ON COMPARATIVE SYNTAX

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0. INTRODUCTION:

The recent flurry of studies in diachronic syntax is most welcome, since it has brought attention to important and fertile areas of investigation. Nevertheless, the enthusiasm for such studies has not been matched by equal success, especially in syntactic reconstruction. The purpose of this paper is to examine the underlying assumptions of several approaches to syntactic reconstruction, to identify obstacles to greater accomplishment, and to suggest some priorities for future research.

1. THE COMPARATIVE METHOD:

Since it has often been hoped that principles of diachronic phonology could be transferred to diachronic syntax, we begin by considering why phonology and lexical reconstruction have been more successful than the reconstruction of grammar. Phonological reconstruction owes much of its success to the Neogrammarian hypothesis of the regularity of sound change and to observations about preferred directionality of specific changes. Syntactic change has no direct analogue of either. In the following sections we will outline the benefits accrued to diachronic phonology from these assumptions, demonstrate why they have no counterparts in syntax, and consider the significance of this lack of syn-
tactic reconstruction.

1.1. Regularity in Sound Change:

The confidence that sounds do not change in random or inexplicable ways permits several crucial steps in the application of the comparative method. First, it provides a basis for the selection of comparable entities from a set of languages, i.e., cognate material. It serves as a means of distinguishing formal similarities among languages which may be due to chance, borrowing, or universals, from those due to common ancestry.

Second, the capacity to distinguish cognate material provides a basis for observing which kinds of sound changes occur the most frequently and their normal direction. Many sound changes are more likely to occur in one direction than another. The intervocalic voicing of originally voiceless stops, for example, has a much greater frequency of occurrence than the same change in the opposite direction. Such directionality provides a principled reason for choosing one reconstruction over another. If L₁ has intervocalic voiced stops corresponding to L₂ intervocalic voiceless stops, it is more likely, all else being equal, that L₁ changed in accordance with the more frequent direction of voicelessness to voicing in this position, and that L₂ then reflects the older state.

Third, the assumption of regularity of sound change permits the reconstruction of many lexical items from the postulation of a finite number of proto sounds. Once sound correspondences are established among daughter languages and proto forms posited for each correspondence, these same hypotheses may be used over and over in the reconstruction of different lexical items.

1.2. Regularity in Syntactic Change:

Sounds always occur in combination with other sounds and are associated with semantic or grammatical meaning to form morphemes and words. The sound itself can be seen as a type and its various occurrences in different morphemes as multiple tokens of the single type. The regularity hypothesis refers to the fact that the same sound may be observed to change in the same way in different morphemes. When the type changes, each of the multiple tokens exemplifies the change in a regular way.

It might seem at first that the same kind of regularity should be observable in syntactic change. Syntax simply governs larger chunks of language than phonology. The deletion of the relative pronoun could be observable in many different sentences, just as the palatalization of *š before y might be exemplified by many different words in a language. There is a crucial difference, however, in the acquisition of these two kinds of patterns. Sounds are acquired not independently, but as parts of words in which form and meaning are linked. Unlike words, sentences are not learned as wholes. The form and substance are acquired separately. Sentences can be generated each time a speaker speaks, from general syntactic rules and appropriate entries from the lexicon. A syntactic pattern is not learned anew for each sentence which exemplifies it. A speaker may utter many passive voice sentences, but need not have learned the sentences independently as he must learn words. Learning the passivization rules once is sufficient for the production of an infinite number of passive sentences. It is because of this single acquisition of syntactic rules that there can be no equivalent to the regularity hypothesis in diachronic syntax. In syntax, the type has only one token, the general rule, making regularity trivial.

Because of the substanceless acquisition of most syntactic rules, sentences cannot really be cognate across languages in the way words can. They are not passed down as wholes from specific proto sentences originally uttered by speakers of the parent language.

1.3. Further Complicating Factors:

If there are no such things as cognate sentences, how are we to
identify comparable syntactic material? Functional or semantic equivalence in formal description is not sufficient to render entities genetically comparable, since chance, borrowing, and universals may account for similarities as well as common ancestry. This would be equivalent to granting cognate status to all words with the same glosses. Furthermore, the relative role of chance similarity in syntax is much greater than in phonology. That the form and meaning of some particular word in two languages might be similar by chance is usually unlikely. But the range of possible variation among many functionally equivalent syntactic patterns is so narrow that the probability of chance similarity is correspondingly greater. If, for example, there are two possible orders of constituents in comparative constructions, standard-pivot-adjective and adjective-pivot-standard, then any two languages selected at random have a high probability of sharing the same order.

