# WORD ORDER AND WORD ORDER CHANGE

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This is a collection of twelve of the thirteen papers presented at the Conference on Word Order and Word Order Change that was held at the University of California, Santa Barbara, on January 26 - 27, 1974. The first eight deal with the diachronic aspect of word order, while the other four represent a synchronic treatment of the subject.

In the preface the editor acknowledges the influence of Joseph Greenberg on these proceedings. His 1961 paper, 'Some universals of grammar with particular reference to the order of meaningful elements', is seen as 'the starting point' for most of the papers in this volume.

The papers in this collection appeal to a great diversity of interests: sign language, languages of the Niger-Congo group, Chinese, Indo-European, drift, discourse grammar, metatheory, the evaluation metric, and, of course, language typology. Obviously, their common purpose is to move toward a clearer explanation of the causal relationships between the surface constituents of a sentence both synchronically and diachronically.

But many of the papers actually share more than the commom denominator of interest in word order. At several points where other mutual interests overlap, the discussions assume the nature of a dialog (or, more often, a debate), and the reader finds transition from paper to paper relatively smooth.

I shall withhold further comment on the merits of this book as a whole until the conclusion of this review. To help the reader make his own evaluation and to guide him to topics of special interest I will present a summary of some of the essential points of each paper (with apologies to each author for any unintentional misrepresentation).

1. Influences on word order change in American Sign Language', by Susan Fischer (1-25). In American Sign Language (ASL) today the basic word order is SVO. Just one hundred years ago it exhibited a predominantly SOV word order. Fischer illustrates this with two texts relating to the story of the Prodigal Son (9):

(1871) Days few after, son younger money all take, country far go ...

(1970's) Later-on second-of-two young son decide, gather, pack, leave home, gone.

In ASL it is still possible, either in the case of a few idioms, in topicalization, or when the interpretation of a sentence would be unambiguous (e.g., the boy likes ice cream'), regardless of the order constraints on base forms, to find SOV -even OVS- arrangements.

The pressure that caused the shift from SOV to SVO Fischer attributes to factors of prestige and contact with English.

Evidently some critics regard sign language as a second-class language. Recognition of this status supposedly leads (in some vague way) to an imitation of the patterns of the dominant English language. More persuasively it is argued that deaf children learning to sign receive a mixed input of ASL and a signed version of English.

Fischer explains that the interpretation of a NNV sequence today would be OSV rather than SOV. Hence, in representing a sentence such as, 'The girl kicked the boy', the sequence of gestures in the context of a discourse would be (19-20):

| boy (here) | girl (here) | she-kick-him |
|---|---|---|
| right hand | left hand | left kicks right from direction of location of girl to location of boy |
| (patient) | (agent) | |
| (1) | ←--------- (2) | |

direction of movement

This is the preferred (unmarked, and evidently more efficient) order.

Since sign language is a visual medium, the use of the space around the signer is important in indicating grammarical mechanisms. This function of space represents a countervailing force to the pressure from English word order patterns. Fischer suggests that since location is available to disambiguate the grammatical relations, non-reversible subject and object sequences may continue to occur in SOV and OSV orders (21).

This article gives the reader an immediate view of the broad spectrum of topics presented in this volume. Fischer's investigation is intriguing and very informative. One would

only wish for greater elaboration with more data on the interesting discussion of how ASL got (or is getting) to SVO.

2. 'Dynamic aspects of word order in the numeral classifier' by Joseph Greenberg (27-45), begins by presenting eight synchronic hypotheses about the numeral classifier construction that have been extracted from one of his earlier papers (1973). From these synchronic observations he suggests three diachronic hypotheses, briefly sketched here.

First, the classifier phrase is originally a Quantifier-Noun phrase 'with a particular syntactic use' (31). The Quantifier (Q) - Classifier (Cl) array as a favored sequence reflects characteristics of the Quantifier ↔ Noun (N) relationship in non-classifier languages.

