

CONVERSATION AND THE SPEECH SITUATION:

A TAGMEMIC ANALYSIS

by

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ABSTRACT

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Until recently, conversation, considered even now by some to be outside the scope of linguistics, has been neglected in linguistic research. Chapter One of this dissertation argues that the popular distinction between 'theories of language structure' and 'theories of language use' might be abandoned in order to allow a more integrated study of language and a clearer understanding of the nature of language in the context of human life.

To forward such an integrated study, a theoretical model on which to base the analysis of both conversation structure and other linguistic structures must be developed. The tagmemic model, developed by Kenneth Pike, Robert Longacre, and others, allows the same set of procedures to be used to analyze paragraphs, texts, and conversations as is used in analyzing words, phrases, and clauses. Chapter Two presents this model.

Consideration of the context of conversation is necessary for the

adequate analysis of the conversation itself. Chapter Three illustrates the description of a speech situation using a revision of Pike's (1967) tagmemic methodology developed for the analysis of 'behavioremes'. The proposed revisions give attention to the three hierarchically structured main components of the speech situation: the physical world; the events; and, the cultural matrix. One particular behavioreme (speech situation) analyzed in Chapter Three is a wedding ceremony.

Chapter Four focuses on conversation as a particular complex of events in the behavioreme. Conversational exchanges such as question-answer and proposal-compliance are analyzed in terms of the tagmemic slot-filler and form-function distinctions. Several conversations are analyzed in this fashion. Although the focus in Chapter Four is on the exchange level, the relations among conversational exchanges and other levels of structure are pointed to.

Chapter Five summarizes the conclusions of the study. Appendices One and Two present much of the data analyzed in Chapters Three and Four respectively.

Two main goals of this dissertation have been 1) to demonstrate some of the structural patterns in conversation and the speech situation, and 2) to develop a model that facilitates an integrated analysis of conversation and other levels of linguistic and nonlinguistic structure.

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CHAPTER I

INTRODUCTION

1.1. A THEORY OF THE STRUCTURE OF HUMAN BEHAVIOR.

Tagmemics is not just a theory of the structure of language, but of the structure of human behavior in general. This theory arose out of Kenneth L. Pike's observation that the context of language is human behavior and that the same set of concepts and procedures used for analyzing and describing language can be used in analyzing and describing non-linguistic behavior as well, since verbal and nonverbal behavior are both parts of one general system. In formulating tagmemic theory, Pike was following the conviction

...that every purposeful activity of man is structured, and that certain basic characteristics are common to every such activity, so that it should be possible to develop a theory and a technique which would pass without a jar from the study of the structure of one kind of activity of man to that of any other kind. Ideally, this would result in one basic theory of structure, one which could be applied to the analysis of language, the analysis of ritual behavior, the analysis of sports, the analysis of occupational activity, or even to the processes of thought itself. (Pike 1972:106)

The major statement of tagmemic theory is Pike's Language in relation to a unified theory of the structure of human behavior (1967). The 1967 edition is a revision of an earlier publication in three volumes in 1954, 1955, and 1960. (I should point out that whenever I cite Pike 1967, as I will do frequently, I am referring to a statement of tagmemic theory that is essentially unchanged in terms of theoretical content since the earlier, but less widely circulated, 54-55-60 edition.) In this work, Pike presents the basic concepts of the theory

and explains how they apply to linguistic and non-linguistic data. The majority of Pike 1967 focuses on the application of these concepts to data within the bounds of traditional linguistics, but it points the way toward the analysis of monologue discourse, conversational discourse, nonverbal behavior and society.

The potential for using a single unified theory to analyze all these topics in addition to traditional linguistic concerns, as well as to point out the unity of them all, was a unique contribution of tagmemics, but this potential has been only partially exploited. Most publications within a tagmemic framework have focused on phonology, morphology, clause structure, and sentence structure, and in recent years, led by Robert Longacre, paragraph and monologue discourse structure (see, for example, Longacre 1968, 1972, 1976a+b, 1977, 1979).

Thomas Klammer (1971) has used tagmemics to analyze dramatic literary dialogue, and I have tried to refine the tagmemic model (following chapter 4 of Longacre 1976a) for the analysis of conversation, but still using literary dialogue as data (Frank 1979). Philip Bock (1974) has applied tagmemics to non-linguistic cultural data, but his analysis is of situations and social structure rather than behavior per se. Still lacking is an in-depth description and analysis within a tagmemic framework of live conversation and the behavioral context in which language is embedded.

According to many linguists, attention to conversation and the behavioral context of language falls outside of linguistics proper and is the concern of a distinct discipline called 'sociolinguistics'. In the next section, I will show how some influential figures in the his-

tory of linguistics have delimited their discipline such that sociolinguistic concerns are not considered to be a part of 'normal' linguistics.

1.2. ON THE DELIMITATION OF 'LINGUISTICS'.

Ferdinand de Saussure, who is considered the father of modern synchronic linguistics, divided language into 'langue' and 'parole' as part of his theory (1959[1915]). He defined 'langue' as the rules of language and 'parole' as the act of speaking. According to de Saussure, the science of linguistics restricts itself to a study of la langue.¹ De Saussure's distinction between langue and parole and his focus on the former was the first step toward the common practice of distinguishing between language use and a language system. This langue vs. parole contrast is rejected in tagmemics.²

Leonard Bloomfield did not try to follow de Saussure's langue-parole distinction, but he limited the field of linguistics in his definitions such that it did not take into consideration texts, speech acts, or conversational exchange. He saw sentence structure but stated that 'each sentence is an independent linguistic form, not included by virtue of any grammatical construction in any larger linguistic form' (1933:170).

Noam Chomsky was a powerful influence in making a distinction between language as a system and the uses of that system. Chomsky's goal was to describe phonology and syntax as autonomous, formal systems without reference to meaning or social considerations.³ According to Lyons (1970:34), Chomsky saw language as 'an instrument for the expres-

sion of meaning: it was possible and desirable to describe this instrument...without drawing upon one's knowledge of the use to which it was put.' He made a distinction between competence and performance that was similar to de Saussure's langue and parole: 'We thus make a fundamental distinction between competence (the speaker-hearer's knowledge of his language) and performance (the actual use of language in concrete situations)' (Chomsky 1965:4). The science of linguistics, according to Chomsky, does not concern itself with both the language system and language use, but rather is restricted to the study of competence—the abstract system. A more general theory of language would combine the theory of competence (linguistics) with a theory of performance (Chomsky 1965:9). Chomsky defines linguistic theory in a way that deliberately excludes consideration of language as a social phenomenon, saying that 'linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech-community, who knows its language perfectly' (1965:3). Although in this quote Chomsky does make reference to speaking and listening and to an individual in a community, he does it in such a way that obviates them as topics for further investigation. In reference to de Saussure's emphasis on langue and Chomsky's emphasis on competence, Labov (1972:258) explains,

Linguists did take the somewhat unusual step of redefining the field so that the everyday use of language in the community would be placed outside of linguistics proper—to be called speech, not language. Rather than worry about the difficulties of dealing with this material, linguists found it quite unnecessary, on theoretical grounds, to account for it; indeed, it was argued that a linguist should not be concerned with the facts of speech.⁴

In making a dichotomy between competence and performance, Chomsky was following the Platonic tradition of distinguishing between real and

ideal forms. As Hymes (1974:131) explains it, Chomsky's 'competence is an ideal grammatical knowledge: performance, the use of language, is largely an imperfect falling away.'

Chomsky's attitude toward data reflects this Platonic outlook also. He identifies his theory with the 'rationalist approach' of Descartes (see Cartesian linguistics, Chomsky 1966), which is based on the belief that the use of pure reason is a surer source of accurate knowledge than is empirical investigation. Furthermore, Chomsky argues that a child's acquisition of language cannot be explained wholly in terms of the empirical data to which he is exposed and the stimulus-response paradigm. He contends that only if humans are born with something like an innate theory of language in their minds can the facts of language acquisition be explained (see Chomsky 1959).⁵ Chomsky explains that

the rationalist approach holds that beyond the peripheral processing mechanisms, there are innate ideas and principles of various kinds that determine the form of the acquired knowledge in what may be a rather restricted and highly organized way. A condition for innate mechanisms to become activated is that appropriate stimulation be presented (1965:48)

and,

it seems plain that language acquisition is based on the child's discovery of what from a formal point of view is a deep and abstract theory—a generative grammar of his language—many of the concepts and principles of which are only remotely related to experience. (1965:58)

He goes on to say that he believes there is 'little hope that much of the structure of the language can be learned by an organism initially uninformed as to its general character' (1965:58). So transformational-generative theory, rather than 'merely' making generalizations from observed behavior, depends on intuition and reflection in order to try

to reconstruct the 'innate theory of language' that humans are born with, and then use that innate theory to generate descriptions of linguistic competence. This emphasis on a priori knowledge and innate ideas goes back in the history of philosophy past Descartes to Plato.

In addition to excluding social, interpersonal considerations from his transformational-generative theory, Chomsky restricts the scope of linguistic theory in two other important ways. First, he follows Bloomfield in rejecting the idea of linguistic structures above the sentence level.⁶ Second, he follows the Bloomfieldian tradition of setting aside meaning as a separate investigation, outside the bounds of linguistics (see Chomsky 1957, chapter 9).⁷ Lyons explains that in TG 'semantics was part of the description of the use of language; it was secondary to and dependent upon syntax, and outside linguistics proper' (1970:34).

Chomsky claims that his theory is descriptively adequate because it is capable of generating a descriptively adequate grammar of a language (Chomsky 1965:24). But in addition he claims it goes beyond mere descriptive adequacy in that it has an element of explanatory adequacy as well. This term refers to the supposed ability of TG to select the most descriptively adequate grammar from among several, following a set of universal principles.⁸

It is questionable whether the possibility of choosing the best description on the basis of simplicity is as feasible as once thought. But I would say that Chomsky's goal of choosing among descriptively adequate grammars is very premature since, from my perspective, transformational-generative grammar and the other structuralist theories

Chomsky compares it with are a long way from being adequate descriptions of language. They present a very limited view of language, leaving out of the picture meaning, linguistic structures larger than the sentence, phonological hierarchy, and all traces of the social dimension of language.

Chomsky considers his theory to be a revolutionary break from the tradition he had learned as a student. He refers to his predecessors as 'structuralists' in contradistinction with himself.⁹ But in The concept of structuralism, Pettit cites de Saussure, Jakobson, and Chomsky as the main structuralist theorists (1975:1). And Hymes argues (1974:92) that

from a social standpoint, transformational grammar might equally well be seen as the culmination of the leading theme of structural linguistics. To center analysis in a deep structure, one grounded in human nature, is to fulfill an impulse of structural linguistics to treat language as a sphere of wholly autonomous form.

L3. PRAGMATICS: THE THEORY OF THE USE OF LANGUAGE.

The study of 'pragmatics' is based on the distinction between language as a system and its use. Charles Morris popularized the term pragmatics to refer to the relations between signs and the users of signs.¹⁰ The field of pragmatics has come to be equated with the theory of performance that Chomsky envisioned. While looking at the use of language is of course very important, a fault of many who are doing 'pragmatic' analysis is that they take language out of its socio-cultural habitat, study it as an abstract system, and then try to plug it back into its natural environment. The following quote, describing the field of pragmatics as it relates to the theory of competence, illustrates this orientation toward considering language structure and

use separately and then trying to put them back together. Allwood asks (1978:150),

How can we best interconnect phenomena traditionally studied in linguistics with the phenomena now denoted by the label pragmatics? The general programmatic attempt which seems to be the most natural one is to regard the rules of syntax, morphology and phonology as instrumental strategies which we have learned in order to realize certain communicative goals.

Elizabeth Bates (1976) has written a study on the acquisition of pragmatics that presupposes (unfortunately, in my view) that the acquisition of language and the acquisition of language use are two distinct areas of inquiry. She says that 'this book is a study of how children learn to use language.... It is not a study of how children acquire "grammar" in the traditional sense, nor how they learn the meaning of words,' and she goes on to say that 'the focus of this study is on use, on the child's ability to select a particular type of sentence and "fix it up" until it will work effectively toward certain social ends' (1976:2).

A guiding metaphor in the distinction between linguistics and pragmatics is that 'language is a tool, to be used toward certain ends.' But, as Bronislaw Malinowski notes, there is an important difference between language and man's tools and institutions: 'Speech obviously is not a tool, but a habit, a standardized type of activity of the human organism. It is, therefore, not to be classified with the material products of man,' and, 'Whatever meaning be given the word "institution", the label again brings language as a fixed product into the realm of material achievements and leads us away from the study of speech customs within the living context of human activities' (Malinowski 1964 [1937]:64).¹¹

1.4. SPEECH ACT ANALYSIS.

J. L. Austin touched off the discussion of speech acts in 1955 (published in 1962) through a series of lectures on what people are accomplishing by talking. He distinguished among locutionary acts (the speaker's act of saying something), illocutionary acts (acts the speaker performs in saying something), and perlocutionary acts (the effects that illocutionary acts have on the listener).

John Searle developed further Austin's concept of speech acts, as he called them. He rejected Austin's distinction between locutionary and illocutionary acts (Searle 1969:23fn), substituting his own three-way distinction among utterance acts (uttering morphemes, words, and sentences), propositional acts (referring and predicating), and illocutionary acts (stating, questioning, commanding, etc.) (Searle 1969:24). For example (from Searle, Kiefer, and Bierwisch 1980:vii-viii),

In the sequence of utterances, "Please leave the room", "You will leave the room", and "Will you leave the room?" the same proposition, that you will leave the room, is expressed in the performance of three different illocutionary acts, one a request, one a prediction, and one a question.

Searle rejected the distance that Chomsky and others placed between language form and language use (1972:6). Regarding the importance of speech act analysis, Searle says (1969:16),

The reason for concentrating on the study of speech acts is simply this: all linguistic communication involves linguistic acts. The unit of linguistic communication is not, as has generally been supposed, the symbol, word or sentence,...but rather the production or issuance of the symbol or word or sentence in the performance of the speech act.

1.5. DEVELOPMENTS IN THE TRANSFORMATIONAL-GENERATIVE SCHOOL.

In her article 'Language in context', Robin Lakoff expresses her dissatisfaction with the capability of standard transformational-generative grammar to describe language adequately. She argues that 'in order to predict correctly the applicability of many rules, one must be able to refer to assumptions about the social context of an utterance' (1972:907). Lakoff goes on to explain (926fn) that

as should be apparent to anyone familiar with other than purely transformational linguistic tradition, the notion that contextual factors, social and otherwise, must be taken into account in determining the acceptability and interpretation of sentences is scarcely new. It has been anticipated by a veritable Who's Who of linguistics and anthropology: Jespersen, Sapir, Malinowski, Firth, Nida, Pike, Hymes, Friedrich, Tyler, and many others. But the idea has not merely been forgotten by transformational grammar; rather it has been explicitly rejected. Therefore, to bring up facts such as these within the framework of recent linguistic discussion is to do more than merely restate an old platitude. I hope that by discussing new facts, and expatiating on their theoretical implications, I have shown that contextual factors cannot be avoided by the linguist of any theoretical view, if he is to deal honestly and accurately with the facts of language.

To argue that traditional transformational grammar cannot specify the acceptability of a sentence is not a challenge to the inner workings of the theory. Chomsky distinguishes 'acceptable' from 'grammatical' and does not concern himself with questions of acceptability.¹² But Lakoff is arguing for a different theory, or a modification of the standard theory that can specify what is acceptable and what is not. Presumably, she is arguing in favor of a theory of generative-semantics such as that George Lakoff expounds. This generative-semantic theory resembles Chomsky's theories in many ways but shakes its foundations by giving semantics an active role in grammar and addressing questions of language use.¹³

The generative-semantics branch of the transformational-generative school has tried to incorporate Searle's concept of illocutionary function into the formal approach to language description. There has been discussion in this school of abstract performative constructions¹⁴ such as 'I command you...' or 'I ask you...' underlying every sentence of a language in the deep structure, although this performative construction would usually not be realized in the surface structure. In 1970 John Ross wrote an article suggesting that for generative grammar to handle pronoun usage adequately, an abstract performative construction must be posited for the deep structure of every sentence (though Ross did not express much interest in the illocutionary function of sentences in this article). Jerrold Sadock's 1974 Toward a linguistic theory of speech acts used the same idea of positing underlying performative constructions to explain the illocutionary functions of sentences. Thus a sentence with the function of 'question' would have an underlying performative such as 'I ask you...'

A problem with the positing of performative constructions concerns the level of the unit they attach to. A sentence grammarian would have to attach them to sentences because his theory does not recognize any higher-level constructions. But suppose when asked a question, a respondent gives an answer that is an utterance of more than one sentence. A sentence grammarian such as Sadock would be in the unfortunate position of having to attach a deep structure performative (such as 'I say to you...') to each sentence of the answer since his theory would not allow him to attach the performative only at the beginning of the multi-sentence utterance, thus acknowledging its status as a linguistic

unit above the sentence. In her review of Sadock's book, Ruth Finnegan (1976:236) comments,

Does communication primarily take place in sentences? Of course it does sometimes and in some respects, and looked at from one point of view. But is that really enough to justify taking sentences as the prime unit of analysis, or adopting a model of communication which pictures it as primarily constituted by 'sentences'? It may be harder to analyze 'discourse,' 'texts,' 'speech events,' and so on; but these are the kinds of terms we surely want to reserve a place for in sociolinguistics and they are terms not necessarily definable as basically sequences of 'sentences'.

Finnegan has three criticisms of Sadock's theoretical stance: First, Sadock claims to be focusing on the speech act, but he is actually focusing on the sentence, which is not necessarily the same thing. Second, he ignores the situational context. And third, he does not take into consideration the verbal context of sentences nor the way an utterance is made.

One logical solution to some of the problems created by attaching abstract performatives to individual sentences would be to recognize multi-sentence utterances--called 'monologue discourses' by some, 'texts' by others--to be units, and to attach the performative to these units as a whole rather than to each individual sentence. This is the approach that Grimes (1975:72) uses:

The recognition of implicit performatives behind commands, questions, and statements, as well as explicit performatives, paves the way for a linguistic handling of situational factors in discourse.... Assuming a performative behind every discourse, and even behind parts of discourses in addition to the global performative, makes it possible to talk about persons, time, and place in a way that would be very hard to explain otherwise within a theory of language.

Similarly, Longacre states that 'the use of some performative verb is assumed in every monologue discourse,' and, 'we may think of narrative discourse as being an initiating utterance whose abstract performative

verb is RECOUNT: I recount to you X' (1976a:252).

There are some problems with positing abstract performative constructions, though, even if they are applied to whole utterance. Hymes (1974:101) says this solution is 'cumbersome and counterintuitive and appears as a last-ditch effort to keep within the conventional boundaries of linguistics.'

One problem is that, as Austin (1962) observes, a sentence that begins 'I hereby inform you that...' is always true. This means one could not argue the truth value of any deep structure that begins with a dominating performative. Also, Ross (1970:253ff) acknowledges that his 'performative analysis' would not handle pronoun use with complete satisfaction and that an alternative to traditional TG grammar may be necessary.¹⁵ Furthermore, there may be a problem of theoretical consistency if one introduces into transformational-generative theory, whose theoretical foundations exclude discussion of language use from grammatical descriptions, a deep structure construct in order to allow discussion of illocutionary function. Ross suggests that the distinction between a theory of language and a theory of language use may have to be abandoned (1970:258).

Such attempts to deal with speech act function in a transformational-generative framework recognize that separate handling of form and function is unsatisfying. But a linguist who wants to integrate form and function in his description, if he wants to work in a transformational-generative type of theory, should specify his attitude toward the philosophy that led Chomsky to describe form apart from meaning, and he should give his (probably different) definitions of competence and

performance and specify the place of each in his modified theory.¹⁶

Teun Van Dijk's Some aspects of text grammars (1972) is an admirable attempt to redefine transformational theory and deal with language use in a version of generative semantics. Van Dijk's grammar includes semantic, syntactic, and pragmatic components. The semantic and syntactic components describe the structure of sentences and texts (multi-sentence constructions). The pragmatic component includes rules for speech acts. The grammar, composed of these components, describes 'idealized systems of language i.e. infinite sets of texts and the general conditions for their use' (1972:316). The grammar is considered to be formal and abstract: 'This extended grammar is no less a theory of abstract structures, a system of rules accounting for idealized abilities and conventions' (315). Like Chomsky's theory, it is to be supplemented by a theory of performance, which describes 'the systems underlying the actual use of these [idealized grammatical] systems' (316). In contrast with Chomsky, Van Dijk's grammar includes semantic and pragmatic components and describes the structure of not just sentences, but whole texts. But Van Dijk retains Chomsky's distinction between theories of competence and theories of performance, although he includes in his theory of competence some matters that Chomsky leaves for a theory of performance to explain.

The different varieties of transformational grammar are all characterized by ABSTRACT STRUCTURALISM. That is, they make a distinction between a theory of competence and a theory of performance, and they treat linguistic structure formally as an autonomous system.

1.6. SOCIOLINGUISTIC STUDIES.

The majority of modern linguists describe language as if it were an autonomous entity discrete from culture and society (and then they might try to plug their abstracted description back into its socio-cultural context by including, or just leaving a place for, a 'pragmatic component' in their theories). But in order to understand language we must give prominence to its role in COMMUNICATION between members of society. The approach I will use tries to avoid taking language away from behavior and then putting the two back together again.

From the perspective of traditional linguistics, 'sociolinguistic' studies focus on performance/parole/the use of an abstract system. But from the perspective of some prominent 'sociolinguists', sociolinguistics is a challenge to traditional ways of viewing language. Hymes contends that traditional linguistics, without the 'socio-', 'perpetuates a fragmented, incomplete understanding of humanity' (1974:vii). He explains that the practice of trying to amalgamate traditional linguistics with traditional social studies 'can yield little better than post-hoc attempts at correlation between accounts from which the heart of the relevant data will be missing' (1974:76). Instead of trying to describe language as a formal, abstract system and then considering how this system relates to its user, we need a way of looking at language that will not lose sight of the social and cultural and communicative purposes of language. Sociolinguistics, according to Hymes, is 'an attempt to rethink received categories and assumptions as to the bases of linguistic work, and as to the place of language in human life' (1974:vii), whose 'goal is to explain the meaning of language in human

life, and not in the abstract...but in the concrete, in actual human lives' (1972:41).

A few other prominent linguists express similar dissatisfaction with traditional linguistics. Joshua Fishman points out (1968:7) that 'language "per se"...has been examined [by most linguists] for its patterns, as if it were something that existed above and beyond its users and uses.' Charles Hockett argues (1968:35) that 'a theoretical concern with language must try to deal not only with techniques of analysis, but also with what language is to its users, and how it performs its role in human life.' And William Labov considers 'sociolinguistics' to be 'an oddly redundant term' (1972:183) that he has resisted using 'since it implies that there can be successful linguistic theory or practice which is not social' (1972:xiii).

Sociolinguistic studies have inquired into a wide range of concerns outside the traditional bounds of linguistics including, among other things, correlation of the social classification of speakers with the choice of variables in their speech, bilingualism, language planning, and the effects of context on speech. Joshua Fishman (1972) divides sociolinguistics (also called 'the sociology of language') into categories of macro-level and micro-level analysis. Macro-level analysis includes investigation into sociolinguistic domains (or universes of discourse), sociolinguistic variation, and the sociology of language or dialect groups. Micro-level analysis is the analysis of speech acts and conversation, of the role relationships of the speakers that influence the way they speak to each other, and of speech situations. Thus this dissertation is a micro-level sociolinguistic analysis.¹⁷ I will go into

much more detail concerning conversation analysis in chapter 4, 'Conversation structures'.

1.7. DATA AND APPROACH.

What data are to be the object of linguistic analysis? In other words, what is linguistics the study of? The obvious answer would be: language. But many linguists do not see language per se as the object of their investigations. As noted above, linguists of the transformational-generative school divide language studies into studies of linguistic competence and studies of linguistic performance. To them, linguistics restricts itself to the analysis of linguistic competence. They are looking for a well-defined, abstract, formal system that underlies speech. This system, if it exists,¹⁸ is what TG is designed to describe. Any data that show that language is not well-defined or a formal system is disregarded as a problem of performance.¹⁹ According to Chomsky (1964:62-3fn),

What data is relevant is determined in part by the possibility for a systematic theory.... The fact that a certain noise was produced, even intentionally, by an English speaker does not guarantee that it is a well-formed specimen of his language. Under many circumstances it is quite appropriate to use deviant utterances.... The problem of determining what data is valuable and to the point is not an easy one. What is observed is often neither relevant nor significant, and what is relevant and significant is often very difficult to observe.²⁰

To discover the nature of linguistic competence, transformationalists do not rely on observations of linguistic performance, on language as it is commonly spoken, as data. For data they focus on their reflections on their own competence. As noted above, this is called the 'rationalist approach'. One problem with analyses of intuition is that they cannot be disproven. It would do no good to compare an analysis of

competence based on intuition with actual linguistic performance, since that is a different subject that cannot serve as evidence to prove or disprove an analysis of competence. Furthermore, there is a serious question as to how closely the intuitions of persons educated in linguistics resemble the intuitions of the average speaker, at least in cases of borderline acceptability.²¹

Rather than using introspection to analyze linguistic competence, I prefer a different approach. First of all, I do not consider the analysis of competence and the analysis of performance to be two distinct things. As Charles Hockett says, 'There is only one "object of study": specific acts of speech, as historic events, in their behavioral settings' (1968:65). Based on these observations, the linguist can then make generalizations, and the generalizations about language constitute linguistic theory. The progress from particular observations to generalizations takes the place of Chomsky's competence-performance distinction.

But in order to learn something from his observations, the analyst must begin with a hypothesis concerning what he expects to find. In his book on Grammar discovery procedures (1964), Longacre explains that his methodology is actually a matter of 'guess-and-check' (11-2). Learning, discovering, and explaining are dependent on an interplay of inductive and deductive reasoning. In addition, there is a necessary component of analogizing, or 'abduction', as Anttila calls it. Anttila explains,

Abduction is a reasoned guess as to how a surprising observed fact may have come about and is consequently an 'explanation'; it is an act of insight, coming to us in a flash. It is the idea of putting together what we never thought of connecting before. It suggests that something may be; unlike the other modes of inference [i.e.

induction and deduction] it introduces a new idea. Any learning or understanding must be by abduction. Its purpose is to stand as the basis for, or to represent, predictions. The purpose of deduction is to infer those predictions, and the purpose of induction is to test them. These are the steps for solving any problem by the methods of science. Abduction is always a gamble, whereas deduction, with little risk and low return never introduces anything new. (1972:197)

The Bloomfieldian structuralists emphasized inductive procedures. The transformationalists focus on deduction. Abductive reasoning has gotten little attention.²² Tagmemicists such as Pike and Longacre have emphasized that to learn about languages we must use guess-and-check procedures; we must rely on both intuition and observation.

For Chomsky linguistics is the study of an ideal situation rather than a generalization concerning actual utterances. He says (1965:3) that 'linguistic theory is concerned primarily with an ideal speaker-listener....' This statement is characteristic of his structuralist approach to language. He defends his use of idealization on the basis of the fact that physicists and other scientists use idealizations as well. Of course, the 'ideal speaker-listener' that Chomsky refers to does not exist, nor does his 'completely homogeneous speech-community', and that fact may make Chomsky's statement seem nonsensical. But the problem is not that he uses idealizations; the problem is how they are used. Hockett warns that 'we must remember what an idealization is. It is not part of our subject-matter; rather it is part of the terminological apparatus with which we analyze and discuss real objects and systems' (1968:66).

The object of linguistic analysis advocated in this dissertation is not linguistic competence and not the language of an idealized person in an idealized situation. The real object of linguistic analysis is

languages as they are actually spoken by real people. These languages are studied empirically²³ in an attempt to capture accurate generalizations. They are understood as means of communication²⁴ and not just as sets of syntactically well-formed strings of morphemes. And they are studied in context. Long ago, Malinowski observed (1923:305) that 'language is essentially rooted in the reality of the culture, the tribal life and customs of a people, and...it cannot be explained without constant reference to these broader contexts of verbal utterance.'

Although I have argued that linguistic analysis should not be solely based on intuitions, that is not to say that intuitions are to be completely avoided in linguistic analysis. While a rationalistic approach, based on intuition and introspection, would be inadequate and incomplete, so would a behavioristic approach, in which the analyst forbids himself to make any guesses as to the meaning or purpose of what he observes. In tagmemics, intuition is recognized as an important ingredient in the analysis of observable data.²⁵ The problem lies in relying totally on either intuition or observation, to the exclusion of the other. It would be unwise to exclude any source of insight on a theoretical basis. We want to take observable behavior as the object of analysis, but supplement the analysis with intuitive judgments, which are necessary in order to determine the significance of what is observed.

1.8. CONCLUSIONS.

I have gone into detail addressing certain aspects of the philosophy behind the dominant (transformational-generative) school of language

and linguistics as preparation for describing tagmemic theory, to show that tagmemics differs from the dominant trend not only on the superficial level of a system's details, but on a deep philosophical level. Part of knowing what something is is knowing what it is not.

As I have noted, tagmemic analysis is intended to apply not only to phonology and clauses and sentences, but to texts and conversations and non-verbal behavior as well. In recent years tagmemicists have made a great deal of progress in the analysis of texts, but the analysis of conversation and non-verbal behavior has largely gone unattempted. This is unfortunate, since it is in these areas that tagmemics can make some of its most important contributions.

In this dissertation I intend to show how conversation involves units in levels of the linguistic hierarchy above the sentence level. In other words, above the levels of the phrase, the clause, and the sentence, there are higher (i.e., more inclusive) levels, including elements in verbal exchange (speech acts) and verbal exchange itself. Using tagmemics as a theoretical framework, I will show how the same methods used to analyze units on the lower levels can be used to analyze speech acts as they function in conversation. Furthermore, in order to better understand the context of speech, I will show how tagmemics can apply to non-verbal behavior and the interfacing of non-verbal with verbal behavior (language). The next chapter is an introduction to the tagmemic theory used in my analysis.

NOTES - CHAPTER I

1. And though la langue is a social fact, it can be discovered through consideration of a single speaker's knowledge about his language—in other words, through the analyst's introspection. Labov calls this the 'Saussurian Paradox', that 'the social aspect of language is studied by observing any one individual, but the individual aspect only by observing language in its social context' (1972:186).

2. Cf. Pike (1967:536): 'As more and more materials in speech begin to appear structured, the view that "language" as a structure differs from "speech" as activity is threatened.... We abandon the distinction between la langue and la parole as proposed by de Saussure.'

3. My statements concerning Chomsky and TG mainly apply to the theory as described in Chomsky's 1957 Syntactic structures and 1965 Aspects of the theory of syntax. Chomsky has more recently been developing what he calls 'trace theory', where he does take more into consideration in the way of discourse, meaning, and social factors. My reason for focusing on the more dated writings of Chomsky is that they had a profound effect on linguistic scholarship in general. It is unclear whether the more recent writings of Chomsky will have the same sort of effect

4. See Hymes (1974:92-7) for a similar criticism of the competence-performance dichotomy, where Hymes maintains (92-3) that

the term "competence" promises more than it in fact contains. It is restricted to knowledge, and, within knowledge, to knowledge of grammar. Thus, it leaves other aspects of speakers' tacit knowledge and ability in confusion, thrown together under a largely unexamined concept of "performance".

5. See section 2.2.3. of this manuscript for a tagmemic discussion of innateness.

6. See Chomsky (1957:13). Transformational-generative grammar focuses on the generation of well-formed sentences. Actually, it is more assumed than asserted that linguistic structure does not extend to higher levels than the sentence.

7. Actually, Bloomfield himself was not as shy of meaning as many of his followers were. According to Bloomfield, 'To study this co-ordination of certain sounds with certain meanings is to study language' (1933:27). He gives the disclaimer (1933:140), though, that 'the statement of meanings is...the weak point in language-study, and will remain so until human knowledge advances very far beyond its present state.'

8. Cf. Chomsky (1964:63) and the quote by Chomsky in Hockett (1968:42).

9. For example, Chomsky talks about 'the fundamental descriptive inadequacy of structuralist grammars' (1965:6), and says that 'one might briefly characterize the syntactic theories that have arisen in modern structural (taxonomic) linguistics as based on the assumption that deep and surface structures are actually the same' (1965:16).

10. Morris says,

By 'pragmatics' is designated the science of the relation of signs to their interpreters.... Since most, if not all, signs have as their interpreters living organisms, it is a sufficiently accurate characterization of pragmatics to say that it deals with the biotic aspects of semiosis, that is, with all the psychological, biological, and sociological phenomena which occur in the functioning of signs. (1938:30)

11. Malinowski seems a little inconsistent on this point when he proclaims elsewhere (1935:4) that 'language is the ethnographer's most

important tool.'

12. Cf. Chomsky (1965:11), 'The notion "acceptable" is not to be confused with "grammatical". Acceptability is a concept that belongs to the study of performance, whereas grammaticalness belongs to the study of competence.'

13. George Lakoff (1971:232) summarizes that

the generative semantics position is, in essence, that syntax and semantics cannot be separated and that the role of transformations, and of derivational constraints in general, is to relate semantic representations and surface structure.

14. The term 'performative' comes from Austin 1962.

15. Ross says (1970:254-8) that what we may need is a 'pragmatic analysis' in which the speaker and hearer are not part of the syntactic deep structure but rather are accepted elements of the communication system in which the sentence is uttered. In this theory there would be no distinction made between a theory of language and a theory of performance.

16. Wise points out (1976:110) that

the whole subject of performatives should cause one to question the validity of the la langue:la parole and competence:performance distinctions. Although performatives are treated as abstract predicates in generative semantics and, therefore, discussed as part of the linguistic competence of the speaker, they are, nevertheless, speech acts. It would seem to me inevitable that discussion of speech acts should eventually lead to a consideration of the performance of those acts without a rigid distinction from abstract considerations of competence.

17. Despite my use of the term 'sociolinguistic' in reference to studies of conversation, I intend to show how conversation can be analyzed in a general (tagmemic) linguistic theory instead of setting it aside as a specialized concern.

18. Hockett (1968, chapters 3 and 4) shows why he does not believe

language could be (or have underlying) a well-defined or formal system.

19. Contrast this with Labov's position that 'to come to grips with language, we must look as closely and directly at the data of everyday speech as possible, and characterize its relation to our grammatical theories as accurately as we can, amending and adjusting the theory so that it fits the object in view' (1972:201).

20. I wonder what 'deviant' means to Chomsky if a 'deviant' utterance can be appropriate. This term seems to refer to the utterance in relation to his theory's descriptive capability rather than in relation to the speech situation.

21. Labov (1972:199) notes that

as linguists become more deeply involved in such theoretical issues, it is likely that their intuitions will drift further and further from those of ordinary people and reality of language as it is used in everyday life. We return to the painfully obvious conclusion—obvious at least to those outside linguistics—that linguists cannot continue to produce theory and data at the same time.

Labov goes on to tell of an experiment that gives evidence that the acceptability judgments of some prominent transformationalists (as expressed in their publications) are often at odds with the acceptability judgments of naive informants.

22. According to Anttila,

Linguists (and other scientists) have not been willing to acknowledge abduction because of its unpredictability. Only when its results are regular have they been happy to formalize the situation post facto, bypassing the actual abductive link. (1972:202)

23. Malinowski (1964[1937]:63) says that he, '...like most modern anthropologists, would plead for the empirical approach to linguistics, placing living speech in its actual context of situation as the main object of linguistic study'. Cf. also Hockett (1968:57), who argues as

well that linguistics is an empirical science, as opposed to a formal discipline such as mathematics.

24. Referring to the illustrative sentences analyzed in many linguistic publications, Labov says, 'It is questionable whether sentences that communicate nothing to anyone are a part of language' (1972:183, emphasis mine). He adds that 'It seems natural enough that the basic data for any form of general linguistics would be language as it is used by native speakers communicating with each other in everyday life' (184).

25. In the early 1950s, linguists were trying to establish a 'mechanical (i.e. behavioristic) discovery procedure' for language structure. This attempt failed, and Chomsky reacted by shunning any discovery procedures other than introspection. The result is that TG is designed to deal only with a language that the analyst knows well. How he comes to know that language, if it is not his own native language, is not a concern of TG. Tagmemics, however, has evolved with the problem in mind of discovering the structure of previously unknown languages. Cf. Pike (1967:225fn):

It is the necessity for these intuitive components in analysis which makes a mechanical discovery procedure impossible. We would equally strongly insist, however, that the impossibility of a mechanical discovery procedure...does not eliminate the possibility of procedures which allow us to discover things.

See also pp. 493 and 663 of Pike 1967 for statements supporting the use of intuition in analysis. A similar attitude is expressed by Hockett (1968:65).

CHAPTER II

THE TAGMEMIC MODEL

2.1. INTRODUCTION.

A theory is a way of looking at something.¹ It is a set of assumptions about the nature of a topic of interest that helps organize thought in order to make observations more meaningful. Depending on the science in question, it may be the case that a single theory dominates the thought of most scholars in that field, or it may be that several theories coexist, each appreciating some degree of respectability. This latter case is especially characteristic of linguistics and the social sciences.

Theories come and go. This is true in the natural sciences, as evidenced by the Copernican revolution over geocentric Ptolemaic astronomy, or Lavoisier's refutation of phlogiston theory in chemistry, or the shift from Aristotelian to Galilean to Newtonian to quantum and relativity theory in mechanics (see Kuhn 1970). And in the human sciences, such as economics, sociology, anthropology, psychology, and linguistics, theories seem even more ephemeral and less than universally accepted. The choice of one theory over another is based largely on usefulness,² and also to a certain extent on aesthetics.³ If the linguist's goal is to examine previously unstudied and unwritten languages and to translate from one language to another, he may find one linguistic theory useful; if his goal is to teach languages, he may find another theory more useful; and if his goal is to formalize syntactic

structures, he may prefer still another theory.⁴

Different theories can have different scopes. Toward the end of his life, Einstein was trying to develop a 'unified field theory' that would be able to incorporate both gravitation and electromagnetism. In linguistics different theories focus on different aspects of language, and some theories have broader scopes than others. Traditional linguistics, including Bloomfieldian and transformational-generative theory, restricts itself to sentences and constructions within sentences. Textlinguistics concerns sentences as they function in paragraphs and monologue discourses, although linguists interested in text structure, such as Longacre, generally consider this to be only one area of focus in a larger unified system. The ethnography of speaking focuses on speech acts as they function in larger contexts. Some linguists, such as Pike, Labov, Halliday, and others, see linguistics as including all of the areas just mentioned. Figure One shows these relationships.

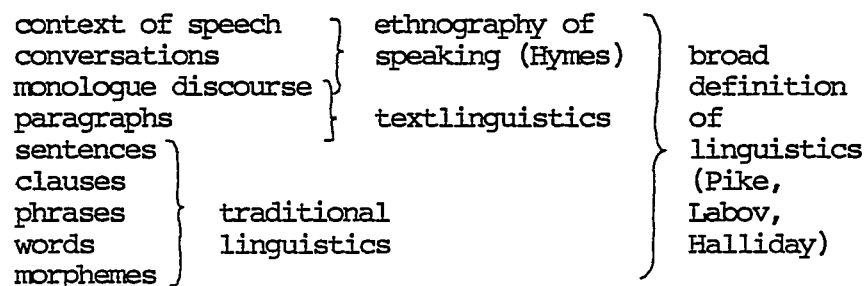


Fig. 1. Relationships of schools of linguistics in terms of scope.

Tagmemics is a linguistic theory that is intended to be relevant to all levels of analysis, from morphology (and phonology also) to the analysis of complete utterances, conversations, and beyond.

