan	"orycteropus"
	lwontonmwæ?	"pupa of the cicada"
	læ̀ntwìmè	"certain type of water snake believed to have special magical powers"
	ŋgwùrumwùtwù	"giant ant-eater"

3. Types of Compounds

Tikar has both syntactic and asyntactic compounds. In the syntactic compounds, the members have the same grammatical relation to one another as words in a noun phrase; in the asyntactic ones, the construction has no parallel in Tikar syntax. As far as the relation of the compound as a whole to its members is concerned, the majority of the compounds in Tikar are endocentric constructions, that is, the compound is in the same syntactic category as its head. However, there are a few exocentric ones, in which the head member and the compound itself are in different syntactic categories.

3.1 Syntactic compounds

Syntactic compounds in Tikar fall into two general categories: those which are a Noun-Noun construction, and those which consist of a Noun followed by a Non-Noun.

3.1.1 Noun-Noun constructions

The relationship between the members of a syntactic compound of the Noun-Noun type in Tikar is identical to that found in a Noun-Noun phrase. The same tone perturbations occur[8] in both cases. For example:

(4)	Noun Phrase	kŏn gwè pot corn	"pot (kòn) of corn"
	Compound	kŏn-njìbà? pot -tobacco	"pipe"

Another characteristic of the N-N phrase is the possibility of inserting a restrictive relative pronoun[9] between the two nouns if one wishes to be more specific. In the example above, for instance, if one

[8] For a detailled description of the tone perturbations that occur in noun phrases in Tikar, see Stanley (1991:196ff).

[9] For a detailled description of restrictive and non-restrictive relative pronouns in Tikar, see Stanley (1991:254-256).

wished to clarify that it was the pot of corn and not the pot of manioc that was being referred to, the phrase would be:

(5) kòn she gwè
pot ResRelPro corn

[Note that the presence of the relative pronoun causes the head of the phrase to assume its inherent tone, rather than the perturbated tone it has in the preceding example. This is due to the fact that when the relative pronoun is not present in its phonological form, it nevertheless does remain in the form of a floating high tone, which combines with the inherent low tone of the head to produce a low-high modulated tone.[10]]

The restrictive relative pronoun can also be inserted between the two constituents of a compound, if the need arises to be more specific. For example, kwìn is now frequently used by itself to mean the condiment "salt", but it also functions as the head of two compound words[11]:

(6) kwǐn-nwɔ̀? "salt (that is used in cooking)"
salt-meat

kwǐn-ɓɔ? "soap"
salt-bath

If it is necessary to specific which kind of "salt" the speaker is referring to, then the restrictive relative pronoun can be inserted between the two nouns, giving:

(7) kwìn she nwɔ̀? *and* kwìn she ɓɔ?
salt ResRelPro meat salt ResRelPro bath

In the case of syntactic constructions, it is the criteria of constant usage by Tikar speakers, as well as the fact that they intuitively consider them a single unit, which leads us to classify words such as the following as compounds, rather than a N-N construction. However, in each case, if it were necessary to specify which "head" was being referred to, a restrictive relative pronoun could be inserted between the two nouns.

(8) ǹdwìn-ɓàlì "certain kind of porcupine"
porcupine-Fulani

nyæ̀m-ɓàlì "horse"
animal-Fulani

[10] See Stanley (1991:196, 199-200)

[11] This is actually one of the rare cases which a diachronic study, not of the language, but of the culture, provides the key to understanding the relationship between "salt" and "soap". A similar process was apparently used in the manufacture of the two. To make salt they burned the branches of a certain kind of plam tree, then took the ashes, put them in a basket, added water, and strained it into a pot. This was then boiled, and when the water evaporated a fine sand-like substance was left that was used as salt. This same substance was used to make soap. Using the homemade salt as a base, they added palm oil and boiled the resulting mixture. This mixture turned black, and was used both for washing clothes and also for washing the body.

ŋga?-kyɔ?	"wart hog"
wild boar-savannah	
wean-ŋgæ?	"bark"
crust-tree	
ŋ̀gàn-ŋgwu	"finger nail"
shell-finger	
ŋ̀gǎn-kwù	"toe nail"
shell-foot	
ŋ̀gàn-ŋwum	"sheet metal"
shell-iron	

[Note: In the last three examples, the tone difference is due to the noun class of the second noun. The same is true in the following set of examples.]