Second, the order of the N in relation to the classifier phrase is often in the process of undergoing a shift. The Q ↔ Cl sequence remains relatively fixed.

Third, it is more likely that in such cases the earlier order is N - (Q ↔ Cl) rather than (Q ↔ Cl) - N.

The rest of the article is a consideration of evidence that tests the validity of these hypotheses. In Greenberg's words, 'the most cogent [evidence comes from] direct historical documentation' (31).

Evidence for the shift from posposed to preposed classifier is adduced from the history of several languages, including Chinese, Khmer, and Burmese. Gilyak shows the same shift across present generations.

Greenberg observes that while in phonology there is

independent evidence concerning the relative plausibility of historical changes, 'it is precisely the plausibility of [the hypotheses] which is at issue' (36). 'There are...cases...in which the evidence points to a historical shift from postposed to preposed position and no counterevidence. [However] it is not claimed that the construction always arises in the post-positive form. [There may be instances when the preposed form is found] in which there is nothing to show that it was ever otherwise' (38).

The author proceeds next to considering 'the factors involved in the synchronic favoring of the postposed classifier construction such that even consistent SOV languages with preposed nominal modifiers, such as Japanese, have postposed order as usual or exclusive' (38). In investigating the occurrence of variant orders Greenberg suggests looking for differences in function. Illustrating this point with examples from Standard Malay, Palaung, and Hungarian he shows that some quantifying expressions may be typed as prenominal, while others are adverbial in nature.

In viewing the classifier expression as an original quantifying phrase that 'serves as comment to the head noun functioning as topic' (41), Greenberg proposes that in these instances 'the use of a classifier...can be viewed as a device which avoids the bare predication of numerals which is disfavored in many languages' (41). This would seem to suggest that there is a comparison here to some generative accounts of the derivation of the adjective phrase: '1) predication, 2) relative clause,

3) adjective follows noun, 4) adjective precedes noun (41). Greenberg does not claim that this should be taken as the model for a diachronic sequence.

3. 'Serial verbs and syntactic change: Niger-Congo', by Talmy Givon (47-112). The aim of this paper is to study two diachronic processes: 1) the demise of SOV syntax and its associated syntactic typologies in Niger-Congo, one of which is a specific type of verb serialization; 2) a process involving two mutually linked changes that combine to affect the lexico-syntactic typology of the language as follows: [a] 'the lexical re-analysis (or, 'grammaticization') of verbs as prepositional case markers and [b] the correlated change from a serializing to a non-serializing VP typology' (49).

Givon presents evidence from the Mande, West Atlantic, (Voltaic) Gur, Benue-Kwa, and Bantu groups to reconstruct Proto-Niger-Congo as an SOV language.(section 2). In the section following the author discusses verb serialization (found mostly in the Benue-Kwa group) which he asserts is one of the major typologies that resulted from the shift away from SOV syntax. Givon notes that the synchronic analysis of serial verb constructions has been the subject of a long debate over the following issues: are these entities verbs or prepositions; if verbs, do they represent a coordinate or subordinate structure; does serialization arise diachronically from conjunction or subordination?

In section 4 Givon presents arguments to show that the verb-serializing languages of Benue-Kwa may be undergoing a

gradual syntactic-lexical change, from SVO verb-serializing syntax towards a non-serializing verb phrase in which erstwhile verbs are re-analyzed as prepositions' (80), or postpositions in Ijo. His criteria for the reanalysis are semantic (there is a depletion of some semantic material out of the erstwhile verb (82)); morphological (there is a loss of ability to take normal verb affixes (84)), and syntactic (after semantic reanalysis as a preposition or a conjunction a verb quite often remains at its original serial-verb position (84)).