Rather than calling tagmemics a linguistic theory, it would be more accurate to say that it is an anthropological theory. It should be considered a structural-functionalist theory,⁵ dealing with units as they relate to each other in a system. The system as a whole and the relationships between the parts allow the identification and contrast of the parts and give them their significance. Tagmemics attempts to capture some of the uniformity in human behavior from one type or aspect of human behavior to another (e.g. phonology, grammar, ritual behavior, etc.) and one culture to another. Thus the basic concepts of tagmemics are considered to be universals of the structure of human behavior. These universals are held to be part of the cognitive makeup of the members of a culture, manifested in their behavioral patterns. Pike says that 'the tagmemic approach to linguistic theory...claims that certain universal invariants underlie all human experience as characteristics of rationality itself' (1964b:129), and

This uniformity the theory attempts to capture. The theory's postulates, therefore, are affirmations about the universals of human nature, universals which work out through language (and also through nonlanguage behavior) so that there is a continuity of pattern from language to ceremony, from speech to football, from the design of automobiles to the structure of algebraic systems. (Pike and Pike 1977:xv)

A tagmemic description of some aspect of a particular culture shows how these universals are manifested. To be consistent with tagmemic theory, a description does not have to follow any particular formalisms⁶ as long as it follows the set of tagmemic postulates concerning the universals in human thought and behavior, which I will summarize in sections 2.2-2.5 of this chapter. First I will discuss the principle of multiplicity of perspectives, taking the observer as the starting point.

Next I will focus on the tagmeme as a unit in context. Following this will be a discussion of the hierarchical arrangement of tagmemes. And finally I will look at the importance of context in understanding the significance of parts of a system. These four sections summarize tagmemic theory, though they leave out some of the detail that is presented more completely in other publications.⁷ I will follow up this overview of the major postulates of tagmemic theory by considering how tagmemic descriptions might be evaluated.

I should note that I am describing a particular variety of tagmemics. Robert Longacre has contributed much to this model and I will point out some of his contributions, especially concerning the concept of the tagmeme, the development of discourse analysis, and in Chapter Four, the development of conversation analysis. But I am basically following the Pikean variety of tagmemics, which involves such components as a four-celled tagmeme and a referential hierarchy. Longacre's variety is different at places. One component of Longacre's model that I do not go into here is the concept of 'notional structure' that he has developed (see especially Longacre 1976).

2.2. OBSERVER PERSPECTIVE.

The starting point of tagmemic theory is with the observer. Tagmemics is a theory about people (not abstract constructions), about what they do, and how they perceive, and what meaning they attribute to what they perceive. A prominent characteristic of tagmemic theory, other than its broader-than-usual scope, is the principle of analyzing cultural units by examining them from different points of view—three, in

fact. Furthermore, tagmemic analysis approaches these units by considering how people naturally perceive and identify them, and attribute meaning and prominence to them. Shortly I will explain the tagmemic practice of using multiple perspectives and discuss perception of what is significant, but before going into detail concerning perception and point of view, we will first look into the role of the observer, whose importance is understood implicitly if not explicitly in tagmemic discussion of perception, point of view, and meaningfulness.

2.2.1. The observer.

Does a tree falling in a forest make a sound, even if no one is present to hear it? If sound is defined as a vibratory disturbance of the eardrum, then the answer would be 'no' if there were no eardrums around to be disturbed. If sound is defined as a vibratory disturbance capable of being heard, then we would assume that these vibratory disturbances result when an unobserved tree falls just as we observe them to occur when we observe a tree falling. We assume that the universe is consistent and does not change when it is not observed. What Wolf calls 'our classical mechanical heritage' leads us to take for granted that the tangible objects that make up reality as we know it 'would exist in their same sensible form even if we were not there to observe them. Our observations simply verify an already existing reality' (Wolf 1981:127).

We could argue, along with the eighteenth century philosopher Berkeley, that all parts of the universe are always observed by God; he is the 'perpetual perceiver'.⁸ The tagmemic answer to the whole question is that we can only know about what we can observe or can find out about from someone else who observed something, or perhaps (although

this has not been a topic of discussion in tagmemic circles) what we can deduce from archaeological evidence. According to Pike (1966:366), 'Human components of perception, focus, belief, experience and innate structure effect (give bias or direction to) analysis and description. No observer-unbiased report, no non-observer-oriented thing-in-itself comes within the purview of this theory', and 'Tagmemics does not discuss the "thing-in-itself"..., but treats only items-in-relation to some observer, perceiver, or imaginer; the nature of the thing as it is apart from the perceiver or discussant is not part of tagmemic analysis' (Pike and Pike 1977:363). Compare this with the Bohr Principle of Complementarity in physics, which holds that 'no clear dividing line exists between ourselves and the reality we observe to exist outside of ourselves. Instead, reality depends upon our choices of what and how we choose to observe' (Wolf 1981:128).⁹

Observation is a type of human behavior, and tagmemic theory addresses not only the behavior of the 'objects of analysis' (i.e., people interacting), but also the behavior of the analyst. As Pike puts it (1978:2), 'Linguistic structure is ultimately a variety of socio-linguistic patterning of action, not an abstraction away from the behavior of the linguist or from the behavior of people-in-action from whom he gets his data for study.' This approach corresponds to the 'interactionist approach' in sociology of Goffman, Garfinkel, and Cicourel. According to Gumperz (1972:15), 'They point out that information on social categories is obtainable only through language and that sociological measurement therefore always involves both the informant's and the investigator's perception of the categories that are being mea-

sured.' As an analyst examines the behavior of other people of his own or of another culture, he must not forget that he too is human, limited in perspective by his own culture, education, and experience. He is incapable of giving an 'objective' analysis. Everyone sees the world from his own point of view. Education does not change this fact, although it might alter a person's point of view and bring it into closer conformity with the perspective of those from whom he is learning. Concerning perception, Kuhn (1970:193) acknowledges that 'the route from stimulus to sensation is in part conditioned by education.' People can learn to see something where they saw nothing, or see structure where they previously saw only chaos, or recognize familiar patterns and make distinctions where formerly everything looked the same. Thus Hesse writes that

sulfuric acid is not an "observable" to those ignorant of chemistry; "air" might now be said to refer to an observable for most laymen, but for the pre-Socratics it was a debatable theoretical term; and a physicist might say he observed in a cloud chamber the creation of a particle-pair when a layman would see only two white streaks. (1967:405)

Labov proposes a new approach to linguistic analysis with an expanded scope, taking into account what has been called 'sociolinguistics'. In this 'new linguistics', 'the inevitable bias of the observer is cancelled out by the convergence of many approaches' (Labov 1972:259 emphasis mine). Tagmemic theory denies that bias can ever be completely avoided: 'Whatever structure may reside in the data proper, it inevitably becomes moulded by the observer. An unbiased report is impossible' (Pike 1964:129). But Labov makes an important point, that by approaching a topic in different ways, one can reach a better under-

standing of it. The 'convergence of many approaches' that Labov envisions is reminiscent of the tagmemic principle of multiple perspectives.

2.2.2. Multiple perspectives.

In section 2.1., I defined a theory as a way of looking at something. The phrase of 'multiple perspectives' continues this metaphor comparing theoretical reasoning to visual perspective. If one wants to get a good idea of what something looks like, he can accomplish this by walking around it and viewing it from different angles. Similarly, in order to achieve a more complete understanding of language or behavior, one can consider it from more than one theoretical perspective. This practice is an important part of tagmemics. Pike (1966:367) explains that 'tagmemic theory affirms that multiple perspective is necessary if the observer is to have a reasonable opportunity to understand any phenomenon. Any one approach, no matter how far or how consistently pursued, leads to distortion.'

In tagmemics the multiple ways of looking at something always happen to fall into groups of three perspectives or modes. The term 'trimodality' is used in tagmemics to refer to the practice of considering objects of analysis from three points of view. Pike feels that this grouping into threes is natural in human behavior and heuristically useful in analysis. He explains, 'I have the suspicion--which I am not equipped to check adequately--that results presented logically are likely to be dichotomous or binary; but that life processes must somehow operate in a three-modal system' (1967:85). The three viewpoints are always complementary and are not a division of something into parts like pieces of a pie. They are different ways of looking at the same thing.

Pike's Language in relation... (1967) differentiates the 'feature', 'manifestation', and 'distribution' modes of behavior. (The reader should keep in mind that the theory in Pike 1967 was originally published in 1954, 55, 60.) Notice that the term 'mode' is used here rather than 'perspective'. Perspective applies to a way of looking at or thinking about a given entity, and thus we speak of perspectives in connection with observers or analysts (a type of observer). The term mode refers to perceived characteristics of the data being analyzed. We speak of the different modes (feature, manifestation, distribution) of language or nonverbal behavior. Mode and perspective are not very different since they both apply to behavior (observer behavior in one case) and both concern data in relation to an observer; the difference is one of focus.

2.2.2.1. The feature mode of some thing being analyzed, such as a ritual or a discourse genre, concerns its contrastive-identificational features. To understand what something is, you have to know its identificational features, but you cannot know what something is unless you know how to distinguish it from other things.

De Saussure emphasized the differential aspects of units in language. According to him, 'In language there are only differences without positive terms,' and 'The entire mechanism of language...is based on oppositions' (de Saussure 1959:120,121). But at the same time one is discovering what something is not, one is discovering what it is. Contrast and identification go hand-in-hand. Though he emphasized it less, de Saussure recognized the positive side of identification: 'In language, as in any semiological system, whatever distinguishes one sign

from the others constitutes it' (1959:121). Pike says that 'as components of a unit are identified which permit one to keep its nature negatively clear, these same components, once established, then serve positively to help one recognize that unit at moments or places where the contrast cannot be directly established' (1964a:84).

Learning how to identify something is a matter of finding out which of its features are significant and which are insignificant for the purpose of identification and contrast. Perceptible differences do not necessarily imply systematic differences. All people are different, yet they can be grouped many ways, according to physical, social, situational characteristics, etc. White blood cell morphology, which is a task of medical laboratory technicians, could be used for the purpose of illustrating the learning of contrastive-identificational features. When an untrained observer takes his first glimpse through a high-powered microscope at a slide of human blood (x1000 magnification), his first impression will be that there are two kinds of blood cells. It will be fairly easy for him to distinguish the larger, more transparent white cells from the more numerous red cells. But after he has scanned the slide, the novice observer may be surprised to be told that the white blood cells he has been viewing are grouped into different categories in the process of morphological analysis (or he may feel apprehensive if he knows he will be responsible for learning how to categorize them as part of his training as a laboratory technician). By contrast with the red blood cells, all the white cells look the same. On the other hand, each white cell is distinct when examined closely. They are all similar and yet all different. But the student of blood morphology

will be taught that there are five major types of white blood cells (leukocytes), each of which has a particular function. The student will be taught the recognizable visual characteristics of the different types, and the system will start to become more meaningful for him. The neutrophils are distinguishable because of their segmented nuclei. The eosinophils and basophils are not common but are easily recognized due to their granular appearance and, in the case of eosinophils, bright colors. The monocytes and lymphocytes both have single, non-segmented nuclei, and at first they are hard to distinguish from each other although it is not as hard to distinguish them from the other types. With some guidance from the teacher, the novice will come to appreciate the subtle differences of size, density (evidenced by hue), sharpness, firmness, etc., that he can focus on to distinguish one from the other. With some coaching and practice the student learns to recognize the various contrastive-identificational features of the different types of white blood cells and can categorize the cells he sees through the microscope.¹⁰ This process of morphological differentiation of white blood cells is relevant to medical diagnosis because the different types of cells have different functions, and an abnormal concentration of one type of cell may indicate to the doctor some specific kind of illness in the patient (I will say more about this later).

Blood cells are not cultural units, but just as we can find the contrastive-identificational features of blood cell types, we can also find contrastive-identificational features of cultural units. The New Earth ritual of the Qollahuaya Indians of Bolivia could be taken as an example. How does one know that a certain set of actions is an instance

of the New Earth ritual? It is identified by the fact that it comes at a certain time of the year, is done by certain people (a diviner, emissaries, etc.), is done at a certain location, has a certain internal structure (i.e., it is manifested by a certain set of actions), and has a certain purpose (to help ensure a good crop). All of these particulars help identify the unit as a particular ritual and at the same time distinguish it from others, such as a chosen field ritual or a birth ritual.¹¹

A traditional phonological description of a language will address itself to the details of the feature mode of the phonemes of that language. It will identify the phonemes by listing and describing them.¹² For example, Morgan's description of the phonemes of St. Martin Creole identifies the /t/ phoneme as a 'voiceless dental stop', /v/ as a 'voiced labiodental spirant', etc. (1959:22). And in addition to identifying the phonemes positively, a traditional phonemic description will also demonstrate the contrasts that obtain in that phonemic system. This is done by providing 'minimal sets'—sets of words that show that a difference in phonological form corresponds with a difference in meaning. Crawford (1973) does this in his description of Yuchi phonemes, demonstrating contrast between sets of phonemes that are suspiciously alike, 'to substantiate the validity of the phonemes described herein' (176). And in his analysis of Walapai, Redden (1966) contrasts every phoneme with every other phoneme, whether they are suspiciously alike or not.

2.2.2.2. The manifestation mode of a unit concerns the details of how that unit is manifested or realized. Both the feature and manifestation

modes deal with the question of how two things can be different and yet the same. Whereas the feature mode analysis of a unit is directed toward the features that identify a type of unit and contrast it with other types and make generalization possible, the manifestation mode analysis is an investigation into the specific way something takes place or exists, and the conditions that cause variations. Pike's mentor Sapir explains that 'every typical human reaction has a certain range of variation and, properly speaking, no such reaction can be understood except as a series of variants distributed about a norm or type' (1925:38). In tagmemics contrastive differences are studied as aspects of the feature mode; non-contrastive differences are aspects of the manifestation mode. As Pike says, 'A unit is well-defined only if its range of variation is made explicit.... If any unit is to be identified as the same as any other..., or as having been repeated, it is essential that the observer learn what differences he is to ignore' (1964a:84).

An example may help to clarify this. Suppose a certain town has a Fourth of July parade every year. The chances are that there will be noticeable differences in the way the parade takes place from one year to the next. One year the parade is led by the mayor in the first car, and goes down on Main Street and back on Broad. The next year the mayor cannot participate, but is replaced by the Potato Queen, and the parade has to avoid Broad Street because of work being done on the sewer. The citizens of this town will recognize the two performances to be two instances of the same event. But an analyst who wishes to study this parade as a cultural unit could consider its manifestation mode by recording the type and degree of variation that can take place (it prob-

ably could not take place on Dec. 25 and still be considered a Fourth of July parade).

The manifestation mode in tagmemic analysis covers the allophonic variation that linguists usually note in their phonological descriptions, such as the following from Redden's description of Walapai:

The retroflex alveolar flap /r/ is voiced except sometimes before a voiceless stop. Occasionally the release of the flap cannot be heard before a voiceless stop. If there is no release, then /r/ has as one of its allophones a retroflex alveolar voiceless unreleased stop (1966:11).¹³

If a phoneme can be realized as several different allophones, it is usually its environment that determines which form will occur. An example from Spanish can serve to illustrate this point. The Spanish /b/ is pronounced either as a voiced bilabial stop [b] or a voiced bilabial fricative [β] depending on what precedes it. If the /b/ follows an /n/, an /m/, or a pause, it is pronounced as a stop. In all other contexts it is pronounced as a fricative (cf. Stirling 1935:29,44).¹⁴ In tagmemics, consideration of the variant forms that a unit can take is a part of manifestation mode analysis.

Going back to the blood cell example, I noted that each cell looks unique and that the differences that are significant for distinguishing one type of leukocyte from another are not immediately obvious to the novice. He has to learn which differences are important for identification and contrast and which ones he can ignore for the purpose of morphological differential analysis. Even if a technician is familiar with the bases for distinguishing cell types, he may still have difficulty in some borderline cases where a cell either seems to lack certain features or has features of two types of cells. Seiverd acknowledges that 'some

cells, like people, may lack certain identifying features' (1964:233), and 'sometimes the difference between the above cells may be so slight that it is difficult to make the classification' (239).

In tagmemics, problems of indeterminacy, analogous to the borderline cases in white blood cell morphology, are focused on in discussion of the manifestation mode of a unit. There are often instances in analysis where it is difficult to assign certain entities, actions, concepts, etc. to one category or another. This does not mean that it is improper to attempt classification, but just that there are sometimes borderline cases.¹⁵ This principle is recognized by the philosopher Hesse, who, in discussing the sometimes fuzzy distinction between laws and theories writes that 'the admission that the boundary between laws and theories is vague or shifting does not imply that it is nonexistent' (1967:405).¹⁶ And Searle proposes that 'We could not recognize borderline cases of a concept as borderline cases if we did not grasp the concept to begin with' (1969:8). A little later (1969:28) Searle sounds very much like a tagmemicist when he discusses the concept of 'referring':

In signing one's name to a document does one refer to oneself? Do tensed verbs refer to the time of their utterance? These instances seem to lack many of the features which give point to paradigm definite references. A common mistake in philosophy is to suppose there must be a right and unequivocal answer to such questions, or worse yet, to suppose that unless there is a right and unequivocal answer, the concept of referring is a worthless concept. The proper approach, I suggest, is to examine those cases which constitute the center of variation of the concept of referring and then examine the borderline cases in light of their similarities and differences from the paradigms. As long as we are aware of both similarities and differences, it may not matter much whether we call such cases referring or not.

In summary, whereas the feature mode concerns the way a unit is

identified, the manifestation mode concerns the variant forms that a unit can take, which might be conditioned by the environment or might not, and borderline cases where an item, event, concept, etc. might be assignable to more than one category.

2.2.2.3. The distribution mode of a unit concerns the way a unit relates to other units in a system. Tagmemicists are interested in discerning units (feature mode) and understanding their range of variation (manifestation mode), but it is also important to see how the parts fit together and work together in a meaningful set of relationships.

In white blood cell morphology, the laboratory technician must be able to know what he is seeing under the microscope, but this is not an end in itself. The goal of this analysis is to observe the distribution of the various kinds of cells in a sample of blood in order to diagnose the condition of the person as a whole. The procedure that the laboratory technician follows in leukocyte differential analysis is to study 100 cells on a slide of blood (it is hoped that he has obtained a good random sample) and record the percentages of each type of cell in the sample. There are certain normal percentages, with neutrophils being the most numerous—normally 57 to 81 per cent. If the laboratory technician has found increased or decreased percentages of the various kinds of white blood cells, the physician can use the results as an indication of whether the patient has mononucleosis, leukemia, tuberculosis, pneumonia, etc., depending on exactly what was found in the blood and on what other symptoms the patient exhibits.¹⁷

To illustrate the concept of distribution as it applies to behavior, a car ride to school could be used as an example. We could

consider its external distribution, where it occurs in a sequence of events. It might come right after breakfast and just before the first class of the day, and might constitute the beginning of a larger whole called 'the day's academic activities'. Or we could look at the internal distribution of its parts, such as getting in the car, fastening the seat belt, turning the key in the ignition, putting the car in gear, etc. Or rather than looking at how actions are distributed in sequences and part-whole relationships, we can consider how the car ride fits in a class of activities called 'transportation'. Other members of this class could include bicycling, riding a motorcycle, and flying in an airplane. These events all belong in the same general class because they can all be used for the same or analogous purposes (although one might want to distinguish between two subclasses of transportation—long and short distance—in each of which a car ride would belong).

It can be seen from the previous example that the distribution mode involves several different kinds of distribution. Examples from phonology can further illustrate this point. In analyses of languages, phonemes can be seen as distributed into classes. Some very general classes would be consonants, vowels, and semivowels. In traditional phonological analyses, the consonants of a language are usually further classified according to manner of articulation. In Wilbur's analysis of the Basque of Bakersfield (1961), he divides the consonants into seven classes: stops, spirants, affricates, nasals, laterals, trills, and flaps. The stops are subdivided into voiced and voiceless stops.

Phonemes can also be analyzed according to their distribution in sequences. In most languages, the cluster, the syllable, and the word

are the contexts that determine the sequential distribution of phonemes. Vowel phonemes or clusters typically serve as the nuclei of syllables, with consonant phonemes or clusters at the beginning and/or end of the syllables. Charts that show the possible combinations of consonants in consonant clusters are given by Crawford for Yuchi (1973:178) and Wilbur for Bakersfield Basque (1961:28). Canonical formulas showing the possible arrangements of phonemes in the context of a syllable are often given in phonological descriptions. The following example, describing Yuchi, is excerpted from Crawford (1973:177):

The syllable canon is $C_1(C_2)V(^{\circ})$ in accordance with the following specifications (C = consonants; V = vowel, nasal or oral):

- (1) If C_2 is not present, C_1 can be any consonant.
- (2) If C_2 is present, C_1 can only be a stop or a sibilant...
 - (a) If C_1 is a stop, C_2 can only be /w/ or /y/.
 - (b) If C_1 is a sibilant, C_2 can only be /w/, /y/, or a stop.

Thus, all syllables must begin with a consonant and end with a vowel.

Finally, phonemes can be seen as distributed in a system. Pike says that 'a unit is well defined only if its distribution is specified in reference to its occurring in a system' (1964a:85). The phonemes of a language work as a system, and within this system patterning can be found, with a tendency toward symmetry. It is this sort of distribution that Sapir addressed in his article 'Sound patterns in language' (1925). Sapir describes phonemic patterning as 'the inner configuration of the sound system of a language, the intuitive "placing" of the sounds with reference to one another' (40). Morgan describes St. Martin Creole as having this kind of patterning when he says it has a 2x4 vowel system and a 3x5 consonant system (1959:20,22). Davies notes that in Kobon 'there is patterning and symmetry in the way that /f,s,c,x/ as a set

contrast with /b,d,j,g/ as a set' (1980:25). Each language has its own phonological pattern.¹⁸ A partial discovery of the phonological patterning in a language, according to Davies, 'can influence a decision as to the phonemic status of other sounds, depending on whether the existing phonemic pattern can be extended to embrace the other sounds to form a larger, equally regular pattern' (1980:7). Davies acknowledges that he is working with 'an assumption that in every language there exists a pattern which the linguist must seek to discover' (7).

According to tagmemic theory, a unit of language or culture can be thoroughly understood when the analyst has taken into consideration all three of its modes—feature, manifestation, and distribution.

2.2.2.4. There is another three-way distinction commonly used in tagmemic literature that is very closely akin to the three-way distinction of feature, manifestation, and distribution modes. This is the distinction of particle, wave, and field perspectives. These terms are borrowed by Pike from physics (see his 1959 article 'Language as particle, wave, and field), where they are used as complementary ways of thinking of light. As I mentioned earlier, the differences between modes and perspectives is largely one of focus. The three modes are characteristics of the data that the analyst seeks to discover, while the three perspectives are stances the analyst can take when considering the data.

An observer is taking a particle perspective (sometimes called the static perspective) when he sees the world as being made up of discrete parts. There is a natural tendency for the human mind to divide up what is perceived into bits. We identify such concepts as a chair, a row of books, our pet dog, three people talking together, and so on. In areas

of scientific investigation, we try to develop a particle perspective and identify the parts of whatever we are studying. Biologists try to distinguish one species from another, chemists try to identify elements, historians divide up the flow of time into ages, eras, and epochs. When studying an unfamiliar language, the linguist has the task of trying to divide up the stream of speech into segments--phones--as a starting point for phonemic analysis. Davies transcribes the Kobon word for 'he does' as a sequence of four phones: [gamp^h] (1980:24). In doing so, he is using his phonetics training as an aid to mentally transform a fluid soundstream into a sequence of phonetic particles. Stop-action cinematography would be a visual analog. The face diagrams in Figure Two, typical of a type of visual aid used in phonetics training, are intended to help illustrate this concept of a particle perspective on a stream of speech.

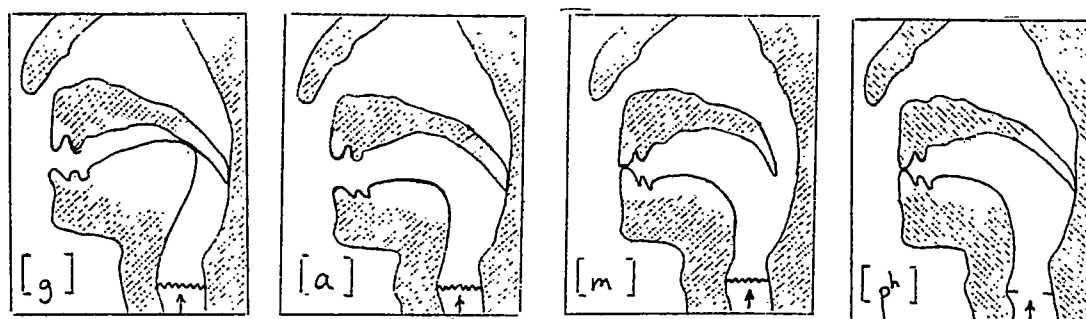


Fig. 2. Particle perspective illustrated by a face diagram used in phonetics.

When taking a wave (or dynamic) perspective, an observer notes the continuity, flow, and lack of clear divisions in what he perceives. In a sense this is the most realistic way to perceive the world. We might suppose that this is the sort of perspective an infant is born with. As

William James puts it, the newborn is confronted with a 'blooming, buzzing confusion', and it is only after some experience in the world that he can begin to distinguish himself from his environment or one person or thing from another. But once an observer is familiar enough with a system to instinctively segment the continuum he perceives into bits, he may have difficulty in switching back to a wave perspective. What a native speaker of English might clearly hear as a sequence of words, as in the pronunciation of 'My dog ate a potato', someone who is not familiar with English would not know for sure how many words were uttered, or even if this utterance was one long word.¹⁹ De Saussure recognized this fact when he said (1959:103-4):

But we know that the main characteristic of the sound-chain is that it is linear... Considered by itself, it is only a line, a continuous ribbon along which the ear perceives no self-sufficient and clear-cut division; to divide the chain we must call in meanings. When we hear an unfamiliar language, we are at a loss to say how the succession of sounds should be analyzed, for analysis is impossible if only the phonic side of the linguistic phenomenon is considered. But when we know the meaning and function that must be attributed to each part of the chain, we see the parts detach themselves from each other and the shapeless ribbon break into segments.

Tagmemics allows a change of theoretical perspective in order to capture the truths of both the segmental and the fluid nature of sequences. In his article on 'Language as particle, wave, and field' (1959) Pike explains that when considering the data from a wave perspective,

...what one meets is a constant flux of total physiological or acoustic movement in a total physiological or acoustic field. Here, language is seen as a sequence of waves of activity; the train of waves is one continuous behavioral event. That which was labelled earlier as a sequence of 'separate' sounds would in this view be nothing but a series of waves of movement or of sound with the peak of a particular wave identifying the place in a sequence where a particular segment was supposed to have occurred (135-6).

Figure Three is a sound spectrogram. This sort of instrumental analysis

of speech sounds shows how in spoken language one phoneme blends with the next and one word with the next. Speech is not a sequencing of discrete particles. Though we can analytically break up the sound stream into segments, in reality the segments overlap and merge. For example the English word 'bomb' would be represented phonemically as /bam/ but phonetically as [bãm]; that is, the nasalization that helps characterize the /m/ phoneme carries over to affect the pronunciation of the preceding vowel, causing it to be nasalized. (A more detailed phonetic analysis would show that the vowel is affected by the preceding /b/ as well.) And 'can't' would be /kánt/ phonemically but [k^hãt] phonetically--the /n/ is realized only as nasalization added to the preceding vowel.²⁰



Fig. 3. Wave perspective illustrated by a sound spectrogram.

Waves are recognizable because of contrast between peak and trough. Two adjacent waves can share a trough between them and still be

recognized as two waves because two peaks are evident. In the case of a word made up of two syllables such as the word 'rider', the two vowels are syllabic peaks but the consonant that separates them (a syllabic trough) is shared by both syllables, as illustrated in Figure Four.



Fig. 4. Two syllable waves with an indeterminate boundary between them.

An element shared as the trough of two distinguishable peaks can be said to serve in double function²¹ (cf. Pike 1962:10,15). A wave perspective allows us to recognize a sequence as being made up of two or more components, even when the borders between the components are not clearly discernable.

A unit may have characteristics of a hierarchy of waves. In an utterance, in addition to the syllabic waves there may be more inclusive waves of different degrees of stress. For an example of this, consider the sentence in Figure Five.

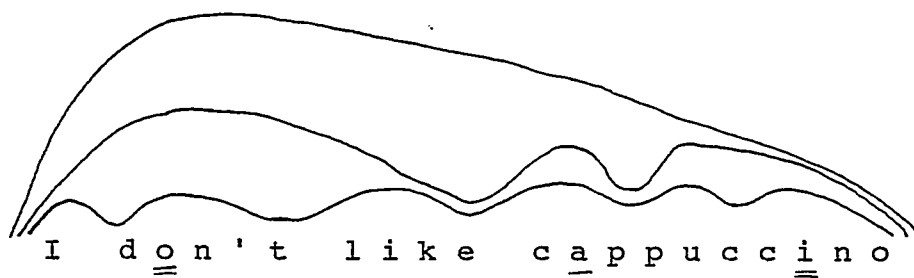


Fig. 5. Multiple phonological waves of an English sentence. (Underlining indicates relative degree of stress.)

The linguists who followed the Bloomfieldian structuralist model

of linguistics were reluctant to allow a wave perspective in their theory. As a result they were not equipped to deal with double function or such phonological problems as portmanteau phones, bidirectional partial fusion, partial overlap, or displaced contrast (discussed in E. Pike 1976:70-2).

Some scholars deny the validity of a wave perspective. They operate with the conviction that the goal of science is to compartmentalize facts.²² There is a place for a particle perspective--making divisions and isolating certain things for separate analysis--as long as the analyst does not deny natural connections, overlap, dependencies, etc. But there is also an important place for a wave perspective since it allows the analyst to acknowledge and theoretically handle indeterminacy and overlap in the data.

When an observer takes a field (or relational) perspective he focuses on system and relationships. Instead of considering units as isolable entities, a field perspective leads the observer to see how a unit is a point of intersection of several parameters in a matrix. This is a holistic perspective, where attention is given to the role a unit plays in a larger unit. The field view adds 'depth' to the wave view by not only showing how a unit blends with whatever is in some sense contiguous to it, but also showing how it relates to other non-contiguous units. A student who tries to get a better understanding of an article he is reading by making an outline of it--showing how certain ideas are coordinate or subordinate to other ideas--is using a field perspective in order to understand the meaning of the text as a whole and see how its internal parts relate to each other. An anthropologist

sketching out the system of kinship relations in a culture also is showing how 'ego' relates not only to his parents and offspring, but also on another axis to his siblings, and to more distant relatives as well. A field perspective has sometimes been compared to the blueprint of a house or a factory, or we might compare it with a wiring diagram of the electrical system of a car (which would be a subsystem of a larger system—the car as a whole). In phonological analysis we take a field perspective when we define phonemes in terms of their place in a system, as points where the parameters of a matrix intersect. Gleason considers the phoneme from different points of view, and the following quote illustrates (in tagmemic terminology) a field perspective: 'A third definition of a phoneme may therefore be stated as follows: a phoneme is one element in the sound system of a language having a characteristic set of interrelationships with each of the other elements in that system' (Gleason 1961:267-8). Gleason illustrates the field aspect of phonology with a diagram showing the interrelationships of Turkish phonemes. Figure Six is adapted from Gleason (1961:267).

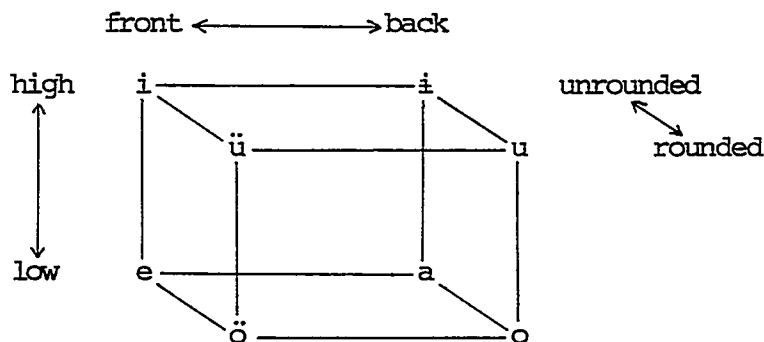


Fig. 6. Field perspective illustrated by a 3-D vowel phoneme matrix.

Gleason explains (1961:267) that 'the arrangement of the Turkish vowels in a cubic diagram reflects both structural relationships and phonetic character. The Turkish vowels are very evidently units in a system, the interrelationships of which are of fundamental significance in the language.' Sidney Lamb emphasizes relationship in his stratificational theory of linguistics.²³ He has expressed his belief to me (personal communication) that, not only in language but in the physical world as well, units do not exist, that there are just relationships. The reply from tagmemics would be that though it is sometimes useful to focus on a unit as being a point of intersection in a network of relationships, it is profitable and realistic to supplement this field perspective with particle and wave perspectives. By using three different perspectives we avoid saying something is only one thing and not another. Pike explains (1964a:87) that 'tagmemic theory emphasizes that the human observer must successively vary his viewpoint to each of these three if he wishes to experience fully any unit. Each of the three is in some sense, at some times, common to human behavior and human experience.' He adds elsewhere that 'each approach involves its own distortion of material. Each has its own advantages—but for its advantages one must pay the price of the inevitable distortion. Language analysis, at best, involves an integration of these three separate approaches' (1962:27).

2.2.3. Etic and emic.

Many different types of systems exist in the natural world. Culture, society, and human behavior are all interrelated systems or groups of systems. Language is a more particular type of system, but it too is a group of smaller systems—a system of subsystems.

Anyone who understands how a system works could be considered an 'insider' to that system. Someone who does not understand how a system works is an 'outsider'. Pike coined the terms 'etic' and 'emic' to refer to different perspectives an observer can take in reference to a system. These terms were taken from the already common terms in linguistics 'phonetic' and 'phonemic', and were given a broad application.²⁴

An emic perspective is how an insider understands a system. The insider knows which patterns and symbols are significant and which are not. He knows how to focus on what is meaningful in that system. An emic perspective involves knowing how a certain item or event in focus functions in the system of which it is a part. An emic approach, according to Pike, is 'culturally specific, applied to one language or culture at a time' and presents 'the view of one familiar with the system and who knows how to function within it himself' (1967:37,38). Pike goes on to say (40-1) that 'the value of emic study is...that it leads to an understanding of the way in which a language or culture is constructed, not as a series of miscellaneous parts, but as a working whole.'

An etic perspective is how an outsider views a system before he has learned what is significant and what is incidental. Someone with an etic point of view might note an item or event but would not know how it works in a system. He has not yet learned what stimuli insiders to that system are responding to. For example, on seeing a traffic light turn red for the first time in his life, and seeing the cars stop at the intersection, an outsider to our culture would not know for sure whether there is any connection between the two events. A person with an etic

viewpoint also does not know the contrastive-identificational features of units in a culture or field of knowledge foreign to him. If he sees two chunks of behavior (assuming he is able to discern what is a 'chunk' in a continuum of action) that are similar but not identical, he cannot tell whether these chunks are variant manifestations of the same type of behavioral unit or whether they should be considered to be different. Suppose an outsider to our culture saw a Dallas Cowboys football game on television and then later saw some children playing football on an empty lot. If this person has an etic perspective, he would not know whether he has witnessed two manifestations of the same event or not. He might think that cheerleaders, uniforms, and a stadium setting are defining features of a football game.

Actually, the term 'etic' is used in several distinguishable senses. In one sense, it refers to the way someone not necessarily trained as a scientist sees a system that is alien to him. He might misunderstand what he observes because he is trying to interpret it in terms of analogous systems he is familiar with. Gleason provides the example that

an Arab listening to English may identify the consonant of English key with his /k/ since it is more or less fronted, and that of caw with his /q/ since it is more or less backed.... This may lead the Arabic observer to object to the identification of the initial consonants in these words as identical. In short, in listening to English, he hears, at least in part, Arabic phonemes, not English ones. (Gleason 1961:260)

We can say that anyone who is first confronted with a system (i.e., culture, language, etc.) that is unfamiliar to him has an etic perspective in reference to that system. This etic perspective can be gradual-

ly transformed into an emic perspective as the learner comes to appreciate the peculiarities of the new system, and the differences between it and the analogous system he is already familiar with.

In another sense of 'etic', the term refers to a cross-cultural (or trans-systemic) technique of analysis that can be applied to unfamiliar systems in order to work toward an emic understanding. This technique enables a person to begin to analyze a language, culture, etc., of which he has no prior knowledge. That is, he will have no prior knowledge of that particular system, but he will have previously studied the characteristics of languages in general (linguistics) or cultures in general (cultural anthropology) and will be armed with a list of categories that might be relevant to the new system being investigated. Pike says that 'the etic approach treats all cultures or languages—or a selected group of them—at one time' (1967:37), and its value is 'in giving to a beginning student broad training as to the kinds of behavior occurring around the world, so that he may be the more prepared to recognize quickly the different kinds of events observed, and to help him see slight differences between similar events' (1967:40).²⁵ An appropriate example of this type of etic analysis would be phonetics. Linguistics students study phonetics in order to learn to control a large inventory of slightly distinguishable sounds—by far many more contrasts than would occur in any natural language. This inventory is arrived at through consideration of all the languages already documented.²⁶ When the linguist is learning a previously unstudied language, he notes what sounds are a part of that language and then tries to deduce which contrasts are significant (emic) in that phonological

system and which are not.²⁷ In moving from an initial, overly-differentiated record of the etic phones (sounds) of a language to a record of the significant phonemic contrasts, the linguist is making a transition from an etic to an emic perspective.

Etics can be as systematic as emics is, but in reference to a different kind of system. In one sense etics relates to a cross-cultural analytical system, and in another sense it involves fitting one system's artifacts into the framework of a different system. Emics involves seeing how artifacts function in the particular system of which they are a part.

A third possible type of etic perspective is that of someone wanting to learn a new system, but who has no familiarity with other systems that are very similar. Consider the example I presented earlier of someone learning to differentiate types of white blood cells under a microscope. When I was first learning to execute this type of morphological analysis, I had little background in microscopy, and the forms of the cells were not like anything I was familiar with. I could see differences between cells but it was difficult for me to see characteristics in the cells that would allow their grouping.²⁸ Gradually experienced technicians succeeded in communicating to me what I should be looking for--the contrastive-identificational features of the categories of cells. But even though I was not previously familiar with cell systems and was in a sense being exposed to a new way of thinking, the task of categorizing cells is similar to other common perceptual experiences. That is, I was experienced in trying to categorize people, objects, etc., and identifying types of cells is analogous to identi-

ifying what country a person is from based on characteristics he exhibits such as accent, physical characteristics, dress, and mannerisms. So in a sense I was carrying over from one system to another.

But consider the case of a newborn child. At first his perspective is etic in every way, but as he learns about the culture he is born into--is enculturated--he (by definition) is gaining an emic perspective. As Keesing and Keesing describe it (1971:338), 'An infant is faced with the challenge of extracting regularities of pattern from the "blooming buzzing confusion"--the noises, visual images, and tactile experiences that are the world "out there"' and he 'proceeds to build a model of his cultural and social world.' This task of enculturation and organizing perception seems enormous and yet seems to come easily and naturally to children of all cultures. We might theorize that the human brain is innately equipped with an ability to process input. The psychologist Lewis Lipsitt argues,

I believe that it is precisely the orderly nature of the congenital response repertoire of the human newborn that makes this organism a likely candidate for the acquisition of learning at least as soon as birth. My message in this regard is simply this: all conditioning and learning processes depend upon the prior presence of systematic responsivity of the organism to specific stimulation. (1973:115)

Compare this with the following quote from Pike (1970:ix-x), where, in discussing his 1954 publication, he says that

it was urged that all purposive human activity and perception were constrained by in-born elements of the human mechanism. Different languages--or sets of nonverbal behavior patterns--might be learned from one's cultural surroundings, but each such set was in turn restricted by the nature of man himself.