ŋ̀gwɔ̀?-mwù	"skull"
stone-head	
ŋ̀gwɔ̌?-sea	"palm nut"
stone-palm tree	

One example has been found of a syntactic construction where the second noun is shortened when it occurs in the compound. It is the case of the word *nye-nswæ̀b*, meaning "church". The first word is "house", and the second is a shortened form of the Tikar word for "God", m̀vènnswæ̀b.

3.1.2 Noun plus Non-Noun construction

Only a very limited number of compounds have been found where the second constituent is not a noun. In one instance, that constituent is an adverb, and in the other cases, an adjective.

Examples:

(9) ǹdwì-tì	"great-grandchild"
grandchild-again	

[It is interesting to note that the word for "great-great-grandchild" ǹdwì-*tì*-ǹdwì-*tì* is a reduplicated form of this compound.]

ywum-ŋgea	"charcoal"
things-dirty	

There is a series of compounds, all of which contain the constituent ŋkæ̀m, which in the present state of the language only exists in the reduplicated form ŋ̀kæ̀mŋkæ̀m "true".

(10) mwum-ŋkæ̀m "adult, elder"
person-true

ɓwum-ŋkæ̀m "adults, elders"
persons-true

lɛʔ-ŋkæ̀m "adult, elder"
person-true

The adjective *ndɔʔ* meaning "other" forms the second constituent in a number of compound words.

(11) ɓyi-ndɔʔ "others (=people)"
those (people)-other

yi-ndɔʔ "others (=things)"
those (things)-other

cì-ndɔʔ "somewhere"
place-other

ɗwum-ndɔʔ "last year, next year"
year-other

In addition to the above nouns in which ndɔʔ is one of the consitutents, it is also found in one adverb.

(12) shi-ndɔʔ "perhaps"
lack (N.)-other

3.1.3 Other syntactic categories

All of the examples of compounds to this point, with the exception of (12), have been nouns. There are, however, two other syntactic categories where compounds have been found: conjunctions and interrogatives.

3.1.3.1 Compound conjunctions

The inventory of compound conjunctions in Tikar is limited, but consists of words that are used very frequently in the language. In several cases, a restrictive or non-retrictive relative pronoun[12] functions as the second member of the compound.

(13) ɓɛ-shɛ "if "
be-Res.Rel.Pro. "that"

m̀bɔ̀kì-nɛ "since, because of the fact that"
measure-Non-Res.Rel.Pro. "that"

[12] For a detailled description of restrictive and non-restrictive relative pronouns in Tikar, see Stanley (1991:254-256).

kwan-sɛ "when"
time-Non.Res.Rel.Pro. "that"

There is one case where the compound form is composed of a simple conjunction *kwo*, meaning "even if", plus the adverbial particle fɛʔ, which means "even". *kwo* can also be used by itself, but the presence of the adverbial particle seems to simply to reinforce the meaning of the conjunction.

(14) kwo-fɛʔ "even if"
even-even

It is even possible to have a sentence where fɛʔ occurs both as part of the compound conjunction and also as an adverbial particle. This redundance seems to underline more forcefully the futility of the action.

(15) kwo-fɛʔ nun cì fɛʔ lɛ , ǎ 6ǎ tì mwɛn ye
even-even she do even how , she NEG again child bear

"No matter what she does, she's never going to bear a child again."

In some cases, one or even both of the constituents is no longer identifiable.

(16) kan-mbɛʔ "however"
?-?

(17) wɛ̌-(tà)-(shɛ) "as, like"
as-?-Res.Rel.Pro. "that"

In this example, the first member of the compound can function as a simple conjunction, with the same meaning as the compound. The first and last members of the compound can also fucntion as a compound without the second member. In other words, *wɛ̌*, wɛ̌ shɛ and wɛ̌ tà shɛ all mean "as, like".

3.1.3.2 Compound Interrogatives

There are two compound interrogatives, both of which parallel noun phrase constructions in their form.

(18) ntwiʔ-yɛn "Why?"
because of-what

Compare with: ntwiʔ mwɛn nyon "because of his/her child"
because of child his/her

(19) yǎ-kwan "When?"
what-time

Compare with: *yǎ* mwɛn "Which/What child?"

3.2 Asyntactic compounds

The asyntactic compounds that have been found in the language are all of the Noun-Noun type. However, unlike the syntactic compounds whose constituents bore the same relationship to one another as the members of a N-N phrase, the consituents of the asyntactic compounds are simply juxtaposed and not in the same kind of grammatical relationship to one another as the two nouns in a N-N phrase are. This can be seen by the fact that, in most cases, it is impossible to insert a restrictive relative pronoun between the two nouns in an ayntactic compound. In the few cases where it is actually possible, the presence of the restrictive relative pronoun actually changes the compound to a N-N phrase with a totally different meaning. Such is the case in:

(20) m̀vèn-mlib "female village elder"
chief-woman

If a restrictive relative pronoun is inserted between the two nouns, the resulting phrase is m̀vèn nyɛ̌ mlib which means "female chief".