Givon argues that a shift from serialization must be gradual: the morphological and syntactic behavior is likely to lag behind the more progressive semantic re-analysis' (86). Another type of argument Givon characterizes as 'rather futile' (86) is one undertaken by Hyman (1971b) and others for the coordinate diachronic origin of serial verbs. To Givon 'it is quite clear that languages do proceed to reanalyze semantically the relationship between two erstwhile coordinate ("consecutive") clauses so that eventually a non-coordinate semantics prevails' (87). Further on he states, 'the lexical-semantic re-analysis of verbs into prepositions in a serial-verb construction is likely to create semantically more complex verbs in all cases... and is also likely to introduce some SOV syntax into an erstwhile SVO-serializing language. But it is not likely to introduce a complete SOV syntax into the language' (89).

This paper is well written and most laudable for providing the reader with an abundance of data to illustrate the author's contentions. The paper that follows should be read to see

Hyman s response to Givón s claims.

4. On the change from SOV to SVO: evidence from Niger-Congo', by Larry Hyman (113 -147). Hyman, like Givon, focuses his attention on the Niger-Congo family of languages in an investigation of 'the various factors which may contribute to the change from an SOV to an SVO word order' (115). Hyman discusses the following four 'explanations' for word order change: 1) contact, 2) disambiguation, 3) grammaticalization, and 4) afterthought.

While acknowledging that contact is often responsible for word order change, Hyman prefers to leave it aside, reasoning that a diachronic search for lost contact languages to explain a change might prove fruitless. On disambiguation as an explanation Hyman cites Vennemann (1973a) in which it is contended that 'word order changes result from the leveling of morphological case markings, which in turn are lost through phonological change' (116). Vennemann's model is rejected because it is not readily adaptable to the facts of Niger-Congo, since Proto-NC was not characterized by case markings on nouns' (123).

Grammaticalization as proposed by Givon (this volume) is also rejected (124)

> However, since Givón is correct to point out that Proto-Bantu did not serialize verbs (though an earlier ancestor may very well have involved serial verbs), the grammaticalization of verbs to postpositions could not have caused the change of SOV to SVO in Bantu--where, recall from the preceding section, the whole thing is presumed to have started. We must therefore conclude that grammaticalization plays little if any role in the word order changes discussed in the first part of Givon s paper.

Hyman concludes that afterthought is the best explanation to support the evidence from Niger-Congo. Afterthought, a cover term for a number of different-though related phenomena-'(119), is to be understood as an aspect of the 'conflict between syntax and pragmatics. That is, speakers, in the course of using a language sometimes find it necessary to break the syntax and <u>add</u> grammatical elements in positions where they normally should not appear' (119-120). Hyman takes evidence from Kru and Kpelle to support his claim. He writes (135-136):

> The reason why [afterthought] hits the sentence first is because of the <u>magnitude</u> of the problem of afterthought -- i.e., the units which can serve as afterthoughts are simply larger in scope, more likely to be forgotten. Thus, if if afterthought is to lead to a rearrangement of the syntactic units, it will take place historically first in the change from SOV to SVO, and then in the change from Mod-N and N-Mod, as was seen in the two separate syntactic waves which hit Kwa territory (section 3.1).

Hyman devotes the fourth section of his paper to a reply to Givón's treatment of serialization. Givon, he writes, attributes the rise of serialization to a response to the loss of case markings on nouns. Citing the replacement of a case marker or a preposition expressing instrumentality with a verb such as 'to take' as in, 'take the knife and cut the meat' (138), Hyman says there is no disruption of the instrumental meaning. This would then show English to be a serializing language and 'the distinction between serializing and not serializing becomes trivial, if not nonexistent' (138). Further on he asserts that serialization does occur in SOV languages, e.g., Laku and Japanese. 'It doesn't occur in too many African languages, because the only SOV language in the serialization belt is Ịjọ.

And there it occurs' (141)

Hyman's paper is valuable for his insights into the notion of afterthought - vague though it may be. His refutation of Givon's position is not as convincing.