A child who is acquiring his first language and culture and a linguist or anthropologist who is learning about languages and cultures different from his own both are moving from an etic to an emic per-

spective. Though the educated analyst may be aided by an explicit theory while a child has only his innate cognitive framework to guide him, their situations are the same in a certain respect. Tagmemics, an explicit theory, is an attempt to capture what is inherent and universal in human cognition that enables one to understand systems.²⁹

The issue of etics and emics is related to the issue of identification and variation. As I have already mentioned, when a person is learning another language either for the purpose of analysis and documentation or for the practical purpose of communication, he must learn which contrasts are significant for the system being learned and which are not. There are contrasts that are significant in English, such as between the voiced stops /b,d,g/ and their voiceless counterparts /p,t,k/, that are not contrastive in Walapai, according to Redden's (1966) analysis. Even though etically-speaking Walapai has both voiced and voiceless stops, there is no emic contrast between the voiced and voiceless stops as there is in English. Conversely, Walapai has four contrastive nasal consonants—bilabial, dental, prepalatal, and velar—where in English we have only three contrasts.

Emic and etic may seem reminiscent of the competence-performance contrast, but there are some crucial differences between the two sets of concepts. For one thing, one would not say that some facts are etic and others are emic. The difference between the two is a matter of perspective. Both apply to degrees of understanding of units in context. The same data would be etic to one person if he is an 'outsider' and emic to another person, an 'insider'. Furthermore, though we might say one person has an etic perspective and another has an emic perspective,

or that an analyst tries to switch from one to the other, etic and emic should be understood as a continuum. There is no distinct boundary where one begins and the other leaves off. In some cases a learner might suddenly come to an understanding of some element of a culture, making a 'Gestalt switch', but generally the learning process is gradual, and familiarity with a foreign language or culture does not come in an instant. Though it is convenient to use the labels 'etic' and 'emic' as though they were a dichotomy, in learning a foreign language or culture the learner, after the first stages, has a 'semi-emic', or partial understanding that is developing into a more emic understanding as he learns.

The terms etic and emic have caught on somewhat in the field of cultural anthropology. Hymes writes that 'Pike's conceptual distinction, etic:emic, has become a standard, if much debated, part of general anthropology' (1969:361). The concepts of degrees of familiarity of cultural systems or insider vs. outsider points of view were not new, but the issues were brought into clearer focus by Pike's coinage and discussion of the terms. Clifford Geertz notes that in anthropological theory, 'the formulations have been various: "inside" versus "outside", or "first person" versus "third person" descriptions; "phenomenological" versus "objectivist", or "cognitive" versus "behavioral" theories; or, perhaps most commonly, "emic" versus "etic" analysis' (1977:481). The terms Geertz prefers are those advanced by the psychoanalyst Hans Kohut, 'experience-near' and 'experience-distant'. Concerning the balance of the two perspectives in anthropological descriptions, Geertz says that 'confinement to experience-near concepts leaves an ethnographer awash in

immediacies as well as entangled in vernacular. Confinement to experience-distant ones leaves him stranded in abstractions and smothered in jargon' (1977:482).³⁰

There has been considerable controversy among anthropologists as to the meanings of etic and emic. Much of the controversy seems to center around Marvin Harris. Harris has written a great deal on the subject, and he incorporates an etic-emic distinction into his theory of cultural materialism. He writes (1976:343), 'I see Pike's emic/etic distinction as providing the key epistemological opening for a materialist approach to the behavioral stream.'

Harris has his own particular slant on the issue of etic and emic. For him, emic operations are those 'operations suitable for discovering patterns with respect to what goes on inside of people's heads' (Harris 1976:330). In other words, to discover emic structure and meaning, the analyst asks questions of native informants in reference to what is going on. Harris says that 'knowledge of emic phenomena rests ultimately on some form of eliciting operation' (1975:454). Emics is what the informant will explicitly tell the analyst, or perhaps what the analyst can deduce from the informant's statements.

Etics, for Harris, is what the analyst sees actually taking place in the 'stream of behavior' and what he can deduce about that behavior based on his scientific training and 'objective' detachment from the situation. As Harris puts it,

Etic statements depend upon phenomenal distinctions judged appropriate by the community of scientific observers. Etic statements cannot be falsified if they do not conform to the actor's notion of what is significant, real, meaningful, or appropriate. Etic statements are verified when independent observers using similar opera-

tions agree that a given event has occurred. An ethnography carried out according to etic principles is thus a corpus of predictions about the behavior of classes of people. (1968a:575)

In Harris' theory, an analyst doing 'etic analysis' makes no use of the informant's statements. He relies totally on his own observation. What people say and think is emic; what they actually do is etic.

Harris' theory makes a distinction between two different strategies of analysis. The value of etic analysis is not for use as a starting point that leads to emic analysis, as is the case in tagmemic theory. Harris recognizes that tagmemics has the orientation of moving from etic to emic analysis, and he counters this with a statement of his own orientation:

This position clashes with the epistemological assumptions of cultural materialism. In the cultural materialist research strategy, etic analysis is not a stepping stone to the discovery of emic structures, but to the discovery of etic structures. The intent is neither to convert etics to emics nor emics to etics, but rather to account for the divergence and convergence of both etic and emic structures. (1976:333)

If for Pike etic analysis leads to emic structures while for Harris etic analysis leads to etic structures and emic analysis leads to emic structures, then it is obvious that Harris and Pike attach somewhat different meanings to the terms. Part of the problem is that for Pike these are two perspectives on the same thing but for Harris etic analysis and emic analysis are studies of different topics—the study of elicited statements versus the study of actual, observed behavior.³¹

Though Pike says 'etic and emic data do not constitute a rigid dichotomy' (1967:41) Harris makes them into a dichotomy. He forgets (or never understood) that etic, as well as emic, refers to a degree of human understanding, and instead he equates the term with 'reality'.

Thus when Burling charges that 'Harris's simplistic bifurcation into idealist "emics" and materialist "etics" is in danger of squeezing out the middle ground between them' (1969:827), Harris responds that 'I do indeed squeeze out this middle ground because I believe that the inability to decide whether a datum is an idea in an actor's head or an event in the behavior stream is epistemologically intolerable' (1976:338).

As I have pointed out, Harris' brand of etic analysis supposedly leads to discovery of etic structures. Harris recognizes that Pike does not allow for 'etic structures', but he explains this by suggesting that due to his naivete in anthropological matters Pike does not understand that non-verbal behavior should be studied this way. Harris says, 'With all deference to the linguistic origin of the dichotomy, a nonlinguist must object to Pike's extrapolation of the correlation between etics and nonstructural results to nonverbal behavior' (1968a:570) since he figures that 'Pike never considered the possibility of studying the behavior stream in its own right, apart from what it meant to the people whose behavior it exhibited' (1976:333). Harris does not pretend to have a detailed knowledge of linguistics, and he assumes that Pike does not have a sufficiently complete knowledge of anthropology to know how his concepts of etic and emic should be applied in that field. So he excuses Pike for any understandably naive statements that conflict with his own point of view.

As part of his definition, Pike describes etic analysis as being cross-cultural and emic analysis as 'culturally specific, applied to one language or culture at a time' (1967:37). Harris sees that there is a

discrepancy here with his own use of the terms, but somehow he supposes that this part of the definition is either a mistake or not very important: 'Much to my astonishment, prominent theoreticians apparently believe that this aspect of the emic/etic contrast lies at the very heart of the definition intended by Pike' (1976:341). Harris does not explain the difference between himself and Pike on this point.

Despite these differences that Harris himself recognizes between his use of etic-emic and Pike's, Harris contends, 'My use of these corresponds with Pike's usage' (1968c:532). And in Harris 1976 (333), after a summary of Pike's theory that he disagrees more than agrees with, Harris writes, 'This brief recapitulation of Pike's grand design should suffice to dispose of the opinion expressed by linguists that my use of the term emic and etic is deviant.'³²

As well as identifying a few anthropologists who agree with his use of this set of terms, Harris (1976) cites a number of linguists and anthropologists who disagree with him, including Black, Burling, Bright, Goodenough, Durbin, Hymes, and Naroll. Fisher and Werner add their own names to this list, plus the names of Merrifield, Kensinger, Sahlins, 'etc.' (1978:199fn6). Fisher and Werner's judgment is that 'Harris simply does not understand the etic/emic concepts, nor does he appreciate their application in linguistics' (1978:199fn6). Hymes, too, suggests that

many who discuss "emic" and "etic" need to reread him. The emic, for example, is not purely the verbally stated, much less what is conscious or easily reportable by members of a culture. The origin of the term in "phonemic" should have made that clear, phonology having been a celebrated case of an unconscious patterning for which native speakers must provide evidence but which they themselves cannot normally express, lacking terms to do so. (1969:362)

In addition to the scholars who object to the way Harris divides etic and emic, there are some who follow his dichotomy but argue for the primary importance of emic studies rather than the other way around, as Harris has it.

Harris' theory of cultural materialism has prediction of behavior as the major goal. For this reason, though the theory allows for both etic and emic analysis, Harris is primarily interested in etics, as he uses the term. This is due to the fact that if an analyst asks people about their behavior (emic investigation), their statements are considered to have less value in predicting behavior than if he observes actual behavior and draws his own conclusions (etic analysis). Emic analysis is interesting only for comparison and contrast with the more 'scientific' etic results. Two students of Harris', Diamond and Schein, engaged in a study of city garbage collectors in which they compared some elicited statements concerning the proper way to collect garbage with their observations of how it is actually done. Their conclusion is that 'replicability, accuracy, and clarity emerge much more consistently from an etic approach than from an emic approach to non-verbal behavior' (1966:24). In the cultural materialist scheme, the natives' beliefs cloud scientific understanding more than help it. According to Harris, 'I and my students, using video-tape recordings of natural behavior have experienced no difficulty in determining what is similar or different without recourse to the informant's opinion (and indeed, often significantly at variance with the informant's opinion)' (1968b:530).³³

The philosophy underlying cultural materialism assumes that persons educated in science, even if (or especially if) they are outsiders to a

system, know the truth or can discover it in a way that is more objective than uneducated native informants can. As a tagmemicist, I would argue instead that though people can have different perspectives and some people know more than others, and though people can agree with each other, in the final analysis all human knowledge is subjective. Harris quotes Levi-Strauss (whom he refers to as one of the 'partisans of obscurantist strategies' (1976:348)) as saying that etics is 'nothing but the emics of the observers'. Harris admits that 'this statement has a grain of truth in it because one cannot deny that the locus of the reality of the behavior stream lies in part inside the heads of the observers' (1976:348). Instead of explaining, though, why he disagrees with the statement despite the 'grain of truth' in it, he goes on to change it into a different argument and argue with it instead:

...But it amounts to nothing more than a rerun of Bishop Berkeley's argument on behalf of an idealist ontology. Those who maintain that the behavior stream exists only inside the minds of the observers, to be consistent must also believe that the observers themselves have no existence except as a sophistic figment. (348)³⁴

The problem might be that Harris is equating etics here with reality rather than with human understanding. The result is that he fails to answer this serious challenge in a satisfying way.

Clearly the difference in the meanings of etic and emic among Harris and Pike and others is a function of their different goals, epistemologies, and philosophies of science. Harris' goal is to make predictions concerning behavior, based on observation of behavior and related factors. Fisher and Werner point out that

Harris is committed to a study of culture realized in behavior in a direct and predictable way, and that is his commitment. In order to make these predictions (explanations for Harris), Harris will need all the data he can get: population and demographic studies,

rainfall patterns and (maybe) even a cultural category or two. (1978:208)

Thus Harris is content to remain 'etic'.³⁵ He is not primarily concerned with understanding how people think except as an occasional diversion, to see how a native's expressed thought clashes with his behavior. Harris' etic is not the first step toward emic analysis. In fact there is a boundary between Harris' etics and emics that cannot be bridged.

Other anthropologists and linguists have the goal of understanding cultural systems from the viewpoint of the participants. They seek to move from an inevitably etic initial analysis to an emic one. Fisher and Werner continue, '...On the other hand, ethnoscientists and others are committed to the creation of a theory for the organization of knowledge, not to the low-level prediction of behavior' (208).

Coinciding with this difference in goals is a difference in beliefs with respect to the possibility of knowledge. Harris seeks 'objective' knowledge, and etics comes to be equated not just with an outsider's understanding of certain phenomena but with reality itself. In tagmemics, etic and emic both refer to human understanding; both are subjective.

In their original formulation, the terms etic and emic had certain meanings that were suitable for their context in tagmemic theory. If the terms are borrowed into a radically different theoretical context, it should not be surprising that their meanings would have to be adapted, either deliberately or unconsciously (i.e. by 'misunderstanding').³⁶

2.2.4. Focus.

Focus is a normal part of life. People naturally focus on what is significant in their culture and on what is personally interesting or important to them. A sleeping mother may be undisturbed by various noises in the night such as a cat fight or car horns, but then be awakened by her baby's cries.³⁷ One's socio-cultural background is critical in determining what one will focus on. This ties in with the preceding discussions of etio and emic and trimodality. Part of gaining an emic perspective is learning how to focus on what is significant. Learning a foreign language or adapting to a foreign culture necessitates learning how people use focus. A feature mode analysis deals with the focal contrastive-identificational features of a system. A manifestation mode analysis points out other features of a system that are generally out of focus to insiders. A distribution mode analysis tells the place of a feature or a part in a system, and thus why something might be focal.

2.2.4.1. Focus and prominence. Certain parts of a system are seen as more focal--i.e. are given prominence--by insiders to the system. A familiarity with the system as a whole is prerequisite to the understanding of why certain parts are prominent. Focus on an element implies that that element plays an important role in a system.

There is a classic story of the change that missionaries instigated in the Yir Yiront tribe of Australia. The missionaries observed that stone axes were important in that culture but that not everybody had them, and they reasoned that the Yir Yironts' standard of living would be improved if the missionaries could help members of the tribe

obtain a steel axe, which was superior to the stone axes in terms of its ability to cut. Unfortunately, the missionaries were not considering the stone axe's place and prominence in a socio-cultural system. For one thing, possession of a stone axe by senior men was a symbol that helped define social relations within the family. Sharp writes (1960:67), 'Thus the axe stood for an important theme of Yir Yiront culture: the superiority and rightful dominance of the male, and the greater value of his concerns and of all things associated with him.' Also, since the stone axe heads came from a distance away and were obtained through trade, they played a role in relations between tribes. Finally, the Yir Yiront world view compelled them to live a life in unity with the lifestyles of their clan ancestors; there was a 'fundamental tenet of native faith that the present must be a mirror of the past' (Sharp 1960:68). If changes took place in the culture, the Yir Yironts had to adjust their mythology so that no change was evident. The stone axe already had a solid place in their mythology, but the steel axes, of course, did not.

Though the missionaries undoubtedly were sincerely attempting to help the Yir Yiront people by providing them with steel axes, they failed to understand the prominent place of stone (not steel) axes in the people's life and mythology, owned by older men, loaned to others, the stones coming from 400 miles away via trade with other tribes. The steel axe was recognized to have advantages over the stone axe and now there were situations where the role relations were reversed; women and children had the more desirable axes and men would borrow from them. In Sharp's words, 'All this led to a revolutionary confusion of sex, age,

and kinship roles' (1960:70). Trade relationships and the ceremonial life associated with trade suffered also. And the substitution of steel axes from non-aborigines for the traditional stone axes jarred the native system of values and challenged belief in the ancient myths. Sharp reports that the beliefs and values 'were undermined at a rapidly mounting rate, with no new conceptions being defined to replace them. The result was the erection of a mental and moral void which foreshadowed the collapse and destruction of all Yir Yiront culture' (1960:71).

The story of the Yir Yironts tells of misunderstanding by outsiders of a prominent element in one culture. Many other examples could be found in anthropological literature of cultural focus, some of which involve similar misunderstandings, many of which, fortunately, do not, some of which involve material culture, some of which involve something more abstract. Evan-Pritchard has written of the Nuers' focus on cattle (1940). Spicer (1971) records how focus on such things as a traditional dance or land or language or music or past heroes has served to organize, integrate, and mobilize groups of people by giving them a sense of identity. It would be quite misleading to expect that every culture has a single, over-all focus. (The stone axes for the Yir Yironts might not qualify as such.) But every culture uses focus on many different levels, to some extent.

Focus would not be an issue here if it were not evidenced in behavior. What people see as important can be deduced from the way they live their lives: how they spend their time, what rituals or ceremonies they engage in, how they use their resources, etc. Speech is usually an even stronger indication of what people value. We can tell from the

topics of conversations, folktales, proverbs, etc. what people direct their attention to ('When they first meet a stranger they discuss ancestry,' 'They're always talking about hunting'). If one asks a native informant about something in his culture, his explanation will give prominence to what is significant to him as an insider. Terming this 'highlighting,' Fisher and Werner note that 'the observation of highlighting is an important step en route to a cultural analysis' (1978:205). And within a discourse, focus or prominence can be linguistically marked in many different ways, depending on the language, to indicate the key ideas or participants. Foreground information can be distinguished from supportive information or to use Gestalt terminology, figure from ground. We also speak of discourse, paragraph, or sentence topics (in focus), of theme as opposed to rheme, of nuclear vs. marginal elements. A fairly recent interest of linguists is to see how parts of a discourse are given prominence and what elements are given prominence by the speaker. Kathleen Callow, as one who has investigated the subject of prominence, writes,

A story in which every character was equally important and every event equally significant can hardly be imagined. Even the simplest story has at least a central character and a plot, and this means one character is more important than the others, and certain events likewise. Human beings cannot observe events simply as happenings; they observe them as related and significant happenings, and they report them as such. (1974:49)

There are many different ways that a language could mark prominence. Some that Callow lists are 'repetition, use of particles and affixes, special tone patterns, unusual order of words, intensifying verbs or tenses of verbs' (1974:51).

Wheatley reports (1973) that in Bacairi narrative discourse the

choice of pronouns shows whether a participant referred to is focal or not. Both maca and auca would be translated into English as 'he', but the former denotes a focal status while the latter is nonfocal. Only one character at a time is in focus in a Bacairi story; the speaker must decide who is to be represented as the main character and assign pronouns accordingly.

2.2.4.2. Levels of focus. People can consciously shift their focus from the scrutiny of a relatively low-level unit to attention to a high-level unit that includes the low-level one. When reminiscing about a vacation in Europe, one could focus on impressions of the vacation as a whole (high-level) or on the visit to Paris, or on the afternoon at the Louvre, or on the chat with the aspiring artist while looking at paintings (relatively low-level). Pike (1967:ch.4) gives the example of a football game, where one could focus on the game or a half, or a quarter, or a play, or a movement within a play such as a pass.

Human observers have an affinity for seeing things or events as wholes. They look for closure--some characteristics that define the boundaries of a unit--and meaning or purpose. That is, they try to break up the waves of sensory input into meaningful particles. Names imply wholes: a vacation, a football game, a play, Bill Johnson, his foot. From a purely physical perspective the only wholes are the most minimal units--photons, electrons--and the maximal units--the universe or the sum of all universes.³⁸ Everything in-between is continuum. But from a psychological or socio-cultural perspective, when purpose and focus are brought in, there are wholes on many different levels.

What people focus on is determined in part by upper and lower

thresholds of attention. These thresholds are often vague or shifting and depend on the observer's interests and physical limitation. In terms of lower thresholds, people normally cannot see atoms and molecules, but besides that, attention to details may not be helpful to a person's engagement in normal activities. As an example, using a church service Pike explains that 'there are lower limits beyond which the ordinary participant in a church service does not normally go in changing focus. if he does so, he has become an analyst, rather than a worshipper-or "critical" rather than enjoying it' (1967:80). An editor may have to focus on the spelling or phraseology in a book as part of his job, but the average person more likely will focus on the higher-level aspects of the finished product. This would be even more true for conversation, where various kinds of mistakes are plentiful but are usually unconscious, out of focus to the listener. In sports or other activities, the various muscular activities and details of movement are generally below the threshold of attention. Gallwey (1974) proposes that a tennis player should focus on high-level units of activity (in my terminology), and that focus on details (such as the angle the racket is held or the orientation of the body with respect to the line of trajectory) is counterproductive.

Upper thresholds are generally more flexible than lower ones. Almost everything can be considered in its larger context. Pike writes that 'the upper limit to focus fluctuates greatly in accordance with permanent or temporary purpose and interest. It seems to be much less rigid culturally--i.e., the thresholds are often less sharp--than the lower limit' (1967:111). But ordinary people are immersed in their more

immediate situation rather than always being aware of their role in the history of western civilization or the meaning of existence. Because of the limitations of the human mind, people cannot constantly keep their attention on all levels of activity, so they unconsciously operate within thresholds that to a certain extent are ad hoc and to a certain extent are determined by intelligence, education, and sensory capabilities.

What is perceived to be a whole depends on the level of focus one takes. Any unit is a whole, but any unit can be considered in context-- a larger unit or whole that includes it. When considered in context focus is taken off of something as being a whole and now it is seen as being a part of a larger whole. Pike says that 'focus can shift up (to include a larger time span) or down (to include a shorter one), and the "whole" shifts with it' (1967:80). I will refrain from going into more detail on part-whole relationships until I get to the related subject of hierarchy (section 2.4.).

2.2.4.3. Analytical focus. A tagmemic description tries to capture the focus that is inherent in an insider's perspective on the system in question. Without some use of focus, a description lacks structure and can be only a scattered debris of etic details. In reference to the description of a football game, Pike writes,

It should be easy to see that if all components of the spectacle were to be treated on a par, the data would be unmanageable, and a description hopelessly unwieldy and unintelligible. If an indiscriminate mixture were made, let us say, of the solemn voice quality of the announcer, with the movement of the little finger of the clarinetist, with the eye movement of a fan who is watching one of the ushers, no emic structural form would emerge from the description. (1967:114-5)

Of course a description of a language or culture must have its own thresholds, which are determined by the analyst's interests and under-

standing. No exhaustive description of any language or culture has ever been written. To retain coherence, a description must keep within certain bounds and focus on one topic at a time.

I said in section 2.1. that different theories can have different scopes. This is equivalent to saying that they have different foci or operate within different thresholds. Some linguistic theories focus on the sentence level and below. This may be because the practitioners are seeking to restrict their investigations to allow themselves to more thoroughly analyze one domain, or it may be because they feel that all that is of interest to them is within that domain.³⁹ An interest of tagmemicists has usually been the broader picture. Pike states that one of his reasons for writing Language in relation.. was

to demonstrate that for best results linguists must at times raise their focus to include nonverbal behavior as part of their data, and anthropologists must sometimes, and in some senses, treat language data within a single hierarchical structure along with nonverbal activity. (1967:111)

If one's theory allows for the analysis and description of a system on a wide range of levels, as does tagmemics, then the analyst must decide where to begin his analysis, or, having understood the system in question, where to begin his description. He may discover what Pike calls a 'predominant focus unit' (1967:106) that serves to orient a range of activities or entities. The sentence may qualify as a predominant focus unit in English speech, or I would argue that the sentence and the speech act are both predominant focus units. The ownership of cattle may be a predominant focus unit in Nuer behavior. If a predominant focus unit can be found, it would serve as a natural starting point for analysis and description.

Lacking a clear indication of a natural starting point, the analyst has a heuristic basis for selecting an entrance point to the data. Grimes, for example, gives some principles as to how to proceed with a phonological analysis. On the topic of where to begin analysis, Grimes has this to say:

When one has not yet learned a language, it tends to sound like a confused noise to him. Both learning a language and analyzing it require that this apparent jumble be sorted out. A whole language at once, however, is too much to begin with. The analyst needs some starting points at which he can control how he hears the data. From these he can work out efficiently to get a picture of the whole language without having the sheer volume of it get out of hand. (1969:31)

If he lacks a starting point that seems either natural or heuristically advantageous, the analyst can arbitrarily begin just about anywhere. He can start with a broad focus that he successively narrows, or he can start in the middle and work both directions.

This discussion of focus is closely connected with the concept of hierarchy, which I will discuss shortly. But before getting into that subject, I will explain what the tagmeme is.

2.3. THE TAGMEME.

Tagmemes are the building-blocks of tagmemic descriptions. They have been characterized in various ways: as slot-class correlatives, function-set correlatives, form-meaning composites, and as units-in-context. The tagmeme has developed into a fairly sophisticated concept, with four explicit components and several applications. In order to explain what the tagmeme is, I will begin by briefly recapitulating the history of this concept.

Initially the tagmeme was conceived of as a grammatical analog to

the phoneme; that is, it was the minimal-sized grammatical unit. Phonemes were recognized as the minimal units in phonology and morphemes the minimal units of the lexicon and Pike felt he should be able to find a corresponding minimal unit in grammar. What he came up with was originally termed the 'grameme'. Pike defined the grameme as a 'verbal motifemic-spot-class-correlative' (1954:102). In other words, this minimal grammatical unit was first seen as a systematic correlation of a slot (or spot) in a grammatical construction (such as a clause--e.g. 'My dog bit a mailman'--whose slots might be Subject, Predicate, Object) with a class of items that normally occur in (or 'fill') that slot (such as nouns or noun phrases and verbs or verb phrases). Previously a clause might have been described as a sequence of noun phrase + verb + noun phrase, or alternatively, subject + predicate + object. The grameme put these facts together such that this clause was described as:

Transitive clause = subject:noun phrase + predicate:verb
+ object:noun phrase

In this formula, subject:noun phrase is an abbreviated way of saying that the subject slot is filled by a noun phrase.

In the late 1950s and early 1960s, the concept of the grameme began to undergo some changes. First, the name was changed from grameme to tagmeme⁴⁰ (see Pike 1958). Around the same time, the term 'slot' was replacing 'spot'. These terminological adjustments did not affect the theory. A second, more important change in the theory came through

Robert Longacre's influence. Longacre felt the morpheme should be seen as the minimal unit of the grammatical, rather than lexical hierarchy, displacing the tagmeme from that status.⁴¹ The tagmeme was adjusted from being the minimal unit in grammar to being any grammatical slot-class correlation. Thus it could be a unit on any level of a hierarchy of grammatical constructions. A third change in the theory is attributable to the work of John Crawford (his PhD dissertation, submitted in 1959 and published in 1963). Crawford proposed that the concept of the tagmeme could apply to phonology. As this suggestion was absorbed into tagmemic theory, the tagmeme began to lose its identity as a strictly grammatical unit and became more generalized as any systematic slot-class correlation. These latter two changes are discussed in, but not incorporated into, Pike's 1967 edition of Language in relation...⁴²

So by the late 1970s the tagmeme was generally thought of as being shared by phonology and grammar, and as operating on many levels. Other changes in the concept were being proposed. Role, or function, or grammatical meaning, was added to slot and filler class as a third characteristic of the tagmeme.⁴³ Alton Becker turned the tagmeme into a matrix with parameters of grammar vs. lexicon and form vs. meaning (1967). An illustration of Becker's variation of the tagmeme appears in Figure Seven.

		grammar	lexicon
form		subject	noun phrase
meaning		agent	male, single, human

Fig. 7. Becker's four-celled tagmeme, illustrated using a clause subject as an example.

Another version of the four-celled tagmeme (Pike 1976:114-5) used 'category' as the fourth cell (although Pike mentioned that 'cohesion', which he does not define in this article, might possibly fit there instead of 'category').⁴⁴ Here again the tagmeme was presented as a matrix, with parameters function vs. filler and arrangement vs. situation. Figure Eight displays the generalized concept of the tagmeme as presented in Pike 1976.

	function	filler
arrangement	slot	class
situation	role	category

Fig. 8. The four-celled tagmeme of Pike 1976 (115).

In addition to the four-celled tagmeme, a nine-celled tagmeme was posited, which included phonological, grammatical, and lexical features (cf. Waterhouse 1974:13), but the amalgamation of nine features in a single tagmeme never proved to be very useful.

Richard Bayless and Linda Johnson, working together (unpublished ms., 1976), developed the notion of cohesion as a feature of the tagmeme, joining slot, class, and role. The concept of the tagmeme that Pike promotes and is in common use among tagmemicists today (though some, such as Longacre, still prefer the simpler slot-class or function-set tagmeme) is as a unit comprised of the features of slot, class, role, and cohesion. These four aspects of the tagmeme can be combined in a graphic display similar to the matrices earlier devised by Becker and Pike, except that cohesion takes the place of 'lexical meaning' or

'category'. Figure Nine shows the generalized nature of the tagmeme.

slot in a sequence	filler class
role (function)	cohesion

Fig. 9. Generalized nature of the tagmeme in a four-celled display.

As illustration of how the tagmeme is used to describe a unit in context, consider the relationship of 'the boy' to the rest of the clause in 'The boy kicked the can.' Figure Ten gives tagmemic formulas for that clause and the passive variant 'The can was kicked by the boy.' The discussion following Figure Ten uses these examples in explaining the four characteristics of the tagmeme.

transitive = + clause	subject	noun phrase	+	predicate	transitive verb	+	adjunct	noun phrase
	actor	determines inflection of predicate		statement	agrees with subject in person and number		under- goer	-----
a.		The boy		kicked			the can.	
passive transitive = + clause	subject	noun phrase	+	predicate	passive transitive verb	+	adjunct	agentive prepositional phrase
	under- goer	determines inflection of predicate		statement	agrees with subject in person and number		actor	-----
b.		The can		was kicked			by the boy.	

Fig. 10. Tagmemic formulas for active and passive clauses.

2.3.1. Slot.

The slot of an item is the location where it occurs in the context of a larger construction. Slots are given a name of some sort. Often

they are simply referred to as the nucleus of a construction, or a pre-margin or a post-margin (coming before or after the nucleus). Sometimes the slots are given more specific names, such as the subject or predicate slots of a clause.

In example a of Figure Ten, 'the boy' occurs in the subject slot. The identity as subject would remain constant even if a pronoun occurred there ('He kicked the can') or a gerund (as in 'Studying tires me out'). The slot before the predicate retains its identity as the subject even in a passive clause; in example b of Figure Ten 'the can' is the subject.

2.3.2. Class.

The term 'class' (or filler class) refers to the set of items that can occur in (or fill) a slot. The class is the substantive part of the tagmeme. In example a of Figure Ten, the subject slot is filled by a noun phrase, specifically 'the boy'. This noun phrase could be expanded with modifiers and/or relative clauses, as in 'the young boy', 'the two young boys', 'the boy who lost his wallet', etc. Actually, if one were describing English clause structure in general, rather than just one particular example, one would want to specify that not only noun phrases can fill the subject slot of a clause, but also pronouns, present participles of verbs (-ing forms, commonly called gerunds when used in this way), etc. In tagmemic terminology, a set of different fillers that can occur in one slot is called a hyper-class.

Slots help define classes and classes help define slots. A pattern has to be established to find either. Slot-class patterns can be

found in nonverbal as well as verbal behavior. Pike gives the example (1976:104) of a football game, in which there are slots--downs--that can be filled by passing plays, running plays, or kicking plays. In the next chapter I will discuss a behavioral unit called 'drawing blood in a hospital', in which the nuclear slot can be filled by the action of sticking a hypodermic needle into a vein or pricking a fingertip.

2.3.3. Role.

The role of a tagmeme is its function in reference to its context. Other paraphrases of 'role', in addition to function, include purpose and meaning (or structural or functional meaning).

Of all the areas associated with language, meaning has been the most difficult to study because of its intangibility and abstractness. Some linguists have defined 'linguistics' such that it includes the study of phonological and grammatical patterns but excludes the study of meanings. Other linguists, while admitting that meaning is within the scope of linguistics, have not known how to handle it.

One important principle in tagmemic theory is that all units in language and culture are understood as form-meaning composites. Form is not discussed apart from discussion of meaning or function (and thus the role component of the tagmeme), and meaning is not discussed apart from consideration of some kind of form. De Saussure has said 'forms and functions are interdependent and it is difficult, if not impossible, to separate them' (1959:135). Pike explains that

once a system is arrived at by such [guess-and-check] procedures, with intuitive components, then description (as over against discovery) can choose to present only part of the data (the formal part) and leave out the semantic component. I have chosen, on the other hand, to retain semantic components in presentation for a

simple reason: I wish to be able to know, after I have presented a linguistic structure, what it means—not merely jthat it is well-formed—since language is a communicative system. (1967:225fn)

John Searle makes a similar statement in his discussion of Noam Chomsky and transformational-generative grammar:

It is important to emphasize how peculiar and eccentric Chomsky's overall approach to language is. Most sympathetic commentators have been so dazzled by the results in syntax that they have not noted how much of the theory runs counter to quite ordinary, plausible, and common-sense assumptions about language. The common-sense picture of human language runs something like this. The purpose of language is communication in much the same sense that the purpose of the heart is to pump blood. In both cases it is possible to study the structure independently of function but pointless and perverse to do so, since structure and function so obviously interact. (Searle 1972:6)

According to tagmemic theory, there is phonological form and phonological meaning, grammatical form and grammatical meaning, and referential form and referential meaning.

Figure Ten presents a grammatical, rather than phonological or referential, analysis of the sample clauses. Thus the role cells of the tagmemes present information about grammatical function. In example a, 'the boy', which is the subject of the clause, has the role of actor (or agent). In example b, 'The can was kicked by the boy', 'the boy' keeps its role as actor even though it is now a subject-as-undergoer.

2.3.4. Cohesion.

The cohesion of a tagmeme involves its relation to other tagmemes either adjacent or more distant, or its relation to the system in general in which it is situated. I am talking here about relationships where the form of one unit determines or is determined by the form of other units. In Figure Ten I noted that the form of the subject—whether it is singular or plural; first, second, or third person—

determines the form of the predicate. This is true in English for verbs inflected for present tense, but the examples I used are simple past tense, so they do not demonstrate the cohesion relationship. In the examples 'I eat', 'he eats' this rule manifests itself. Also, in the example 'I eat a lot of apples in the summer. They are plentiful in Washington', the form of the subject pronoun in the second sentence (they vs. it vs. we) is determined by the form of its antecedent in the first sentence. Cohesion rules can be written in the cohesion cells of the tagmemic display, or more often they are simply noted there in an abbreviated form. And the rules are explained more completely in a list following the formulas.

In Figure Ten each tagmeme is preceded by a '+' or a '+/-'. This is a kind of cohesion notation also. A '+' indicates that as a general rule that tagmeme is obligatory in that context. A '+/-' indicates that sometimes that tagmeme does not occur, and a rule would have to be written to explain what the conditions are that determine its occurrence.

The cohesion rules are valuable for noting connections between parts of a structure, parts that may or may not be adjacent. They trace networks of ties within a structure or system and focus on one way that parts work together to make a whole. Halliday and Hasan's book Cohesion in English (1976) discusses in detail the different kinds of cohesion relations at work in English.

2.3.5. The tagmeme as a systematic statement.

As I mentioned above, there have been attempts in the past to

understand the tagmeme as a matrix that describes the characteristics of a unit. The tagmeme as conceived of in Pike and Pike 1967 and in this study does not seem to be describable as a matrix, but it does have a systematic organization. First of all, it is a form-meaning composite, with the role cell noting the meaning and the slot, class, and cohesion cells describing the form. Second, the class, slot, and cohesion can be seen as the particle, wave, and field of the unit's form. Figure 11 illustrates this set of relationships.

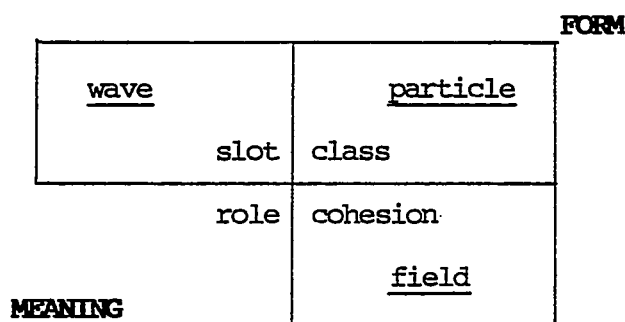


Fig. 11. Systematic coherence of the tagmeme.

2.4. HIERARCHY.

While tagmemes are the building blocks of a tagmemic description, the concept of hierarchy introduces structural organization into the description. A tagmemic hierarchy is the arrangement of facts in terms of part-whole relationships. Units are seen as being part of larger units, which in turn are part of larger units, and so on. When a person can begin to understand how the different bits of data he observes fit together in a hierarchical arrangement, the complexity of the world becomes understandable in part.

In a football game, someone who understands the structure of the game sees a pass or a run or a kick as part of a play (or down), which

is part of a turn with the ball, which is part of a quarter, etc. Figure 12 illustrates the hierarchical grouping of parts of a football game.

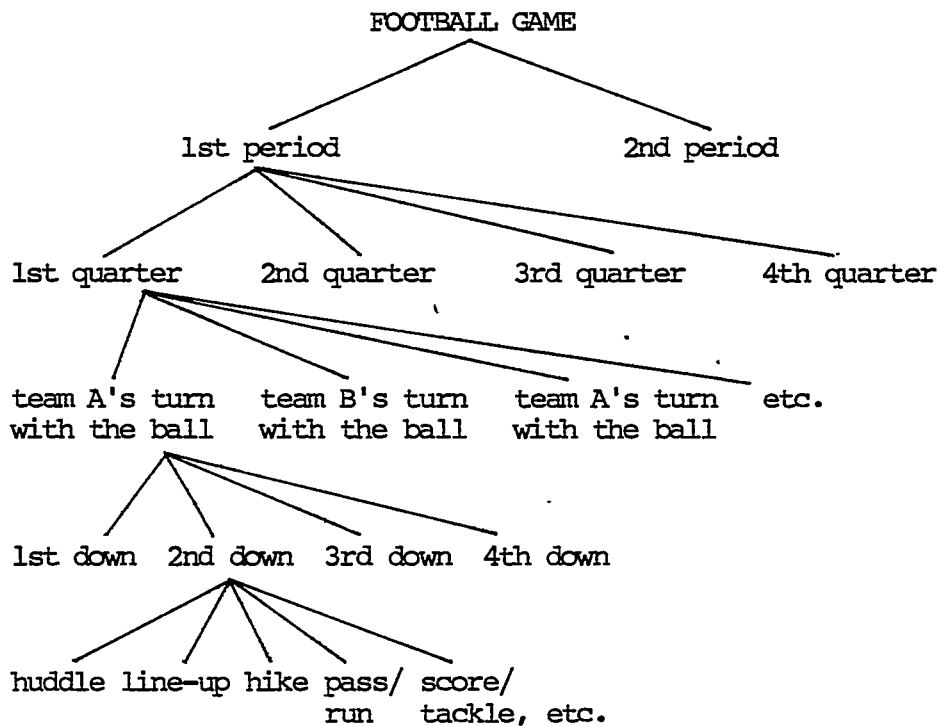


Fig. 12. Hierarchical organization of a football game.

In tagmemic analysis we try to systematize hierarchical analysis. Tagmemic theory has mostly been applied to language, and in the tagmemic analysis of language, three major hierarchies have been discerned. These are the phonological, grammatical, and referential hierarchies. I will try to explain the general characteristics of these three hierarchies before addressing myself to the less-understood non-verbal hierarchies.

2.4.1. Hierarchy in language.

It has long been understood that language units are arranged in

some sort of hierarchy. In the early period of American structural linguistics, a method of 'immediate constituent' analysis was popular (developed by Bloomfield 1933, Pike 1943, Wells 1947, and others)⁴⁵ whereby a sentence would be divided into two major parts, and each part be further cut in two until the minimal parts were reached.

By the early 1950s many linguists were very aware of the limitations and inadequacies of traditional immediate constituent analysis. One problem was the insistence on cutting constructions always into two rather than a variable number of constituents. Longacre writes,

Immediate constituent analysis yielded ad hoc hierarchies specialized overmuch in terms of particular sentences. Immediate constituent analysis failed, therefore, to uncover hierarchically arranged patterns of maximum relevance and comparability. It tended rather to endless fragmentation in which the picture was obscured by overstructuring at some points. The system of dichotomous binary cutting—which was the normal way of operation in this analysis—had no way of distinguishing comparatively relevant from comparatively irrelevant cuts. (1964:16)

Chomsky's solution (1957) to the problems of traditional immediate constituent analysis was to introduce transformations to work together with the phrase structure rules. The transformations were intended to show how certain seemingly similar constructions are different and seemingly different constructions are similar. The solution of Pike and other tagmemicists, especially Longacre, was to set hierarchical analysis free from some of its cumbersome constraints (such as the insistence on binary cuts, the strict separation of form and meaning, and the isolation of various realms of analysis) and develop a consistent methodology for analysis and description.