The same is true in the following examples:

(21) mwɔ̂ʔ-mlib "young girl"
child-woman

mwɔ̂ʔ-nd̄wɛb "young boy"
child-man

If a restrictive relative pronoun is inserted, the meaning changes to:

mwɔ̂ʔ nyɛ̌ mlib "the youngest girl (in a group of children, for example)"
mwɔ̂ʔ nyɛ̌ nd̄wɛb "the youngest boy (in a group of children, for example)"

Some examples of asyntactic compounds which cannot take a restrictive relative pronoun are:

(22) mlib-swi "first wife (in a polygamous marriage)"
woman-forehead

nd̄an-mgbea "sand flea"
louse-flea

mwɛn/ɓwɛn-fæʔ "twin/twins"
child/children-twin

Another category of asyntactic compounds is that of numerals. In the case of the number 7, it is a simple juxtaposition of the words "five" and "two", with certain phonetic changes in the constituents when they combine to form the compound. The number 8 is an instance of reduplication of the number 4, again with certain phonetic changes.

(23) shân6i "7" [shæ̂n (5) + 6î (2)]
nìni "8" [nyî (4) + nyî (4)]

In the case of the number 9 tênnì, it is possible to postulate that it is composed of shên "5" and nyî "4", with a greater degree of phonetic changes than in the previous examples. Both in the case of the number 7 and the number 9, the presence of a modulated tone on the first syllable indicates that they are compound words, and not simple ones. (See paragraph 2.2)

3.3 Special cases

3.3.1 Body parts

There are a considerable number of compunds, both syntactic and asyntactic ones, in Tikar, in which one member of the compound is a word designating a body part.

- syntactic compounds

(24) zɛʔ-gwê — "grain of corn"
eye-corn

ŋwum-nye — "door"
mouth-house

mwù-nye — "roof"
head-house

mwù-kpɛnndè — "stalk of bananas"
head-banana

nlim-nsòn — "center of town"
heart-village

nlim-fyàʔ — "palm"
heart-hand

- asyntactic compounds

(25) nywɔʔ-mwu — "noon"
sun-head

milb-swi — "first wife (in a polygamous marriage)
wife-forehead

ŋgyi-nyi — "laying hen"
navel-hen

ŋgyi-jin — "(real) name"
navel-name

3.3.2 Diminutives

The combination of the word mwɛn "child" with another noun is often used to express a diminutive sense. It combines not only with animate nouns, but also with inanimate ones. The resulting compounds are all asyntactic.

(26) mwɛn-nywun "little snake"

mwɛn-jìbè "little monkey"

mwɛn-bàsìkù "little bicycle"

mwɛn-ŋkæ̀n "short folktale"

mwɛn-gba? "little chair"

3.3.3 Synthetic compounds

Pei (1966:273) defines a synthetic compound as "a compound in which one member is a bound form that could not occur alone".[13] Such is the case of two elements in Tikar, *ci* and ŋgi, both of which are used in the formation of agent-nouns. Neither of them exists in isolation in present-day Tikar. *ci* is still extremely productive; ŋgi is not. In both cases, there are examples of words where the second member of the compound is no longer identifiable. However, the idea of an agent-noun is clearly implied in the overall meaning of the compound.

3.3.3.1 *ci*

ci can have either the meaning of "the one who is" and produce an agent-noun, or else the meaning of "the one who has". As has already been mentioned, this constituent is still very productive. In the majority of examples found to date, the second member of the compound is idenitfiable. However, there are three examples where it cannot be identified.

Identifiable members:

(27) ci-nywi? "thief"
- theft

ci-nyŏn "someone who walks/travels a lot"
- a walk

ci-ŋgwɔ? "swimmer"
- swimming

ci-ɲlìmmi "person who knows"
- knowledge

[13] See also Bloomfield (1984:231).

ci-zwɪʔ "boss"
- nose

ci-ntwum "messenger"
- message

ci-nzæmnzæm "poor person"
- poverty

ci-ndæm "sorcerer"
- sorcery

ci-ɗèwà "someone who has been to school"
- book

ci-ɗwɔʔ "deaf person"
- deafness

ci can also be combined with a noun phrase, or even with a compound word. For example:

(28) ci-nyònnzǐ lɛʔ "interpreter, translator"
- to turn word

ci-nɗwǐ wì "warrior"
- to throw war

ci-ŋgàn-ŋgwu libbea "the one who has long claws/fingernails"
- shell-finger long

ci also is used in the creation of nicknames, to designate someone according to certain physical characteristics.[14] This happens especially in folktales, where the characters are designated by terms such as:

(29) ci-ŋgibbi "the one with the (thick) eyebrows"
- eyebrows

ci-sùn "the courageous one"
- courage

ci-nyeni nlim "the one who (often) gets angry"
- get angry heart

ci-ɓì "the checker-player"
- checkers

[14] Creissels and Kouadio (1977:482) describe a similar phenomena in Baoulé, a language spoken in Côte-d'Ivoire.

There are three examples where the second member of the compound is no longer identifiable. They are:

(30)	cikpuʔ	"servant"
	cigbin	"wild cat"
	cifyon	"lizard"

3.3.3.1.1 Phonetic modifications

There are various examples of phonetic modifications in the case of repetitive compounds (See below §3.3.4) where there is partial reduplication. However, there is one example of this in the *ci-* compounds.

(31)	cimi	(composed of *ci-myi*	"the one who has (=owns) the village"

3.3.3.2 ŋgi

ŋgi is no longer productive, and therefore, there is a limited number of compounds containing this element. In many of them, the second element is no longer identifiable. However, there are some words where it is.

Idenitifable members:

(32)	ŋgi-tòn - sit	"stool"
	ŋgi-mwɛn - child	"the mother"
	ŋgiʔ-twiʔ - hump	"the pregnant woman"

As we have seen in the case of *ci*, ŋgi can also combine with a noun phrase.

(33)	ŋgi-zɛʔ - eye	fɔʔ one	"one-eyed person"

It can also combine with a repetitive compound.

(34)	ŋgi-sean-sean - clear-clear	"cricket"
	ŋgi-ŋwan-ŋwan - light-light	"firefly"

There are a considerable number of compound containing ŋgi where the second member of the compound cannot be identified. Such is the case of words such as:

(35) ŋgi-kpaʔ "children's game"

ŋgi-ŋænni-ŋgwu "praying mantis"
- ? - finger (?)

ŋgi-lean-ŋgun "someone who talks a lot"
- ? - neck

ŋgi-yi-ye "midwife"
- ? - birth

ŋgi-kæn-nywɔʔ "cameleon"
- ? - sun

ŋgi-pliplî "certain kind of fish"
- ?

3.3.4 Repetitive compounds

Another process of word formation that is widely used in Tikar is that of reduplication. Bloomfield (1984:235) refers to the resultant forms as "repetitive compounds"[15]. Since this process is treated in detail in Stanley (1991:388ff), the following examples are given simply to illustrate this type of compounds.

- Functional reduplication

(36)			
	làn-làn	"to walk back and forth"	(simple form: làn "to pass; pass by")
	kimmi-kimmi	"very strong"	(simple form: *kimmi* "strong")
	kwèn-kwèn	"to be sickly"	(simple form: kwèn "to be sick")
	ŋgyɔʔ-ŋgyɔʔ	"low"	(simple form: ŋgyɔʔ "ground")
	ɗwùm-ɗwùm	"from year to year"	(simple form: ɗwùm "year")
	m̀bɔʔ-mbɔʔ	"one by one"	(simple form: m̀bɔʔ "one")

- Intrinsic reduplication (the simple form does not exist, or no longer exists)

kwinkwin	"mosquito"
ŋgwùŋgwù	"flying squirrel"
kæmkæm	"butterfly"
ɗɔɗɔʔ	"flat"
jìjì	"to reflect"

- Ideophones

ɓwanɓwan	"describes the sound of a dog's footsteps"
ponpon	"evokes the idea of total silence"
hwahwahwaʔ	"describes the sound of grass moving"
kpinkpinkpin	"describes the sound of a drum beating"

[15] See also Pei (1966:232).