5. 'A discussion of compound and word order', by Winfred P. Lehmann (149-162). Lehmann offers what might be described as the 'keynote' paper of the conference. While the purpose of his effort is to 'examine the position of nominal elements of verbs' (151), (the data comes mainly from Sanskrit, and focuses on Proto-Indo-European), the reader is impressed by the hortatory ring of the prose. In fact when some of the sentences are extracted from the article and displayed in a list (incomplete) as below, they read like maxims.

1. The time has come to set up universal laws of language development, if cautiously (151).
2. We should state our procedures and abide by them (151).
3. We seek an understanding of syntactic phenomena by practicing comparison to determine universal laws, combining such comparison with philological study and historical comparison...(151).
4. In studies concerning universals of language we generally start from an examination of data and then ask questions regarding the data...In dealing with such questions we must examine the data in accordance with a model of language, and in accordance with specific principles that have been observed regarding linguistic structures. Moreover, we must realize that languages are historical products (151-152).
5. [A]ny hypothesis of syntactic change must be framed in accordance with a strict framework...[T]he question which may be the most pressing in historical lniguistics at present [is] identifying the events and structures resulting when a language undergoes syntactic change (154).
6. The processes of syntactic change, and the influences

proposed for it, must be determined by observing what happens to languages in transition (155).

7. When a language is undergoing syntactic change, some of its characteristics must be modified before others (155).

I would urge the reader to turn to this article first because it captures the spirit that has animated the other contributors in their endeavors. This assessment of Lehmann's paper is not intended to diminish interest in his well-articulated factual discussion. To the contrary. But it is outstanding in its general appeal, and must be read for that, if for no other reason.

6. 'The semantic function of word order: a case study in Mandarin', by Charles N. Li and Sandra A. Thompson (163-195). This is a study of the semantic function of word order with respect to definiteness in Mandarin Chinese. The authors present evidence 'to demonstrate that definite nouns, whether subject or object, tend to be placed before the verb, whereas indefinite nouns tend to follow the verb. [They contend that] this function of word order was developed in the past millenium and that, as a relatively new grammatical device, it is in conflict with the shift from SVO to SOV - a diachronic process presently in action. [They claim that their analysis] will indicate that this conflict is most likely to be resolved in favor of the shift to SOV word order' (165-166).

The authors assert that their evidence suggests the following generalizations and associated 'refinements' or modifications:

Tendency A

Nouns preceding the verb tend to be definite, while those following the verb tend to be indefinite (170).

Refinement 1

The noun in postverbal position will be interpreted as indefinite unless it is morphologically or inherently or non-anaphorically definite (173).

Refinement 2

A sentence-initial noun must be interpreted as definite, and may not be interpreted as indefinite even if it is preceded by the numeral yi 'one' (177).

Refinement 3

The noun following bei [an agent marker], although preverbal, is immune to Tendency A (179).

Refinement 4

Nouns in prepositional phrases are immune to Tendency A (182).

Tendency B

Mandarin is presently undergoing a word order shift from SVO to SOV (185).

Evidence for the hypothesis stated as Tendency B is: 1) the ba- construction that allows SOV word order is becoming more extensive (187-188); 2) in modern Mandarin the demonstrative article, nèi- 'that' and the numeral, yi- 'one' may serve as definite and indefinite articles respectively in subordinate clauses, indicating a gradual trend (188).

This paper is exemplary in its orderly presentation and strong empirical orientation. It represents a continuation of similar studies undertaken by Li and Thompson.

7. 'On some factors that affect and effect word order', by Susan Steele (197-268). Steele claims that in her survey of the position of grammatical modal elements in 44 languages she has found them to be 'ordered with respect to the other elements of the sentence in a regular fashion' (199). She classifies

languages into two types with respect to the position of modals. Type A languages, where modals are dependent on the main verb, commonly show the following word orders (218)

S Modal VO
SOV Modal
Modal VSO

In Type B languages 'modals tend to occur in the sentential second position' (221). In this group modals seem to be defined solely by their sentential position.