One aspect of the tagmemic analysis of linguistic hierarchy is the principle of dividing up the hierarchy into levels. A level is a focal

point in a hierarchy where meaningful (i.e., systematically relevant) 'wholes' can be discovered. As I mentioned earlier (section 2.2.4.2) what is described as a whole depends on the level of focus. A word can be seen as a whole unit, and yet in reference to sentences, which can also be seen as whole units, the word is only a part. What is thought of as a whole and what is thought of as a part changes as one focuses on the different levels of a hierarchy.

In the analysis of certain hierarchies a researcher can discern patterning that evidences an inherent division of the hierarchy into levels. For example, the sentence level is a crucial one in the grammatical hierarchy of English and many or most other languages. All literate speakers of English at least are very aware of the sentence. The fact that we can discern contrastive sentence types, we can conveniently describe paragraphs as being made up of sentences, and we can conveniently describe phrases and clauses in terms of their functioning in sentences all reinforce our impression that the sentence level is one focal level in the English grammatical hierarchy. The word is another crucial level. I could defend its validity by means of the same evidences I referred to in discussing the sentence. Literate speakers of English are very aware of the word and sentence levels if for no other reason than because we have been taught to represent them in writing by means of punctuation marks and spaces between letters. I could defend other levels of the English grammatical hierarchy as well, and the division of other hierarchies into levels.

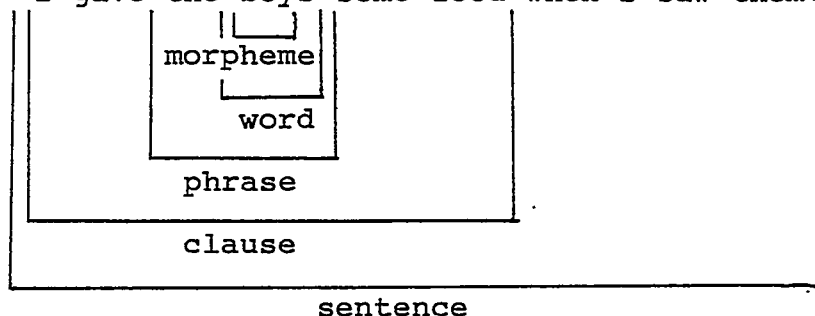
My examples of linguistic hierarchy so far have focused on the grammatical hierarchy. According to tagmemic theory (or, the variety of

tagmemic theory that I am following), grammar, phonology, and reference are three components that are basic to all languages. Furthermore, part-whole hierarchical structuring can be observed in these components, and thus we commonly refer to them as the grammatical, phonological, and referential hierarchies. I will briefly sketch these three hierarchies as they are commonly conceived of in the tagmemic literature.⁴⁶

2.4.1.1. The grammatical hierarchy of a language is the system of rules concerning the way lexical units can be combined. The minimal lexical units of a language are, by definition, morphemes. In tagmemic terms, we would say that morphemes are the lowest level of the grammatical hierarchy. Morphemes are the smallest meaningful parts that words can be divided into. By studying how form and meaning work together in the lexical sets boy, boys, girl, girls, or tolerant, intolerant, patient, impatient, we can determine that boys is made up of two morphemes boy and -s, and impatient is made up of im-/in- and patient.

Generally speaking, sentences are made up of one or more clauses, which are made up of one or more phrases, which are made up of one or more words, which are made up of one or more morphemes. This sort of part-whole hierarchy is illustrated in Figure 13.

a. I gave the boys some food when I saw them.



b. Help!

Fig. 13. Part-whole hierarchical arrangement of levels of a sentence.

In example sentence a of Figure 13, boy is a morpheme. This morpheme is part of a word (boys), which is part of a phrase (the boys). This phrase is part of a clause (I gave the boys some food) and the clause is part of a sentence. Making up each level is at least one unit from the next lower level. Each level can contain more than one unit on the next lower level but it does not have to. A noun phrase, for example, can have more than one element in it--a definite article, an adjective, and a noun, which are all words. But a unit on one level sometimes contains only one element of the next lower level. A noun phrase can consist of a single word and the hierarchy is still maintained (though to determine the hierarchical levels in the first place, the fuller, expanded forms on each level must be considered). In example b of Figure 13, a sentence (Help!) contains only one clause. There is only one phrase in this clause (a verb phrase with no noun phrases). The verb phrase contains only one word, and this word is only a single morpheme.

As for an upper level of grammatical structure, many linguists have felt that sentences are the uppermost units. Thus, according to this view, grammatical description would cover morphemes and sentences and any other relevant structures found between the two levels.⁴⁷ One distinctive of tagmemic theory is that it does not limit grammar to the study of sentences and structures included in sentences. Tagmemicists have generally recognized such higher-level units as paragraphs and texts to be grammatical structures. In 'Beyond the sentence' (1964b:129), Pike writes, 'A bias of mine--not shared by many linguists --is the conviction that BEYOND THE SENTENCE lie grammatical structures available to linguistic analysis, describable by technical procedures.'

The reason that many linguists have said that the sentence is the maximal grammatical construction is that larger constructions, paragraphs, for example, have a relatively loose organization compared with lower-level units--at least when formally considered. Grammar, as Bloomfield saw it, included sentences but no larger constructions:

An utterance may consist of more than one sentence. This is the case when the utterance contains several linguistic forms which are not by any meaningful, conventional grammatical arrangement (that is, by any construction) united into a larger form, e.g.: How are you? It's a fine day. Are you going to play tennis this afternoon? Whatever practical connection there may be between these three forms, there is no grammatical arrangement uniting them into one larger form: the utterance consists of three sentences.

It is evident that the sentences in any utterance are marked off by the mere fact that each sentence is an independent linguistic form, not included by virtue of any grammatical construction in any larger linguistic form. (1933:170)

For Bloomfield multi-sentence texts were too free in form to be amenable to grammatical description. Grimes comments that

[one] reason for urging linguists to hold back from discourse is that the kinds of relationships that are involved once we go beyond the sentence are different from those that operate within sentences.

For example, it is often asserted that stylistic relationships have little in common with the relationships of ordinary grammar, that perhaps they are a statistical property of speech that linguists cannot deal with directly. In the opinion of others style has an intangible nature that cannot be approached with the combinatorial tools of linguistics. What is overlooked should become plain later in this book: First, there are perfectly straightforward combinatorial relationships that operate in discourse, and second, no matter what is meant by style, the problem is just as prominent inside sentences as it is anywhere else in language. (1975:4)

Though by widening our scope to include discourse introduces additional complexity that may seem overwhelming, as Grimes says (1975:6) we are now learning how to make generalizations from the complexity and are coming to a better understanding of the structure of discourse.

Bloomfield did not prove that there is no structure to sentences or discourse. The burden of providing evidence is on those who claim that such structure does exist. But just as linguists began to see that sentences have structure, certain linguists are now learning enough about discourse to be able to describe its structure (see, for example, the discourse studies of Grimes 1975 and Longacre 1968, 1972, 1976a+b, 1977, 1979).

Some linguists have admitted that a text is a linguistic unit but denied that it is a grammatical unit. This is the position of Halliday and Hasan, who write,

A text is a unit of language in use. It is not a grammatical unit, like a clause or sentence; and it is not defined by its size. A text is sometimes envisaged to be some kind of super-sentence, a grammatical unit that is larger than a sentence but is related to a sentence in the same way that a sentence is related to a clause, a clause to a group and so on: by CONSTITUENCY, the composition of larger units out of smaller ones. But this is misleading. A text is not something that is like a sentence, only bigger; it is something that differs from a sentence in kind.

A text is best regarded as a SEMANTIC unit: a unit not of form but of meaning. (1976:1-2)⁴⁸

Now, I would agree with Halliday and Hasan that a text differs

from a sentence in kind, but I would also argue that sentence differs from a clause in kind as well. In fact each level has its own peculiarities. One cannot always specify what structural types of sentences will be used in the different parts of a text, but neither can one always specify what structural types of clause will be used in the different parts of a sentence, or whether the subject of a clause will be manifested by a noun or a pronoun, etc.⁴⁹ We can use our theory to describe given structures and make generalizations about the range of possibilities, though.

Halliday and Hasan say that a text is a semantic unit, a unit of meaning and not of form. That statement might make sense in the context of systemic theory, but in tagmemic theory we do not make a division of the data into units of meaning and units of form. In tagmemics all units are seen as form-meaning composites. When we speak of a text as a grammatical unit, we accept that it is recognizable as such because of a synergy of form and meaning.⁵⁰ Coulthard, who like Halliday comes out of a British school of linguistic theory, says that discourse is structured functionally rather than grammatically. He refers to phonology, grammar, and discourse as 'major levels of organization' of a spoken text (1977:6), each of which has an internal hierarchical organization. (His use of the term 'level' differs from the tagmemic use.) The relation between one 'level' and another, for Coulthard, is one of realization rather than composition. That is, discourse units such as paragraphs are not composed of sentences--they are realized by sentences. Coulthard sees discourse (including paragraphs, speech acts, exchanges, etc.) as taking up about where sentences leave off: 'While it appears

that structure describable in terms of formal units ends at the sentence, patterning of functional units occurs above the sentence and across utterance boundaries' (1977:63-4).

Coulthard's theory involves functional organization as opposed to grammatical organization and functional units as opposed to grammatical units. Like Halliday, he is making a theoretical division of the data that we would avoid in tagmemic analysis. But despite the difference in this one respect between tagmemics and Coulthard's theory, his analysis and mine come out looking very similar.

The point of all this discussion is just that in tagmemic theory, paragraphs, texts, and conversations join words, phrases, clauses, etc. as levels of the grammatical hierarchy. We can find structure in these higher-level units if we do not close our minds to the possibility. Longacre and Grimes are two who have written on the structural organization of texts. In this dissertation I hope to contribute to the understanding of the structural organization of conversations.

Figure 14 is a listing of the levels of the English grammatical hierarchy (the 'V' denotes hierarchy). This is not an exhaustive list--other levels and layers could be posited, such as the stem, coming between the morpheme and the word levels, or the move, coming between the utterance and the exchange levels. And this list is not assumed to be valid for all languages. The levels of a grammatical hierarchy of a particular language, have to be determined on the basis of patterning in that language. In an 'isolating' language, where each word is made up of only one morpheme, there would be no need to consider the word and morpheme levels to be distinct. And for certain languages of Australia

and New Guinea, where clauses are strung together in a very long chain, there is no reason to posit a sentence level as distinct from the clause and paragraph levels (cf. Longacre 1976:277). It would not matter whether that level were called a sentence or a paragraph; the point is that for those languages there is only one level that roughly corresponds with our two levels in English.

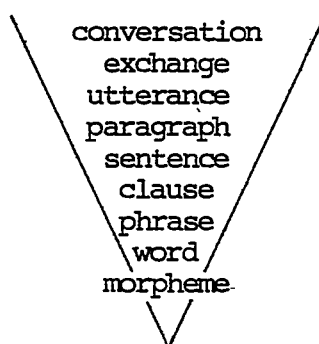


Fig. 14. The English grammatical hierarchy.

Pike and Pike present the English grammatical hierarchy in a format where the levels are paired and functions of the pairs of levels are explained. Figure 15 is the paired grammatical hierarchy from Pike and Pike (1977:24). Pike and Pike's rationale behind presenting the hierarchy this way is that it combines form and function. It gives validity to the proposed levels by showing how they function in a system of communication.

MEANING	MINIMUM UNIT	EXPANDED UNIT
Social Interaction	Exchange	Conversation
Theme Development	Paragraph	Monologue
Proposition	Clause	Sentence
Term	Word	Phrase
Lexical Package	Morpheme	Morpheme Cluster

Fig. 15. Paired levels in a grammatical hierarchy.

In this dissertation I will focus on the highest levels of the grammatical hierarchy—utterances, exchanges, and conversation—and the nonverbal context of speech. But in order to explain tagmemic theory as a whole (i.e., the theoretical context of my analysis), I will continue my discussion of hierarchy by sketching the concepts of phonological and referential hierarchy.

2.4.1.2. The phonological hierarchy of a language is analogous to the grammatical hierarchy but concerns the systematic arrangements of speech sounds. The minimal units of phonology are called phonemes, and phonemes are describable in terms of a limited set of contrastive-identificational (or 'distinctive') features. Taking a hierarchical perspective on the phonological system of English, we would say that phonemes are the lowest level of the phonological hierarchy, and that higher levels include the syllable, the phonological word (distinct from the grammatical word), the phonological phrase, the pause group, and possibly other levels. Figure 16 lists some of the levels of the English phonological hierarchy.

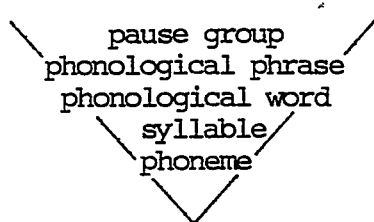


Fig. 16. The English phonological hierarchy.

In each language the number and nature of the levels has to be determined on the basis of patterning in that language. Eunice Pike explains,

All languages have a phoneme level, most have a syllable level, a pause-group level, and a level between the syllable and pause group.

In the literature it is not always easy to equate a level of one language with that of another since the labels vary from one description to another. Word level has also been called "foot", "rhythm group", and sometimes "stress group". Phrase level may be called "stress group", and also "contour". Phrase level is also the name under which the pause group is sometimes described. (1976:61)⁵¹

It is a generally-accepted principle of phonology that the phonemes of a particular language cannot be determined solely on the basis of acoustic characteristics--they must be determined on the basis of patterns and meaning. If we are going to posit a phonological hierarchy, we must show how its units on various levels have emic validity. Thus when we say that (almost)⁵² all languages have syllables, we are not talking about universal acoustic characteristics of languages, but about the way consonant and vowel phonemes pattern together in speech. These emic syllables differ from language to language and sometimes differ from etic, acoustic syllables. For more on etic vs. emic syllables, see K. Pike 1967 (373-7).

E. Pike (1976) gives criteria for determining the number of levels in the phonological hierarchy of a particular language and the number of

contrastive types within each level. Tench (1976) has proposed a paired hierarchy for phonology, to match Pike and Pike's paired grammatical hierarchy. In his paired phonological hierarchy Tench adds levels that E. Pike does not discuss, including the phonological paragraph, discourse, exchange, and conversation levels. Figure 17 represents Tench's paired phonological hierarchy, adapted from Tench 1976:16.

RANK	BASIC UNIT	EXPANSION
Social Interaction	Phonological Exchange	Phonological Conversation
Development of Theme	Phonological Paragraph	Phonological Discourse
Intonation	Intonation Unit	Intonation Group
Rhythm	Syllable	Rhythm Group
Articulation	Phoneme	Phoneme Cluster

Fig. 17. Paired phonological hierarchy.

It has been assumed in the past and is still assumed by some linguists that morphemes are 'composed of' phonemes,⁵³ that is, that phonology is the lowest level in a linguistic hierarchy that also includes morphemes, words, and sentences. From this point of view, phonology is the study of phonemes rather than the study of phonological hierarchy. According to Longacre (1964:7),

Until recently American structural linguistics has assumed a model of language in which phonemes built into morphemes which in turn built into syntactic units. As a result, phonology, morphology, and syntax were regarded as successively higher layers of structure. Generative grammar has turned this model upside down and ordered it rule-wise with a cover symbol for sentence as the first rule and

phonological rules for transcription into terminal sentences as the last section of rules. However novel may be certain aspects of generative grammar, it has not challenged the model in any essential way.

This point of view is, of course, rejected in tagmemics, because it does not take into consideration the syllable and other levels of a phonological hierarchy distinct from a grammatical hierarchy. Longacre continues (6-7),

The present procedures are based on a more radical departure from former American structuralism than that found in generative grammar. It is here assumed that language is structured in three semiautonomous but interlocking modes, phonology, grammar, and lexicon (Pike's trimodalism). Phonology is not taken up into morphology which is in turn taken up into syntax. Conversely, syntactic and morphological units cannot directly be rewritten into component phonological units without omitting some of the relevant aspects of phonology.

Phonological units, like grammatical units, can be described as tagmemes since we can see how they involve systematic slot-class correlations. For example, a generalization we could make about the syllable as a construction is that it has three basic slots, which we call the onset, the nucleus, and the coda. The nucleus slot is filled by vowels or vowel clusters and the onset and coda slots are filled by consonants, consonant clusters, or semivowels. The class of consonants that fill the onset slot overlaps with, but is not identical to, the class of consonants that fill the coda slot. For instance, [h] can serve as an onset and [n] as a coda, but not vice versa. As for role and cohesion, they are especially relevant in phonological tagmemes when phonology is given prominence, as in poetry.⁵⁴

2.4.1.3. The referential hierarchy of an utterance is the systematic arrangement of ideas expressed (or assumed) in the utterance. Referential analysis is usually directed at high-level linguistic units such as

narratives or other types of monologue discourse, since the ideas referred to in a single sentence in normal speech are usually interrelated with the ideas referred to in the neighboring sentences that are identified as its linguistic context. When studying referential structure, the focus is not on the particular words used nor on grammatical or phonological constructions, but rather the focus is on what the speaker is trying to express through his words.

Referential structure differs from grammatical structure in several ways. The difference between the two can be seen when we notice freedom in the way context is put into words. First, referential order may or may not match grammatical order. When listening to a narrative, a listener expects the speaker's 'telling order' to match actual chronological (i.e. referential) order unless the speaker gives some signal that makes the referential order explicit, e.g. by using such words as 'before', 'after', 'previously', etc., or by using the perfect tense. In the following sample sentences, (a) and (b) are the same referentially, but the events are expressed in different grammatical orders.

- (a) John was a tennis instructor before the auto accident changed his life.
- (b) Before the auto accident changed his life, John was a tennis instructor.
- (c) John was a tennis instructor. The auto accident changed his life.
- (d) The auto accident changed John's life. Previously he had been a tennis instructor.
- (e) John was packing the suitcases while Mary was cooking breakfast.
- (f) Mary was cooking breakfast while John was packing the suitcases.
- (g) John ate the sandwich.

(h) Bill drank the soda.

In (c) and (d) the same information is expressed in two sentences rather than one. These four examples are different grammatically but the same referentially.⁵⁵ In the case of simultaneous events, it is usually necessary to express them grammatically one after the other, using 'while' or 'at the same time' or some other connector to make clear the referential simultaneity, as in examples (e) and (f). Pike explains (1981:13) that

In tagmemics we make a crucial theoretical difference between the grammatical hierarchy and the referential one. In a normal instance of reporting a single event in time, the two are potentially isomorphic with coterminous borders. But when simultaneous events are being reported, isomorphism is impossible since descriptions must be sequenced in the report. In some cases, a chronological or logical sequence can in English be partially or completely changed in presentational order (e.g. told backwards); when this is done, the referential structure of the tale is unaffected, but the grammatical structure of the telling is radically altered. Grammatical order is necessarily linear (since words come out of the mouth one at a time), but referential order is at least potentially simultaneous.

It is also possible for two sentences or texts to have the same grammatical structure but different referential structures, as in (g) and (h) above. According to Pike and Pike (1977:7), 'The same story may be told in different forms' and 'two quite different stories can be told with essentially the same grammatical structure; hence grammatical structure and referential structure may be varied independently of each other.'

The examples I have used above are only for the purpose of illustrating a brief explanation of the tagmemic concept of the referential hierarchy. For more thorough discussions of the difference between referential and grammatical structure, see Pike and Pike 1972 (written before the concept of the referential hierarchy was fully developed;

this article does not use the term 'referential hierarchy'), chapters one and twelve of Pike and Pike 1977, and K. Pike's 'Grammar versus reference in the analysis of discourse' (chapter three of Pike 1981).

In the hierarchical analysis of referential organization, we consider how referential units—tagmemes—are arranged in part-whole relationships. In analyzing expository discourse, for example, we might say that a topic can be divided into major points, and the points can be subdivided into particular concepts. Or in analyzing narrative discourse, we see that a plot has constituents (events or episodes) with roles such as exposition, inciting moment, developing conflict, climax, etc.,⁵⁶ and these plot constituents may be subdivided until the bottom threshold is reached—the minimal events.

In tagmemic analysis, referential units, like grammatical and phonological units, are seen as form-meaning composite sites. The referential hierarchy is not properly equated with 'semantics'. As Pike says, 'The referential hierarchy is not merely an abstraction of the semantics from the form, nor is all the meaning of all structures placed in the semantic hierarchy. Rather meaning,...is found in each hierarchy' (1978:19). Each tagmemic hierarchy is made of higher-level (more inclusive) and lower-level tagmemes. The concept of the tagmeme is basically the same for phonological, grammatical and referential description; phonological tagmemes describe phonological form and phonological meaning, grammatical tagmemes describe grammatical form and grammatical meaning, and referential tagmemes describe referential form and referential meaning. Phonological meaning is best exemplified in poetry, where sounds are in focus and phonological organization has an impact on the

hearer. Phonological features of a dialect can also carry meaning about who the speaker is, and a single speaker may control several phonological styles that he puts to use in various contexts.⁵⁷ As I mentioned in sections 2.3.3. and 2.4.1.1., there are grammatical meanings that we attribute to grammatical forms. These grammatical meanings include such roles as 'actor' or 'predication' for clause-level constituents, 'question' or 'statement' for sentence-level constituents, and 'reason' or 'result' for paragraph-level constituents. (See Platt's Grammatical form and grammatical meaning (1971) for a detailed study of English clause constituents.)

The nature of referential units as being form-meaning composites can best be seen by taking a look at referential tagmemes.

We can most easily conceptualize referential units as form-meaning composites when we think of them in terms of slot, role, class, and cohesion. I will briefly discuss the four-celled referential tagmeme by focusing on an event in the parable of the Good Samaritan, found in the New Testament (Luke 10:30-5). This story, told by Jesus to illustrate the maxim 'Love your neighbor as yourself' (Luke 10:27), goes as follows:

A man was going down from Jerusalem to Jericho, when he fell into the hands of robbers. They stripped him of his clothes, beat him and went away, leaving him half dead. A priest happened to be going down the same road, and when he saw the man, he passed by on the other side. So too, a Levite, when he came to the place and saw him, passed by on the other side. But a Samaritan, as he traveled, came where the man was; and when he saw him, he took pity on him. He went to him and bandaged his wounds, pouring on oil and wine. Then he put the man on his own donkey, took him to an inn and took care of him. The next day he took out two silver coins and gave them to the innkeeper. 'Look after him,' he said, 'and when I return, I will reimburse you for any extra expense you may have.'

This story is composed of a series of events. These events are all referential units. One such event in the story is the priest passing by the injured man. I can describe this unit as a referential event tag-meme by answering questions concerning slot, role, class, and cohesion, which are summarized in Figure 18 (adapted from Pike and Pike 1977:367). First, where does this event fit in its immediate context? The immediate context of an event would be the higher-level event that includes it. In this case,

WHERE does the event fit in its immediate context?	WHAT happened?
WHY did the event take place? What was its reason or purpose?	HOW does this event RELATE to the facts of the story?

Fig. 18. The referential event tagmeme.

the next higher-level event could be named 'the priest episode'. Within the priest episode, passing the man by comes after approaching and seeing him, and could be considered the nucleus of the episode, since the fact that he passed by without helping is the most significant part of the episode in terms of the theme of the story. Second, why did the event take place? The priest apparently passed by so he could continue on his way without being interrupted. Third, what happened? The priest passed by the injured man. The specific movements that the priest made belong in a class of behavior called 'passing-by'. The Levite performed this same action. Finally, how does this event relate to the other facts of the story? It matches the action of the Levite and contrasts

with the action of the Samaritan. It tells something about the values of the priest (he would rather not get involved) and serves as a bad example for the listener of the story. The conclusions about the characteristics of this event tagmeme are represented in Figure 19.

priest episode	margin	priest walking down the road	margin	priest sees the man	nucleus	priest passes by
	coincidence in terms of the story (but presumably he was going somewhere)	setting the stage	circumstantial reasons	setting the stage	to continue his journey undisturbed	matches action of Levite contrasts with action of Samaritan shows values of priest bad example

Fig. 19. Organization of a particular referential event tagmeme, in its context.

Narratives are made up of a series of events, but there are other types of referential units in a narrative as well, viz. characters (usually people, but perhaps animals, Martians, etc.) and settings. And other genres of monologue discourse (such as expository discourse) are composed of other types of referential units (such as concepts). Linda Jones (1977)⁵⁸ posits the following hierarchical levels for the referential analysis of expository discourse (from highest to lowest): performative interaction, scripts, points, and concepts (vii). Whatever the referential unit, whether it be an event, person, concept, etc., one could analyze it tagmemically by considering the factors displayed in Figure 20.

What is its immediate hierarchical context? Is it a nuclear or marginal part of this higher-level unit?	What is its form?
What is its function/purpose/role in this context	How does it relate to other units in the same hierarchy? With other units in other hierarchies?

Fig. 20. Questions for determining slot, role, class, cohesion.

2.4.2. Hierarchy in nonverbal behavior.

If tagmemic theory is intended to apply to nonverbal behavior as well as to language, then a discussion of the tagmemic concept of hierarchy should explain how nonverbal behavior is hierarchically organized. In this section I will make a few comments about hierarchy as it relates to nonverbal behavior, but I will reserve a more thorough investigation of this subject for Chapter Three, 'The context of language'.

Before I discuss the hierarchical organization of nonverbal behavior, I need to define my use of that term. When I say 'nonverbal behavior', I am talking about physical actions performed by a person (rather than an animal or plant or machine). My own interest and the interest of most others working with tagmemics is in people--human language and human actions (though the theory might prove applicable to animal languages or other types of non-human behavior as well). The general category of human physical actions is very broad. Speaking is one type of human behavior (or action). Different types or systems of behavior can be distinguished, as when we use terms like 'language' or 'nonverbal behavior'. Often in a specific behavioral setting several

systems can be observed to be working simultaneously, such as when two people are knitting and talking at the same time. A fruitful course of analysis is to separate out the various systems of action and analyze individual actions in terms of the particular system they are functioning in. But it is important to remember that sometimes there is no clear distinction between one fact and another, or one system and another. As Bailey says, 'Boundaries are often fuzzy rather than sharp, not only those that separate one linguistic unit from another but those that separate language itself from nonverbal behavior' (1981:x). Certain gestures, such as a wave of the hand or a nod of the head, are 'semi-linguistic' and can substitute for speech. Also, sometimes in interaction an utterance (such as a command) can stimulate an action, or vice versa ('Quit tickling me!'). Thus an interactional exchange can be purely verbal, purely nonverbal, or a mixture. One other factor to consider is that sometimes the antecedent of a pronoun in discourse can only be found in the physical setting or in the nonverbal behavioral context (as when one says 'Don't do that' or 'Put that over there'-- Halliday and Hasan (1976) call this 'exophoric reference'). In general the most satisfying analyses of the structure and purpose of behavior require the analyst to make distinctions among the various systems at work, but when the systems overlap or when the boundaries between them are not distinct, this aspect of behavior is worth noting also.

Another point worth considering is, what are the minimal units of analyses? In language there are phonemes, which build into a phonological hierarchy, morphemes, which build into a grammatical hierarchy, and events or concepts, which build into a referential hierarchy. Can we

find three hierarchies in nonverbal behavior that are analogous to phonology, grammar, and reference? If so, what kinds of units are at work in each hierarchy?

Pike indicates that there are nonverbal analogues of the three linguistic hierarchies and their minimal units. A starting point for the analysis of behavior--either verbal, nonverbal, or a mixture--is the behavioreme, which is defined as a top-focus, emic unit of behavior (1967:121). Behavioremes are trimodally structured. The manifestation mode of an utterance is equated with the phonological hierarchy, the distribution mode of an utterance is equated with the grammatical hierarchy, and the feature mode of an utterance is equated with the referential hierarchy (or the lexical hierarchy in Pike's 1967 model). According to Pike 1967, in nonverbal behavior the minimal unit of the feature mode hierarchy (analogous to reference in language) is called an emic motif. Pike provides the following definition: 'An EMIC MOTIF (or motifeme) is a minimum...emic segment or component of human activity, within the hierarchy of the feature mode of a...behavioreme' (1967:150). The minimum unit of the distribution mode hierarchy is called the role-eme (or motifemic slot-class-correlative) in Pike's 1967 model; the role-eme is defined as 'a minimum...emic segment or component of human activity within the pyramided hierarchy of the distribution mode of a...behavioreme' (Pike 1967:194). Similarly, the minimum unit of the manifestation mode hierarchy of a nonverbal behavioreme is called a kineme (Pike 1967:290-1), which is analogous to the phoneme in speech.

As I mentioned in section 2.3., the more recent writings of Pike (see especially Pike and Pike 1977) reflect some re-thinking of the

organization of tagmemic theory in relation to linguistic facts. The morpheme is now thought of as being the minimal unit of the grammatical, rather than lexical, hierarchy; the referential hierarchy has taken the place of the lexical hierarchy, and the tagmeme has been generalized to apply to the referential and phonological hierarchies as well as to the grammatical hierarchy. In the 1967 model, emic motifs and role-emes were considered to be analogues of morphemes and tagmemes, respectively, in language, but because of the modifications in the theory, these analogies are no longer valid. After having tried to apply tagmemic theory to nonverbal data, I have concluded that some re-thinking is due also in the organization of tagmemic theory in relation to non-linguistic facts. In Chapter Three I present the problem in more detail, propose a revised model of tagmemics as it pertains to nonverbal data, show how my modifications are in accord with the direction tagmemics has been taking, and apply the modified model to some nonverbal data.

2.5. CONTEXT.

Throughout the twentieth century, many linguists have emphasized that various components of language should be isolated and analyzed separately. Some try to explain the linguistic data by using 'context-free rules' and proclaim that syntax or phonology is 'autonomous'. This trend was especially strong in the 1940's and 50's, when it was postulated that 'levels' of analysis (i.e. phonology, morphology, syntax) should not be 'mixed'. The desirability and possibility of consistently following such an approach is rejected in tagmemics. Language is a system, which fits into a larger socio-cultural system; attempts to

isolate components and treat them separately, without at least some sort of indexing to show relations between the parts, present a fragmented and incomplete view of language.

Charles Hockett at one time promoted a theory of 'autonomous phonology'. He proclaimed that 'the line of demarcation between [phonology and grammar] must be sharp' and that 'there is no circularity; no grammatical fact of any kind is used in making phonological analysis' (1942:21,20). Pike, based on his own experience in analyzing languages, reacted to these principles espoused by Hockett and others by writing 'Grammatical prerequisites to phonemic analysis' (1947a), where he says that

to eliminate the facts of grammatical relationship and structure from the analysis and presentation of phonological structure is frequently undesirable because many of the phonological facts are inextricably interwoven with grammatical facts and structural relationships; avoiding the portrayal of this relationship means omitting, completely or at least temporarily, an important part of the total structure of the language. When phonological and grammatical facts are mutually dependent, the treatment of phonology without reference to grammar is a concealment of part of a most important set of structural facts pertinent to phonology. The apparent gain in compartmentation or systematization of data at the expense of an early indication of such structural phenomena within the total phonological arrangement is too high a price to pay for neatness of statement. (155)

A few years later, again on the subject of phonology, Fries and Pike argued that 'phonetic facts are not significant in themselves, but only as parts of a speech system. We conclude, therefore, that systems must be compared with systems--not isolated facts with isolated facts' (1949:31). And more recently (1978:6), Pike has restated the theme of theoretical integration, in reaction to the principles advocated by certain influential syntacticians:

Some linguists have tried repeatedly to analyze sentences without

relation to their including discourse, or without relation to the inevitability accompanying meanings which springs from their behavioral contexts. Their battle cry of 'autonomous syntax'...leads on to the belief that one does well to consider that a language is a set of sentences (Chomsky 1957:13). But language is never such a mere listing--not even of a listing determined as a potentially infinite set by generative rules, leading to a special type of post-Bloomfieldian formal classification. Human behavior decays, becomes irrelevant, and dreams become empty, under such an approach.

Pike's emphasis on context and the inter-relatedness of components of a system has become an important ingredient in tagmemic theory. Pike writes that 'tagmemic theory...is more complex than some, in demanding that context be considered at every step...i.e., in all perception and experience and knowledge' (1982:preface). The rationale behind this principle is that 'no unit is findable or definable except as in relation to context' (Pike and Pike 1977:4). The determination of meaning in tagmemic analysis is based on the relation of a unit to its context, since 'nothing is significant by itself. An object or event acquires meaning only after it is viewed within a larger structure' (1981:15). That is why in order to understand sentences we must look at their use in context, and in order to understand language as a whole we must look at its relation to the behavioral context. Of course the analysis must end somewhere, but the point is that a thorough understanding of any level is not possible until its function in a larger context is considered.

Generally speaking, the function of language is communication. This fact is often forgotten by linguists who focus on language as sequences of morphological or phonological forms and who believe that consideration of meaning and function is undesirable in their analyses. When language is conceptually reduced to being a set of well-formed sen-

tences and the goal is to describe morphological sequences apart from consideration of meaning and communicative function, then linguistics is no more than a puzzle-solving exercise that yields little insight into human nature.

Anthropologists have long recognized the importance of context in understanding language or any other element of culture. Bronislaw Malinowski coined the term 'context of situation', and in reference to language he states, 'Exactly as in the reality of spoken or written languages, a word without a linguistic context is a mere figment and stands for nothing by itself, so in the reality of a spoken living tongue, the utterance has no meaning except in the context of situation' (1923:307). Thus 'the study of any language, spoken by a people who live under conditions different from our own and possess a different culture, must be carried out in conjunction with the study of their culture and of their environment' (Malinowski 1923:306).

Ruth Benedict applied Gestalt theory to anthropology and emphasized what she called 'cultural integration'. In Patterns of culture (1934) she argues that 'the whole determines its parts, not only their relation but their very nature' (52). Conversely, she also recognized that a whole is more than the sum of its parts, and illustrates this postulate by referring to gunpowder, which exhibits qualities that sulphur, charcoal, and saltpeter in isolation do not (47). Her attention to context leads her to criticize anthropological studies that focus on isolated aspects of various cultures:

Studies of culture like The Golden Bough and the usual comparative ethnological volumes are analytical discussions of traits and ignore all the aspects of cultural integration... If we are interested in mental processes, we can satisfy ourselves only by relating the

particular symbol to the total configuration of the individual.

There is as great an unreality in similar studies of culture. If we are interested in cultural processes, the only way in which we can know the significance of the selected detail of behaviour is against the background of the motives and emotions and values that are institutionalized in that culture. (Benedict 1934:49)

Clyde Kluckhohn is another anthropologist who emphasizes that the notion of context is crucial in anthropological theory. The value of anthropological training, he says, is to help the observer see 'society and culture as a rounded whole' (1949:180). On the subject of applied anthropology, Kluckhohn maintains that 'since every culture has organization as well as content, administrators and lawmakers should know that one cannot isolate a custom to abolish or modify it' (1949:40-1).

Charles Ferguson suggests that linguists have something to learn from the anthropologist's holistic approach to the study of human behavior. The problem is that linguists have largely ignored the issue of how language structure relates to the speaker's culture and society. He comments that

Anthropologists look at any human social phenomena, whether marriage customs, folktales, economic patterns, artistic efforts, religion, or language, in terms of the whole culture or society in which they occur. They look for interconnections among these apparently different phenomena, and they look for pervasive patterns of social organization and shared values...But linguists have kept inside language itself, venturing out into nonlinguistic behavior only for certain stock language-and-culture issues or for external histories of language change.

The anthropological style of doing linguistics asks that the linguists turn their attention to the social contexts in which language behavior occurs, to whole acts of expression and communication in which language typically has a central role, and to the whole community or society in which the norms and expectations of language use are shared. (1977:2-3)

In the same volume that contains Ferguson's statements cited above (GURT 1977), Michael Silverstein writes on 'Cultural prerequisites to grammatical analysis', in which he builds on Pike's argument for a holistic

approach to language studies.⁵⁹

Some other linguists recognize the need to look outside of language to understand what is going on in language. Robin Lakoff's 'Language in context' (1972) is a case in point. Rochester and Martin's Crazy talk (1979) is an attempt to understand how speech reflects the social context and who the speaker is. According to Rochester and Martin, 'the social context, we have argued, presents important options to the speaker at each point in time. But these situational features are not divorced from the broader context of the culture and the social system in which the participants are acting' (81). Susan Schmerling, in 'Synonymy judgments as syntactic evidence' (1978), comments on the linguist's practice of presenting an informant with two isolated sentences and asking whether or not they mean the same thing. She concludes, 'When informants are confronted with example sentences out of context and asked to make some meaning-related judgment, it is reasonable to assume that what they do is somehow focus on some contexts where the sentences might be used' (307). Dee Ann Holisky (1980), following up Schmerling's thesis, argues that in a sentence such as 'John killed the deer', we cannot determine whether or not 'John' is an 'agent' without some context to clarify the meaning of the statement. She suggests that when trying to determine case roles in isolated sentences, linguists using themselves as informants unconsciously imagine a context for the sentence.

Some linguists orient their theories toward the understanding of syntactic competence. Their interest is in what makes a sentence 'well-formed'. But an understanding of syntactic competence needs to be

supplemented with an understanding of communicative competence so that we know what to do with the syntactic forms. A person learning a foreign language needs to know how to greet someone, when to use honorific vs. informal forms, even how to follow and use a foreign mode of argumentation, exposition, or narration.

Anthropological linguistics and sociolinguistics emphasize the behavioral and social contexts of language. The development of a 'functional sentence perspective' and textlinguistics also reflects a growing concern for the context of sentences. In 'The search for context' (n.d.:2), Robert Longacre says,

Whether a sonata; a dance routine, a landscape painting, or a folk-tale—or for that matter any human production—the parts answer to the needs of the whole. Indeed, looking at the arts and at other disciplines, we may well feel that it is linguistics that has awakened comparatively late to the need for recognizing the relevance of wholes.

Longacre adds that 'the transition from sentence grammars to discourse grammars is squarely in keeping with a realization of the importance of wholes (gestalts) to any human production' (1-2).

In summary I would say that awareness of context helps us understand the significance of any unit. Words, sentences, and texts are all wholes, but in order to understand any 'whole', it must be reconsidered as a part of a larger context, a larger whole.

Figure 21 is abstracted and adapted (I have updated some of the terminology) from Darlene Bee's Neotagmemics (1973:8). This diagram shows correspondences between several similar sets of terms commonly used in tagmemics in connection with a multiplicity of perspectives.

<u>F</u>	<u>M</u>	<u>D</u>
feature	manifestation	distribution
contrastive-ID	variation	distribution
particle	wave	field
static	dynamic	relational
unit	hierarchy	context
referential	phonological	grammatical

Fig. 21. Definitional sets for the three modes.

2.6. EVALUATION CRITERIA.

The above sections on the observer, the tagmeme, hierarchy, and context summarize the major postulates of tagmemic theory. A description of human activity can be considered tagmemic to the extent that it follows these postulates. What is important is not formalisms or formulaic representations, nor even lack of redundancy or conciseness of statement. The key criterion of elegance in tagmemic theory is integration. Pike says 'the data are considered to be elegantly described when, in terms of simple hierarchies, the relationships of their various units are neatly set forth as a pattern of integration of these units' (1967:587). Tagmemics attempts to describe language and behavior holistically. Form and meaning are kept together, units are related to their contexts, and cohesion rules are written to tie together different levels and hierarchies. Also, a single entity is considered from several different perspectives to ensure that no facet of its nature is overlooked. This attitude contrasts tagmemics with other theories that see compartmentalization as a chief virtue; that is, that strive to treat form and meaning separately, describe phonology or syntax as autonomous, and handle language structure apart from language use, communication, and people. Whereas redundancy is eschewed in transformational grammar, in tagmemics redundancy is not seen as being as unde-

sirable as failing to take relevant facts into consideration or failing to tie parts together.

