

# **TOTONAC: FROM CLAUSE TO DISCOURSE**

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# **TOTONAC: FROM CLAUSE TO DISCOURSE**

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# INTRODUCTION

The title of this volume is indicative of the belief of its authors that grammar does not cease above the sentence level but extends on up through paragraph and discourse. A language is a consistent whole. Certain features of word and clause structure find their ultimate rationale only by reference to higher levels which include and go beyond the sentence. Furthermore, sequences above the sentence may be shown to have grammatical structure in no essential way different from that found on lower levels. In the process, however, the notion of sentence itself--that level medianly spaced between the linguistic stratosphere and troposphere--must be brought into better focus. It little helps us to go beyond the sentence if we do not know what a sentence is. Such, in brief, is the task of this volume.

Practical exigencies of field work within the framework of the Summer Institute of Linguistics (Mexico Branch) have led to the choice of Totonac as the target language of this description. Any language--if our theoretical contentions are correct--could have served the purpose. Totonac was a felicitous choice in that three people trained in linguistics were available to work on the project simultaneously beginning in the fall of 1965. A natural division of the labor was to assign one (Reid) to the study of clause structures, one (Bishop) to the study of sentence, and one (Button) to the study of paragraph and discourse. All three speak Totonac and had access as well to a large corpus of Totonac text which had been machine processed into a concordance. The independent but coordinated attacks on various levels of Totonac grammar proved efficient in the simultaneous exploration of that grammar on a broad front. At the same time each of the three exercised a control on the work of the others in that each had to correlate to varying degrees the work of the others with her own work. As fourth author I have supplied the theoretical framework of the volume, served as consultant to the three other authors during their time of analysis and writing, ghost-written a paragraph here and there, and edited the whole. Nevertheless, whatever I have contributed to the form of the volume, the substance has been supplied by the other three authors.

Zellig Harris observed in 1952 (P. 1) that "...descriptive linguistics generally stops at sentence boundaries. This is not due to any prior decision. The techniques of linguistics were constructed to study any stretch of speech, of whatever length." Whatever its ultimate capacities, linguistics has to this day continued largely to preoccupy itself with structure which does not go beyond the bounds of the sentence. Some have felt that linguistic structure above the sentence is perhaps structure of a fundamentally different sort from that found on lower levels. Others have dogmatically asserted that structure above the sentence is not the proper domain of either grammar or semantics. Thus Katz and Fodor: (1963: 173) "Grammars seek to describe the structure of a sentence IN ISOLATION

FROM ITS POSSIBLE SETTINGS IN LINGUISTIC DISCOURSE (WRITTEN OR VERBAL) OR IN NON-LINGUISTIC CONTEXTS (SOCIAL OR PHYSICAL)" (the capital letters for emphasis are theirs not mine). This is an extreme example of the preoccupation of transformational-generative grammar with the sentence (both clause and sentence as here used) to the exclusion of interest in higher levels and to the neglect of systemic taxonomy on the lower levels.

Here and there, however, there have been those who have begun to explore paragraph and discourse structure from the base of linguistics (rather than from the viewpoint of literary criticism). Thus, to cite but one instance, there was an interesting pair of papers presented at the summer meeting of the Linguistic Society of America in 1964: "Structure Above the Sentence Level" by George P. Lakoff; and "Morphological Continuity in Poetry" by M. C. Bateson. In the immediately preceding meeting of the Association for Machine Translation and Computational Linguistics two other papers of relevance to higher-level grammar were read: "Paragraph Structure as an Approach to Mechanized Discourse Analysis" by S. N. Jacobson; and "Inter-Sentence Connectivity in Written Discourse" by Kenneth Harper. The latter two papers are indicative of investigation into paragraph and discourse structure now underway at some computer laboratories.

Almost from its inception tagmemics has had an interest in grammar above the sentence. An unpublished paper of James Lorient's (1958) explored inter-sentence ties in Shipibo discourse and has had considerable influence on the early development of tagmemics ("Shipibo Paragraph Structure"). The Pickett grammar of Isthmus Zapotec (1960) and the more recent grammar of Telefol (New Guinea) by Phyllis Healey (1965) both include brief treatments of discourse structure (three pages in Pickett and nine pages in Healey). The brevity of the treatments of higher-level grammar in these volumes is reminiscent of the brevity with which syntax in general used to be treated when the 'grammar' of an Indian language consisted mainly in a statement of its morphological structures. More extensive but with narrower focus is Scott's study of Persian and Arabic Riddles (1965). Articles such as Loos's "Capanahua Narrative Structure" (1963), Powlison's "A Paragraph Analysis of a Yagua Folktale" (1965) and Alton Becker's, "A Tagmemic Approach to Paragraph Analysis" (1965) are further steps in the right direction. Very important but as yet unavailable is Loraine Bridgeman's "Oral Paragraphs in Kaiwa (Guarani)" (dissertation at Indiana University, 1966). Meanwhile, Pike continues to prod his colleagues on into further exploration of the higher levels by means of such articles as "Beyond the Sentence" (1964) and "Discourse Structure and Tagmeme Matrices" (1964).