Steele observes that there are two major theories about grammatical modals. One holds that 'modals are generated in the deep structure in the position in which they occur on the surface, dominated by the category symbol, Modal' (222). The other theory derives modals as main verbs. Since neither theory can completely explain the positional tendencies she describes, Steele suggests a third alternative. She maintains that the position of modals in the surface structure is dominated by two factors:

1. There are certain unmarked surface positions for modal elements. In verb-initial languages this is the sentence-initial position; in verb-final languages, sentence final position (223).

2. The unmarked positions are acted upon by two tendencies- the tendency for certain elements (including, but not exclusive to, modal elements) to be attracted to the verb and the tendency for these same elements to be positioned initially (224).

Steele hypothesizes, 'the importance of the sentence-initial position is related to a strategy that psychologists have called "primacy" [by which] the first element in a series is perceived to be the most important' (235).

Further on she states that the assumed tendency of modals

to sentential second position is a function of the importance of first position. Her conjecture is:

> 1)of all the elements (topic, negative, past tence, quotatives, and modal elements) that may be attracted by sentence initial position, the attraction for topic is the strongest; 2) topic may solidify in sentence initial position, thus forcing all of the other elements to sentential second position (238-239).

Steele concludes that 'the multi-purpose importance of first position will force grammatical elements - and verbs - out of first position and topic (developing to subject) in (243).

Steele's occasional mention of psychological strategies reminds us that exploration into the relationship between word order and cognitive strategies is still tentative but would doubtless add considerable explanatory power to the observations made by linguists.

8. 'An explanation of drift', by Theo Vennemann (269-305) begins with a review of past discussions of drift in Sapir(1921), Fries (1940), and Lakoff (1972). Sapir's identification of three 'major drifts' (leveling of distinction between subject and object cases, tendency to fixed position in the sentence, and the drift toward 'the invariable word' (272)) shows some shortcomings. It is anglocentric, uses few examples, and appears 'impressionistic' (276). Nevertheless, the studies by Lakoff and Fries represent regressions from the advanced position taken by Sapir. Of Lakoff Vennemann is particularly critical for her 'amazing misrepresentations of Sapir's straightforward and insightful original account of drift' (286).

Greenberg and Lehmann in their numerous publications shun the term 'drift' but Vennemann notes that they investigate

phenomena closely related to it and have contributed much to its explanation.

In the last section entitled, 'The universality of drift: natural generative grammar' Vennemann discusses explanations for individual drifts and the literature associated with them. His discussion leads primarily to this conclusion (301):

> Sapir was moving in the right direction when he established causal relationships among his individual drifts and viewed phonological change as the ultimate cause of drift. We are now, half a century after Sapir's exposition of the problem, in a position to make deeper and more comprehensive generalizations about the nature of phonological and syntactic change. This enables us to say that given the inevitability of neutralizing and reductive phonological change, and given the various, often conflicting demands of pragmatics and semantics on grammatical structure, drift is inescapable, and its course predictable.

This article deserves special attention for two reasons. One, drift as a plausible linguistic phenomenon has had a 'bad press' for too long. Vennemann synthesizes the findings of several scholars across a broad chronological spectrum to justify the validity of the concept of drift and to relate it to notions of linguistic universals. The second reason why this article is so commendable is that it is a satisfying reminder of the lasting value of the insights of Edward Sapir.

9. 'Order in base structures', by Emmon Bach (307-3 3). Bach's paper is yet another example of the comprehensive scope of this collection. The author undertakes to present arguments in favor of an ordered base and to refute the claims made by the proponents of order-free theories of the base. This article is important because in Bach's words, it 'is particularly relevant to hypotheses about universal grammar'(309).