Tagmemics may strike some as being inadequately formal. But the goal of tagmemics is not to develop formalisms.⁶⁰ And in its linguistic applications, the goal is not to describe linguistic competence, but to describe language. Whatever the object of investigation, a consideration of both form and meaning, a multiplicity of perspectives and a concern for context work together with hierarchical organization to allow a thorough analysis. Some redundancy in description is permitted as far as it enables the analyst to present the facts completely and coherently.⁶¹

NOTES - CHAPTER II

1. The word 'theory' comes from the Greek verb theōrein, meaning 'to look at'. According to the 1974 Webster's new world dictionary of the American language, 2nd college edition, a theory is 'a formulation of apparent relationships or underlying principles of certain observed phenomena which has been verified to some degree.' Pike defines a theory (1976:111) as 'a frame of reference used to help one understand the relationship between some elements of a given situation or set of situations'. He explains that

a theory may be viewed rather broadly as a statement purporting to describe, or to explain, or to help one to understand a phenomenon. More narrowly, a theory may present a claim of truth, or assert the presence of relationships between phenomena, or predict the occurrence of phenomena. (1967:68)

2. Pike (1967:70) points out that 'in a pragmatic view of the philosophy of science a theory is a tool. A dentist drill and a steam shovel are both used for excavation--but at different places. So the value of a theory is determined by one's purpose and goals.' Pike quotes the philosopher Philipp Frank, who compares a theory with an airplane; you choose it because it will get you where you want to go (cf. Pike 1967:70).

Contrast this attitude with Hesse, who labels the orientation toward seeing theories as tools 'instrumentalism'. She argues that

there are several reasons, however, why such an instrumentalist view does not seem adequate as it stands. In the first place, we do not use theories in the same way that we use a convenient tool; we are inclined to demand a specific, well-adapted tool for each different purpose--there is no virtue in seeking to fit all purposes to one universal tool. But we do look for universal theories and are not content with convenient but mutually conflicting theories in different domains of phenomena. Furthermore, we do hold theories to be

vulnerable to falsification, and theories which are falsified are discarded as serious competitors in scientific explanation, even if they continue to be useful as approximations in some contexts. (1967:407)

If an instrumentalist orientation implies, as Hesse says (1967:407), that 'no question of the truth or reference of the theories themselves arises' then Pike is not a true instrumentalist, for he proposes that 'a theory gives existential understanding and insight as a chief value' (1966:366). But the tool analogy could still stand if part of the intended work for the tool to accomplish is to reveal truth at the same time it is helping solve a problem. And the analogy is useful because without the recognition of a problem that a theory would be helping solve, theory would have no motivation and in fact would probably never be developed in the first place (see Kuhn 1970).

For more on the evaluation of theories, see section 2.6., 'Evaluation criteria'.

3. Concerning the role of aesthetics in theory choice, see Kuhn (1970:155), who says that

all the arguments for a new paradigm discussed so far have been based upon the competitors' comparative ability to solve problems. To scientists those arguments are ordinarily the most significant and persuasive... But, for reasons to which we shall shortly revert, they are neither individually nor collectively compelling. Fortunately, there is also another sort of consideration that can lead scientists to reject an old paradigm in favor of a new. These are the arguments, rarely made entirely explicit, that appeal to the individual's sense of the appropriate or the aesthetic--the new theory is said to be "neater", "more suitable", or "simpler" than the old.

Kuhn adds that 'the importance of aesthetic considerations can sometimes be decisive. Though they often attract only a few scientists to a new theory, it is upon those few that its ultimate triumph may depend' (1970:156).

4. M.A.K. Halliday, in his paper 'Syntax and the consumer' (1964), supports the idea that different linguistic theories can be used for different purposes. He says 'I would defend the view that different coexisting models in linguistics may best be regarded as appropriate to different aims, rather than as competing contenders for the same goal'. (13). He credits Chomsky with enunciating the principle that linguists should define the goals of their theory and evaluate their analyses according to how well they satisfy the goals (12). But he argues that

we should not perhaps take it for granted that a description in terms of a formalized model, which has certain properties lacking in those derived from models of other kinds, will necessarily be the best description for all the very diverse purposes for which descriptions of languages are needed. In assessing the value of a description, it is reasonable to ask whether it has proved useful for the purpose for which it is intended. (13)

It is important to consider whether or not a description meets up to the goals of the theory it is based on. And it is also important to consider whether the goals of the theory match the goals for doing analysis.

5. This structural-functionalist orientation contrasts with the structuralist orientation of certain other linguistic theories, as discussed in Chapter One. See Hymes 1974, pp. 8-9 and 79 for a discussion of structuralist vs. functionalist theories of language. Tagmemics attempts to handle structure and function in a single theory by allowing for shifts in perspective. Multiplicity of perspectives is a crucial aspect of tagmemic theory.

A tagmemic analysis of function attempts to understand function from the point of view of the native participants. Attempts to analyze function from an 'objective' viewpoint (such as Harris' 'etic' analysis, to be discussed later), as opposed to the natives' viewpoint, are rejec-

ted. See section 2.2.3.

6. Hale (1974:55) reveals that

it is at present quite possible to be a tagmemicist in good standing without subscribing to any particular doctrine regarding the form of grammar....

To the extent that this is true, critiques of tagmemics dealing with the mechanisms which have been used to represent analyses within tagmemics have failed to attack the heart of the matter. Formalisms exist for the sake of analytic and descriptive convenience. To the extent that they represent analyses directly and clearly, are pedagogically useful in the training of linguistic technicians, have heuristic value in the search for linguistic regularities, and are in consonance with the basic assertions which define tagmemics, they are acceptable tools for the tagmemicist.

This may help explain why relatively little effort has been expended on the study of the form of grammar within tagmemics, and why so little has been published within tagmemics that was recognizable as to a transformational grammarian as having to do with the theory of grammar.

7. See especially Pike's 'Beyond the sentence' (1964) and 'Toward the development of tagmemic postulates' (1976) and the introduction to Pike and Pike's Grammatical analysis (1977).

8. Berkeley tried to prove the existence of God on the basis of the consistency of the material world. He reasoned that if we leave a room and come back to find it just as we left it, this consistency is explainable only if someone (i.e., God) were observing it all the time mortal observers were absent.

9. Although tagmemics restricts itself to what can be observed, there is nothing in the theory that denies that what is not observed is not real, nor suggests that when something is unobserved its nature changes, nor contends that reality is dependent on our perception of it. The point is that we can only know about what we can observe, and about what we cannot observe we can only guess. As Pike puts it, 'Our theory makes no statements or claims whatsoever--whether positive or negative--

about situations in which an observer is not involved' (1967:58).

10. Seiverd (1964:211) compares the division of white cells into series (granulocytic, monocytic, lymphocytic, plasmacytic) and series into branches (granulocytic --> eosinophils, neutrophils, basophils) to the division of men according to race ('white, yellow, and black') and races into branches (white --> 'Americans, Europeans, and Asiatics'). See p. 234 of Seiverd (1964) for a check chart with questions to lead to a proper classification of white blood cells and p. 235 for illustrations and descriptive characteristics of white cells in normal blood. See also Cartwright (1963:108-10) for a distinctive feature chart (though not binary) of white blood cell types.

11. Bastien's description of Qollahuaya rituals and their cultural importance, detailed in his book Mountain of the condor (1978), is my source for information about the New Earth ritual.

12. My example is of a traditional (non-TG) phonological description. Generative phonology involves a different approach to the identification of phonemes.

When I say that generative or traditional phonology addresses itself to the feature mode of phonemes, I am giving a tagmemic interpretation of their practices. These other theories do not use this term.

13. Note how this statement addresses the feature mode, when it describes the /r/ phoneme as 'the retroflex alveolar flap'.

14. When a linguist studies an unfamiliar language, he often encounters pairs of sounds that are suspiciously alike, such as the [b] and [ɸ] of Spanish, yet he cannot be sure at first whether or not they are various manifestations of a single phoneme (since [b] and [ɸ] are con-

trastive in some languages). He looks to see if the suspiciously alike phones are in complementary distribution in that language--that is, whether the two phones occur in discrete phonological environments. If so, then he would conclude that the two are variants of a single phoneme. Grimes gives the example of Clark Kent and Superman to illustrate this sort of discovery procedure (1969:121-2). The fact that Clark Kent and Superman never occur together with Lois Lane should serve as evidence to her that they are two manifestations of a single person. They are different yet the same. The behavioral context (whether the job at hand is to work in an office or perform heroic deeds) determines which form will be taken.

I will say more about the discovery of systemic organization in section 2.2.3.

15. Sometimes it is appropriate to come up with some somewhat arbitrary criteria for assigning borderline cases to one category or another, but Pike warns (1967:159) that

a theory of the structure of behavior must leave room for variants in both form and meaning but without being able to provide any absolute measure of just how much alike or just how different either form or meaning of the form-meaning composite may be before one can no longer equate two items. In our present theory we state that the indeterminacy lies in the data, within the structure, and that any arbitrary attempt to force a decision one way or another in certain instances does violence to the structure rather than clarifying it.

16. Searle goes on to give the example that 'it is as much a test of a man's mastery of the concept green that he has doubts about applying it to a glass of Chartreuse, as that he has no doubts at all about applying it to a healthy lawn or withholding it from fresh snow' (1969:8).

17. See Table 12 of Seiverd for the 'Normal percentages for the differential white cell count' and Table 13 for the 'Increased cell percentage found in the more common diseases' (1964:213).

18. According to Fries and Pike (1949), there may sometimes be not just one, but two or more phonemic systems that coexist in a single language, which 'operate partly in harmony and partly in conflict' (29). One would be basic--a fully developed system, and the other(s) may be fragmentary and observable only in words borrowed from other languages.

19. The unfamiliar listener might guess that because of the length and stress pattern of this utterance, it is comprised of at least two or three words. But he could not be sure, since there are single words of this length in English and in other languages. At any rate, he could not know for sure where one word ends and another word begins.

Literacy among English speakers has helped us develop a particle perspective and interpret the flow of speech as discrete words. If we were preliterate and less informed or introspective about our language, we would probably be much less certain as to whether the sequence 'a man' were made up of one word or two. Some sequences still are confusing for native speakers of English, as when they spell 'a lot' as one word--'alot'. And some word divisions have changes through time--in preliterate Middle English times 'an adder' evolved from 'a nadder' and 'a newt' from 'an ewt' (see Pyles 1971:3).

20. A rigid particle perspective would force us to distinguish between nasalized and non-nasalized vowel phonemes in English on the basis of pairs such as the following:

cat [k^hæt]
 can't [k^hæ̃t]

A wave perspective (supplemented by a field perspective, which gives insight to the overall phonemic patterning) allows us to consider [ã] as a phonemic sequence of /æ/ and /n/ that have coalesced into one phonetic unit.

21. In conversation an utterance might serve as a completion of one exchange and simultaneously as the initiation of a second exchange. This 'messiness' can be explained by recognizing that the utterance has a double function.

22. Some linguists have tried to isolate their discipline from other (in my view, closely related) disciplines, such as anthropology and sociology, or within linguistics one component from another (e.g. 'autonomous' phonology). In doing so they are insisting on a particle perspective to the exclusion of a wave perspective. Pia notes that 'our knowledge of the world is extensive and often woven of the same thread. That is, much of what we know extends across a variety of disciplines and deals with many problems as variants of single, more abstract problems,' but he warns that 'language is treated as though it had no relation to the rest of the world or to our knowledge about the rest of the world. The contrast suggests the wisdom of changing our plan of attack' (1980:37). And Gleason proposes that linguists work toward making 'some generalizations about linguistic variation as a characteristic feature of language. Here is the basis for a second type of linguistic science' (1961:392). He explains (394) that 'there are in many cultures no sharp delimitations of social classes, but gradations of classes. There is no discrete territorial organization into dialect areas, but a geographical continuum. The vast majority of the data is

subject to continuous variation.'

23. Lamb has said (1971:158-9) that

To me the linguistic structure is a network of relationships and just relationships. All of the information that needs to be accounted for can be accounted for in this way, so that the system does not consist of items connected to other items by various relationships, but relationships connected to other relationships and so on throughout the entire network... Although, for example, a morpheme is nothing but a position in a network of relationships, the English language forces us to speak of it as if it were an object. It would be terribly difficult in speaking English to always refer to it as a position in a network. I try to do so when I can, but in talking in ordinary English, I speak about 'units' and 'elements' and so on. But what I mean by a 'unit' is a position in a network of relationships.

I am aware of another variety of stratificational grammar, developed by Ilah Fleming (1979, 1983), where units are acknowledged and allowed in the description.

24. Pike credits Sapir with being one of the first to articulate a distinction between phonetic and phonemic viewpoints in linguistics and also for providing illustrations that show analogies in other types of behavior. For Pike's acknowledgement of his debt to Sapir, see Pike 1967:39, 53-4. For Sapir's original formulation, see especially 'Sound patterns in language' (1925).

25. Pike explains that 'even the specialist, coming from one culture to a sharply different one, has no other way to begin its analysis than by starting with a rough, tentative (and inaccurate) etic description of it' (1967:40).

26. In Pike's words, 'An over-all etic system for language in general is one built by taking the emic systems of all languages of the world, and conflating them so as to preserve all observed contrasts. An etic universal system, therefore, becomes the representation of the

contrastive features of all known systems' (1967:54 fn.).

27. Actually, a linguist could attempt an etic analysis of a language he is very familiar with already—even his native language. To do this he would have to try to see the familiar system from the viewpoint of an outsider. One reason he might want to analyze etically a system that is already emic to him would be to teach it to someone else who wants to learn that system.

28. My exposure to medical technology was a little unusual in that I was tutored by being shown slides under the microscope by someone who was experienced in that type of analysis but not experienced as a teacher. Most learners of medical laboratory practices begin their education by studying textbooks and receiving classroom instruction.

29. Tagmemics applies to language and other systems as well. As I noted in chapter one, transformational-generative grammar also is claimed to reflect what is innately in the human mind that enables children to learn language in particular. In Aspects of the theory of syntax (1965:54), Chomsky says that 'the rationalist approach exemplified by recent work in the theory of transformational grammar seems...to offer at least some hope of providing a hypothesis about the intrinsic structure of a language acquisition system.'

The difference between tagmemics and TG concerns exactly what is claimed to be innate. In Aspects (1967) Chomsky talks of 'innate ideas' (48, 'innate mechanisms to become activated' (48), a 'language-acquisition device' (56), the child's 'discovery of...a deep and abstract theory' (58), and he suggests that before exposure to language, the child is previously informed as to its general character (58).

On the other hand, tagmemics emphasizes the unity of all types of behavior. Tagmemic theory, instead of positing innate ideas, devices, or theories that apply specifically to language, leads one to try to discover what humans are born with that helps them acquire not only language but knowledge of other systems as well. Chomsky states that 'empiricist speculation has characteristically assumed that only the procedures and mechanisms for the acquisition of knowledge constitute an innate property of the mind' (1964:51). He contrasts that with the transformationalist theory of language acquisition: 'On the other hand, rationalist speculation has assumed that the general form of a system of knowledge is fixed in advance as a disposition of the mind, and the function of experience is to cause this general schematic structure to be realized and more fully differentiated' (1964:51-2).

In addition to these differences between tagmemics and TG concerning what is supposed to be innate, the two theories involve different ways of considering the learning process. The transformationalists have observed that linguistic facts alone (in a narrow sense of linguistics) cannot adequately explain the acquisition of syntax. The conclusion then was that the infant has an innate knowledge of language that is waiting to blossom after only a minimal exposure to linguistic data. By assuming that language is biogenetically programmed in humans, TG has avoided causal explanation of syntax acquisition. This is similar to defining 'linguistics' to exclude consideration of societal functioning of language. Tagmemics though, would lead one to consider how not-purely-linguistic factors contribute to the learning process. In tagmemics there is an emphasis on the integration of language with all of

life's activities.

30. I find Geertz' statement interesting and relevant that 'the ethnographer does not, and in my opinion, largely cannot, perceive what his informants perceive. What he perceives--and that uncertainly enough --is what they perceive "with," or "by means of," or "through"' (1977:482-3).

31. As part of his definition of emic, Pike writes that 'Units are different emically only when they elicit different responses from people reacting within the system (1967:38). In reference to this statement, Harris writes that

Pike's phrase "elicit different responses..." must be clarified in order to render the crucial operation explicit. As it stands, Pike's eliciting operation might be taken to mean that when an event E_1 occurs in the behavior stream and people react to it differently from event E_2 , then E_1 and E_2 are emically different. But what has to be made clear is that you cannot get inside of people's heads by observing what they do during the natural course of behavior stream events. Observing what people do during the natural course of behavior stream events leads to etic not emic distinctions (1976:336, emphasis added).

Harris seems unaware that he is contradicting, not 'clarifying', Pike.

32. Note the use of the word 'deviant'. He might have simply said 'different'. Harris apparently believes that the latter term in this case implies the former. One wonders why Harris does not simply accept the charge that his use of etic and emic is different than Pike's. To a tagmemicist, it is acceptable to think that different people have different perspectives, or could have different meanings for the same set of terms. But to a cultural materialist, 'objective truth' depends on the agreement of a body of scholars. Harris seems to feel that unless he can demonstrate that his use of etic and emic agrees with Pike's

original formulation, and unless he can prove his critics wrong, his system will crumble. From my point of view, Harris is entitled to his own theory as long as he is consistent, but he should not try to hide the degree to which his primitives differ from those of Pike's theory.

33. In discussing his differences with Burling, Harris says,

The most important source of Burling's epistemological quandary is the conflation of attempts to "account for" residence rules, taxonomies, symbol systems, moral codes, etc., with the attempt to "account for" the flow of speech acts, scenes, and other components of the behavior stream. The notion that mental rules...can account for behavior stream events is the dominant principle of idealist as opposed to materialist research strategies. "Accounting for" in this context must mean "prediction," and materialists deny that a knowledge of emic rules can provide the basis for accurate predictions about behavior stream events. (1976:337-8)

Harris' logic is interesting here, where he says "'Accounting for" in this context must mean "prediction"' (emphasis added). Harris' preoccupation with prediction has led him to try to fit Burling's argument into a peculiar mold, and then he disagrees with the transformed argument.

34. Harris adds an amusing insult: 'Why therefore don't they lapse into silent contemplation of their brain waves and let those of us who are so benighted as to believe that there are pluralities of minds and bodies out there go about our business?' (348)

35. Harris, as well as Pike and others, seeks to explain how particular systems work, but such explanations Harris calls etic while in tagmemics an explanation of how a particular system works is emic. Harris has a restricted definition of emic and attributes some things to etics that Pike calls emic.

36. Howard (1968:524) charges that Harris 'has either failed to read the literature carefully or has been so thoroughly blinded by his prejudices that he does not understand it.' Fisher and Werner suggest that

'to say that Harris has provided us with "enriched" meanings for "emics" and "etics" is another, more polite, way of identifying his failure to understand the principles underlying the concepts' (1978:198).

37. Pike (1967:113-4) provides some additional examples of focus:

Negatively one can train oneself to ignore an alarm clock; positively one can train oneself to focus quickly and consciously on the ringing of an alarm clock, a baby's cry, the snapping of a twig, an instrument playing a wrong note in a band....

Focus activity in tasting, touching, and smelling parallels the focus element already mentioned for seeing and hearing, and each act of focusing, of whatever type, constitutes a unit of behavior. Each type may take noticeable conscious effort--as when one is attempting to locate a particular person in a crowd, or to see an airplane heard distinctly somewhere in the sky, or to find a four-leaf clover in the grass, or to detect a misprint in reading a printed page, or to decide what the characteristic flavor is in the soup.

38. I do not mean to imply that all natural scientists analyze the world this way, but that this sort of perspective would derive from consideration of physical forms apart from consideration of meaning and purpose.

39. On this subject Grimes writes (1975:3) that

one cannot criticize Bloomfield, Chomsky, or anyone else who has operated like them for making a clear distinction between what they choose to talk about and what they lay aside. Restriction of a field is essential for any kind of scientific thinking. If someone wishes to focus on what happens within certain bounds, anyone else who accepts the rules of the game has to agree to those bounds. Trouble comes only when we are given to understand that those are the only reasonable or possible or interesting bounds, and he who would disturb them is disrupting the peace of the kingdom. In our discipline we do this by invoking the name of Linguistic Theory, presented more as an eternal verity than as the way some eminent and generally sensible person happens to look at things at the moment. (1975:3)

40. Pike made this change in the time between the writing of part II (1955), and part III (1960) of Language in relation.... He explains (1960:31):

In our earlier material we utilized the term grameme—or grammeme (1954, 1955, and others). The term grew up as a neologism intended to imply 'unit of grammar'. The term was abandoned and replaced by Bloomfield's term 'tagmeme' because of objections raised, on etymological grounds, by other linguists. The theory as such is unaffected by the change. The principle difficulty is the danger of confusion with Bloomfield's use of the term tagmeme which we borrow.

41. Longacre's influence on Pike's thinking came chiefly through personal communication, rather than publication. The article 'Prolegomena to lexical structure' (Longacre 1964b) contained the first published proposal that in tagmemic theory the morpheme should be seen as a grammatical minimal unit.

42. Pike writes (1967:424fn) that 'The full implications of the contributions of Crawford and Longacre are not yet clear.' See also p. 432fn, pp. 436-7 (11.21), p. 445 (point 7), and p. 520-1 (section 12.5) of Pike 1967.

43. Actually, even in the earliest edition of Language in relation... (1954) role was recognized as an element of a tagmeme. Here (1954:103) Pike points out that the subject in 'I don't care' has the function of actor while the subject in the passive 'I was hit by the ball' has the function of goal. And Pike proposes that a difference in structural meaning, 'e.g., actor-as-subject, versus recipient-of-action as subject' is sufficient grounds for saying two tagmemes are different. But at this point in the development of the theory role was not given an equal status with slot and class and there was no attempt to specify the roles of all tagmemes.

44. Apparently from the middle 1960s to the middle 1970s tagmemists were consciously searching for a way to 'round out' the tagmeme by adding a fourth feature to go along with slot, class, and role.

45. The concept of hierarchy was not fully developed in Bloomfield 1933. Pike saw that 'structural layerings needed explicit formulation, in a hierarchical structuring not developed by Bloomfield' (1967:286). 'To make layered structure explicit', Pike wrote 'Taxemes and immediate constituents' (1943), in which he 'proposed an analysis in a kind of "pyramided" structure, with a chart to show the layerings' (1967:286). At this point Pike was making a preliminary step in the direction of formulating tagmemic theory, but he was still basically trying to work in the Bloomfieldian model.

In their Outline of linguistic analysis (1947), Bloch and Trager enunciated the principle of binary cutting, to divide constructions into 'two and only two IMMEDIATE CONSTITUENTS, either or both of which may be susceptible of further analysis' (67). In terms of hierarchical arrangement (though this is not a term they used), they noted that 'a mere listing of the morphemes, with no indication of their ORDERING, would tell us nothing about the constructions involved' (67). Bloch and Trager, following Bloomfield's tradition, apparently saw a sort of hierarchical continuity from sentence to morpheme but insisted on a distinction between morphological and syntactic techniques of analysis. Thus they explain (1942:75-6),

If one of the immediate constituents of a phrase should in turn be a phrase, this of course would have to be analyzed similarly into its own immediate constituents, and so on, until finally the smallest constituent phrase had been broken up into words. At this point we should have reached the end of our syntactic analysis; any further analysis (such as that of stumbled into stumble and -d) would belong to morphology. Thus, in syntax, the ULTIMATE CONSTITUENTS of any phrase are words.

Before the American structuralist period had begun, de Saussure tried to discourage the practice of positing a boundary between morphology and

syntax. He said (1959 [1915]:136),

Functionally, therefore, the lexical and the syntactical may blend. There is basically no distinction between any word that is not a simple, irreducible unit and a phrase, which is a syntactical fact. The arrangement of the subunits of the word obeys the same fundamental principles as the arrangement of groups of words in phrases.

In short, although the traditional divisions of grammar may be useful in practice, they do not correspond to natural distinctions.

Pike also suggested that the boundary between morphology and syntax is not always clear or crucial:

Arrangements of words are customarily handled with one terminology and arrangements within words with another. The boundary line is somewhat vague, with phrase words (180, 207, 239), compounds (227-237), and a few special features (232) all preventing a perfectly clear separation.

Frequently, in an analysis of a language foreign to him, an investigator may hesitate for a long time before determining boundaries. This does not prevent him, however, from proceeding with an analysis of immediate constituents and a partial classification of the grammar (1943:76--numbers refer to page of Bloomfield 1933).

Harris' 'From morpheme to utterance' (1946) contributed to the abandonment of the principle of insisting that morphological and syntactic analysis be kept distinct. Harris was affirming the continuity of the grammatical hierarchy and the desirability for a consistent methodology.

46. There is some disagreement among linguists who consider themselves to be tagmemicists as to the nature of the three components (or hierarchies) of language. I will make some reference to the different points of view in my discussion.

47. In most TG studies, the focus is on sentences. Morphemes, phrases, and other constructions are considered insofar as they facilitate the description of sentences.

48. Halliday and Hasan go on to say that a text

...is related to a clause or sentence not by size but by REALIZA-

TION, the coding of one symbolic system in another. A text does not CONSIST OF sentences; it is REALIZED BY, or encoded in, sentences. If we understand it in this way, we shall not expect to find the same kind of STRUCTURAL integration among the parts of a text as we find among the parts of a sentence or clause. The unity of a text is a unity of a different kind. (1976:2)

They later summarize that

whatever relation there is among the parts of a text—the sentences, or paragraphs, or turns in a dialogue—it is not the same as structure in the usual sense, the relation which links the parts of a sentence or clause. (1976:6)

49. Actually, many variables that cannot be explained when one is just looking at sentences out of context, such as the use of pronouns (when do we say 'He was born there' vs. 'John was born in Kentucky?'), or ellipsis ('Twice' vs. 'I visited the Sorbonne twice'), etc., can be better understood and explained as we look more at how the sentences work in their discourse context.

50. Halliday also sees form and meaning at work together in discourse, but his theory leads him to divide up the facts differently, call things by different names, and focus on different aspects of discourse. I would say that Halliday is taking a sort of wave or field perspective on discourse with his focus on cohesion, while when we focus on structure we are taking a particle perspective. In the context of tagmemic theory, both views are valid. The different points of view can complement each other to allow a complete understanding of the nature of discourse.

51. Concerning the universality of the levels of the phonological hierarchy, Tench makes an even stronger statement than E. Pike does. He says,

Every language everywhere has phonemes, syllables, intonation units,

phonological paragraphs and exchanges. Expressing this in another way we can say that this is the way that God has made us: when speaking, we use rhythm for terms, intonation for assertions, phonologically marked exchanges for social interaction. (Tench 1976:18)

52. Newman (1947) claims that Bella Coola is virtually unique in that it is a language in which 'there are no syllables' (132)--i.e., 'there are no characteristics of phoneme grouping that require or that can be stated in terms of a structurally significant unit such as the syllable' (133). There are some words in Bella Coola that are made up only of consonants. But Newman does say that 'the word as a structural unit has phonological as well as morphological characteristics' (132). Thus another way of describing the situation in Bella Coola phonology is that there is no contrast between syllable and phonological word levels.

53. Trager and Smith describe the levels of analysis, as they see it:

This should be followed by an account of the observed phonetic behavior, and then should come the analysis of the phonetic behavior into the phonemic structure, completing the phonology. The next step is to present the receiving entities--composed of one or more phonemes--that constitute the morpheme list, and go on to their analysis into the morphemic structure. (1951:8)

Bloomfield had used the phrase 'consist of' to describe the relationship between morphemes and phonemes. He said 'a morpheme can be described phonetically, since it consists of one or more phonemes' (1933:161). He also said 'Since every complex form is made up entirely of morphemes, a complete list of morphemes would account for all the phonetic forms of a language' (1933:162). I would say that he could not make this latter statement if he were considering stress, intonation, pauses, etc. to be part of the phonetic form of a language, since to be adequately explained they must be described in terms of a hierarchy of phonological

units that often does not match with such grammatical units as morphemes. Trager also uses the phrase 'consist of' when he defines morphemes as 'recurring patterned partials in the language consisting of one or more phonemes' (1949:5).

In generative phonology, which is associated with the transformational-generative school of linguistics, the phonological component of language gives a phonetic representation of the string of morphemes produced by the syntactic component (Chomsky and Halle 1968:9). Phonological features such as stress, pauses, and intonation are described in terms of the distribution of phonemes in grammatical constructions rather than in higher-level phonological constructions. Though the syllable has not been discovered by Chomsky and Halle, it has been by certain others working with a variety of generative phonology. See for example Kahn (1976), who, working within a generative framework, argues 'that the syllable is a necessary element in phonological descriptions by identifying aspects of phonology that seem to call for analyses in terms of syllabic structure and demonstrating the superiority of syllabic analyses over possible alternative solutions' (iii).

The difference with respect to phonology between tagmemics on the one hand and the structuralist works of Bloomfield and Trager and Smith and the generative works of Chomsky and Halle on the other is not just a matter of terminology. The crucial difference is that tagmemics involves a phonological hierarchy, which these other works lack. This phonological hierarchy, with phonemes as just one level, permits a more satisfying explanation of the facts of speech sounds. If Chomsky had tried to do for phonology something analogous to what he tried to do for

syntax—that is, to distinguish acceptable sequences of phonemes from unacceptable sequences—he would have discovered the necessity of the syllable.

54. There were no phonological tagmemes in Pike 1967. The concept of the 'phonotagmeme' comes from Crawford 1963. For some discussion of the implications of Crawford's work, see Pike 1967:520-1. The concept of the tagmeme underwent some substantial changes after the writing of Pike 1967, as I have already noted, and these changes are in part attributable to the contribution of Crawford.

55. In order to explain the theory of referential structure I am using hypothetical examples. I feel a little uncomfortable saying that these four examples, out of any context, have the same referential structure. It might be better to say that they could have the same referential structure. I could explain the difference between grammatical and referential structure more cogently if I used complete narratives as examples instead of a few sentences. But even this might not be sufficient, since the context in which something is spoken can contribute to its meaning. A single story can mean one thing to one person in a certain context and something different to another person in another context. See, for example, Bohannon 'Shakespeare in the bush' (1971).

The simplistic examples I have used are intended to illustrate my point about grammar versus reference, and not to prove or thoroughly defend it.

56. The recognition of inciting moment, climax, etc. is what enables us to say that a story has a plot.

Note how plot structure can be seen as a wave, with the climax as the crest of the wave. Or in the terminology of nucleus vs. margin that is used in tagmemics to denote the wave-like characteristics of language or behavior, we would say that the climax is the nucleus of a plot.

57. A friend of mine from Switzerland has told me that politicians there, when addressing Swiss-German farmers, will speak in German but 'put on' a Swiss-German accent in order to identify with the farmers (Reudi Giezendanner, personal communication).

58. Using the tagmemic model, Jones has done an extensive study of the referential structure of expository discourse (Theme in English expository discourse, 1977), especially concentrating on the way referential prominence (theme) is manifested.

59. The following quote from Silverstein's article presents his thesis in connection with Pike's article on 'Grammatical prerequisites...' (though his attribution of a langue-parole distinction in Pike's theory is unwarranted):

When Pike spoke of grammatical prerequisites, he meant the facts of how speech signals encode the organization of words and morphemes of the language, or langue, and how a recognition of these grammatical units was a necessary starting point for analyzing perceived phones as same or different, that is, for achieving a phonemic statement. He pointed out that at the very least phonemicists must presuppose (or hypothesize) the specification of single morphemes in single free forms or words, in order to carry out a complete phonemic analysis. When I speak here of cultural prerequisites, I mean the facts of how speech signals encode the purposes of speech to achieve particular socially recognized goals in terms of socially constituted role relations--in short, speech organized as an elaborate system of types of discourse events. (1977:139-40)

60. A common lack of concern for formalisms among tagmemicists has led some transformationalists to the conclusion that tagmemics is not really a theory (based on their idea of what a theory's purpose is). I

would agree with Austin Hale's statement that 'the formulaic representations themselves are not proposed as a crucial measure of the adequacy of the theory in any serious sense. More important than the apparent relative simplicity of the representation is the analytic stability of a system built around types and levels' (1974:56).

61. On the subject of simplicity as a criterion of elegance, Pike remarks, 'I personally prefer to keep in mind efficiency of communication and understanding' (1967:587-8). He adds that

In my view, a principle of complementarity, in which a description must eventually be repeated from the viewpoints of particle, wave, and field, must be given priority over a single approach which may be simplistic in its outline, and in its non-overlapping phases, but is less able to treat various phases of a system. (1967:588)

CHAPTER III

THE CONTEXT OF SPEECH

3.1. CATEGORIES OF BEHAVIOR.

'Human behavior' is a very broad category. Everything that people do is human behavior. Within this general category are various distinguishable sub-categories. Linguistic activities (such as speaking) are one type of human behavior. Speech is always in some kind of nonlinguistic context and is often blended with or simultaneous with other kinds of activities. A nod of the head or a shrug of the shoulder can substitute for words in a conversation; people can be eating a meal or playing golf while talking. A thorough investigation into conversation must consider how speech ties in with its nonlinguistic context. In this chapter I will work toward a better understanding of language by looking at its relationship to its context.

Tagmemics is supposed to be capable of describing not only language but also other kinds of human behavior as well. After having tried to analyze nonlinguistic behavior tagmemically, I have come to the conclusion that there are some crucial differences between linguistic and nonlinguistic behavior that the theory must adapt itself to. In the next section, 3.2., I will make some observations and proposals concerning tagmemic theory as it relates to nonlinguistic behavior. But in this section I will first look into the characteristics of different types of behavior that distinguish them from each other.

Subsumed in the general category of 'human behavior' are the

following sorts of activities, given as a sample:

eating a meal
playing a game of tennis
participating in a wedding ceremony
nodding 'yes' or 'no'
waving one's hand
shaking hands
walking
driving a car
playing bridge
dancing
reading a book
speaking
taking a bath
picking up a pen
playing the French horn

Some of these activities could be grouped together and assigned to categories. Playing tennis and playing bridge are both game activities. Dancing and playing the French horn are types of artistic expression. Nodding 'yes' or 'no', waving one's hand, and shaking hands all have symbolic significance. Reading a book and speaking are both based on the existence of a linguistic system. For the purpose of analysis I have tentatively arrived at a set of six major categories of human behavior, to which the more particular types of behavior can be assigned. These are practical activities (for lack of a better term), expressive behavior, games, simple gestures, symbolic actions, and activities associated with language. I will explain these categories briefly.

3.1.1. Practical activities.

'Practical activities' include such actions as eating a meal, walking, driving a car, taking a bath, picking up a pen, locking the door, picking up a dropped book, and so on ad infinitum. The term

'practical events' is taken from Bloomfield, who said, 'We who are studying language, will naturally distinguish between the act of speech and the other occurrences, which we shall call practical events' (1933:23).¹ This is a very mundane and broad category of behavior, which could be subdivided—for example there are activities associated with locomotion, activities associated with nutrition, etc. The chief characteristic of these activities that makes them capable of being identified and classified is that they can each be associated with some kind of practical goal. The goal might be to satisfy a physical need or desire, or to establish relationships, or to broaden one's experience, or to facilitate the expression of ideas. Conventionality is less of a factor with these kinds of activities than with certain others. In order to contrast fishing, which is one kind of practical activity, with activities where conventionality is a key component (such as speaking), Searle argues that though both kinds of activities are goal-oriented,

a crucial part of the difference is this: In the case of fishing the ends-means relations, i.e. the relations that facilitate or enable me to reach my goal, are matters of natural physical facts.... Now there are, indeed, techniques, procedures and even strategies that successful fishermen follow, and no doubt in some sense all these involve (regulative) rules. But that under such and such conditions one catches a fish is not a matter of convention or anything like a convention. In the case of speech acts performed within a language, on the other hand, it is a matter of convention—as opposed to strategy, technique, procedure, or natural fact—that the utterance of such and such expressions under certain conditions counts as the making of a promise. (1969:37)²

Practical activities are distinguished from the other types of behavior that I will discuss in the following sections on the basis of their lack of certain features. These features mark the other kinds of activity as being distinct. The practical activities are less marked.

3.1.2. Expressive behavior.

'Expressive behavior' is a term I apply to activities that have a strong association with aesthetic values. This is in other words artistic behavior. Dancing, singing, playing a musical instrument, sculpting, etc., are all set apart from practical activities by a focus on aesthetics. A dance is not just a series of movements. It is distinguished by its artistic motivation and interpretation.

Generally, what is taken to be 'art' is culturally defined. Even within a culture the definition of art may not be universally agreed on. Some may see disco dance or 'junkyard' sculpture as aesthetic while others do not. Differences in values of this sort give evidence of subcultures within a more inclusive culture. Ultimately every individual is different, but to the extent that people do share their point of view, we can talk about shared culture.

In some cases the distinction between practical activities and expressive behavior may be unclear. A professional artist must be concerned not only with the aesthetic value of his work, but with the practical, market value as well. And almost any practical activity can take on an aesthetic component when the actor takes pride in the way he does something and strives to do it in a particular way.³ But the lack of a clear distinction at times between expressive behavior and other types of behavior does not make the category meaningless.

3.1.3. Games.

Games are specialized types of activity. Their existence is dependent on a set of conventional rules. Searle calls these rules 'constitutive rules' because they 'constitute...an activity the exis-

tence of which is logically dependent on the rules' (1969:34). He says,

Constitutive rules...create or define new forms of behavior. The rules of football or chess, for example, do not merely regulate playing football or chess, but as it were they create the very possibility of playing such games. The activities of playing football or chess are constituted by acting in accordance with (at least a large subset of) the appropriate rules. (1969:33-4)

A general characteristic of games is that they have recreational value. In addition, some games are valued because they provide an opportunity for physical exercise. Or some games are more purely mental and might be said to provide mental exercise. (All games have a mental component since they require adherence to a set of rules and furthermore require the player to devise a strategy.) Perhaps most games involve competition between participants, but not all games do--solitaire card games, puzzles, and many video games can be enjoyed by a single participant without reference to other participants.

For a professional athlete (or gamesman of other sorts), a game can have a practical rationale: to earn the player a living. And though games are not generally thought of as being aesthetically oriented in the way art is, there can be an aesthetic component to the playing of games. I would say that games are marginally aesthetically oriented and marginally practically motivated for some people, but that their main characteristic that distinguishes them from practical activities and expressive behavior is that they are based on a conventional system of rules, without which they could not exist.

3.1.4. Rudimentary gestures.

A gesture is a body movement or change of state that communicates something. Some gestures are involuntary and some are intentional; some

are highly symbolic and others depend on an iconic or indexical or otherwise natural connection between form and meaning. Some gestures such as laughing or crying are found in almost all cultures, though with some variation as to what they signify and how they are used. In this chapter I make a division between simple, rudimentary gestures and other gestures that I call 'symbolic actions', which are more arbitrary and more like spoken language than rudimentary gestures are. The dividing line between these two types of gestures is indeterminate at times.

There are certain involuntary actions that could be counted as gestures because of their communicative value. Examples of involuntary gestures are blushing and dilation of pupils, which are signs that indicate a person's emotional state. Fidgeting or drumming one's fingers are semi-conscious gestures showing that a person is nervous. The posture of one's body can be another semi-conscious indicator, expressing the person's self-esteem.⁴

Laughing and crying, smiling and frowning are nearly universal gestures. I would consider them to be archetypical rudimentary gestures. There may be cultures where one or more of these are not found, but these gestures are so widespread that we should conclude that their use is dictated by heredity; they are part of human nature (though their use might be suppressed in some cultures). That is not to say that their form and meaning are exactly the same world wide. There are the primary meanings that these gestures carry of joy or sorrow, but in addition there may be secondary meanings attached. In Japan a smile may indicate displeasure or sorrow. But in this case the smile is apparently intended to camouflage the emotion rather than express it. Mary Ritchie Key

considers laughing and crying to be universals, but notes that 'laughing is not necessarily a reaction only to joy, and crying is not necessarily a reaction only to sorrow or pain' (1975:67).

There are certain rudimentary gestures too that have an iconic relation between form and meaning. Examples of these would be the hands held apart to show the size of a fish, or a hand cupped behind an ear to denote 'I can't hear you', or a raised clenched fist that warns 'I'm going to hit you if you don't watch out.' Pointing at something to draw attention to it would be an example of an indexical type of gesture.