Whatever contribution this volume makes to the understanding of paragraph and discourse structure clusters around the following: (1) Contrasting types are presented on both levels. (2) Each type is represented in a formula. (3) Types are shown to comprise systems. (4) Tree structures are given for individual examples of the various types. (5) In all these respects paragraph and discourse are shown to be fundamentally no different from sentence, clause, phrase, or even word levels. The tree structure of even a moderately sized discourse is, admittedly, very involved. In our tree di-

agram of the discourse analyzed in Chapter V of this volume (Diagram XXII) the tree is not carried down any lower than beyond the some 150 component paragraphs and embedded discourses which make up this one discourse. This extensive diagram is further extendible by carrying down into sentence, clause, and lower levels. (6) Paragraph and discourse structure are integrally related to the lower levels: sentence, clause, and word.

In the course of this study the notion of 'sentence' itself has been brought into better focus. In that I have developed this notion in detail elsewhere (1967) a summary will suffice here: (1) The sentence is essentially a level where clauses are combined as propositions are combined in formal logic--but a simple one-clause type may occur as well. (2) Natural languages have, however, a richer combinatorial apparatus than that of formal logic. They use juxtaposition (with or without conjunction), opposition (relation by 'or' or 'but'), implication (balancing of propositions by such words as 'if' and 'then'), and quotation (speech about speech, speech which includes speech). Arranged in this order the above four categories form four variables of a concatenation parameter with increasing closeness of concatenation. (3) In the sentence margin--which occurs indifferently in most types--may occur such tagmemes as: exclamation, vocative, sentence topic, temporal, causal, circumstantial, purpose, and concessive--as well as sentence level conjunctives. (4) In the nucleus of the various sentence types occur such tagmemes as: thesis, adversative ('but'), and antithesis (in the adversative sentence); conditional ('if'), protasis, apodosis (in the conditional sentence); indirect quotation formula, sign of quote ('that'), indirect quoted, (in the indirect quotation sentence). Especially strategic is (3) in that only by recognizing the sentence-level but peripheral function of certain of these elements (such as, e.g. circumstantial and purpose clauses) can one avoid cluttering up his scheme of sentence types with a number of pseudo-types (circumstantial or purpose sentences) which would obscure the outlines of the system.

The scheme posited for Totonac sentences is quite similar to that here suggested except that (1) a column is set up for simple sentences which could be considered to represent zero grade of concatenation. Two such types are posited, the Particle Base sentence (whose nucleus contains less than a clause) and the Clause Base sentence (whose nucleus contains but one clause). (2) For each of the two main categories of sentence (simple, juxtaposition, opposition, implication, and quotation) two sentences occur differentiated according to relative strength of cohesion. (3) Sentence periphery includes the tagmemes suggested but not concessive which joins the configuration as a subtype of the adversative.

The present description of Totonac sentences reflects some problems which yet remain in the theory of sentence structure: (1) Should Particle Base sentence be set up or should all such sentences be considered to be ellipses of full clause sentences? Only the Particle Base sentence has no periphery. It may be manifested by a word or a phrase. Furthermore, it occurs primarily in dialogue. I have argued elsewhere (1967) that it might be more consistent to consider such sentences to be sentences which have deleted most of their clause base. (2) Should sentences containing a string of clauses be decomposed--as we have done here--into tagmemes manifested by simple sentences (whose clause-base tagmeme is manifested by vari-

ous clause types) or directly into tagmemes manifested by clauses? In favor of decomposition into simple sentences is the consideration that the sentence seems to be a nest in which sentence-within-sentence seems to be the order of the day. Furthermore, occasional examples occur of sentence peripheries down on the lowest layers of such nests. In favor of decomposition into clauses is the somewhat bizarre result of our present analysis, viz. that clauses build hierarchically into sentences via one and only one sentence type, the simple sentence. (3) Should the manifestation of quoted tagmeme in both direct and indirect quotation sentences be considered to be a paragraph type in every occurrence as here posited? This seems to be plausible enough in the direct quote where stretches of more than one sentence within the quoted are frequent. In the indirect quote, however, the quoted is typically shorter. It may, nevertheless, involve a series of sentences such as the equivalent of 'he said that... and that... and...' This series of sentences is parallel in structure to that of a paragraph and is therefore analyzed as such. By analogy then, an indirect quoted consisting of but one clause base sentence is considered to be a minimal paragraph.