The limits of our understanding of interrelationships among alternative syntactic patterns handicap us seriously in syntactic reconstruction. Given the Romance correspondence k/s, we posit *k for the phonetic value of the proto sound because of our knowledge of common types of sound shift. If, however, we observe that one daughter language exhibits SVO order, another SOV, and a third VSO, in the absence of principles of directionality, we have no indication of the word order of their parent.

1.4. Priorities:

If syntactic reconstruction is to be carried out without the benefit of a regularity principle and hypothesis of preferred directionality, other sources of information about syntactic change must be sought. One source which has been utilized in phonological reconstruction involves implicational universals.

Consider the relation in phonology between glottalized and plain obstruents. The presence of glottalized obstruents (C*) in a language implies the presence of their plain, non-glottalized counterparts (C). The marked relationship between (C*) and (C) insures that under normal conditions $C^* > C$ but that $C > C^*$ is not likely. This directionality is useful in reconstruction: given two languages where $LiC^*$ corresponds to $LiC$, all else being equal we reconstruct $*C^*$. Should we be possessed to choose $*C$ as the probable proto form, then we must at the same time present strong evidence explaining the unexpected, such as areal diffusion.

Some implicational universals involve a mutual dependency rather than implying a directionality of change. These can be utilized in reconstruction in a different way. Given the aspiration of /pʰ/ in some languages, for example, we expect /tʰ/, and given /tʰ/ we expect /pʰ/. If, however, we find correspondences suggesting that a proto language had */pʰ/*, then we suspect that it also had */tʰ/* and search for evidence supporting */tʰ/*.

Syntactic universals could provide similar clues to patterns especially likely to be found in a proto-language. If we know that all languages which can relativize off direct objects can also relativize off subjects, and we find relative clauses modifying higher direct objects in the daughter languages, then we search for relatives modifying subjects. A similar example can be drawn from word order universals. It has been observed that VOS languages have an alternative order VSO whenever the subject is "heavy", i.e., contains conjoined noun phrases or relative clauses. If this putative universal should hold true under subsequent investigation, then whenever we can reconstruct *VOS order for the parent, we seek evidence of *VSO with heavy objects. To take another example, it has been supposed that ergative languages characteristically possess rules of antipassive (cf. Johnson 1976). If this holds true, then evidence of ergativity in a proto language, such as ergative morphology, would further prompt us to seek evidence for reconstructing a rule of antipassive. The more we know about all kinds of implicational universals and the interrelationships among parts of grammatical systems, the better our chances for reconstruction.

Finally, a knowledge of the interrelationships among the various
parts of grammar can allow us to benefit from some of the rigor of the comparative method. It is often possible to reconstruct inflectional and derivational morphology using the techniques of lexical reconstruction. To the extent that morphologically complex cognates bear regularly corresponding sounds, that the cognate morphemes appear in the same position in the words, and that they have not undergone substantial functional shifts, we can reconstruct morphologically complex words with the normal techniques of lexical reconstruction. Morphological analysis of these proto forms provides us with some of the proto morphology. We can reconstruct morphology by the comparative method precisely because the patterns are linked to the substance they govern. Unlike syntax, much of morphology is not regenerated anew each time a morphologically complex word is used.

Because there is no clear absolute boundary between morphological and syntactic functions and many syntactic rules are at least partially signalled on the surface by bound morphemes, reconstruction of morphology can suggest much about syntax. The reconstruction of passive, causative, instrumental, nominalizing, or infinitive morphemes, for example, suggest the existence of related syntactic rules in the proto language. Examples of this technique can be found in Norman and Campbell (1976), where the relationship between ergative morphology and rules of antipassive are discussed, and in Jeffers (1976), who notes the coincidence of VSO order and embedding nominalization.

The potential contribution of this technique to syntactic reconstruction is of course limited by the nature of morphological change. Such events as loss of morphemes, analogical change in the shape of morphemes, and shifts in their functions, are irrecoverable by the comparative method alone. Consider how much of the inflectional morphology of Latin could be recovered from the Romance languages with only this technique.

2. WORD ORDER TYPOLOGIES:

Investigation into the interrelationships among different parts
lop toward typological consistency. It does admit the existence of conflicting factors moving languages away from consistency. Consider the value to be derived from this method under the weaker form of the assumption in each of the following cases:

A. Two daughter languages are typologically consistent in the same way (C1;C2). According to this model of change, there are two plausible origins for this situation:

1. \( \ast C_1 \): The consistency of the daughters could be a common inheritance from a parent with the same consistency.