Some people, especially coming from certain cultures, tend to move their hands around a great deal when they talk. In the art of rhetoric, movement of the body and gesturing with the hands is considered an important method of making the talk lively and keeping the audience interested.⁵



The famous 19th Century preacher C.H. Spurgeon devoted two chapters in his book Lectures to my students (n.d.) to 'Posture, action, gesture, etc.' In these chapters he comments on how what I call rudimentary gestures can add to or detract from an oration (such as a sermon). He advises that 'those awkward hands, if once brought into subjection, become our best allies. We can talk with them almost as well as with our tongues, and make a sort of silent music with them which will add to the charm of our words' (113-4), and 'let the gesture tally with the words, and be a sort of running commentary and practical exegesis upon what you are saying' (115). As an example of what kinds of movements might be used, he reprints the following illustrations from an 1806 book on rhetoric by Gilbert Austin:⁶



The wind was high,



the window shakes;



*With sudden start,
the miser wakes!*



*Along the silent
room he stalks;*



Looks back,



*and trembles
as he walks!*



*Each lock and every
bolt he tries,*



*in every creek
and corner pries;*



*Then opens his chest
with treasure stored.*



*And stands in rap-
ture o'er his hoard:*



*But now with sudden
qualms possess,*



*He wrings his hands
he beats his breast.*

I classify rudimentary gestures in a different category than symbolic gestures, which I will describe in the next section, because their form is identified as being more innately determined or more iconic or indexical, less conscious or arbitrary.

3.1.5. Symbolic behavior.

There are certain other gestures or complexes of behavior whose relationship between form and meaning we can see is more purely arbitrary and conventional. The nodding of the head to denote 'yes' or 'no' is

an example. We Americans nod our heads back and forth to say 'yes' and side to side to say 'no'. This is purely a matter of convention. There was some confusion between the Russians and the Bulgarians in the 1877-78 war against Turkey because they had opposite ways of nodding their heads for 'yes' and 'no'. The Bulgarian gesture for 'yes' was a side-to-side nod of the head, and nodding the head back away from the other person meant 'no'. The Russians, like Americans, use more or less opposite gestures. There is nothing inherently correct about either method. Catherine Peeke, an SIL translator working in Ecuador, says that the Waodani people can say 'no' nonverbally in one of several ways: by inhaling quickly; by raising the eyebrows; by blinking the eyes; or by giving a low, even, short whistle. In a hospital, a nurse may ask a Waodani patient if he wants food and he blinks. The non-Waodani nurse might not recognize that the patient has answered. To say 'no' he might not do anything but stare. An emphatic 'no' could be a bilabial click (personal communication with Dr. Peeke).

The arbitrariness of these symbolic gestures contrasts them with rudimentary gestures. We know of no culture, for example, where a smile's primary meaning is 'I'm mad' and a frown's primary meaning 'I'm happy.' But a nod of the head can mean 'yes' or 'no' or just about anything, depending on the particular conventions at work.

Numerous examples could be cited of gestures with a symbolic value. Some of these might be said to substitute for words but it might be accurate to say that of the ideas a human might wish to express, some are expressible by verbal symbols (words), some by nonverbal symbols (gestures) and some by both. Thus we might say that a wave of the hand

does not stand for the word 'hello', but that both the wave of the hand and the word 'hello', are alternate ways of greeting with approximately the same meaning and motivation.

Since the same gesture can have different or opposite meanings, there are sometimes misunderstandings in cross-cultural encounters. Americans signal 'hello' by waving the hand with the palm facing down, and 'come here' by waving the hand with the palm facing up. Mexicans commonly use approximately the same gestures with the meanings the other way around. Nikita Khrushchev, when visiting the U.S., responded to the welcome he received from a crowd of people by clasping his hands together over his head. By this gesture he intended to signify friendship, but to the American public, unaware of the significance of this gesture in Russia, he looked like a boxer celebrating his superiority.⁷

The use of certain gestures in our cultural heritage has been lost over time. It sounds peculiar today to discover that in Shakespeare's plays one could insult somebody by thumbing one's nose at him. Judith Martin, in her Miss Manners column in the newspaper (Dallas Times Herald, 7/11/82:6D), reports on the symbolism associated with a lady's use of the folding fan in the Victorian era: making eye contact with a man while holding the fan with her left hand indicated the desire to make acquaintance; holding the tip of a fan to her lips denoted that the man might be allowed to kiss her; walking with the right hand holding the fan in front of her face meant 'follow me'; a fan drawn across her forehead meant 'careful--we are being watched'; and a fan held open meant 'wait for me', held closed meant 'you have changed', and one being snapped open and shut meant 'you are cruel'. Miss Martin regrets that

such romantic and subtle symbols have been lost.⁸

Just as words can change their meaning over time, so can a symbol change its meaning. Eternity magazine (May 1982:11), reports about a trial in Boston,

over whether a nativity scene in Pawtucket, Rhode Island constitutes an establishment of religion by the city. The attorney for Pawtucket, who noted the creche had been set up every year for 40 years, argued that the scene may say Jesus to some people, but they meant it simply to say "Christmas is here, it's time to shop, time to decorate the house, to make rum cake...It has acquired independent secular meaning."⁹

It is possible for a symbolic gesture to be very subtle yet at the same time very powerful. I can cite two examples. In the first case, reported in the Dallas Times-Herald (8/19/82:1,11F), a handshake--itself a common gesture of friendship--takes on a special meaning. The National Football League Players Association was threatening a strike, and before a pre-season exhibition game commenced, the players 'met at midfield for a quick handshake as a demonstration of player solidarity'. This gesture so enraged the team management that they fined the players one hundred dollars each. (Later the Management Council voted to 'recommend that the clubs rescind the fines and refrain from fining future, undisruptive similar handshakes.') In the second case, also reported in the Dallas Times-Herald (12/11/82:14A), the gesture consisted of simply taking off one's hat. In an article entitled 'Soviets arrest 60 rights protesters for doffing hats' it is reported that 'removing one's hat in a public park may be one of the milder forms of political protest yet devised, but in the Soviet Union on international Human Rights Day, it was enough to get 60 people arrested.' This form of expressing dissent, which originated in 1966, is not tolerated by the

Soviet officials, and every year arrests are made, with charges of 'hooliganism'. The article concludes, 'No banners were unfurled; no speeches made; no placards raised. Hardly anyone, police or demonstrators, would admit that a demonstration was taking place.'

The last two examples help underscore the fact that with symbolic gestures, as with words, the form is of course necessary to convey the meaning, but it is the (perceived) intent or meaning behind a symbolic gesture that calls forth a response, rather than the form itself.

The examples that I have been discussing so far in this section are examples of non-complex symbolic behavior, which I call symbolic gestures. Symbolic behavior can be complex as well. That is to say, a larger (i.e. more inclusive) segment of behavior such as a ritual can be rich in symbolism, with the large segment as a whole being a symbol as well. I can think of no better example of complex symbolic behavior than a wedding ceremony. The ceremony as a whole symbolizes a change in social relations,¹⁰ and parts within the whole are symbolic as well.

The bride and groom exchange rings to symbolize the 'endless love' that they give each other. In some ceremonies the bride and groom also take two candles and light one candle together to indicate that two lives have become one. A wedding ceremony as a complex symbol is analogous to an American flag, which as a whole symbolizes the USA and whose parts--the stars and stripes--symbolize the fifty states and the thirteen original colonies.

3.1.6. Speech, language.

Speech is a unique type of behavior involving the manipulation of a set of vocal symbols. A language is a particular system of symbols,

structures, and rules shared by a group of people that makes speech possible as a means of communication. Language (without the article) is our generalization about particular languages. All human languages have enough in common, compared with animal languages, for example, that we conclude that the particular forms of languages are controlled by some more general characteristics of the human mind. Linguistic theory then attempts to develop generalizations about languages and in doing so provide the researcher with a frame of reference that organizes and gives meaning to his (further) observations about particular languages.

When human language is compared with animal languages, several specific differences can be found that show human language to be unique. In his 1960 article 'The origin of speech', Hockett discusses thirteen language features that serve to characterize and distinguish several different types of language, both human and non-human. These features are 1) vocal-auditory channel, 2) broadcast transmission and directional reception, 3) rapid fading, 4) interchangeability, 5) total feedback, 6) specialization, 7) semanticity, 8) arbitrariness, 9) discreteness, 10) displacement, 11) productivity, 12) traditional transmission, 13) duality of patterning. Of these features, the last four (10-13), with a few exceptions for one or two of the features, are distinctly human.¹¹

We can note various differences between human language and other types of behavior, human or otherwise. There is the fact that languages are very complex systems, and open-ended in their possibilities for creativity (Hockett's productivity). There is the fact that human language freely permits reference to and discussion of things that are distant in space in time, or even abstract ideas or imaginary entities

(Hockett's displacement).¹² But the most salient characteristic of language that distinguishes it not only from all animal languages but all other types of human behavior as well is the duality of patterning. This is a very specific and unique characteristic of human language.

Duality of patterning is a technique of articulating morphemes in an efficient way, such that it is not necessary to have a distinct sound for each of the thousands of morphemes of a language. Instead of matching sounds to morphemic meanings one-to-one, every human language system involves an intermediate step, with a distinction being made between phonological and grammatical subsystems (or hierarchies). In other words, the distinction between phonological and morphological units makes human language unique.

Hockett points out that duality of patterning is a practical necessity for human language, given its complexity in terms of the number of morphemes to be expressed. Duality of patterning allows for a small inventory of distinguishable sounds (phonemes) to occur in arbitrary combinations to represent a large inventory of morphemes. The rules for combining phonemes are not dependent on the rules for combining morphemes, and so there are two patterning systems at work. In a later article entitled 'The human revolution' Hockett and Ascher explain, 'The tens of thousands of morphemes in any language are built out of a mere double handful of phonological components, used with amazing efficiency' (1964:144 fn).¹³

I will say more about the theoretical and analytical implications of duality of patterning in section 3.2.

3.1.7. Summary.

Speech is a special type of human behavior. Like games, speech is based on a conventional system of rules, though not usually as explicit as with games but yet much more complex than any game.¹⁴ Speech may be thought of as being aesthetic as in rhetoric or literature, or it may not be thought of in that light, or it may just be semi-consciously thought of as being pretty or ugly. As with 'practical activities', speech is often used toward other ends, to give someone else relevant information, or convince, or get someone else to do something. Speech is symbolic behavior, and like other types of symbolic behavior such as meaningful symbolic gestures, the relationships between concept and expression are arbitrary and learned by what Hockett calls 'traditional transmission'.

Duality of patterning is a unique feature of speech that must be taken into consideration when one is considering how the analysis of language compares with the analysis of nonverbal behavior. The referential capacity of speech is a very important characteristic also; especially the enablement to refer to things that are not close in time and space. The only other category of behavior that shares this possibility is the category of symbolic behavior. In other words, symbolism is what makes it possible for a spoken word or a gesture to refer to something that is not in the immediate environment. Speech and nonverbal symbolic behavior are very similar, and these similarities are important to take into consideration when an analyst is applying a single theory to language and other types of behavior as well. Aside from the duality of patterning in the case of speech, the main struc-

tural-functional difference between it and nonverbal symbolic behavior is the degree of system development. I should acknowledge 'sign languages' such as Ameslan and that used for communication among American Indian tribes. These specialized languages have basically the same structural features of spoken language except that they lack duality of patterning.

My analysis of types of behavior into different categories surely could be improved on. Distinctions between categories would be unclear at times. The idea of a clear-cut assignment of all behavior to categories is an illusion, to a certain extent. The real point I am trying to make by means of this analysis is that there are characteristic features that distinguish different types of behavior, and these features must be taken into consideration in the analysis of behavior.

Figure 22 summarizes my analysis of behavior into different types on the basis of characteristic features.

	practical activities	expressive behavior	games	rudimentary gestures	symbolic behavior	speech, language
utilitarian	+				+	+
aesthetically oriented		+			+/-	+/-
made possible by a conventional system of rules			+		+	+
communicative		+/-		+	+	+
arbitrary relationship between form & function					+	+
duality of patterning	-	-	-	-	-	+

Fig. 22. Categories of behavior.

Though speech has its peculiarities, it is nevertheless a type of behavior, and its occurrence is never truly isolated from the occurrence of other types of behavior. Cicourel observes that

the study of discourse is part of the more complex activity we loosely call "social interaction". Discourse, or the exchange of speech acts, is always embedded in a larger context which includes physical movements of the face and perhaps the arms and other parts of the speaker's body. The hearer may also provide movements and nonverbal sounds during the speaker's delivery. (1980:101)

As I have said in Chapter One, language has so often been analyzed as an abstract system that sometimes it is forgotten that language is part of a behavioral system, and thus I would contend that it should be analyzed in a way that recognizes that fact. Searle notes in reference to his 'speech act' theory that

it might be objected to this approach that such a study deals only with the point of intersection of a theory of language and a theory of action. But my reply to that would be that if my conception of language is correct, a theory of language is part of a theory of action, simply because speaking is a rule-governed form of behavior. (1969:17)

I have been arguing from two points of view. I have stressed that a theory of language should be part of a more general theory of behavior. But on the other hand I have also pointed out several noteworthy differences between speech and other behavior types. I have done the latter in order to make the former possible. In the next section I will show how by bearing in mind the structural uniquenesses of various types of behavior, including speech, we can develop a 'unified theory' to handle them all.

3.2. TAGMEMIC HANDLING OF NON-VERBAL BEHAVIOR.

Language is one type of behavior that has been extensively analyzed, and thus we have the science of linguistics. There are certain characteristics of language--duality of patterning, displacement, symbolic relationship between signs and referents, dependence on conventional rules--that give language its unique nature as a type of human behavior. If we want to analyze other types of behavior, we must do so in light of their particular characteristics. Mowing the lawn would not be analyzed the same way as playing a game of baseball, for example, nor would adjusting one's glasses normally be analyzed the same way as gesturing to say 'yes', 'no', or 'hello'.

In The concept of structuralism (1975), Pettit states that 'structuralism borrows the linguistic model [of Saussure, Jakobson, and Chomsky--see p.1] of language and tries to fit this, in one way or another, to non-linguistic areas; the idea is that the model should suggest lines of empirical analysis' (33). Pike, of course, is another who has tried to extend the same kind of analysis as he uses for language to apply to nonverbal behavior (though his linguistic theory is different than Saussure, Jakobson, and Chomsky's, and thus his analysis of other types of behavior is different than Pettit's as well). But given that there are some differences in the data between language and other types of behavior, we might reason that adjustments to the theory are necessary to make its more particular aspects fit the type of behavior in focus.

In the 'Introduction' to Pike and Pike's Grammatical analysis (1977), some 'universals in the structure of human behavior' (1) are

listed, first in outline form and then with some explanation. The four major headings are unit, hierarchy, context, and perspective. Each of these is subdivided. Under 'hierarchy', the divisions are referential, phonological, and grammatical. Now, in a sense these are universals of human behavior, since all human (verbal) languages include these components. But in another sense these are not proper universals of the structure of human behavior, since there are types of human nature (viz. nonverbal) to which terms such as 'phonological hierarchy' would not be appropriately applied. Analytical categories such as 'phonology' and 'grammar' are appropriate to language, and the question is whether or not these categories can be analogized to nonverbal behavior.

In Language in relation..., (1967), Pike did make a serious attempt to adapt his general concepts to apply to nonverbal behavior. His theoretical starting point for the analysis of any behavior, verbal or nonverbal, is with the behavioreme, which is his term for 'an emic unit of top-focus behavior which is related to its cultural setting in such a way that cultural documentation may be found for its beginning, ending, and purposive elements' (121). A church service and a football game are cited as examples of behavioremes. A verbal behavioreme is given the label uttereme, and sentences or narratives would be examples of utteremes (depending on the level of focus). Behavioremes, being tagmemic units, should be analyzable as having feature, manifestation, and distribution modes. In the case of utteremes, these three modes are identified with the lexical, phonological, and grammatical hierarchies, respectively. According to the 1967 model, the minimum units of these units are morphemes, phonemes, and tagmemes. Thus discussion of the

feature mode of a sentence ultimately makes reference to morphemes; and so forth. The concepts of the lexical, phonological, and grammatical hierarchies, along with morphemes, phonemes, and tagmemes, are developed and explained in detail in Pike 1967 (though the concepts underwent some important changes, as reflected in Pike and Pike 1977 and noted in chapter two of this dissertation), each of these six topics being the main focus of a chapter. The corresponding nonverbal units and relations are comparatively much less developed and explained. I will summarize what is said in Pike 1967 about nonverbal units and relations.

Pike describes the feature mode of a behavioreme, whether it be verbal or nonverbal, as containing a hierarchy of units with the emic motif as the lowest-level unit. He provides the following definition: 'An EMIC MOTIF (or MOTIFEME), is a minimum unit of the feature mode of the behavioreme', and goes on to clarify this by saying that the motifeme is 'within the hierarchy of the feature mode of a...behavioreme' (1967:150). A verbal emic motif is, specifically, a morpheme.

Similarly, 'a MOTIFEMIC-SLOT-CLASS-CORRELATIVE (or ROLE-EME) is a minimum...emic segment or component of human activity within the pyramided hierarchy of the distribution mode of a...behavioreme' (194), with a verbal motifemic-slot-class-correlative being called a tagmeme. And the minimum unit of the hierarchy within the manifestation mode of a behavioreme is called an acteme (290-1). A non-verbal acteme is given the name kineme while a verbal acteme is a phoneme.

It is important to note that according to this model there are nonverbal counterparts to the units of morpheme, tagmeme, and phoneme in language; and nonverbal behavior is comprised of three hierarchies

analogous to the lexical, grammatical, and phonological hierarchies. It is also important to note two significant alterations to tagmemic theory since the writing of Pike 1967: 1) the lexical hierarchy was replaced by the referential hierarchy and the morpheme became the minimum unit of the grammatical hierarchy; and 2) the concept of the tagmeme has become more generalized such that there are tagmemes on all but the lowest levels of all three linguistic hierarchies. These crucial changes in the tagmemic model for language might well be expected to have implications for nonverbal behavior as well. For instance, we might now feel free to talk about 'nonverbal tagmemes'.

Given that we have emic motifs, motifemic-slot-class-correlatives, and kinemes as nonverbal counterparts to morphemes, tagmemes, and phonemes, the next question concerns how these units relate to each other and to higher-level units. In an attempt to answer this question, I will refer to the examples that Pike uses, which involve a 'breakfast behavioreme'. It will be my contention that Pike's (1967) conception of three hierarchies for nonverbal behavior, with emic motifs, motifemic-slot-class-correlative, and kinemes as their minimum units, collapse into a single hierarchy when re-analyzed in light of the more recent (i.e. Pike and Pike 1977) tagmemic model of language.

Pike uses breakfast at his home as an example of a behavioreme. Breakfast consists of a main course such as 'cereal-eating' or 'bacon-and-eggs eating' and perhaps other courses as well such as 'toast-eating'; these courses are cited as examples of emic motifs (Pike 1967:151-2). The distinction between behavioremes and emic motifs is not very sharp at times--Pike says that eating a piece of toast or

eating a bowl of cereal could simultaneously be a behavioreme and an emic motif (129, 152). He gives some criteria for distinguishing between behavioremes and emic motifs (153) such as relative size and level of focus, but these criteria do not rule out the possibility that behavioremes and emic motifs are units of different levels in the same hierarchy.

An example of a motifemic-slot-class-correlative in the context of a breakfast behavioreme would be the main-course slot filled by a class of emic motifs, namely cereal-eating and bacon-and-eggs-eating motifs (195). The role or 'functional meaning' of this particular slot class combination is 'for sustenance' (196). This nonverbal slot-class-correlative, when translated into the modern concept of the four-celled tagmeme, would end up looking like figure 23.

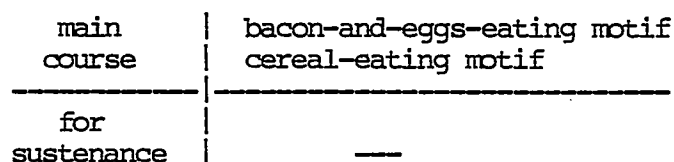


Fig. 23. Nonverbal motifemic-slot-class-correlative in a four-celled display.

Since the concept of the tagmeme has become more generalized since the writing of Pike 1967, it should be allowable now to simply use the term 'tagmeme' instead of 'motifemic-slot-class-correlative'. Pike mentions that this main-course tagmeme fits into the context of other tagmemes (though of course he does not use that term here) which include the official opening (saying grace), various other courses (e.g. toast-eating), and the official ending (when everyone leaves the table). I

have put this into formula format in figure 24.

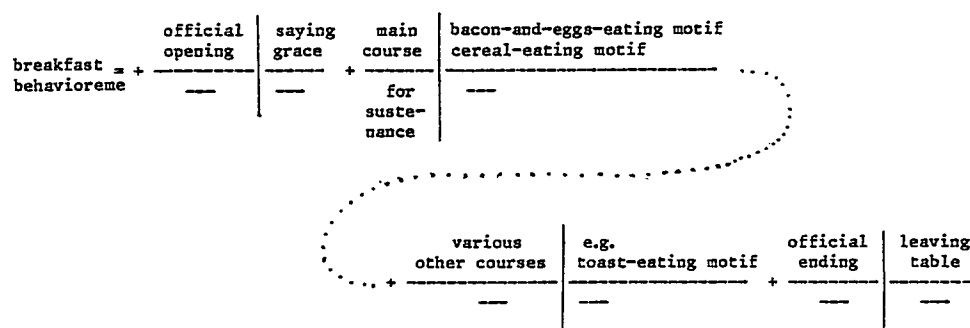


Fig. 24. Formula for a breakfast behavioreme.

Now in terms of the 1967 model it may have made sense for emic motifs to work in one hierarchy and slot-class-correlatives or tagmemes to work in a different hierarchy. But at least in the case of language it was later seen that the lexical and grammatical hierarchies could be collapsed into a single hierarchy, with morphemes as the minimum units and tagmemes as units (morphemes or higher-level constructions) in context. By analogy, then, the theory would lead us to treat nonverbal behavior the same way, unless there be some aspect of the data that would make this move unsatisfactory (and I maintain there is not). I will say more later about how the concept of the lexical hierarchy in language was replaced by the lexemic and then the referential hierarchy, but for now it is sufficient to note that two of the three nonverbal hierarchies could and should (to make the theory consistent) be collapsed into one. This would mean that emic motifs would be the construction types or minimal units, and they would be seen as correlating with slots to function in the context of higher-level units (i.e. behavioremes or higher-level emic motifs). Nonverbal behavior would be

analyzed as having the same progression from higher-level units to lower-level units as in language, as illustrated in figure 25. This illustration shows how a construction on one level could be broken down into a string of tagmemes, and the fillers of these tagmemes (if they are not minimal units) could be further broken down into strings of tagmemes, and so on until the minimum units are reached.

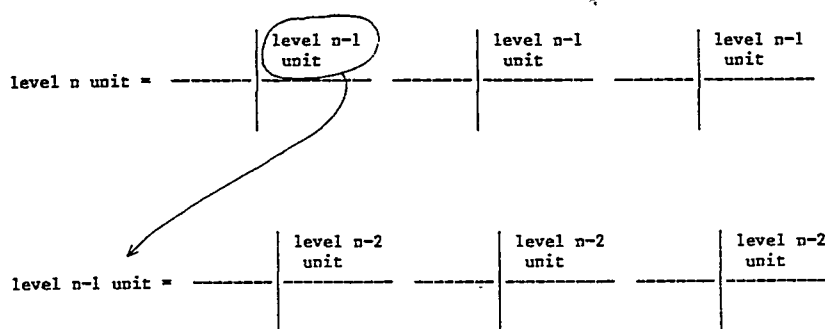


Fig. 25. Progression from higher-level to lower-level units, showing relations between tagmeme and construction type as elements of a single hierarchy.

Now how does what we have arrived at so far relate to the third nonverbal hierarchy? We must be able to account for kinemes and their relation to emic motifs. As examples of kinemes in the general context of a breakfast behavior, Pike cites the actions that manifest the activity of buttering a piece of toast, including grasping the knife, cutting the toast in half, putting down the knife, and passing the toast on to somebody else (291). These kinemes—'units of motion' (290)—are supposed to be analogous to phonemes in verbal behavior. The problem with this analogy is that, whereas phonemes can be described as fitting into higher-level phonological structures such as consonant or vowel clusters and syllables (294 and chap. 9), kinemes are only described as

being distributed into emic motifs and not into any higher-level kinemic constructions.¹⁶ The justification for having a phonological hierarchy distinct from the grammatical hierarchy is that there are phonological patterns of clusters, syllables, stress groups, etc., that often do not match up with the grammatical patterns of words, phrases, clauses, etc. Phonemes fit into one hierarchical system of patterns and morphemes into another. This does not appear to be the case with kinemes and emic motifs. There is no evidence given in Pike 1967 that would indicate that kinemes could not be simply thought of as constituents of (and in the same hierarchy as) emic motifs.

The reason that the analogy breaks down between kinemes and phonemes is that language involves duality of patterning whereas nonverbal behavior does not. The distinction between phonology and grammar is a matter of necessity. Hockett's discussion of duality of patterning (1960) explains the distinction, and the differences between the phonological and grammatical hierarchies have been well documented in the tagmemic literature. (Other linguists maintain the phonology-grammar distinction even if they do not see phonemes as elements in a phonological hierarchy.) On the other hand, the identification of three hierarchies for nonverbal behavior seems to have been motivated by analogy rather than by necessity. It has not been demonstrated that more than one hierarchy is necessary.¹⁷

If a distinction of the data into separate hierarchies is not adequately validated, then such a distinction into hierarchies is also inconsistent with principles of tagmemic theory. Pike says, 'If all units of all hierarchies were always co-terminous and co-nuclear then

there would be no trimodal structuring at all, but merely a single structure which could be looked at from three different points of view' (1967:566). If higher-level units of a distinctly kinemic flavor cannot be identified, and the relationship between lower- and higher-level units established, then kinemes do not belong in a separate hierarchy than emic motifs, since 'no minimum unit of nonverbal or of verbal behavior can be described or defined adequately in and of itself, but can be defined and delineated only in reference to its relationship to a hierarchy of larger units of which it is a part', and 'lower-layered units within one modal hierarchy must somehow be fused into or integrated with larger units of activity on a higher level of that hierarchy' (Pike 1967:290, 566).

In summary then, on the basis of the following points I conclude that a single behavioremic hierarchy is appropriate in place of the three that are mentioned in Pike 1967: 1) the feature mode and distribution mode hierarchies could be collapsed into one following the same theoretical shift that was applied to language where the lexical and grammatical hierarchies were combined; 2) kinemes could also join emic motifs in a single hierarchy since nonverbal behavior does not involve duality of patterning and there does not seem to be a hierarchy of kinemic units distinguishable from motifemic units; and 3) if there is not good evidence for three hierarchies, then the simplest solution and the one most consistent with tagmemic theory would be to have only one. Terms such as behavioreme, emic motif (or motifeme) and kineme, if they are to be retained, would be redefined as different levels in a single behavioremic hierarchy. In Figure 26 I present Pike's example of a

breakfast behavior, re-analyzed according to the single-hierarchy approach. (I have not attempted to fill in any of the details that Pike does not himself discuss.)

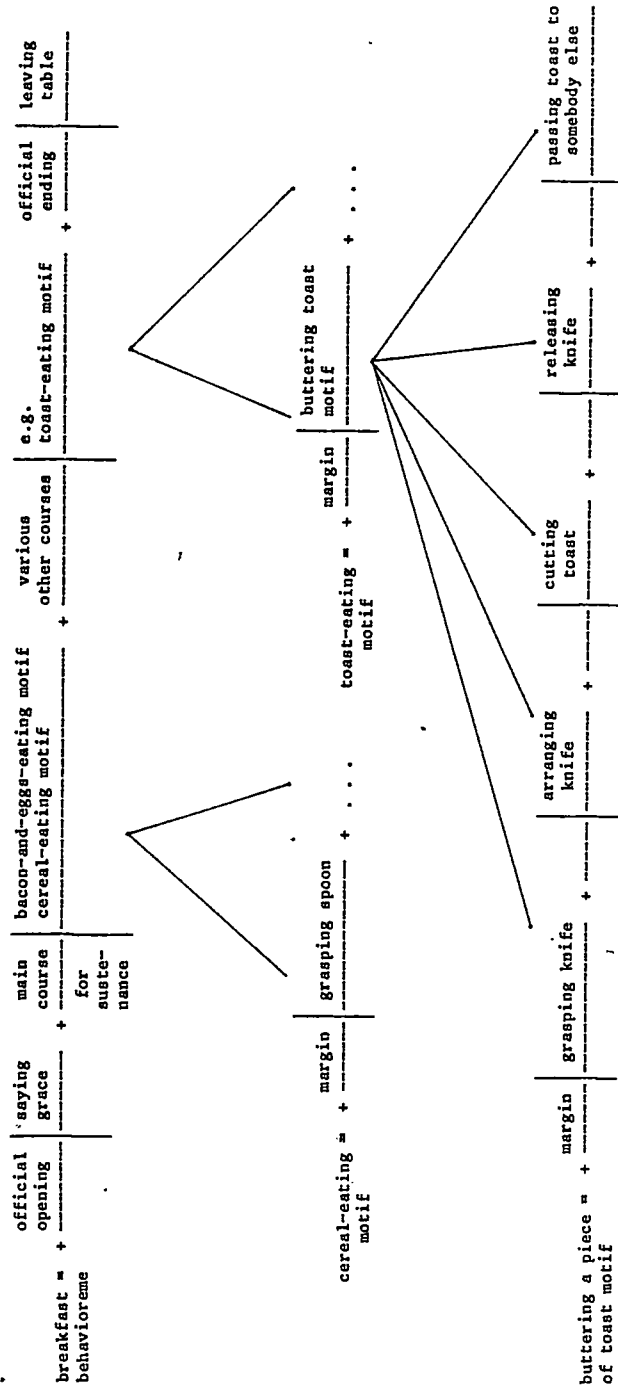


Fig. 26. Hierarchical arrangement of units in a breakfast behavioreme.

I will return to the subject of the hierarchical organization of nonverbal behavior to discuss how language and nonverbal behavior work together and what it means to have a unified theory of the structure of human behavior. I will also reanalyze the structure of human behavior, with a different conceptualization of what is covered by the term 'behavior'. But first I wish to change the subject to take a closer look at the referential hierarchy of language, since that will have some bearing on my conclusions.

The concept of the referential hierarchy is a fairly recent development in tagmemic theory, though it was foreshadowed in the 'lexical hierarchy' of Pike 1967. This earlier concept of the lexical hierarchy consisted of morphemes and 'hypermorphemic constructions' such as words, phrases, clauses, sentences, narratives, and conversations--'the specific lexical bits' (Pike 1964a:86). In a footnote in the 1967 edition of Language in relation... (424), Pike acknowledges that his chapter on the lexical hierarchy (chapter 10) 'is probably the weakest in the book'. At the time of the publication of this second edition, the lexical hierarchy was in a state of revision, stimulated by the influence of Crawford and Longacre on tagmemic theory.

In his 1959 Ph.D. dissertation Totontepec Mixe phonotagmemics (published in 1963), Crawford posits the idea of a phonological tagmeme. Pike had already observed that phonology involved slot-class patterns, but to incorporate phonological tagmemes into the theory implied that other theoretical shifts would be necessary as well. This was the first step toward generalizing the concept of the tagmeme and making the morpheme a unit of the grammatical hierarchy, by analogy with phono-

logy.¹⁸ In Longacre's article 'Prolegomena to lexical structure' (1964b), he summarizes his arguments that the morpheme belongs in the grammatical hierarchy and that the tagmeme should be seen as a variable-level (i.e., not just minimum level) unit in both the grammatical and phonological hierarchies.

Now if Crawford's and Longacre's proposals were to be accepted, the remaining question is what, if anything, constituted the 'third hierarchy'. Crawford pictured only two hierarchies instead of three. Longacre's version of the theory involved two hierarchies—phonology and grammar—and a third component—the lexicon—that was not hierarchically organized but was more clearly distinguished from grammar than was Pike's lexical hierarchy. In Language in relation... (2nd ed.), Pike writes, 'The full implications of the contributions of Crawford and Longacre are not yet clear' (1967:424fn). He was reluctant to reduce the three hierarchy system to a two hierarchy system, and he envisioned that a new conception of the lexical hierarchy might develop. In a footnote Pike adds, 'Considerable work is now going on attempting to study the structure of the lexical hierarchy in reference to these problems' (1967:521).

A solution to these difficulties in the theory came almost ten years after the system was shaken up by Crawford. In her Ph.D. dissertation (1968, published in 1971), Mary Ruth Wise introduced her concept of the lexemic hierarchy to take the place of the lexical hierarchy. This lexemic hierarchy focused on the referential content of a narrative instead of the specific lexical sequences. Pike recounts that

a third important change in tagmemic theory was brought in by Wise

(1971 [1968]) in an attempt to solve this problem [introduced by Crawford]: She separated the old 1954 lexical hierarchy from a new lexemic one. Whereas the lexical hierarchy had been completely coterminous with specific morpheme sequences, her lexemic hierarchy did not have to be coterminous with the grammatical one or with the lexical items but was more directly related to elements in the events or elements of the environment. Thus, specifically, the lexemic structure of a narrative included as one of its features the chronological sequence—even when the story was told in an order which was not chronological. (1976:101)

Waterhouse's The history and development of tagmemics (1974:12-3) documents the influences of Crawford, Longacre, and Wise on tagmemic theory.

Wise's concept of the lexemic hierarchy was modified and developed by others and renamed as the referential hierarchy. Linda Johnson and Richard Bayless played a role at this point in the development of the theory—some of their ideas are expressed in their 1977 article 'A tagmemic referential hierarchy'. Pike and Pike deal with the referential hierarchy in two chapters of their Grammatical analysis (1977: chapters 1 and 12). Referential structure analysis has mostly been directed toward narrative discourse, but Linda (Johnson) Jones' dissertation 'Theme in English expository discourse', published in 1977, explores the referential structure of a non-narrative discourse type. For my purposes in this chapter I am primarily concerned with the referential structure of narrative texts, and I will go into more detail on that topic.

Referential structure concerns the organization of the referential content of an utterance—that is, for example, what remains constant in several paraphrased versions of a story. A story deals with characters and events and possibly other related factors, and these are what referential analysis focuses on. Referential structure is hierarchically organized and can be described by means of tagmemic formulas. Events

can be seen as part of a larger complex of behavior, or participants can be seen as fitting into larger groupings; and the relationships of parts to other parts on the same or other levels of the hierarchy can be explained in terms of slot, role, class, and cohesion. I have already discussed the tagmemic organization of referential structure in section 2.4.1.3, but here I will go into a little more detail concerning the levels of the referential hierarchy.

The term 'hierarchy' implies different levels. The morpheme, word, phrase, clause, and sentence are some levels in the grammatical hierarchy. The phoneme, syllable, phonological word, and phonological phrase are some of the levels of the phonological hierarchy. We ought to be able to identify several levels in the referential hierarchy as well. Two levels identified by Pike and Pike are the event level and the participant level (1977:381). Pike and Pike apparently think of participants and events as components of a single hierarchy since they refer to the participant or prop level as being 'lower down in the hierarchy' than the event level (1977:381). K. Pike reiterates this elsewhere (1982:98), where he says,

For the referential hierarchy, we treat as more independent the telling about an event than the mention of a name of something. Thus the named person Socrates is treated on a lower hierarchical level than the action affirmed in the sentence Socrates drank himself to death; the event as described is treated as higher in rank than the items involved in the event and mentioned in connection with it. At the lower of these two levels one has, then, the members of the cast of a play or of an event.

Pike and Pike also mention two other levels in the referential hierarchy above the event level: event complexes and vectors (1977:367,71-4).

Linda Jones concurs with Pike and Pike's analysis. She uses the

term 'identity level' instead of 'participant or prop level' and says that the event level 'analyzes the actions and states of the identities. For example, losing the wallet would be an event relationship between Allen and the wallet' (in one particular text) (1977:109).

A problem here is that, as I see it, it is inappropriate to say that participants build up into events, in a single hierarchy. Events are elements of a different kind and are not 'composed of' participants any more than morphemes are 'composed of' phonemes. Participants should be seen as building up into more inclusive elements of one kind of hierarchy and events as building up into more inclusive elements of a different, parallel hierarchy. Recognition of this type of arrangement helps explain certain anomalies in the Pikean schema. First, in Pike and Pike 1977 there seems to be a gap between the participant and event levels that cannot be bridged. This is evidenced by the fact that in their referential analysis of a Mixtec story (371-6), they present formulas for participants apart from their formulas for events, complexes, and vectors, without accounting for how the two sets can be connected. Second, in Linguistic concepts Pike indicates that there are higher-level units of participants that the individual participants fit into (rather than events). In his Figure 11.2 (1982:102), illustrating a referential person tagmeme, he explains the slot cell of this tagmeme as expressing how 'the member of the cast fits a larger unit of the cast' (emphasis mine). In other words, participants fit into higher-level participant units (i.e. groupings of participants) rather than into events. This is analogous to the way phonemes are constituents of higher-level phonological units rather than being considered consti-

tuents of morphemes. Just as phonological and grammatical hierarchies are distinct though related, so in referential analysis are the participant and event hierarchies distinct though related. Events are not the sum of participants or props. (A prop could be defined as any inanimate entity that plays some role in the story.)

The idea that participants form their own hierarchy apart from events has already been developed by Lillian Howland. In her 1981 article 'Communicational integration of reality and fiction' Howland uses three hierarchies to describe the referential structure of a Carib narrative. She uses the term 'semantic structure' instead of 'referential structure' except in footnotes and avoids using the term 'tagmeme' (though she does use the term 'unit-in-context'), but still her analysis of this Carib story is obviously a tagmemic referential analysis that describes the data in terms of three referential (or 'semantic') hierarchies instead of one—an events hierarchy, a participants hierarchy, and a settings and props hierarchy. I believe that the thoroughness of her analysis has led her to discover that participants, props, settings, and events cannot all work together in a single hierarchy. She has an events hierarchy that has complexes and vectors as higher levels than the event level. Her participants hierarchy, which she says overlaps and interweaves with the events hierarchy, involves part-whole relationships 'in which the Participants as individual units (wholes) on the one level become part of a larger functioning Group (a whole) on the next higher level' (97). For example, in the Carib story a gorilla and his wife (minimal units of the participants hierarchy) together form a family group complex, and the family group complex together with a

monkey form a compadre group, and the compadre group together with the remainder of the characters in the story form the total social group. Howland adds a settings and props hierarchy which 'like the Events and Participants Hierarchies...is composed of a part-whole relationship in which a unit (a whole in itself on a lower level) becomes a part of the next higher unit of the hierarchy in combination with other parts' (100). Her settings and props hierarchy is divided into three major categories: temporal, physical, and mental. At least in the particular data Howland deals with she considers the mental component to be nuclear and the temporal and physical components to be marginal.

In a couple of footnotes Howland does make reference to Pike and Pike. She says, 'The use of a four-cell display and vectors for analyzing the referential hierarchy is taken from Pike and Pike (1977, pp.364-377). My handling of the specific details differs substantially' (104). The main way that her analysis differs from Pike and Pike's is that she distinguishes three hierarchies where Pike and Pike have only one. In another footnote she adds,

Pike and Pike (1977, pp.366,367) have included events, participants, and props in the same hierarchy, making participants and props a level lower than events. I have chosen to make them three separate hierarchies since the Compadres Story is very complex, thus resulting in so many included part-whole relationships that to include everything in one hierarchy would make it very unwieldy. (104)

I would argue that the recognition of three hierarchies in narratives should be the norm rather than the exception for referential analysis. Otherwise it cannot be satisfactorily explained how participants serve as constituents of events. And without at least making a distinction between participants and events hierarchies, there is no place for

participant groups in the theory.