3.3.5 Proper nouns

One additional lexical category in Tikar which is rich in compounds is that of proper nouns, both in place names and in peoples' names. The criteria that were mentioned above in Section 2, particularly that of unusual consonant sequences word-medially allow easy identification of compounds among the proper nouns. However, this is another area where the lack of a written tradition often makes it difficult to determine with accuracy the original words which combined to form the compound. In some cases, one of the elements still exists in isolation; in other cases, neither of them does. An additional difficulty related to the lack of a written tradition is the fact that during the colonial era, when names were written down for the first time, the orthography used often reflected that of the L1 of the colonial administrators, especially the French. Therefore, we find names such as:

(39)

Guiwa	[gyiwa]
Tchina	[cina]
Noussi	[nusi]
Mvouti	[mvuti]
Gnégain	[nyegɛ̃]

A large number of proper names (as well as common nouns) in Tikar begin with a homorganic syllabic nasal. Since this sound does not occur in French, it was often not "heard" by those who were writing down names, and therefore, along with several other "non-French" sounds, is missing in words such as:

(40)

Vouga	[mvu-ŋga?] seed (?)- wild boar (?)/scales(?)
Tchiengouh	[nʃi-ŋgu] poor (?)/wrinkles (?)

The fact that there is a consonant cluster word-medially in words such as these suggests that they are indeed compounds (see §2.1), even though the members of the compound are no longer easily identifiable.

Add to this the fact that names were also often written down by missionaries, for instance when birth certificates were filled in by the local missionary doctor or nurse, or when children started school and their names had to be written down. Those missionaries came from a variety of countries, and their choice of symbols to represent a given sound was inevitably influences by the orthography used in their L1. The overall result is that depending upon who happened to have the task of assigning a written form to a name that previously existed only orally, there was considerable variation in the written form. In fact, some names are written phonetically have three or four different written forms. Therefore, if the name happens to be a compound word, it is extremely difficult, if not impossible, to identify the individual members that make it up by simply looking at the written form. This area merits a study on its own, and we will include here only a few examples of names whose original pronunciation is known, and of which one, or both, of the members can be identified.

(41)

ɓě sɔ?	
grandmother-little	
Mvèn-ɓlàn	
chief-surplus (?)	

[Note: This is possibly a name given to a child when there was already an older sibling named *Mvèn*. A parallel example occurs in the case of *Hwùm* and *Hwùm*ɓlàn. Here again, the impossibility of diachronic studies makes a lot of these hypotheses mere speculations (or, at the best, educated guesses.)

(42) Hwùm-mlib
village elder-woman

This same word *Hwùm* also functions as one of the members of the names of various village elders and princesses. Again. it is difficult, in many cases, to find the meaning of the second element of the compound, but it is quite probable that it referred originally to a function of the individual who bore that name. For example, there are names like:

Hwùm-ŋgyɔʔ
village elder-land

Hwùm-ŋgæ̀tì
village elder-Ngati (a neighboring village under the jurisdiction of the town of Bankim, and for which this elder may have been originally responsible)

Names of places are also often compound words. For example:

(43) Kimmi-sɔ̀ʔ "the name of a village near Bankim"
Bankim-little

ŋ̀gæ̀n-mbe "Ngambé (another large Tikar village)"
cola nut-part given to the chief

m̀ɓæ̀m-mlǎʔ "Mbamla (another Tikar village)"
chief's compound-water

ŋ̀gy̌in-kyɔʔ "a section of the town of Bankim"
the other side-savannah

ŋ̀gy̌in-mbyiʔ "a section of the town of Bankim"
the other side- *mbyi*ʔ (the name of a stream that flows through the town)

ŋwum-nshim "a section of the town of Bankim"
mouth-ditch

4. Conclusion

Tikar is rich in compound nouns, but has no compounds verbs, and very few examples of compounding in the other syntactic categories. Although many of the elements of the various compounds are identifiable, there are a considerable number which are not. It is possible that a more in-depth investigation which focused specifically on the identification of the "unknown" elements, especially in the area of proper nouns, might provide some answers, provided it were carried out among the more elderly members of the Tikar population. They are probably the only ones who can provide clues as to the etymology of many of these Tikar words for which the meaning of one, or more, of the elements remains a mystery.

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THE SURVIVAL OF MARITIME SIGN LANGUAGE

Noni Warner, MA

Instructor, Academic Upgrading of Deaf Adults Program, Nova Scotia Community College, Halifax

Elizabeth Doull, BA, BSW, M.Ed. Candidate

Researcher, Halifax, Nova Scotia

Diane Falvey

Researcher/ASL Instructor, Halifax

Richard Martell

Instructor, ASL/English Interpretation Program, Nova Scotia Community College, Halifax

Jim McDermott, BA

Instructor, ASL/English Interpretation Program, Nova Scotia Community College, Halifax