2. \( \ast 1 \): The parent language could have been inconsistent but both daughters became consistent under the natural tendency to develop consistency.

In this case, the method does not provide strong support for choosing either alternative over the other.

B. Both daughter languages are consistent but in different ways (C1;C2). In the absence of theories about the direction of typological change, there is no clear basis for choosing either language over the other as reflecting the older state. Reasonable proto states could be the following:

1. \( \ast C_1 \): A separate force could have brought L2 out of alignment, then the natural force toward consistency moved it along to its current C2 consistency.

2. \( \ast C_2 \): Some event disrupted the consistency of L1, then the natural tendency moved along to C1.

3. \( \ast 1 \): The parent language was originally midway between C1 and C2, and a natural tendency toward consistency pushed each daughter language in a different direction.

The method rules out none of these possibilities but does prompt the search for the disruptive force required for (1) or (2). If we could rule out the existence of such a force, the method would indicate (3). Unfortunately, we have no procedure for doing so.

C. One daughter language is consistent and one inconsistent (C1;1). Possible antecedents are the following:

1. \( \ast 1 \): The parent language may have been inconsistent in the same way as its inconsistent daughter. The other daughter could have become consistent under the natural tendency in this direction.

2. \( \ast C_1 \): The parent could have been consistent in the same way as its consistent daughter. Another factor interfered with the consistency of the other daughter.

The method again prompts us to search for a disruptive force. As above, the method would indicate \( \ast 1 \) only if we could rule out the existence of such a force.

D. Both daughters are inconsistent in different ways (1;1). Again, in this case, the method alone does not provide a sufficient basis for reconstructing the typological state of the parent. Possible reconstructions are the following:

1. \( \ast 1;1 \): If \( 1 \) and \( 1 \) are different points along the same path, say between \( C_1 \) and \( C_2 \), the parent could have been inconsistent in a way equidistant from both \( C_1 \) and \( C_2 \). \( 1 \) and \( 1 \) could both be developing naturally toward different consistencies.

2. \( \ast 1 \) or \( \ast 1 \): Some factor could have radically altered the original inconsistent state of one daughter to a new inconsistent state. The tendency toward consistency does not enter at all here.

3. \( \ast C_1, C_2 \): If \( C_1, C_2 \) represents the consistent state between the two states of the daughter languages, both languages could have undergone change away from consistency due to outside factors counteracting the natural tendency toward consistency.

E. Both daughters are inconsistent in the same way (1;1). To say that the parent was consistent and that both languages spontaneously developed inconsistency goes against the assumption of a natural tendency toward consistency. That they both borrowed the same inconsistency is unlikely. The most probable explanation is that they both reflect the inconsistent state of their ancestor. In this case, then, typological considerations do provide a basis for choosing one proto system over the others.

The paradox of the word-order approach to diachronic syntax is that the method provides results only when the underlying assumption,
that languages change toward consistency, fails. Furthermore, the contribution of this approach is not as significant as it may at first seem. The method does not guarantee the validity of its result. It only says that in this single case, typological considerations do not invalidate the comparative method. In syntax, however, where the comparative method is without rigor unless form is attached to substance, such guidance is of little value.

2.2. Priorities for Research:

If the only natural tendency in syntactic change were toward typological consistency, all languages should be consistent by now. Unfortunately, noticeable opposing shifts have too often been attributed to the borrowing of inconsistent features without supporting evidence. If typological considerations are to contribute to syntactic reconstruction, certain questions must be resolved.

2.2.1. The Borrowability of Typological Characteristics:

The relative borrowability of typological features must be more carefully investigated. Perhaps some characteristics are easily borrowed, because they are peripheral to the type, while others are virtually unborrowable by languages in certain states because to acquire them would throw the language intolerably out of typological kilter. Such knowledge would helpfully constrain excessive recourse to borrowing as a wild card in reconstruction.

Furthermore, if borrowing is used as an explanation of typological inconsistency, criteria for the demonstration of actual borrowing must be developed, as in Hashimoto (1975) and Tai (1976) for Altaic influences on Chinese.

2.2.2. The Relative Power of Individual Shifts:

Just as typological characteristics may vary in their borrowability at certain times, so might they vary in their capacity to set typological shifts in motion. Perhaps languages tolerate certain inconsistencies more easily than others, perhaps some indefinitely, others not at all. This information is essential to an understanding of cause and effect in typological shift.