Bach notes in his introduction that because base structures are theoretical constructs they 'cannot be directly observed or intuited' (310). Therefore, the hypotheses on which these constructs are based must be scrutinized, since they are more accessible to empirical justification. He then procedes to outline different theories of the base (section 2); to examine some of the arguments that support the claim that base structures are unordered (section 3); and in the last section to present his refutation of the case for unordered base structures. Although Bach's empirical evidence is predominantly (but not exclusively) from English, the force of his arguments remains strong. Bach's conclusion is that the evidence suggests there is an inherent linearity in language at all levels, a condition which, if true, would weaken the claims of order-free theories.

Although Bach integrates some typological evidence to support his arguments, the discussion remains mostly on a metatheoretical level, which, of course, sets his paper apart somewhat from the general tone of the others. This detachment is desirable because it serves to bracket the studies presented here with a theory of grammar at the most abstract level. All of the contributors to varying degrees relate their studies to a theory of generative grammar. Because of the understandable limitations imposed by the subject matter of the previous papers, Bach's paper, as well as the three that follow it, offsets what might otherwise have represented a noticeable imbalance in this volume.

It is recommended that Sanders' paper be read in conjunction with Bach's. Sanders offers a somewhat negative critique quoted in part here (401n):

> In Bach's case all that is shown is that there are certain facts about certain languages that appear to be consistent with the hypothesis of variable ordering. It is not shown that these facts are inconsistent with the hypothesis of invariant ordering, or with any other principle of the theory of Derivational Ordering. It is the latter, of course, that must be demonstrated, and not merely the former, if one wishes to support the claim that invariant order theories are false or inadequate.

10. 'The presentative movement or why the ideal word order is V.S.O.P.', by Robert Hetzron (346-388). Hetzron's introductory argument goes as follows. In a discourse no sentence is uttered in a vacuum. Not only are the preceding discourse and situation important in the context of an utterance, but also he notes that any given sentence may figure prominently in the background of subsequent sentences. When a sentence is constructed so that a certain component of it will be 'given a status of prominence in short-range memory, so that it will dominate the immediate sequel to that particular utterance' (347), the motivation for this promotion to prominence is called the 'presentative function'. In the derivation of a sentence elements marked by the presentative function often end up in a sentence-final position. This 'transfer of presentative elements to the end of the sentence' Hetzron calls the 'presentative movement' (348).

Hetzron collects evidence mainly from English, Hungarian, and Amharic to demonstrate how the presentative movement brings certain elements to 'a sentence-final, or at least to a later

than usual, position' (374). He argues clearly and persuasively in showing the existence and operation of the presentative movement, but leaves the reader uncertain about why, as the title suggests, the ideal word order is V.S.O.P.

The article makes an interesting contribution to this volume because the presentative function belongs to discourse grammar which operates on somewhat less exact, less strict principles than sentence grammar' (376). Hence, when it comes to making claims for the universal status of the presentative movement the prose becomes equally inexact: We can state that the presentative movement is a universal tendency potentially always present in the speech system of humans, applying whenever there is an opportunity' (376). Hetzron says universal tendencies play a weighty role in discourse grammar (376), though he does not say how. On the role of the presentative function in historical change the discussion becomes even more tentative (377):

> The presentative...shows up in all cases where it has been given a chance to influence the direction of historical change. Once it has managed to become part of a particular grammar, it tends to persist, withstanding the erosive effect of later historical developments, as in Amharic (Section 5.). In other cases it succeeds in sneaking in the back-door, as in cataphoric predications where the presentative element has to be promoted to the status of predicate to attain the final position.

11. 'On the explanation of constituent order universals', by Gerald Sanders (389-436). The purpose of this article is to show how 'any serious attempt to achieve even the lowest order of explanation [of all significant facts and generalizations about the subject matter of our discipline] requires the

assumption of numerous precise and highly restrictive meta-constraints on natural-language grammar, meta-constraints which have far-reaching implications and interrelations with respect to all aspects of phonology and syntax' (405-406).