Elliot Richman, BSc

Chair/Contact Person, Deafness Advocacy Association of Nova Scotia

Abstract

There is controversy on the existence of Maritime Sign Language (MSL) which seems to be struggling to remain the language of the Deaf[1] Communities in the Maritime Provinces and Newfoundland. Some older or isolated Deaf people in certain Maritime communities use MSL, which has never been linguistically researched or studied. The younger generations learnt different sign languages, such as American Sign Language (ASL), or were taught manually coded English systems. The schools[2] for the Deaf no longer exist in Nova Scotia and New Brunswick, which slows the continuity of the Deaf culture and the natural acquisition of sign language. It is believed that MSL is dying due to the influx of ASL brought in by American Sign Language interpreters and Deaf people from other parts of Canada as well as Maritimers trained in a college for the Deaf in Washington, D.C. It seems that ASL is becoming the dominant language of the Deaf Maritimers. However, Deaf Maritimers are becoming conscious of Maritime Deaf Heritage and MSL, and strongly assert that MSL still exists. It is believed that MSL originated from British Sign Language (BSL)[3]. This paper explores the history and the structure of MSL as compared to ASL, and the early documentation of the heritage and the natural sign language of the Deaf Maritimers.

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[1] The letter 'd' in the word deaf is capitalized to indicate the cultural status of the Deaf people. The small letter indicates the audiological status of the person. (Padden and Humphries)

[2] Atlantic Provinces Special Education Authority (APSEA) looks after the education of the Deaf after the residential school closed in 1995.

[3] Hannah (1994)

Introduction

Research and documentation on Maritime Sign Language began long after the documentation and recognition of ASL as a language with William Stokoe at Gallaudet College[4]. There were not many records of documented research of MSL.

In the 1960's, sign languages were brought into the linguistic consciousness when William Stokoe, an English professor and linguistic researcher, declared that the signing used by the Deaf people at Gallaudet College was a language, and called it American Sign Language[5]. Prior to Stokoe's research, Deaf people simply called their language "signs" or "sign language" (generic form). That consciousness came to Nova Scotia, where it was realised that the sign language used in the Maritimes was not similar to American Sign Language. Documentation of MSL began in the early 1970's (Doull 1978).

The uniqueness of Maritime Sign Language (MSL) has become apparent through the early documentation of MSL. MSL is not yet determined as to whether it is the language used only in Nova Scotia or in the whole of Atlantic Canada.

After ASL began to spread out in America and Canada, MSL may have changed in syntactic structure and in lexicon, due to contact between MSL, ASL and some Langue des Signes Quebecois (LSQ). (LSQ is used in Quebec, and in some French-speaking communities in both North-western Ontario and North-eastern New Brunswick.) It was also noticed that MSL's origin appeared to have come from a different language source other than LSQ or ASL. In comparison, the origin of ASL was believed to have come from French Sign Language and home made signing systems in American communities. However, ASL may have already been in existence before the first school of the Deaf in America was established in 1817 by Laurent Clerc, a Deaf French educator and Thomas Hopkins Gallaudet, a hearing man from Washington, DC[6].

MSL may have originated from British Sign Language. The word "Maritime" in MSL is used because early research shows that MSL was used first in the Halifax School for the Deaf, and the majority of MSL signers were in the Maritime Provinces. But not all of the Newfoundland Deaf people attended the Halifax School of the Deaf. It is yet to be determined if the Newfoundland Deaf had used MSL or another form of sign language.

MSL, in comparison with ASL, has significant differences as a unique sign language in its own right. MSL uses the two-hand fingerspelling alphabet system as opposed to the one-hand fingerspelling alphabet system used by ASL or LSQ. The thumb and the "pinkie" finger are used in MSL as opposites for some signs, but not found in ASL. Signs for male and female family relatives are "gender neutral" in MSL but not in ASL. More details on those differences will be elaborated later in this paper.

Like all signed languages used by the world's Deaf Communities, MSL, ASL and LSQ are not direct translations of their corresponding languages (English or French in this case). MSL, like ASL and LSQ, uses space and body to represent not only words but

[4] Gallaudet College, now Gallaudet University, is the world's only known liberal arts university of the Deaf in Washington, DC of USA.
[5] Baker, C. and Robin Battison
[6] Wilson 1994 p. 189

phrases and concepts as well. Sign language studies examine each sign in terms of phonological parameters: handshape, palm orientation, location, non-manual signals and movement. However, like spoken languages, sign languages do go through changes.

We will discuss the origins of MSL[7] and on the compare the structure of ASL and MSL.

History of MSL Origins and MSL Research

Origins

The origin of MSL may have started prior to 1856 when the school for the Deaf was opened; however, it has not been clear how it actually originated. It has been speculated that the origin of MSL may have been from British Sign Language and Scottish Sign Language. There are several reasons for that.