Shin Ja Hwang is another who has done a referential analysis of a folktale, in a paper entitled 'The referential structure of a Korean folktale' (1980). Her theory basically follows Pike and Pike but is influenced some by Howland.¹⁹ She has a hierarchy for events and another hierarchy for participants, explaining that 'it seems to me that the network of events as such should be analyzed at the event level with its own hierarchical structure, as illustrated by Howland (1980) as the Events Hierarchy' (258). But following Pike and Pike, she also refers to participants and events as levels in a single hierarchy. The full hierarchy she is working with has the following levels; from lowest to highest: component (feature) level, identity level (including participants, props, and settings), event level, story (theme) level, and performative interaction level (260). Hwang seems to be saying that the identity and events hierarchies constitute levels in a more inclusive hierarchy. Like Pike and Pike she does not show, however, how each 'level' in this more inclusive referential hierarchy leads into the next higher level, or vice versa. This fact leads to the conclusion that components of a story such as participants and events are not arranged with respect to each other in a hierarchical relationship, for as Pike (1967:566) says, 'Lower-layered units within one modal hierarchy must somehow be fused into or integrated with larger units of activity on a higher level of that hierarchy, or else there is no structure joining these units.'

There are a few points about Hwang's theoretical arrangement that deserve special attention and might be considered an improvement over

Howland's system. Whereas Howland has a participants hierarchy and a settings and props hierarchy, Hwang deals with participants, props, and locational settings together (on the 'identity level'). Howland's 'temporal settings' are treated by Hwang as an organizing component of the events hierarchy (or level). Howland had had a participants hierarchy, an events hierarchy, and a settings and props hierarchy, which includes temporal settings, locational settings, props, and 'mental settings'. I agree with Hwang that locations and props belong in closer association with participants and temporal framework in closer association with events. This leaves what Howland calls 'mental settings', which concerns knowledge and belief systems. This is similar to Hwang's theme level, which deals with beliefs and values of the story participants and the story teller.

A possible rearrangement of the elements of a narrative theme would be to consider participants, props, and locations together in one hierarchy, events (with temporal progression as an organizing factor) as another hierarchy, and psychological or culture components such as knowledge, beliefs, norms, and values together as the third 'situational' hierarchy. This would apply to narratives only; other discourse types such as expository, hortatory, and procedural discourse genres would be organized differently and could probably be explained in terms of a single hierarchy of elements rather than three.

The implications of referential analysis for the analysis of nonverbal behavior are perhaps becoming obvious to the reader of this chapter. The referential structure of a narrative and the structure of live behavior can be equated.²⁰ There are some differences worth noting

and considering between live behavior and the behavior in a story, but the two can be analyzed in terms of the same framework. That is, the structure of behavior could be analyzed using the same model as used for analyzing the structure of reported events (narrative discourse). In other words, a participants hierarchy, an events hierarchy, and a situational hierarchy would be three components of the behavioreme. Correspondingly, the term 'behavior' could be broadened to refer not only to actions, but also the participants involved and the cultural context. In the following discussion I will begin using the term 'behavior' in this broader sense in contrast with the more restricted sense of that term that I had been using in the first part of this chapter. Whereas in Pike 1967 the behavioreme was considered to consist of three hierarchies all concerned with events, here we have the model in which the behavioreme consists of three hierarchies only one of which directly concerns events. This model is more manageable than the 1967 model for reasons I cited earlier, and it takes into consideration factors that the older model did not—namely participants and motivating factors such as beliefs and values.

The crucial difference between live behavior and reported behavior is that reported behavior is once-removed from reality, or may relate to an imagined reality. The author/reporter of a narrative text filters the facts he reports through his own emic frame of reference, focusing on details in terms of what is relevant to him. A referential analysis of a narrative is twice-removed from reality since it interprets what someone else has already interpreted. A tagmemic analysis of live behavior is only once-removed from reality, but still any analysis of

behavior, like a non-analytical reporting of behavior, is not truly objective since a human observer is filtering the objective data through his personal analytical emics. (This is the main point that Marvin Harris seems to have lost--see section 2.2.3.) A tagmemic analysis of live behavior could be seen as a referential analysis of the analyst's own discourse, whether it actually be written down or still only in his memory.

Given, then, that an 'updated' tagmemic model for nonverbal behavior would be appropriate, it would now also be appropriate for me to describe this model in more detail. First I should delimit the area of inquiry that I am concerned with--human behavior.

Human behavior of course is concerned with events or actions, such as the types of behavior mentioned in section 3.1. But there are other factors worth considering as well related to the topic of human behavior. There are the physical settings where the actions take place, the humans who perform the actions, the inanimate objects that play a role, and the motivations for the actions, all of which join the actions themselves as elements of human behavior. My initial division of these elements is into three parts: 1) physical elements, including participants mainly, but also inanimate objects or non-human animate objects, and the physical environment; 2) events; and 3) motivating factors such as norms, beliefs, and values. This division is illustrated in figure 27.

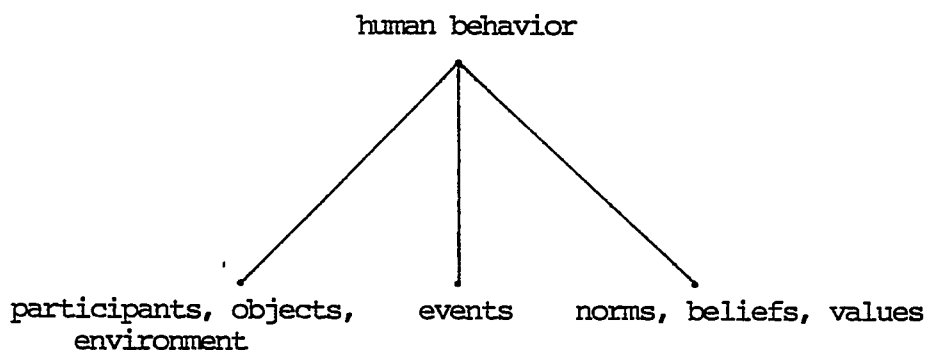


Fig. 27. Elements of human behavior.

Human participants, objects, and physical settings are the tangible components of human behavior, and because of that common characteristic they group together. This group as a whole could be called something like 'the relevant, emic physical-world'. We are concerned with emic structures in our tagmemic analysis. When we talk about a participant, for example, we see him not just as a physical object but rather in terms of how he is perceived by the other participants and how he as a participant fits into the total context.²¹ I also use the term 'relevant' since we cannot deal with the whole world at once; we begin by studying particular types of behavioremes and the physical world relevant to the particular behavioremes and in focus. This 'relevant, emic physical world' is hierarchically ordered, with the whole group being subdivided into included groups, which could be further subdivided, until the minimal units are reached. Exactly what constitutes a 'minimal unit' in this hierarchy may be indeterminate. The limits for analysis are determined by the participants' threshold of focus (see Pike 1967:111). Anything that the participants are either unable to observe (e.g. molecules) or unlikely to focus on would be beneath of the

threshold of focus.

The first division of the 'relevant, emic physical world' would be into the three categories mentioned above—the total group of participants, the total group of props (or objects), and the total group of settings relevant to the behavioreme. In any kind of human behavior, the participants would likely be nuclear and the props and settings be marginal elements. It is conceivable that for some types of behavioremes, no props or particular settings would be relevant.

The breakdown of the participant, prop, and setting groups would be determined by the nature of the behavioreme being analyzed. Another way of looking at this is as the grouping of the individual participants into more and more inclusive groups (instead of the breakdown of larger groups into smaller groups). In a behavioreme in which kinship relations are involved (such as a wedding ceremony), an individual might be seen as fitting into a nuclear family, and the nuclear family into an extended family (and then the bride's extended family would group with the 'friends of the the bride' while the groom's family groups with the 'friends of the groom'). Or in a football game an individual may be one of the two tacklers, who are part of the front line, which is part of the defensive squad, which is part of the total group of players, which (along with the coaches and managers) is part of the football team, which, together with the other team and spectators, is part of the total group of participants in the behavioral unit. The total group (or hierarchy) of participants would group together with the hierarchies of props and settings to make up the total relevant, emic physical world of the football game.

If 'society' is defined as a cohesive set of groupings of people, then the hierarchical analysis of participants involved in a behavioreme is an analysis of social organization. In tagmemic terms, 'society' could be defined as the set of generalizations concerning participant hierarchies for a particular culture. Pike deals with society in Language in relation.. in the final chapter, 'The context of behavior', where he explains,

The materials in view in this chapter...are not those of behavior as such, but rather the context of behavior as it is affected by behavior. We wish to discuss a society as a structured group of individuals sharing in that behavior. We will discuss the individual as a unit of such behaving groups. We shall turn briefly to the consideration of 'things' and discuss these too from the point of view of their nature as a setting of human behavior and in part as a product of human behavior. (1967:641)

In this chapter Pike develops an analogy between linguistic structure and social structure. He says, 'We assume that groups of individuals are comparable to the physical groupings into phonemes, syllable, and stress group, or the like... Within this type of grouping would be included, amongst others, some general kinds of kinship structures' (1967:646). The exact connection between this chapter on social organization and the previous chapters dealing with behavior is not clear. Pike does make clear that this chapter focuses on analogies between language and social organization, two different aspects of human life, such as where he states, 'In this chapter, therefore, we take the risk of suggesting various analogies in the hope that some of them will prove fruitful in giving direction to our search for unity in the structure of human behavior and of the matrix of that behavior' (1967:643). The lack of a structural integration of this chapter with the previous chapters where human behavior was discussed leads Hymes to complain that

the concluding chapter, "The Context of Behavior" (ch.17), does not carry forward the methodology of the opening chapters, where verbal and nonverbal behavior were to be integrated in the analysis of integral events. It falls back on parallels and analogues between linguistic systems and social systems, analyzed disjointly... The crucial failure, that leads to a conclusion so in contradiction to initial intention, is the failure to find a method of description that actually does lead linguistics into context. (1974:177)²²

I hope that my discussion of the participants hierarchy shows more clearly how the material Pike discusses in his chapter on 'The context of behavior' can be integrated with the rest of the theory; that is, how social organization, like language, can be described by tagmemic theory as a structural component of human behavior. Though Pike says, 'The materials in view in this chapter, however, are not those of behavior as such, but rather the context of behavior as it is affected by behavior' (1967:641), I am advocating a tagmemic model (and perhaps a redefinition of the term 'behavior') such that social organization is seen as a component of the behavior. Participants form into groups, and it is the individuals and groups that manifest the 'event' component of human behavior. To say that behavior is only concerned with events and that social structure is the context of behavior is like saying that language is only concerned with grammar and that phonology is the context of language.

In summary, participants, props, and settings together form a hierarchy that is one of the three basic components of human behavior. This could be called the 'participants, props, and settings hierarchy' or perhaps in some cases it could be abbreviated as the 'participants hierarchy' since participants are generally the nuclear elements. The participants, props, and settings hierarchy is outlined in figure 28.

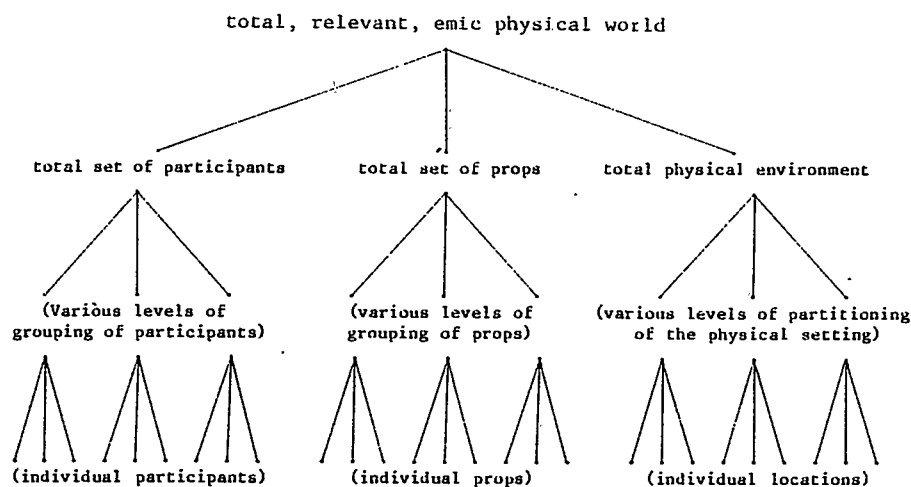


Fig. 28. The participants, props, and settings hierarchy of the behavioreme.

Events make up a second hierarchy functioning as a component of human behavior. Publications on tagmemic referential analysis show how events group together hierarchically. Terms such as 'complex' and 'vector' could be borrowed from referential analysis for behavioremic analysis.

The analysis of a behavioral event as being made up of vectors (which are made up of complexes and particular events) brings the participants hierarchy into a necessary interplay with the events hierarchy. A vector could be defined as the highest-level (i.e. most inclusive) cluster of events to be united by a single purpose. By bringing in purpose as a consideration in the analysis of events, a connection is obligatorily made with the participants hierarchy, since it is the participants who have the purposes for the events. As Goodenough puts it,

Purposes and goals, then, are what give coherence to action; and it is in terms of the purposes and goals we understand others to

have (or that we impute to them) that we make sense of their actions. All meaningful behavior is in this respect like speech behavior. The communicational intent of an utterance provides the focus around which words and grammatical constructions are selected and arranged syntactically into coherent sentences. Similarly, the intended consequences or purposes of other kinds of behavior provide the foci around which people, things, and acts become organized syntactically into coherent activities. (1981:81-2)

Similarly, Pike says, 'The problem of relevant segmentation of non-language behavior...requires a concept of purpose which is analogous to meaning in language study, and is essential for the detecting of those parts of events which are significant to the participants in those events' (1959:53).

If all the participants in a behavioreme are working toward the same goals and form a single cooperative group, a single vector that covers their coordinated activities would be the highest-level unit of the events hierarchy of that behavioreme. On the other hand, if a behavioreme is a case of two or more individuals or factions in conflict or otherwise working toward different goals, then each group's activities as a whole would constitute a different vector. There is a circularity of definition here: activities help define groups and the recognition of groups helps define the units of activity.²³ Goodenough points out the inter-relatedness of social groups and activities in his book Culture, language, and society, where he says,

If we take an activity or some set of activities as a point of reference and examine the frequency with which people deal with one another in connection with it, we shall find that people sort themselves into clusters, those within any one cluster dealing with one another more frequently than they deal with individuals in other clusters, at least in the context of that activity or set of activities. Such clusters are natural groups. If the members of a cluster are conscious of themselves as a continuing entity and distinguish between members and non-members by some criterion of membership (or eligibility for membership), the cluster constitutes a society in the broadest and simplest sense. There are various

classifications of groups and societies according to the kind of activities with which they are associated and according to the manner in which they replenish their memberships. (1981:102)

In Pike 1967 the behavioreme is depicted as consisting of three hierarchies, each of which covered some aspect of events. But for reasons I have already mentioned in this chapter I am proposing a model for behavioremic analysis in which events make up only one of the hierarchies of the behavioreme. Figure 29 presents a generalized form for the events hierarchy. (Note that the division into two or three branches in this figure and at some points in figure 28 is arbitrary and is only for the purpose of illustration.)

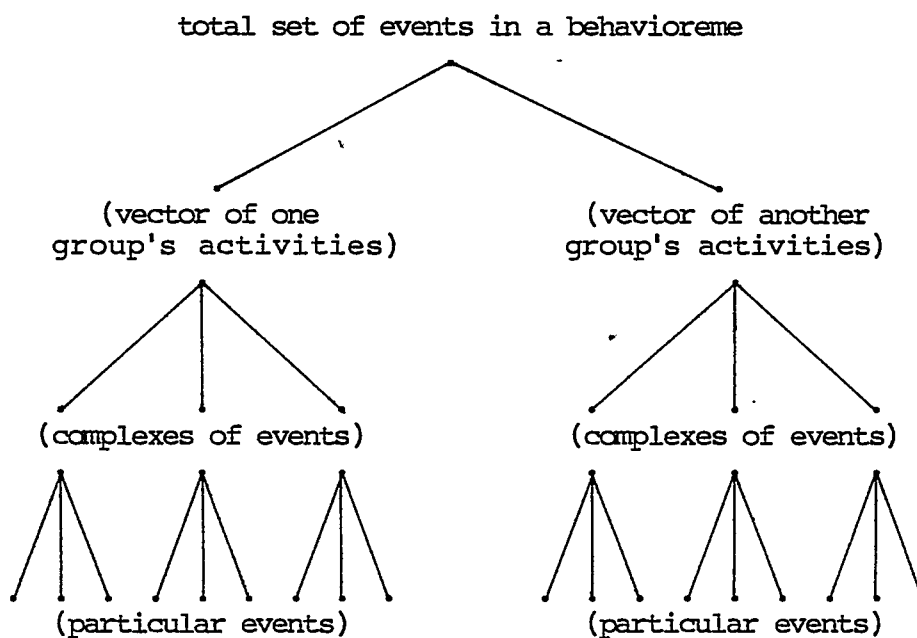


Fig. 29. The events hierarchy of the behavioreme.

The third hierarchy, which along with participants and events constitutes the behavioreme, is one involving such components as norms, beliefs, values, and scripts. All of these components fall under the

heading of 'culture'. In the case of behavioremic analysis, we might say that these are the component parts of the Weltanschauung or world-view or belief system (if that term can be used to refer to a system of norms, values, etc. in addition to beliefs) of the participant groups or individuals. I will use the term situational hierarchy (for the lack of a better term) to refer to this third hierarchy of the behavioreme. The word 'situation' has a very broad meaning, and in this case it should be understood as referring to the hierarchically-organized system of norms, beliefs, values, and scripts that makes up the relevant²⁴ world view of the participants and governs their actions. Culture could be seen as the set of generalizations about the situational hierarchy for a particular society.²⁵

There has not been much of an attempt made, to my knowledge, to show that world view is hierarchically organized, but I believe that it is. Miller's 1956 article serves as evidence that knowledge, at least, is hierarchically organized. Jones' Theme in English expository discourse (1977) also gives support to this thesis that man's ideas (in this case as expressed through writing) are hierarchically organized. Belief complexes, norm complexes, and value complexes can be seen as the constituents of the highest level, world view. Each of these constituents could be further broken down into parts. For example, a belief complex could be broken down into more particular groupings of beliefs, which could be further broken down into particular beliefs. The premises of a syllogism could be seen as the constituents of the conclusion, since the conclusion is just a summary of the premises and does not contain any new ideas.

Schank's concept of the script can be interpreted as a particular type of belief complex—a belief complex concerning the customary sequencing of events (see Schank 1977). Note that we are talking here about knowledge or beliefs in the participants' world view, and not the actual customs. Goodenough is working with a similar concept when he talks about recipes, which he defines as 'the understanding or knowledge of procedural requirements for accomplishing a purpose' (1981:84). Goodenough explains, 'When we speak of recipes, we refer to ideas and understandings about how to do things, and when we speak of routines and customs, we refer to the actual doing of them' (85). In the context of behavioremic analysis we might say that scripts or recipes are elements of the situational hierarchy, while customs are generalizations concerning the events hierarchy. Still, the two categories are closely related.

A more detailed description of the situational hierarchy will have to be based on further research;²⁶ and for my immediate purposes in writing this dissertation this research would lead me off on a tangent. Figure 30 is a sketch of the situational hierarchy.

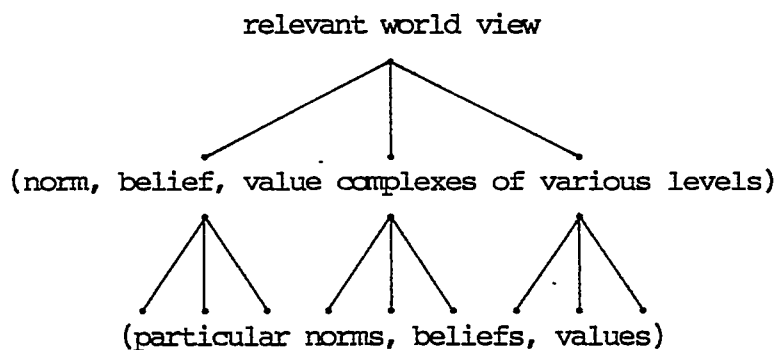


Fig. 30. The situational hierarchy of the behavioreme.

Concerning the inter-relationships among individuals, activities, and a belief system (or what I call the participants, events, and situational hierarchies), Pike has written,

Without a belief system (conscious or unconscious, vague, or organized concerning the nature of the world around him and concerning his own person) the individual could not act purposively.

Character and actively-held belief systems do not exist in a vacuum, apart from activity. Character and belief systems are built during such activity. Nevertheless, though character may be built—for better or for worse—during a basketball game, the structure of that manifesting basketball game is not itself the structure of the character or belief system of the player. (1967:533)

Given a static model for behavioremic analysis, one might ask, 'How does this model integrate with the tagmemic analysis of language?' and 'How can behavioremic analysis be applied to a specific behavioreme?' The answers to these questions will be the subject of the next section.

3.3. THE BEHAVIOREMIC MODEL APPLIED.

Even if we are primarily interested in language analysis, we cannot understand language fully unless we study how speech and language fit into a larger context. Wise explains,

The challenge before tagmemics, then, is to develop and exploit its potential as a theory of language--not in the abstract--but of language as speech--as purposeful, communicative behavior which can only be understood in relation to nonverbal human behavior in its sociocultural context. (1976:132)

Pike has already noted in chapter one of Language in relation... '(1) that language behavior and nonlanguage behavior are fused in single events, and (2) that verbal and nonverbal elements may at times substitute structurally for one another in function' (1967:26). A symbolic gesture can substitute for an utterance, or an utterance (such as 'No!')

can come in response to an action (such as a child reaching for something he is not supposed to have). Hymes gives the example that

Rules for summoning in English in American society subsume both verbal and nonverbal acts: "George!", a telephone ring, a knock on the door (Schegloff 1968). By the same principle that rejects compartments in syntax and phonology, when unitary treatment of unitary phenomena is presented (McCawley 1968:166ff.), the boundary between verbal and nonverbal features must be rejected, once sentences are studied as addressed acts of speech. (1974:102)

Observations of this sort contributed to the initial development of tagmemic theory. Pike saw that behavior was patterned such that there were slots that could be filled either by utterances or by nonverbal actions.

I do not consider the phrase 'nonverbal actions' to be redundant. Speech is one type of action. But as I argued in section 3.1., speech is a special type of activity, unique in its duality (or triality?) of patterning, unique because of its complexity in that it involves three structurally-distinct hierarchies functioning together to make a whole. So there would be differences between the way language is analyzed and the way other activities are analyzed, but still they can be analyzed together, and using the same set of general principles. The difference is that an utterance would be subject to a more detailed, more complex analytical breakdown—into phonological, grammatical, and referential units—than would be nonverbal actions.

Speech is a type of action, and actions (within the events hierarchy) in this behavioremic model are only one component of behavioral units. The units of the events hierarchy are joined by units of the participants and situational hierarchies. (Remember that 'units of the participants hierarchy' is just a way of saying 'groups or individual

participants'.) In behavioremic analysis, the events are only one of the areas of inquiry. Thus even if we are not interested in nonverbal actions, we are reminded that speech acts as analytical units interplay with other analytical units such as the participants and the beliefs or values of the participants to make up the total speech situation. In other words, in order to fully understand an utterance we must know who the speaker and hearer are and 'where they are coming from'.

Pike mentions a wedding ceremony as an example of a behavioral unit that could not be adequately analyzed if the verbal components were left out of the analysis. He says,

Let us suppose, for example, that we are watching a moving-picture record of an American wedding, and studying all of the movements of the participants except the movements involved in speech. Could we say that the description was significant, or relevant? Probably the participants, at least, would want to know that the clergyman had uttered in some legal way the phrase I pronounce you man and wife. The wedding record must include this verbal component of the behavior. (1967:27)

Though the wedding ceremony as a whole is not a language unit, its most nuclear parts are verbal. In order to test my tagmemic model for the analysis of behavior and also to understand better how language fits into a nonverbal context, I have analyzed a wedding ceremony, and I will present my analysis in this chapter before going on to focus on more purely linguistic units—conversations—in the next chapter.

The wedding ceremony I have analyzed is one that I attended at a Protestant church in Arlington, Texas, in the fall of 1979. I am not personally acquainted with any of the participants in this wedding. But since I have participated in several wedding ceremonies, including my own, and since I have read several publications on the significance and form of wedding ceremonies in general and consulted with the Rev. Robert

French, who has studied the format and significance of wedding ceremonies in seminary and performed several himself, and since the ceremony I attended followed a traditional format, I believe I can present an emic analysis of the ceremony I observed.

Not all wedding ceremonies follow the same format nor even have the same significance for the participants. For some, the significance of a wedding is purely legal and social. It is the establishment of a social contract that is potentially subject to dissolution by divorce proceedings at some point in the future if married persons find themselves incompatible and desire to become 'unmarried'. For others a wedding ceremony is seen as a sacred rite of the church, and it signifies a permanent change of status that cannot be changed for the sake of convenience, even if the law allows. Even for those for whom the wedding has a deep religious significance there are different types. The differences between a Protestant, a Catholic, and a Jewish wedding might partially depend on differences in traditions and partially depend on different conceptions of God and His people and their relationships. For example, in a Christian wedding, the relation between husband and wife is recognized to be a reflection of the relationship between Christ and man.

Differences in the significance of a wedding ceremony are largely a matter of differences in the components of the situational hierarchy, but they are often also reflected in the participants and events hierarchies. The participants' beliefs, scripts, norms, and values will determine who will perform the ceremony and where it might take place (e.g. by a Justice-of-the-Peace at his office or by a clergyman in a

church) and what events will take place during the ceremony (e.g. whether or not scripture is read and a prayer said, and in some whether a communion sacrament is included). But on the other hand, church weddings are often a preferred tradition even for participants who do not think of their wedding as being a religious ritual. It is possible for two wedding ceremonies to follow basically the same format and yet have different significances for the participants.

While some differences among wedding ceremonies might be conditioned by the beliefs, scripts (traditions the participants might want to follow), values, and norms of the nuclear participants, other differences might be more a matter of free variation, such as what instrument plays the wedding march. Despite many kinds of differences there can be among wedding ceremonies, there is still some unity to the concept of marriage. There are certain general rules concerning the nuclear participants (who can get married and who cannot, who can perform the ceremony) and the nuclear events (e.g., the bride and groom must make some kind of vow and a pronouncement such as 'I now pronounce you man and wife' must be said by the person officiating). There must also be a general understanding that the participants are sincere in their intention to be married (contrasting a real wedding ceremony with one staged by actors for a movie, for example). Within our general cultural concept of marriage, we could say that there are contrastive sub-types, such as the church wedding versus the Justice-of-the-Peace wedding.

I cannot in this dissertation explore the full range of the concept of a wedding ceremony. In the remainder of this chapter the discussion will mainly be limited to observations concerning a particular

type of wedding (Christian) and a particular wedding ceremony that I observed for the purpose of analysis. My discussion will be presented in three sections in the following order: the participants hierarchy, the situational hierarchy, and the events hierarchy.

3.3.1. The participants hierarchy of a wedding ceremony.

In the props, settings, and participants hierarchy of a wedding behavioreme, the participants are nuclear. In this section I will focus mainly on the participants of a wedding, and particularly of the wedding I am analyzing.

In any wedding ceremony there is an obvious hierarchy of participants. The ceremony I observed followed a standard format. The groom and bride, whom I will refer to as John and Mary, are at the core of the whole group of participants. The whole ceremony takes place because of their desire to be married. This couple together with the minister forms a group that is the focus of attention, and the dialogue among these three is the most crucial element in the events hierarchy of the weddings behavioreme. Two other groups are prominent in the ceremony: the bridesmaids and the groomsmen. The maid/matron of honor is the nuclear participant in the group of bridesmaids and the best man is the nuclear participant in the group of groomsmen. The bridesmaid group, the groomsmen group, and the focal group (for lack of a better term I will use this to refer to the group comprised of the minister plus the couple getting married) together form the group of major active participants in the wedding ceremony. Minor active participants include the musicians, the ushers (if they are not also the groomsmen, but I believe

in the wedding I observed they were), the father of the bride, and the photographer. Then the congregation, the people who have come to watch, join with the active participants to make up the total group of participants at the wedding ceremony.

The hierarchical organization of participants that I have been describing is presented in a tree diagram in Figure 31. Note that in this diagram and in my analysis in general of the participants hierarchy, the slot labels refer to the ranking of the participants in relation to the wedding ceremony, rather than referring to their location or any other factor.

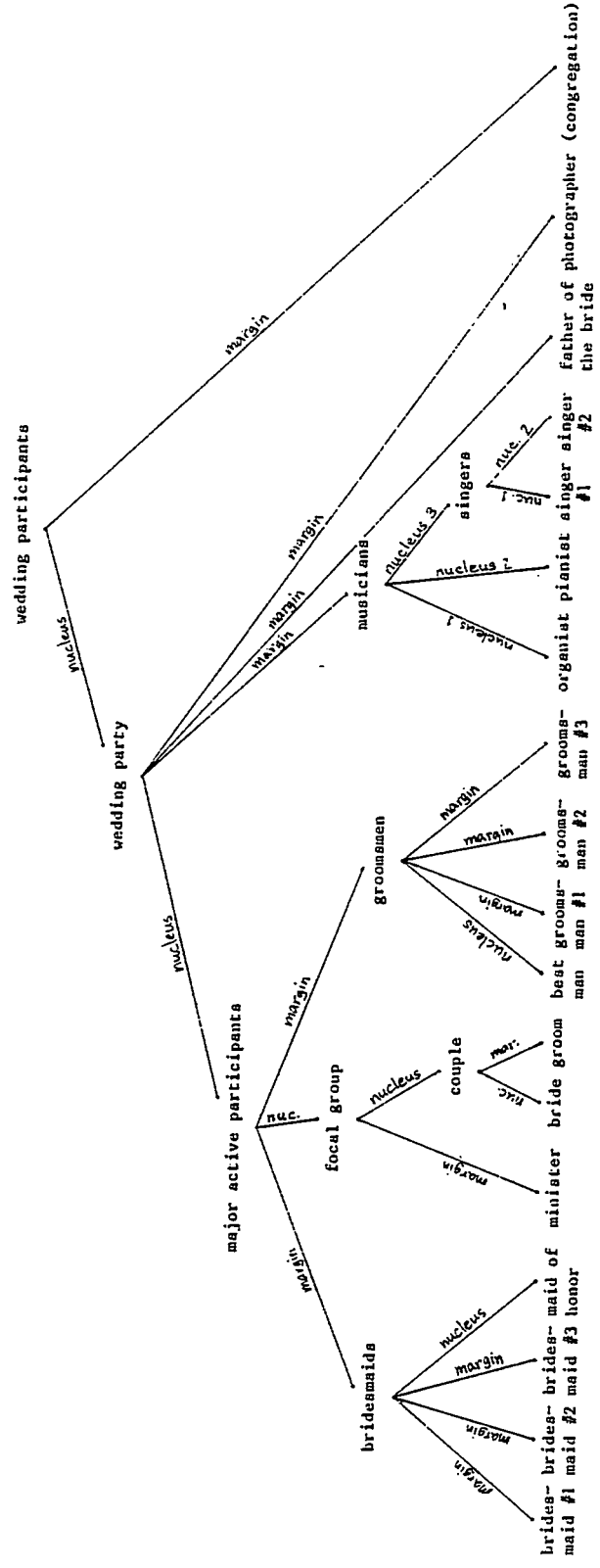


Fig. 31. Participants hierarchy of a wedding ceremony.

As for the props, I will not go into much detail concerning their hierarchical organization but I will note several observations. Out of the total set of props, two prominent subgroups are the decorations and the marriage symbols. The decorations include the flowers and the candles. The set of flowers can be broken down into the arrangements and the flowers carried or worn by the participants (bouquets and boutonnières). In the wedding I observed, the set of candles consisted of two groups: candelabras and candle lanterns mounted on the center end of the church pews.

The wedding symbols in the case of the wedding I observed include the rings and a set of three candles that have a special, symbolic significance in the ceremony. (Of the three candles, two were lit at the beginning, and then during the ceremony the bride and groom each took one of those candles and together lit the third candle. This gesture is symbolic of two lives (symbolized by the candles) becoming one.) The wedding rings are the most prominent props in the ceremony. The minister calls attention to them and goes into some detail explaining their symbolism. After the ceremony is over, the other props are thrown away or stored away to be used in another wedding ceremony, but the rings have continuing significance for the bride and groom and anyone else who sees them. The props hierarchy is sketched in Figure 32, though not in detail. (I include only the props mentioned in my discussion.)

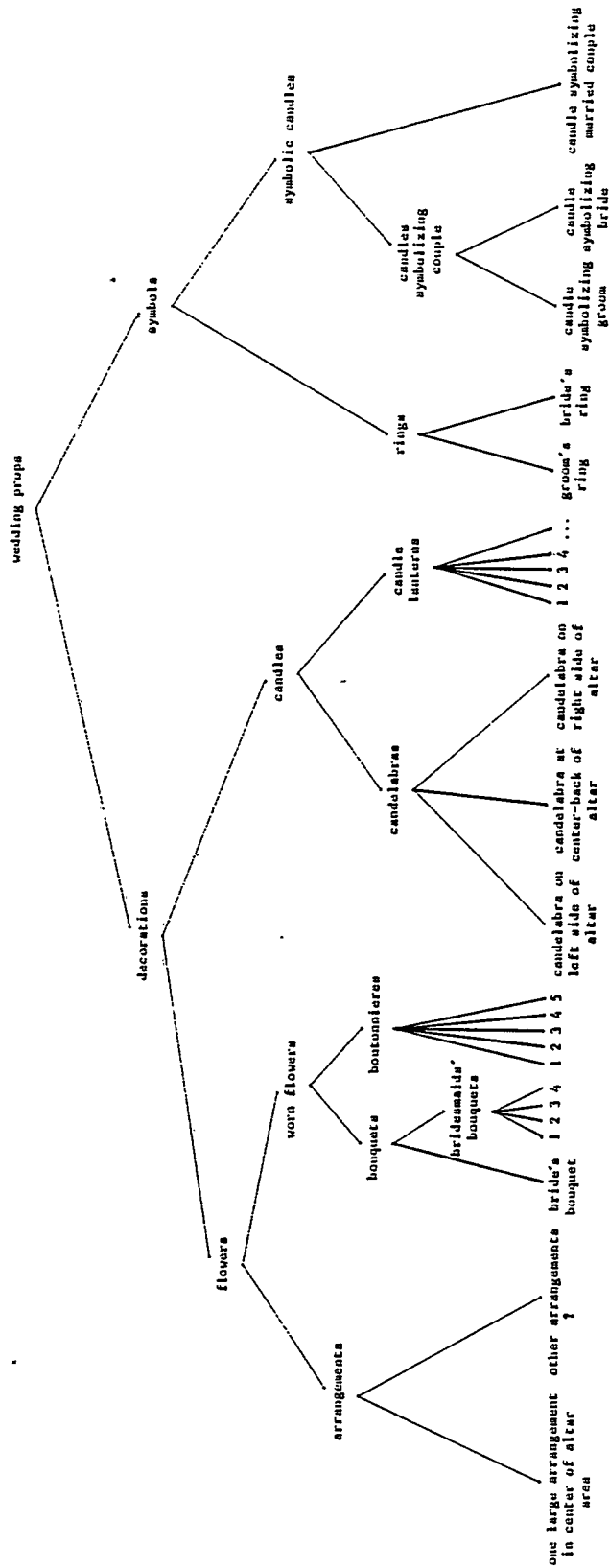


Fig. 32. Props hierarchy of a wedding ceremony.

In the hierarchy of locations, the church sanctuary would be the most inclusive unit in focus for this wedding behavior. A consideration of the entire church grounds would be relevant if I were concerning a unit of behavior more inclusive than just the ceremony (such as the ceremony plus the preliminary routines of getting dressed, etc., and the subsequent activities such as a reception, throwing rice as the couple leaves, etc.) Within the sanctuary there is an area where the observers sit to watch the ceremony, and there is an area at the front that the observers are watching, where most of the activity takes place. Within the 'stage' area at the front, the focal point is the center, where the nuclear participants stand and the nuclear events take place.

There is an obvious use of social space associated with the wedding activities. At the center stage, the bride and groom are physically closer to each other than either is to the minister or anyone else, signifying the social grouping relationship. Within the bridesmaid and groomsmen groups, the maid of honor and the best man are the closest to the couple being married, signifying their nuclear social position. The bride and groom are in the nuclear physical location (which is determined as being nuclear because that is where the nuclear participants are when the nuclear activities take place), and the physical proximity of other groups and subgroups or individuals within the groups is a measure of their importance and relevance in the ceremony. Or at least this is true in general, though not to an absolute degree. That is, of the three (in this case) groomsmen other than the best man and the three (in this case) bridesmaids other than the maid of honor, there is not necessarily any ranking based on proximity. And of the wedding obser-

vers who are friends of the bride or friends of the groom, their seating does not necessarily reflect their status in connection with the proceedings. But it is noteworthy that the close relatives, especially the parents of the bride and groom, are seated at the front of the sanctuary closest to the stage area. They should probably be considered the most important observers of the ceremony.

I present some of my observations on the hierarchical organization of the physical setting in Figure 33. I use a box diagram here instead of a tree diagram, because it allows me to show at the same time some correlation between the participants and settings.

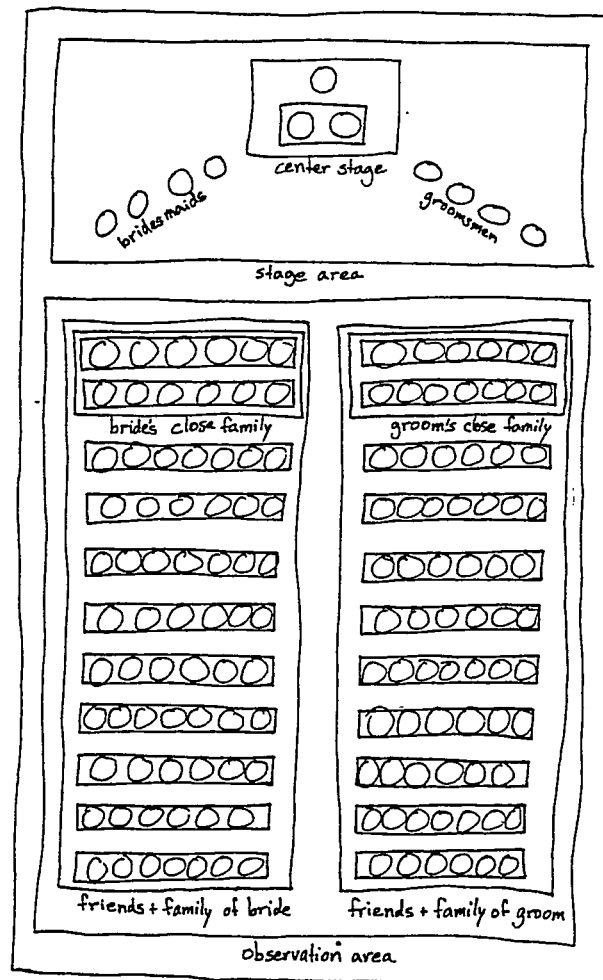


Fig. 33. Settings hierarchy of a wedding ceremony.

Sometimes the differences between participants, props, and locations may be unclear. In the wedding ceremony I would define the participants as being human, the props as being objects that are manipulated by the humans or are placed in the sanctuary specifically for the wedding ceremony as decorations, and the setting is the relatively permanent context in which the participants act out the events that make up the ceremony.

Bock has a model for describing 'social situations' based on

tagmemics that deals with certain elements of what I call the participants, props, and settings hierarchy. (Note that he uses 'situation' as a technical term that differs from the way I use it as a technical term in the 'situational hierarchy'.) His model describes the social roles of the participants and fits these roles into a matrix with the parameters of time and location. He says,

a situation (as a unit of social structure) is here viewed as a kind of four-dimensional cognitive map within which social roles are located. For example, to say that a certain part of a building is a classroom is to imply that during certain socially defined periods of time ("classtime") the social roles of "teacher" and "pupil" are expected to occur within it. (1974:445)

Even though Bock does include time in his matrix, he is mainly concerned with where the participants are located at different times rather than with the activities that take place over that time span.