Sanders is particularly critical of statements typically found in the literature that he labels 'gross numerically unspecified likelihood assertions' such as (393):

> In declarative sentences with nominal subject and object, the dominant order is almost always one in which the subject precedes the object. (Greenberg 1963 1962 :61)

Such statements (he cites other linguists as well) are 'too vague and unnecessarily elaborate to be really useful even as statements of mere description. They have no possible predictive or explanatory uses at all' (394). If linguists are to act on their commitment to hold to the rigorous standards imposed by an empirical science, their metatheoretical and methodological prerequisites must make it possible to establish 'the scientifically indispensible implication relations that must hold between empirical hypotheses and factual observations that would suffice to confirm or disconfirm them' (428).

Sanders sees his objective in this article is 'to exemplify the complexities and ramifications attendant upon any serious attempt to explain constituent ordering in natural language' (429) He develops his arguments 'primarily with respect to the highly restrictive theory of Derivational Ordering...and the meta-constraints that comprise this theory--the principles of Terminal Completeness and Invariant Ordering' (429). Sanders specifically deals with natural language data concerning (for example) the

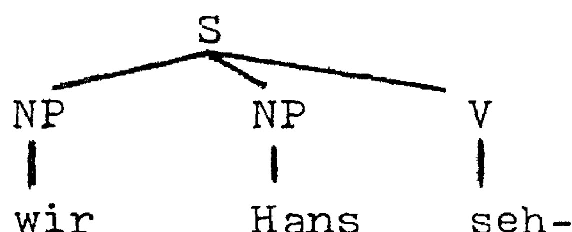
ordering of oblique arguments, adjectives, and nominal modifiers. To generate the most general explanations of all the facts about the ordering of these elements, the author develops his case for 'the grammatical law of Specificity Preposition' Sanders shows that the importance of this 'law' lies in the fact that it can also predict the non-existence of orders that do not occur.

The article, while uniquely dealing with the evaluation metric, interacts nicely with the other papers in this collection. Obviously, it relates to the discussion presented by Bach, but perhaps it is in seeing what amounts to a specific response to Lehmann's exhortations in this volume for the determination of universal laws (151) that the reader might acquire the greatest stimulation and satisfaction.

12. 'Verb-anchoring and verb-movement', by Arthur Schwartz (437-462). In mapping deep structural representations onto surface structure Schwartz suggests that constraints on transformations be made in terms of 'nucleus' and 'constituent' which would make 'no reference to lexical categories like N, V, P, etc.' (439). Schwartz claims that the distinction between SVO and VSO orders lies in terms of VP-constituency in that the notion VP is peculiar to SVO organization. VSO and SOV systems 'involve a decision about the position of the verb (predicate, generally) whereas SVO do not' (439-440). Verb-movement of any kind is to be found only in SVO systems. Or, put another way, 'SVO language-learners do not "make a decision" about the position of the verb, and so the verb is "movable"; learners of V-initial and V-final languages view the verb as a fixed point and so do

not "imagine" it as movable' (457). How Schwartz could ever know - let alone prove - all this is beyond me.

The discussion is interesting but omits careful definition of the presumably important constraints mentioned in the introduction such as the 'Unit Movement Constraint' and the 'Fixed Nucleus Constraint', referring the reader instead to the writer's other publications. Moreover, what the author means by '(make a) decision' and 'imagine it as movable' (above) is also left unstated. The reader feels prepared to accept Schwartz's arguments (examples from several languages are provided) but senses a lack of focus due perhaps to the preliminary nature of this investigation. Hence, exactly why the analysis of German subordinate clause structure that shows

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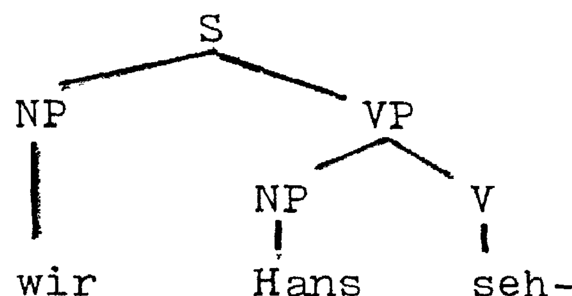


is not clear.