Totonac clauses comprise the most extensive and involved system of clauses which I have seen to date. The generation of the 396 verbal types of this system from a kernel of eleven types is, however, very symmetric and regular. In a system embracing so many clause types the focus is rather on the parameters, the distinctive features of the various clauses, than on the clause types themselves. Within the kernel clauses one to five *dramatis personae* are indicated as present (subject, object, indirect object; and one to three referents--but not three referents with both direct object and indirect object indicated). Causative clauses introduce a further *dramatis persona*. Further clause types suppress (or render indefinite) some *dramatis persona* indicated in the verb. Still other more outer parameters of the system distinguish anaphoric ties; and indicative versus interrogative versus injunctive. The *dramatis personae* indicated as present in the verb may be multiple but only rarely will very many occur as noun expressions within the same clause. The drama is set up to include a certain number of characters but the stage is not permitted to be cluttered with too many on stage at the same time. The *dramatis personae* indicated as present in the verb of a clause but not specifically mentioned in that clause are present somewhere in the context.

Time and location while peripheral (and hence optional) tagmemes on the clause level, by no means appear willy-nilly in discourse. They find their fullest rationale in terms of paragraph structure. A paragraph either has unity of time and place and is thereby identifiable as a simple paragraph or progresses through time and space and is thereby identifiable as a compound paragraph. Simple paragraphs typically start with an orientation tagmeme which orients the paragraph in time and may also orient it in space. Furthermore, a paragraph has its cast of *dramatis personae* which are reflected in the clause structures of the sentences of the paragraphs. Thus, in inspecting a Totonac text for paragraph breaks one looks for changes of time horizon, of locale, and of participants as his first clues. Ultimately, however, discourses are dissected into paragraphs so as to

yield units recognizable as paragraphs in terms of the theory (description) of paragraphs here outlined.

A frequent problem in segmentation into paragraphs is that of assigning a given sentence to the preceding or following paragraph. Evidence may be clear that two paragraphs are involved but the sentence in question could from one point of view be assigned to the terminus of one paragraph and from another point of view to the onset of the following paragraph. A case in point is the frequent occurrence in narrative text of a sentence which seems to summarize the preceding paragraph but which indicates a change to the locale of the following paragraph. Should such a transitional sentence be assigned to what precedes or what follows? We have here assigned such sentences to the preceding paragraph in that they seem to fit with other types of paragraph terminating tagmemes but do not seem to fit well with the paragraph initiating tagmemes that we have posited. Such problems as these are resultant from the particle perspective which characterizes this study. From a wave perspective (Pike, 1959) the transitional sentence could be considered simultaneously to close one paragraph and begin another.

Three hierarchical levels -- stem, word, and phrase -- are not systematically presented in this volume. Nevertheless, the very extensive appendix, in which Reid describes verb inflection, presents a partial covering of word structure. The verb is crucial to the understanding of the clause. In turn the function of certain verb affixes can be understood only by reference to features not only of the clause but of the sentence to which it belongs and to features of other sentences in the paragraph. For this reason, the appendix on verb inflection conveys information essential to the volume as a whole. This information needs to be supplemented by a description of inflection in other classes of words. In turn all this needs to be supplemented by a study of stem structure. The relation of derivation to inflection (there are, e. g., some apparently homophonous derivational and inflectional morphemes) is intimate enough that a full understanding of the latter requires some knowledge of the former. The phrase level should also be described someday--although structures on that level do not seem to be very complex or varied.

This volume is restricted to the grammatical hierarchy. It is assumed that phonological and lexical hierarchies are quasi-autonomous of the grammar but interlocking and related to it and to each other. Thus, it is not assumed that there is one-to-one correspondence of phonological and grammatical sentence. Conceivably two short grammatical sentences could be pronounced as one phonological sentence. Conversely, one long grammatical sentence could be pronounced as two phonological sentences. Paragraph divisions set up on the basis of phonology might also not correlate in every case with the grammatical divisions here posited--although the correlation of the two should be statistically high. Furthermore, were paragraph divisions to be posited on the basis of the lexicon, i. e. of content structure, a few discrepancies with grammatical division into paragraphs would probably occur as well. Such incongruities should neither cause us to doubt our grammatical analysis nor impell us to embrace premature schemes for mapping of one hierarchy onto another.