First, when Nova Scotia was established, people who emigrated from England and Scotland may have spread the signed language in Nova Scotia and to the neighbouring provinces.

The second reason was that some deaf people from the Maritimes Provinces were sent to a school for the deaf in Edinburgh, Scotland, before the Halifax School for the Deaf was established in 1856. Some Maritimers who went to American School for the Deaf in Hartford may have had brought back some strain of ASL. Could Scottish Sign Language and British Sign Language be similar or could MSL be a blend of both languages?

Thirdly, two Deaf men in the 1850's separately emigrated from Scotland to Nova Scotia, and they both started a school for the Deaf.

MSL may have been mixed with ASL and LSQ because some Deaf Maritimers went to Gallaudet College or other schools where they learnt ASL. After they graduated, they returned to the Maritimes and became teachers. They were naturally looked on as role models. Some Newfoundland students were transferred from a school for the Deaf in Montreal, to Amherst in the 1961 and some of their signs may have entered in, or may have been borrowed by MSL.

Fourthly, the Deaf people in the Maritime Provinces in the past were fairly isolated from the rest of Canada and United States, therefore keeping the MSL relatively unexposed to other sign languages. The impact of ASL seems to not have happened until the late 1960's.

Lastly, many older Deaf Maritimers are still living in the rural areas and rarely associate with the Deaf people in the cities, mostly the younger generation. This isolation may have contributed to the perseverance of MSL.

William Gray, a Deaf Scotsman, with fellow Deaf Scotsman George Tait's suggestion and help, established a school for the Deaf in Halifax, Nova Scotia shortly in August 1854. Those time periods were marked by rare interactions between Deaf Maritimers and Deaf Americans.

[7] Elizabeth Doull did the research on the origins of MSL.

MSL may have been widely used in the Maritimes when the Halifax School for the Deaf was in operation until its closing in June 1961. The School for the Deaf moved to Amherst in September 1961 and for the first time, welcomed Deaf Newfoundland students. This new student group had been previously taught in other sign languages at the MacKay School for the Deaf in Montreal, Quebec. In the 1970's, the curriculum at the Interprovincial School for the Deaf, now known as APSEA, focused on Signed English (which was essentially a manually coded mode of Spoken English) resulting in even less student exposure to MSL. However, it is likely the students used MSL outside the classroom and the dormitories. (Personal communication with Elizabeth Doull.)

MSL seems to be at risk of quickly dying since current MSL users are elderly and/or live in isolated rural areas with little or no contact with other Deaf Maritimers. The exposure of ASL is becoming more and more dominant, especially with the spread of sign language classes using ASL publications.

The origin of MSL seemed to come from BSL and possibly Scottish Sign Language, but because there has not been extensive research, the origins are still uncertain and everything is speculation at this point.

Research

Research on MSL is believed to have begun in the early 1970's, when it was recognized by Elizabeth Doull, a graduate of Washington DC's Gallaudet University, that the signs were different from that in ASL. The differences seemed even too great to be considered a local dialect of ASL. Doull started documenting signs used by Deaf children and youth in a summer program in 1972 and afterwards, continued to collect information. In 1978 Doull obtained a grant where she managed to interview approximately two hundred Deaf Maritimers aging from 18 to 80+ years. The Deaf Maritimers were from New Brunswick, Nova Scotia and Prince Edward Island. However the project ended due to lack of funding. Nevertheless, she has continued recording signs since then.

In 1986, The Canadian Cultural Society of the Deaf (CCSD) began a project called the Canadian Sign Language Dictionary Project, for which Doull and Keir MacLean, a Deaf native Maritimer, videotaped many MSL signs for the book. The dictionary has not yet been published.

Another research project, though not directly on MSL, was Diane Falvey's videotape documentation of the Deaf Maritime Heritage, also for the CCSD. The project included a look at MSL. Falvey did research on two famous Maritime Deaf artists in 1994.

Barb Hannah, an ASL/English Interpretation Program student at Nova Scotia Community College, did some research on MSL users in Nova Scotia, and how it affected the field of interpreting in Nova Scotia. That research project also made some connection between MSL and BSL.

Richard Martell, a native MSL and ASL user, and native of Nova Scotia has discussed the cultural implications of ASL and MSL. He stressed the need for documentation of MSL to preserve the language and the culture for the pride of the Maritime Deaf Communities. Martell noted that the Maritime Deaf culture and MSL

seems to be declining. He compared it to the declining of the native cultures in Canada. (Personal communication with Richard Martell).