Conclusion

Li makes the following observation in his preface (iii)

> The empirical facts amassed by Greenberg have made it possible to study the WHY and the HOW questions concerning the synchronic nature of word order and the diachronic process of word order change. However, during the Sixties, the field of syntax in the United States was almost exclusively the domain of those who researched the synchronic structure of English, as if there were an operational synonyn between 'theoretical significance' and 'transformational study of English.' Thus, in the years immediately following the publication of Universals of Language, the immense potential for theoretical investigation offered by Greenberg's cross-language study was accorded little attention. Not until the Seventies have attempts been made to understand and explain those WHY and HOW questions which are the obvious consequences of Greenberg's universals.

This book appears to have a place in the contemporary scene somewhere the Labovian part of the spectrum and the part occupied by the generative theoreticians; the former, allowing a dynamic interpretation of empirical linguistic and supralinguistic facts; the latter, strongly theory-oriented, producing as a consequence a more static model. The efforts represented at the Conference on Word Order and Word Order Change exhibit on one hand the dynamic empiricism of the Labovian working method, while on the other, show a response to the general call for greater rigor and a reconciliation of these linguistic facts with the generative model.

It is interesting to go back a few years to the symposium held at the University of Texas at Austin in 1966, the proceedings of which were published in 1968 as Directions for Historical Linguistics. In an essay entitled, 'Empirical foundations for a theory of language change', by Weinreich, Labov, and Herzog we can see an anticipation of the contributions made by the

the participants in the Santa Barbara conference. Greenberg's work, they write, indicates two important modes of investigation (Lehmann and Malkiel 1968:138):

> (1) the clarification through empirical means of the abstract claim that synchronic systems have 'dynamic' tendencies... and (2) the use of quantitative methods to replace anecdotal evidence and persuasive argument.

They go go on to criticize - with justification - that at that time Greenberg was lacking in an over-all theory of language structure or language change. But in the next paragraph their foresight and insight grows dim:

> We are encouraged by Greenberg's use of quantitative methods and his ability to isolate significant trends in structure. At the same time, one must admit that <u>he is necessarily confined to surface structure at the lowest level of reliability</u> which is common to the descriptions of the languages available to him. It is sometimes argued that one must have a comprehensive theory of language or language change as a whole, before one can begin to investigate language or language change seriously. If one holds to this doctrine, one would have to be extremely critical of Greenberg's workmanlike procedures. (138-139; emphasis added)

Returning to the present, it is evident that Weinreich et al. were correct in recognizing the potential in Greenberg's work, and in recognizing its need for a theoretical perspective. It is also clear that they underestimated the value of the study of word order.

Keeping this in mind, the volume under review must be seen as a breakthrough first, because it effectively synthesizes Greenberg's universals and generative theory, and secondly, because this synthesis leads to an unprecedented understanding of the causal relationships between the surface constituents of a sentence.

Of course, many of the contributors to this collection have published similar material that predates this volume. But their success (such as it might have been from case to case) was singular. The impact of this book derives from the strength of the common purpose of the twelve contributors. Certainly many of the claims made by these scholars will eventually have to be modified, (some can be shown already to be in conflict), or will have to be cast aside altogether. They readily admit that much of their work is tentative. The 'breakthrough' is not decisive. However, these studies of word order and word order change constitute a stimulus for new explanations in syntactic theory comparable to the stimulus provided to phonological theory by the notions of markedness or naturalness.

Hence, this volume represents the burgeoning of a third direction, an alternative to the major competing theories of language and language change. It is non-Labovian and non-generative, though it draws heavily from both. The study of language typology may contribute in an unexpected way to our understanding of linguistic change.

This book is recommended reading for any professional linguist. For the teacher it is a valuable asset because it can be used as one of the few references for historical syntactic change. Alas, not everybody likes phonology.

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