2.2.3. The Relative Chronology of Changes in Shifts:

It would be especially useful to discover whether typological characteristics change in a specific order in the course of typological shift. If so, it would become possible to identify the direction of a change in progress and so infer characteristics of the proto language. Of course a given syntactic change may spread to some parts of the system earlier than to others, and the specification of this order is extremely valuable. Remnants of old OV order are claimed to be visible in French pronouns but not full nominals and in German subordinate clauses but not main clauses. If a precise and reliable scale could be set up of the order in which features change in the course of a typological shift, the direction of changes in progress could be charted, providing crucial information for reconstruction.

2.2.4. Internal Counter-consistent Tendencies:

If the method is to be rigorous, other demonstrable factors undermining consistency must be identified as well. The degree to which phonological decay and analogical restructuring, for example, can effect typological shifts by altering crucial typological characteristics must be examined.

These priorities point to a specific goal: the explanation of typological cohesion and dissolution rather than simple description.
At this stage, typological considerations cannot provide a rigorous technique for syntactic reconstruction. With appropriate care, however, notions of typologically probable and improbable states can provide guidelines for the reconstruction of language systems which are not typologically possible.

3. EXPLANATION IN SYNTACTIC CHANGE:

It has been shown that because there is no counterpart to the regularity hypothesis in syntax, there is no rigorous technique analogous to the comparative method for identifying cогenate syntactic patterns across languages. In fact, syntactic structures usually are the result of the types of development which the comparative method cannot trace on any level: those involving analogical remodeling, reanalysis, and replacement. Without the establishment of cognate relationships, it is difficult to amass data for the formation of hypotheses about the preferred directionality of specific changes. Typological considerations offer little assistance in this area.

In diachronic phonology, we can often establish directionality by explaining what could have caused a change. If some physical factor such as muscle control accounts for the tendency toward the continued vibration of the vocal cords during the production of intervocalic stops, then this in a sense "explains" the direction of the frequent change of stops from voicelessness to voicing between vowels. If we understood why grammars change, we could search for the known causes of effects observed in related languages. An understanding of causation could also yield motivation for choosing certain reconstructions over others. In this section, several proposed explanations of syntactic change will be evaluated in terms of their potential usefulness in syntactic reconstruction.

3.1. Internal Causes:

Languages seem to strive for communicative efficiency, toward a balance in the requirements for efficient production, and learnability. This tendency toward systematic equilibrium necessitates a holistic approach to language reconstruction. The parts of language are interrelated with different processes working in concert. Some processes naturally co-occur with others within syntactic subsystems. When it becomes possible to determine the normal or the expected way in which a language deals with these into a functional unit, we can then search for the pieces and relationships in syntactic reconstruction.

A holistic approach also provides criteria in choosing among competing reconstructions. Alternative hypotheses can be evaluated by considering the degree to which they fit into the framework of a more comprehensive phenomenon (grammatical system) and to the extent to which the reconstruction is compatible with language universals (Dressler 1971).

Many changes are brought about by disruptions in other parts of the grammar, putting the functional equilibrium of the language as a communicative system under stress. Compensatory changes bring the system into a new balance. One clear example found in several modern Indo-European languages, including English, Spanish, and others, is compensation for lost case endings by stricter word order to signal grammatical relationships among constituents, especially subjects, predicates, and objects. Another example is from Lapp: as sound change eliminated certain final consonants which were the only formal means of signaling certain case endings, consonant-gradation of stems was extended to consonants and environments to which it had formerly not applied. Consonant gradation thus became the formal marker of these cases (Anttila 1972). Mithun (1976) illustrates a similar therapeutic change in Iroquoian, where various nominalization markers were introduced to identify syntactic functions of constituents obscured by optional focus fronting rules. Kuno (1974) has proposed several universals relating various kinds of word order, based on the difficulties of decoding which they present.

A particularly instructive example is that of Bever and Langen-
done (1972) which illustrates the interplay between perceptual and production needs. They show that in the history of English, as a result of the disappearance of nominal inflections between the 11th and 15th centuries, constructions with relative clauses became perceptually complex. This perceptual complexity was counteracted by changes in the restrictions on relative clause markers, which complicated the grammar per se, but removed many of the perceptually difficult cases (1972:77). A perceptually complex sentence such as: The secretary discouraged the man wanted to see the boss was grammatical in this earlier period. A complication in the grammar requiring an overt relative marker eliminated the difficulty in interpretation.