Comparison of MSL and ASL

Gender – Sign languages use locations to represent phonological aspects of signs. ASL has a unique system for marking male and female gender when using signs from a category of family members. The system consists of two specific locations on the head, the side of the forehead and the jawbone. The upper half of the head, at the side of the forehead, represents the male gender. The lower half of the head, at the jawbone near the chin, represents the female gender. The following signs are made at those locations. Examples are GIRL, BOY, BROTHER, SISTER, MOTHER, FATHER, UNCLE, AUNT, COUSINS, SON, DAUGHTER, HUSBAND, WIFE. MSL apparently has a different system. For example, the MSL sign, GIRL, is the index finger handshape touching the cheek. There is no determined system marking female and male gender in MSL. It does not mean MSL does not possess signs for the lexicon mentioned above. Table 1 shows locations for the signs related to family members.

Table 1. Location of signs in ASL and MSL

Lexicon	American Sign Language	Maritime Sign Language
GIRL	JAWBONE	CHEEK
BOY	SIDE OF FOREHEAD	CHIN
MOTHER	JAWBONE	FINGERS
FATHER	SIDE OF FOREHEAD	FINGERS
SISTER	JAWBONE	NOSE
BROTHER	SIDE OF FOREHEAD	HANDS
UNCLE	SIDE OF FOREHEAD	CHIN, then WRIST
AUNT	JAWBONE	CHEEK, THEN WRIST
COUSIN (FEMALE)	JAWBONE	CHEEK, THEN WRIST
COUSIN (MALE)	SIDE OF FOREHEAD	CHIN, THEN WRIST
SON	SIDE OF FOREHEAD, ARMS	CHEST
DAUGHTER	JAWBONE, THEN ARMS	CHEST

Classifier Handshape – In ASL, there is a classifier which has the 3-CL handshape[8] representing a category of vehicles that are mobile e.g. car, bus, bicycle. For MSL, the 1-CL classifier handshape is used instead for the same category of mobile vehicles, which is not seen in ASL. This is yet another example that seems to signify the difference in structure between MSL and ASL.

"Pinkie" finger– Another interesting phonological aspect in MSL is the thumb, which can suggest a positive connotation, e.g., GOOD, SAVE, ASSERTIVE. In

[8] The transcription symbol is from Baker and Cokely's American Sign Language: A Teacher's Resource text on Grammar and Culture p. 5

comparison, there is one very interesting phonological feature of MSL that is strongly prevalent and seems to suggest a negative connotation. MSL uses the pinkie finger significantly for many signs, e.g. TOO-BAD, FIGHT, SASSY, BAD, WORSE, NOT-BAD. This is significant because ASL has different signs and has different connotations for the pinkie handshapes in ASL. Some examples of pinkie handshape in ASL are DRAW, BOUNDARY, LINE, and MEASURE (two-handed sign). While these signs use the pinkie, none of them contains the negative connotation. The pinkie and thumb signs are also evident in Britain. (Brien, 1992.)

Conclusion - Future Goals for Research on MSL

The origin of MSL has not yet been thoroughly determined, although it is widely believed that the origin would be from BSL, and perhaps Scottish Sign Language. Just how much of the origin of the MSL is from BSL is a critical research area, and needs immediate attention. On a parallel, ASL was believed to have been originated from LSF (French Sign Language), however, it has been argued that it was mostly from the United States because the signs in ASL and LSF did not really correlate (Wilson 1994). Some research postulates that MSL could be a Creole of BSL, Scottish Sign Language, and ASL.

The goal is to preserve and document the culture and the language of MSL and the Maritime Deaf Community. This would provide pride and recognition to the importance of MSL and the culture of Deaf Maritimers in the Maritime Provinces. It is also believed that many young Maritimers still use MSL, although they may not be aware of it. There is now no residential school for the Deaf in the Maritimes and Deaf children have been integrated into hearing schools with support services. This could deeply impact the development of Deaf culture, possibly eradicating MSL and MSL heritage.

The contact person of the MSL Heritage research committee is Elliot Richman, who is the chair for Deafness Advocacy Association of Nova Scotia (DAANS). He is also a board director of Canadian Association of the Deaf (CAD). CAD supports the idea of documenting the history and the language of MSL. It is hoped that this paper will impress upon CAD and other interested individuals/organisations that there is an urgent need for research on MSL immediately. MSL, like ASL and LSQ in Canada, should earn its rightful place in Deaf Canadian Heritage.

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