Misinterpretations or incorrect abductions in cases of surface structure ambiguity may account for changes in related parts of the grammar. Anttila (1972:102-04) presents several examples. To consider just one, Greek had infinitive phrases such as ἔρχομαι γράφειν "I want to write" and ἔρχεται γράφειν "he wants to write", but when final -ν was lost, the surface forms of the third person singular and the infinitive became identical. At some later time, the infinitives were reinterpreted as third person singular forms (ἔρχεται γράφει "he wants he writes") and extended to other persons (ἔρχεται γράφω "I want I write"). For other samples of the appearance of a new construction as a reanalysis of another surface structure type, see Ebert 1976:vii-xi, Jamison 1976, and Breckenridge and Hakulinen 1976.

We do not have as our goal in this section to survey exhaustively the internal causes of syntactic change. Rather we intend to illustrate the potential contribution of such considerations and to call for a holistic approach to the investigation of causes of language change. Until considerable progress is made in understanding the interrelationships among the parts of grammar, functional explanations will be weak. In causal explanations, it can be too easy to find what one is looking for. Even if a known cause can be found in an earlier stage of a language for later effects, there is no guarantee that this was the crucial cause. Criteria must be established for demonstrating that specific causes were indeed the prime factors in proposed changes. The rewards of investigation into functional factors in linguistic change can be important, particularly given the lack of a syntactic counterpart to the comparative method and the current restrictions on the contribution of typological considerations. A holistic understanding of causes could point to hypothetical proto forms, and provide a means of distinguishing innovations from archaisms.

3.2. External Causes:

Syntactic borrowing is an important external cause of syntactic change. Unfortunately, it has been both underused and abused as an explanatory factor. Until recently some denied even the possibility of syntactic borrowing and still many are reluctant to accept a number of probable cases of syntactic borrowing. On the other hand, many others have indiscriminately used borrowing (substrata) to explain the origin of any otherwise unexplained data. To achieve the necessary balance between these two extremes, it is mandatory to discover which aspects of syntax are borrowable and under what conditions they may be borrowed. Criteria must also be established for adequate demonstration of actual borrowing.

A step toward definitions of conditions under which borrowing takes place is Hale's (1971) treatment of gaps in grammars and cultures. He suggests that a language lacking embedded relatives suffers from an accidental gap that it would be likely to fill given the chance, a chance such as contact with a language possessing them. Such an approach to borrowability entails, again, a holistic knowledge of language systems.

One way of constraining indiscriminate appeal to borrowing is to amass as much data as possible on clear cases of syntactic borrowing, along the lines of Thomason and Kaufman (1976). From this, probability levels for various kinds of syntactic borrowing might be established and conditions favorable or necessary specified.
Some convincing cases of syntactic borrowing are Silverstein 1974, Naidarni 1975, Sapir 1907:533-44, Gumperz 1964, 1969, 1971, Hyman 1975, and Tai 1976. A promising type of argument involves syntactic variation in dialects of one language which correspond to syntactic phenomena of contact languages. Silverstein (1974), for example, demonstrates the existence of grammatical borrowing in Chinookan by tracing a dialect continuum, juxtaposing simple tense and aspect distinctions on the Pacific Coast (Lower Chinook, corresponding to neighboring Salishan languages), with multitime distinctions in the southern Plateau (Kiksht Chinook, corresponding to neighboring Sahaptin languages).

The sociolinguistic context of speech often accounts for syntactic changes, and these should not be neglected. Some are code-switching, stylistic variants, conversational implicature, honorifics and reverentials, etc. To take just one example, consider the development of reverentials and their impact on grammar. They have such varied results as turning third person verb forms into second (Spanish, German, Quiché), turning plural forms into singular (Mam, English, Finnish), and converting reflexives and applicatives into third person singular actives (Nahuatl). The royal we of medieval European languages is another case. Ritual speech generally can influence syntactic pattern to change. Finally, rules of oral literature, poetry, translation of sacred texts, etc. can all influence syntactic changes.

4. CONCLUSIONS:

Syntactic reconstruction can be exciting, but must be confronted with a sober realization of both its potentials and limitations. In considering various methods employed for syntactic reconstruction, we have concluded that the comparative method is at present largely unproductive because of the lack of an analogue to phonological regularity and directionality. These, being bound to a theory of sound change, might be partially compensated for if we had detailed knowledge of the implicational relationships which hold among the various parts of grammatical systems. In particular, much can be learned about syntactic change from proto morphology discovered via the normal techniques of lexical reconstruction.

At present, contradictions inherent in the assumptions behind typologically based reconstructions limit the application of this technique. With a more comprehensive knowledge of factors which counteract the tendency toward typological consistency, the method could provide a valuable check on the plausibility of reconstructed proto systems.

REFERENCES:


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