3.3.2. The situational hierarchy of a wedding ceremony.

In this section I aim to discuss some of the beliefs, values, norms, and scripts associated with Protestant wedding ceremonies and demonstrate some degree of hierarchical organization. A wedding ceremony is not a meaningless exercise; it has a profound significance for the couple planning it and is usually well-planned such that the events that actually take place deliberately follow a particular cultural script. I will discuss here some of the concepts that play a prominent role in the planning and execution of a wedding ceremony. I will not consider the concepts that motivate the decision of a man and woman to become married, nor the social implications of marriage in general; that would be outside the range of this study, which focuses on the ceremony itself.

Charles Mueller has written a booklet called Planning a Christian wedding service (1981) which instructs the wedding couple in some of the key ideas relevant to a wedding ceremony. He lists five basic theological understandings (15-8) concerning the ceremony: 1) a Christian wedding service is a service of worship to God, 2) a Christian wedding service is a public service, 3) a Christian wedding service is a corporate service, 4) a Christian wedding service is a time of clear proclamation of one's religious beliefs, and 5) a Christian wedding is a time of celebration. Each of these beliefs is supported by sub-points. Together they form a whole, a particular conception of what a wedding ceremony is like. Implicit in the description is the value that these are good concepts and the norm that they should be adopted by the bride and groom.

Mueller also describes what I might identify as a script for a Christian wedding, which is based on the five basic understandings. First he lists some less important considerations: music, a plan for getting to and from the altar, an exchange of rings (optional), and inclusion of any other customs that might be traditional for the participants (optional). He then lists (19-21) six crucial, prominent elements, which are 1) an invocation, 2) a scripture reading relevant to the occasion, 3) a sermonette or message, 4) the vows, 5) a prayer, and 6) a blessing. Again, each of these components is broken down into further details. For example, in the discussion of the vows, Mueller presents a belief 'that marriage is a lifelong commitment' plus a norm, 'That's the way it ought to be kept' (21). To this list of six important components to a wedding ceremony, there is implied the value that

they are good and the norm that they ought to be incorporated into the readers' wedding. Mueller says that these six parts are 'what is considered basic. Delete any part of that list and the service would be somewhat incomplete. Delete a number of parts and it is weakened to the point of questioning whether it is a Christian wedding service at all' (19). This wedding script and the values and norms associated with it are summarized in Figure 34.

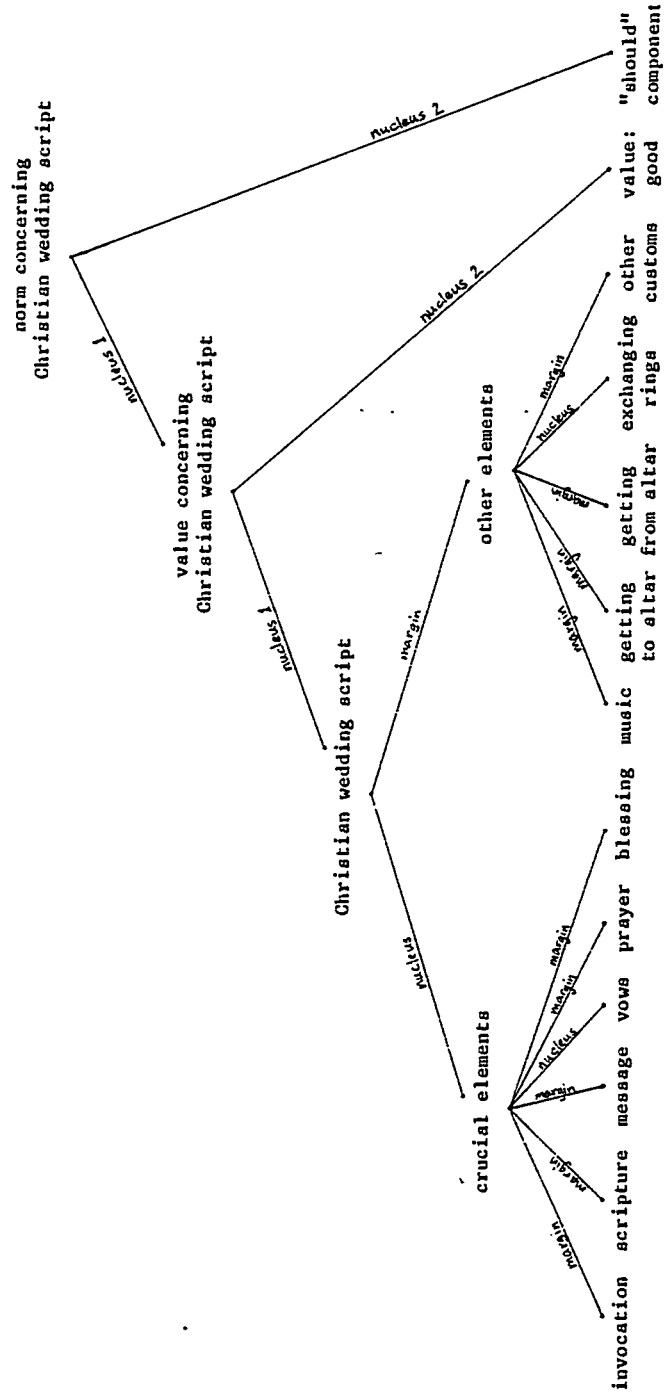


Fig. 34. A fragment of the situational hierarchy of a wedding ceremony.

I see this hierarchical structure as being of the part-whole type, consistent with the other part-whole hierarchies I have been describing, rather than as being of the specific-generic type of hierarchy. In other words, the norm concerning a Christian wedding script has two parts: a value concerning a Christian wedding script and a 'should' component. The reader should keep in mind that the script being discussed here is part of the taught-learned culture and not just a generalization from actual behavior, which is handled in the events hierarchy.

Ronald Rosenau has written an article entitled 'Before God and these witnesses' (1982) that presents an analysis of the significance of a wedding ceremony that is similar to Mueller's analysis. Rosenau adds that the exchange of vows is the central event of the wedding (3). In tagmemic terms we might say that the exchange of vows is the nuclear constituent of the wedding script. Rosenau says that the vows are a covenant that

encompasses every area of life and extends a commitment into and beyond the uncertainties of the future. It is the most profound promise one person can make to another. Long after the bouquets have dried and crumbled and the photo album has yellowed from age, this covenant will be alive and well for those who know its true and weighty importance. (5)

Rosenau also quotes Lance Morrow, who says, 'Promises, contracts and oaths are the acts of will and intelligence and anticipation that make a society coherent, that hold it together. If they cannot be trusted, then the whole structure begins to wobble' (Time, 8/24/81, quoted in Rosenau 1982:5).

A script is part of the taught/learned culture, and in this behavioremic model it is treated as part of the situational hierarchy. But

it has a governing influence over the events in the events hierarchy. I will discuss the events hierarchy next.

3.3.3. The events hierarchy of a wedding ceremony.

The events hierarchy concerns what events actually occur (as far as the observer can determine), rather than what might occur or should occur. To analyze the events hierarchy of some unit of behavior, the researcher must begin by witnessing the behavior taking place. As I said earlier, my analysis is based on a wedding ceremony I observed in a Protestant church in Texas in 1979. I observed the ceremony from the point of view of a participant in the congregation. I tape-recorded the ceremony and took notes, and my observations, which form the data base for my analysis, are summarized in Appendix One. In this section I will present both a tree diagram and formulas showing the structure of the events in the ceremony, along with some prose explanation. The tree diagram and the formulas present basically the same information in different ways. The tree diagram is useful for showing the overall hierarchical structure and the formulas are better for a more detailed look at one level at a time. The tree diagram of the events hierarchy of the wedding ceremony is presented in figure 35. Note that in this diagram 'complex' (a type of unit in the events hierarchy) is abbreviated as 'cx' and 'resolved exchange' (a type of unit in conversation, to be explained in the next chapter) is abbreviated as 'res exch'. The branches of the tree diagram are labelled according to the type of slot of the constituents--'margin' or 'nucleus', or 'initiation' or 'resolution' in the case of conversational exchanges. The numbers at the

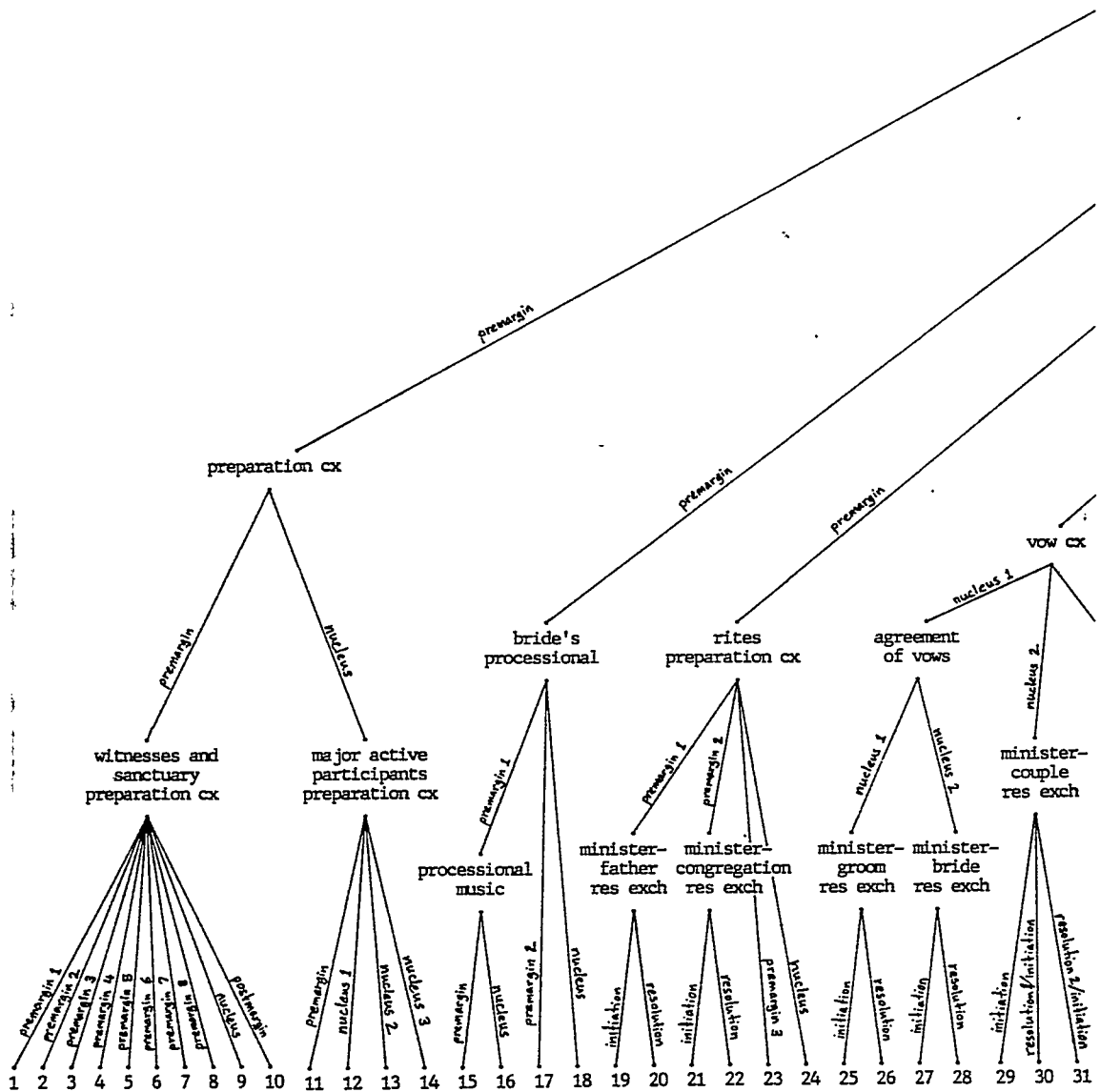


Fig. 35a. Events hierarchy of a wedding ceremony.

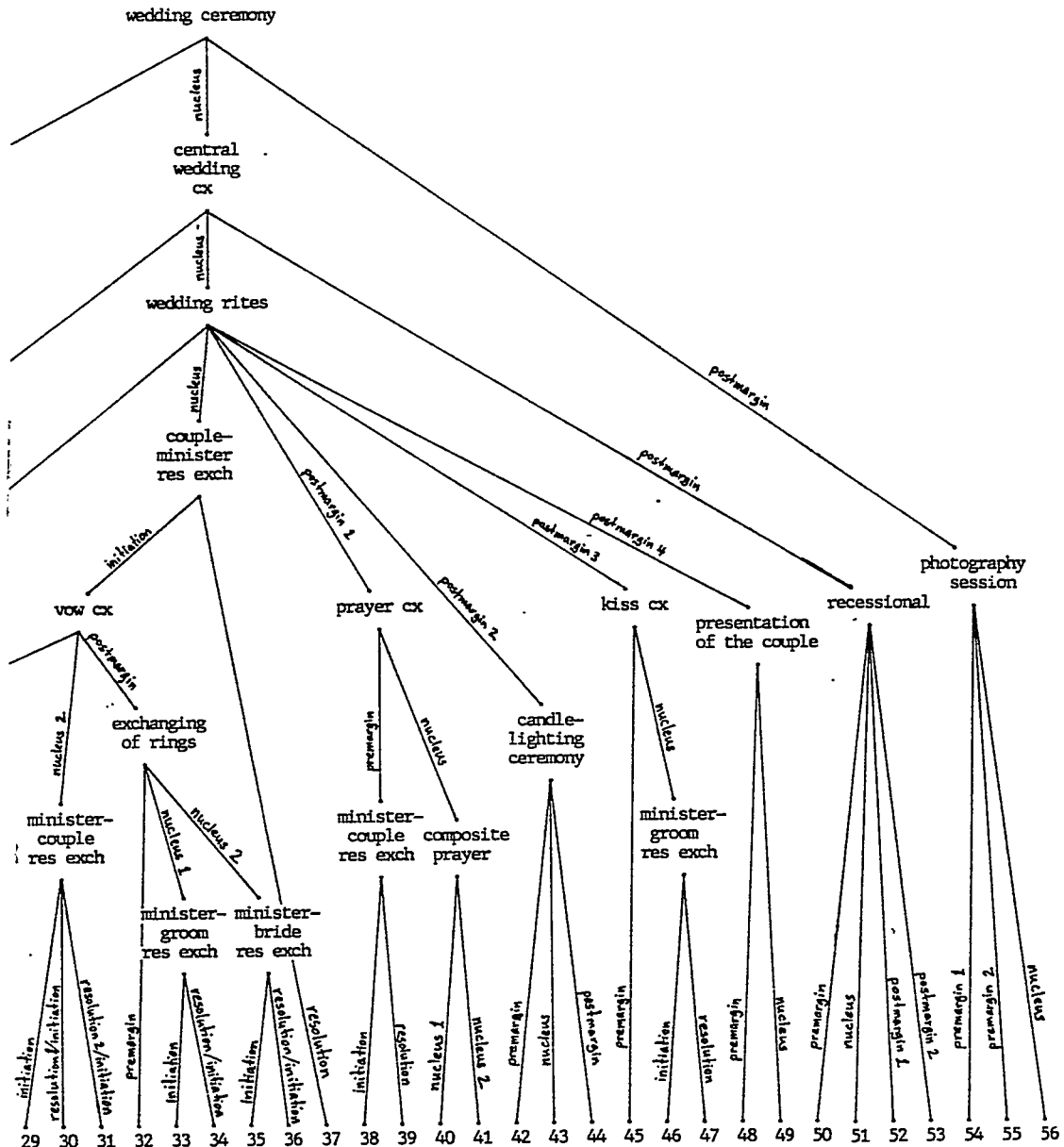
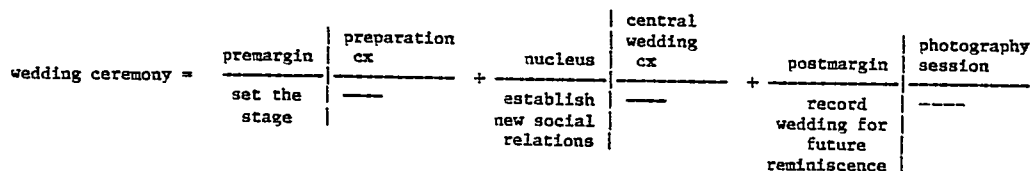


Fig. 35b. Events hierarchy of a wedding ceremony (continued).

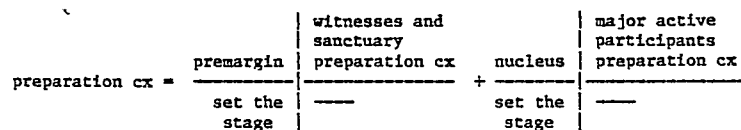
bottom of the diagram refer to the data in Appendix One.

The formulas and discussion following Figure 35 provide more detailed information concerning the structuring of events in the wedding ceremony. The formulas include information about the slot, role, and filler of each tagmeme. I have not attempted to include information about cohesion relations since this information would have to be based on an analysis of several wedding ceremonies. Note that the '+' symbol here denotes only a string relationship among parts and is not intended to indicate whether the unit is optional or obligatory. An arrow beneath some of the formulas shows overlap of parts. The arrow is used when music is being played at the same time other activities are taking place. The circled numbers are an index to Appendix One.



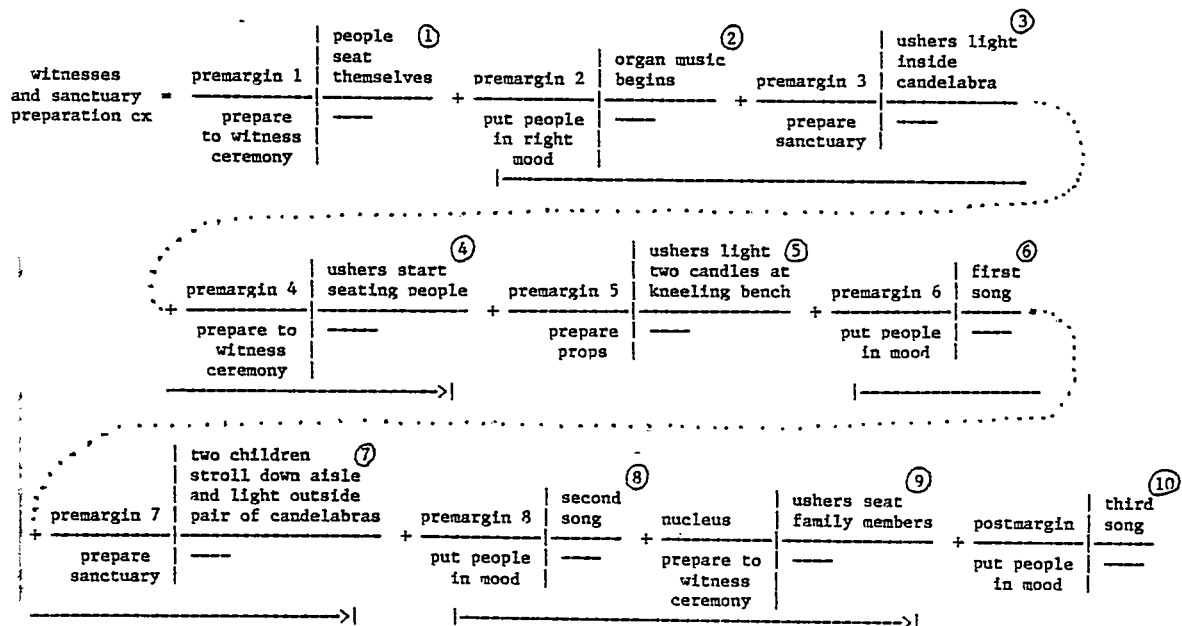
The wedding ceremony behavior as a whole is made up of three major parts: the preparation complex, the central wedding complex, and the photography session complex. Of these three parts, the central wedding complex is nuclear. Its role is to establish a new set of social relationships, especially between the bride and groom but also between their families. The role of the preparation complex is to get all of the participants (except for the bride, who has a special entrance) and props ready for the nuclear part of the ceremony to begin. The role of the photography session is to record the ceremony for future reminiscence.

I will describe the structure of the central wedding complex and the photography session after I have described the preparation complex and its constituents.



The preparation complex consists of two parts. First there is the witnesses and sanctuary preparation complex and then the major active participants complex. The purpose of both of these behavioral complexes is to set the stage for the nuclear activities. There is a noticeable shift of attention among the body of witnesses when major active participants begin to enter and take their places. The quiet conversation

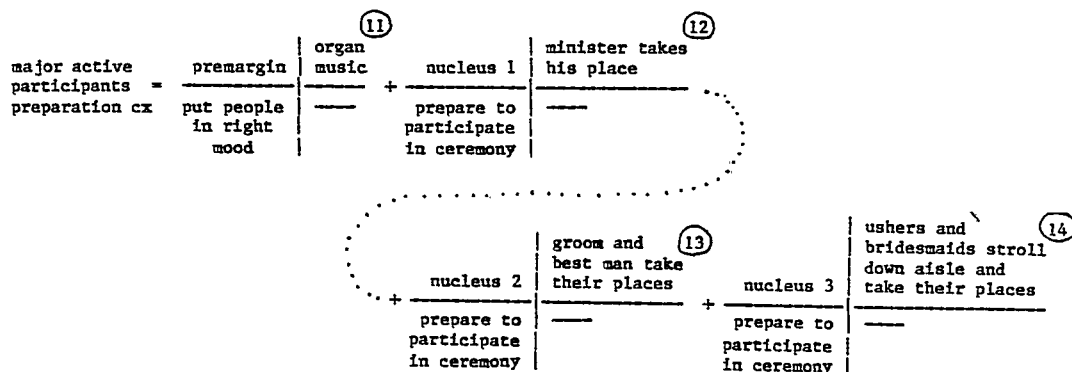
among some of the witnesses ceases and they focus their attention on the major active participants (i.e. the bridesmaids, groomsmen, minister, and groom--the bride has not entered yet). This focus of attention continues until the recessional is over.



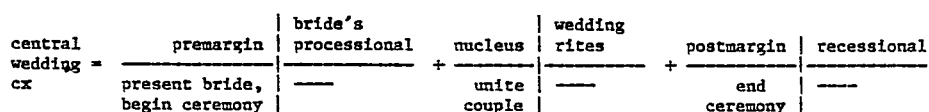
Within the witnesses and sanctuary preparation complex there are ten parts. Three of these involve the observers being seated in order to witness the ceremony. At first, some witnesses seat themselves. After a while the ushers begin seating the witnesses. Then when it is almost time for the bride's processional, the ushers seat the close family members. The seating of the close family members, who are the nuclear group of witnesses, has been timed to come near the end of the witnesses and sanctuary preparation complex when the other preparation for the ceremony has been completed. Another three constituents of the witnesses and sanctuary preparation complex involve the props and sanctuary being set in order for the nuclear part of the ceremony to begin.

First two ushers light the inside candelabra. After a while an usher returns to the center stage area to light two candles at the kneeling bench, which will be used as symbols later in the ceremony. Then after this usher leaves the center stage, two children stroll down the aisle and light the outside pair of candelabras. The remaining four constituents of the witnesses and sanctuary preparation complex involve music, which acts as a sort of suprasegment to the other activities. First some calm, stately organ music is played, which helps establish the mood for the ceremony. This organ music continues while the ushers light the inside candelabra and seat the observers. Then after an usher lights the two candles at the kneeling bench, a song is sung entitled 'Two candles' whose words hint at the symbolism of the candle-light ceremony. This song continues while the two children are lighting the outside pair of candelabras and then a second song begins, which continues while ushers seat the family members. The third song is entitled 'The wedding song' and it speaks of the significance of the institution of marriage. While the third song is being sung, no other noticeable, significant activities take place. It ends before the major active participants complex begins.

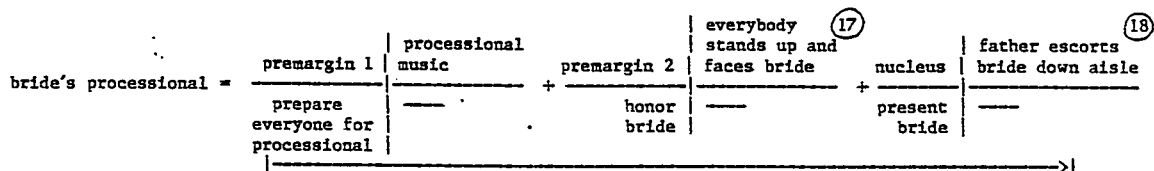
I could have analyzed the witnesses and sanctuary preparation complex differently as consisting of three parts--the witnesses preparation, the sanctuary preparation, and the music--which overlap and blend with each other.



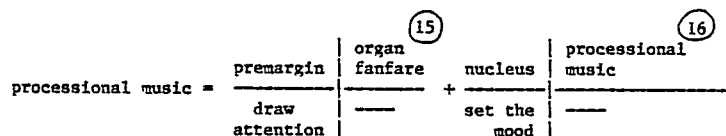
The major active participants preparation complex begins with organ music ('I love you truly'), which lasts until this events complex is ended. Here the major active participants except for the bride take their places in preparation for the nuclear part of the ceremony to begin. First the minister takes his place in the center stage area, and then the groom enters and joins the minister there, along with the best man, who stands beside the groom, and finally the groomsmen and bridesmaids walk down the aisle ceremoniously to take their places on each side of the groom and minister. Shortly after the groomsmen and bridesmaids have taken their places, facing the entrance to the sanctuary, the organ music ends. The preparation complex is over and the central wedding complex is ready to begin.



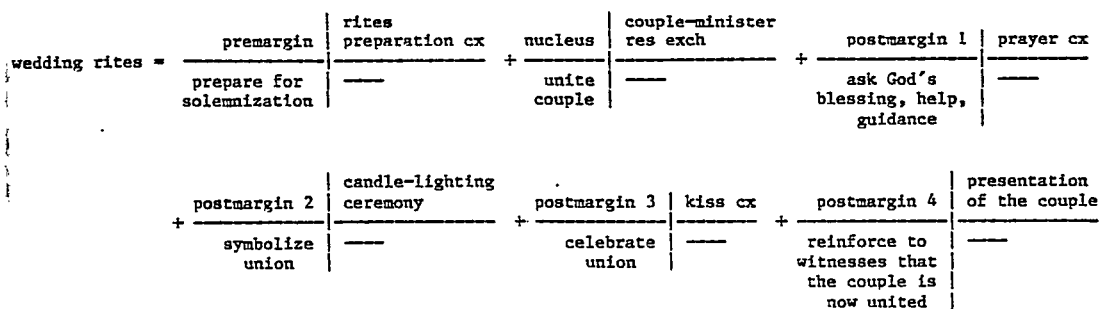
The central wedding complex has three parts: a processional, the wedding rites, and a recessional. Of these three, the wedding rites is the nuclear part, and the processional and recessional serve as a frame for the rites, to begin and end the central wedding complex.



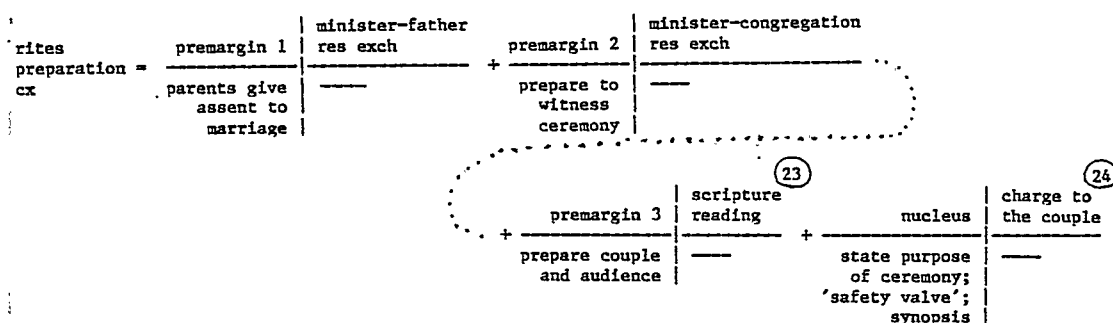
The bride makes a special entrance, after everyone else is in place. This may serve as evidence that she is the most focal, most nuclear of all the participants in the ceremony. The bride's processional begins with organ music, which lasts until the processional is over. When the organ music begins, everyone who is seated stands up and faces the bride. Then the bride walks down the aisle, escorted by her father, to join the groom at the center stage area.



There are two parts to the processional music, which comes at the beginning of the bride's processional. First there is an organ fanfare, which catches everyone's attention and announces that the central wedding complex is beginning. Second the processional hymn is played on the organ and does not end until the father of the bride has finished escorting the bride down the aisle.



When the bride's processional is over, the wedding rites begin. This part of the wedding ceremony, in contrast with what comes before and after, is largely verbal. The wedding rites are the nuclear part of the central wedding complex, which is the nuclear part of the wedding ceremony. Within the wedding rites complex, a resolved exchange between the couple and the minister, wherein the bride and groom repeat their vows and the minister pronounces them to be married, is nuclear. This couple-minister resolved exchange is preceded by a rites preparation complex and followed by a prayer complex, a candle-lighting ceremony, a kiss complex, and the presentation of the couple. These other constituents of the wedding rites complex point to and depend upon the nuclear resolved exchange.

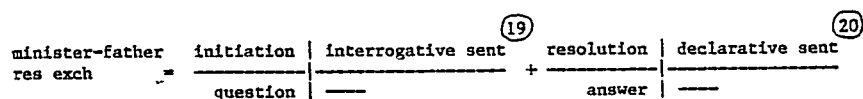


Up until the rites preparation complex begins, the ceremony has been nonverbal except for the songs. The rites preparation complex begins with a resolved exchange between the minister and the father of the bride, where the father 'gives the bride away' to be married. At this point the congregation is still standing. The next element of the rites preparation complex is a resolved exchange between minister and the congregation, where the minister gives the congregation permission

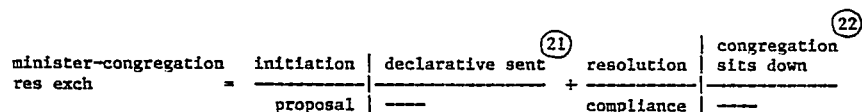
to be seated in order to watch the proceedings. Next there is a scripture reading on the topic of marriage which serves to prepare the couple and the witnesses by recalling some of the beliefs, values, and norms associated with the institution of marriage. Note that a substantial part of a wedding ceremony is preparation of various types. Apparently the persons who carefully planned the ceremony did not want it to begin and end too quickly, so the preparation is ceremoniously added as a sort of 'rhetorical underlining', to borrow a term that Longacre applies to text analysis. This 'rhetorical underlining' helps insure that what is important in the ceremony is not missed and that it is given the proper focus of attention.

At the end of the rites preparation complex comes the charge to the couple, where the minister first directly addresses the couple to be married. The charge to the couple states the purpose for the ceremony-- 'to express your love for each other upon this trial of witnesses to share with God your commitment to each other in your marriage today.' It also includes what could be considered an unresolved exchange, where the minister says, 'I would ask you that for any reason you would know why you should not be wed to each other at this time you will speak or forever hold your peace.' I am told this part of the charge to the couple serves as a 'safety valve' and also shows that the minister has no liability if the marriage is illegitimate for some reason. The lack of a response from the couple implies that they know of no reasons they should not be married. And finally the charge to the couple includes a synopsis of the vow complex: 'We're going to ask that you commit yourselves to the agreement of vows and then to the exchanging of vows with

each other, and then finally to the exchanging of rings as a symbol of your love.' This charge to the couple is the nuclear part of the rites preparation complex, but within the structure of the ceremony as a whole it is not as nuclear as the vow complex, which it points to. The charge to the couple could be broken down further in my formulas, but in this analysis I am not going into that much detail.

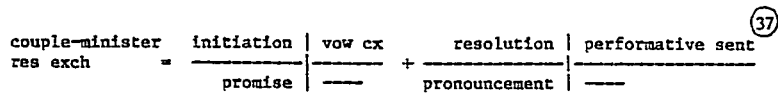


A resolved exchange consists of at least two parts: an initiation and a resolution. This minister-father resolved exchange is of the question-answer type. The minister asks, 'Who giveth this woman to be married to this man?' and the father of the bride answers 'My wife and I do.' This exchange shows that the parents' blessing is on the marriage. I will discuss verbal exchanges more thoroughly in the next chapter.

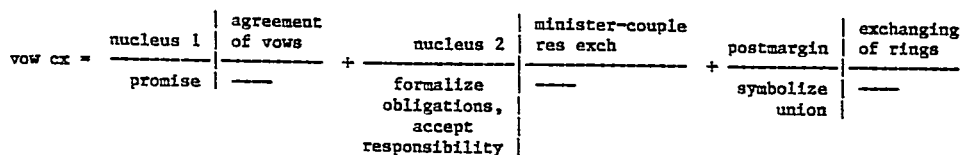


After the minister-father resolved exchange comes another resolved exchange, this one between the minister and the congregation. Again, the two constituents are an initiation and a resolution. This resolved exchange is of the proposal-compliance type. The initiation-proposal is verbal ('The congregation may be seated') and the resolution-compliance is nonverbal (the congregation sits down). The minister is showing his dominance over the proceedings, but still I consider the couple to be the nuclear participants in the wedding ceremony since the minister is

there to serve the couple. It is the couple's wedding ceremony and not the minister's.

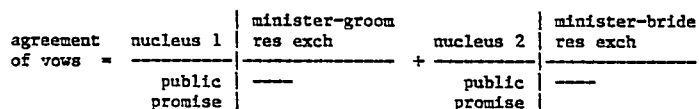


The couple-minister resolved exchange that serves as the nucleus of the wedding rites has the two constituents of initiation and resolution, but in this case the initiation is an event complex rather than a simple utterance. The resolution is a pronouncement by the minister that the groom and bride are now legally, and in the sight of God, married. That this pronouncement is a resolution to the preceding complex of events is indicated by the minister's wording: 'As you have made this commitment to one another by the commitment of the vows, by the sharing of the vows with one another, and by the exchanging of rings, by the authority vested in me by the state of Texas as a minister of the Gospel, I now pronounce you man and wife.' Here the minister again names the parts of the ceremony that collectively I call the vow complex. The charge to the couple coming before the vow complex and the pronouncement coming after it both refer to the vow complex, and together they frame the vow complex and point out its prominence as the nuclear set of activities performed by the bride and groom. And the pronouncement is the nuclear act by the minister. The pronouncement takes the form of an archetypical 'performative' sentence ('I now pronounce you...') as discussed by Austin (1962).



The vow complex is made up of the three parts referred to in the charge to the couple and the pronouncement. In the charge to the couple they are named as 'the agreement of vows', 'the exchanging of vows with each other', and 'the exchanging of rings as a symbol of your love'. In the pronouncement they are named as 'the commitment of the vows', 'the sharing of the vows with one another', and 'the exchanging of rings'.

With the agreement of vows, the groom and bride each make a public vow to God and everyone present concerning the acceptance of the responsibilities of marriage. With the exchanging of vows the groom and bride turn and address each other and make another vow. With the exchanging of rings the groom and bride are again addressing each other, but in all three of these parts of the vow complex they are being led through the activities by the minister.



The agreement of vows event complex is directed by the minister and takes the form of two resolved exchanges, the first between the minister and the groom and the second between the minister and the bride. These resolved exchanges give the groom and bride the opportunity to make a public vow that they will follow the norms for a Christian marriage ('live together after God's ordinance...')

minister-groom res exch	=	initiation		interrogative sent	+	resolution		declarative sent
		question		---		answer		---

minister-bride res exch	=	initiation		interrogative sent	+	resolution		declarative sent
		question		---		answer		---

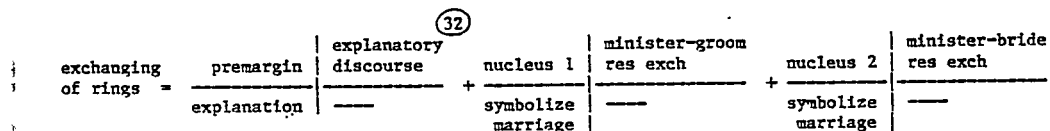
The two resolved exchanges that make up the agreement of vows complex are of the question-answer type. In the first one the minister asks the groom a question and the groom answers with a statement; in the second one the minister asks the bride basically the same question, and she answers with a statement. The questions provide the content of the public vows and the answers by the groom and bride indicate their acceptance of the terms.

minister-couple res exch	=	initiation		imperative sent	+	resolution 1 /initiation		composite performative sent
		proposal		---		compliance /promise		---

+	resolution 2 /initiation		composite performative sent
	compliance /promise		---

The verbal exchange that constitutes the 'exchanging of vows' part of the vow complex has a three-part structure. There is an initiation and two resolutions. In the initiation the minister addresses both the groom and bride, telling them how to go about the exchanging of vows: 'If you would like to at this time take and hold your right hands together, facing each other as you repeat to each other the vows of holy matrimony.' The vows that the groom and bride repeat are from one point of view a compliance to the minister's proposal and a resolution to his

initiation, but from another point of view each vow constitutes an unresolved exchange. The groom and bride comply with the minister by addressing each other. This sort of double function for an utterance is not uncommon in conversation. The form that the vows take is uncommon in conversation but is appropriate in a wedding ceremony. The minister leads the bride and groom through the vows by saying a phrase at a time and pausing between phrases to allow the groom and bride to repeat the phrase (e.g. minister: 'I, John Smith', groom: 'I, John Smith', Minister: 'will take thee, Mary Jones', groom: 'will take thee Mary Jones', etc.). I call this construction a composite performative sentence. The groom repeats his vows to the bride in this manner first, and then the bride repeats her vows to the groom the same way.



The exchanging of rings complex is made up of two resolved exchanges preceded by an explanatory discourse by the minister. The purpose of the explanatory discourse is to explain the symbolism of the wedding rings. Then in the minister-groom and minister-bride resolved exchanges the minister leads the groom and bride through the procedure of giving each other the wedding rings as a symbol of marriage.

minister-groom res exch	=	initiation proposal	declarative sent	+ (33)	resolution/ initiation compliance /statement	groom places ring on bride's finger, composite performative sent	(34)
minister-bride res exch	=	initiation proposal	declarative sent	+ (35)	resolution/ initiation compliance /statement	bride places ring on groom's finger, composite performative sent	(36)

The minister-groom and minister-bride resolved exchanges that constitute the co-nuclei of the exchanging of rings complex have certain peculiarities reminiscent of several previous exchanges. Here, as in the exchanging of vows, the minister leads the groom and bride through their participation in the exchanging of rings. And as in the agreement of vows complex here there are two virtually identical exchanges, one between the minister and the groom and the other between the minister and the bride.

The minister's utterance in each of these exchanges is a declarative sentence ('You may place the ring on her/his left hand and repeat after me') but with the role of proposal--the minister is clearly telling the groom and bride what to do. It is very common in conversation for a proposal function to be realized through a declarative or interrogative sentence (e.g. 'Would you please shut the door?'). This is called an indirect speech act and will be discussed in the next chapter.

As we have seen before, the resolution to the minister's initiation of this exchange is at the same time the initiation of an unresolved exchange. In compliance with the minister's directive, the groom and bride each in turn address each other. This resolution to the minister's proposal and initiation of a new, unresolved exchange (i.e.

it does not call for a resolution) takes the form of a composite of action and words. At the minister's suggestion the groom and bride each in turn place the ring on the appropriate finger and utter another composite performative sentence, led by the minister ('With this ring (With this ring) I thee wed (I thee wed)', etc.).

$$\text{prayer cx} = \frac{\text{premargin} \quad \left| \begin{array}{l} \text{minister-couple} \\ \text{res exch} \end{array} \right.}{\text{show respect} \quad \left| \text{---} \right. \text{ to God}} + \frac{\text{nucleus} \quad \left| \text{composite prayer} \right.}{\text{proposal} \quad \left| \text{---} \right.}$$

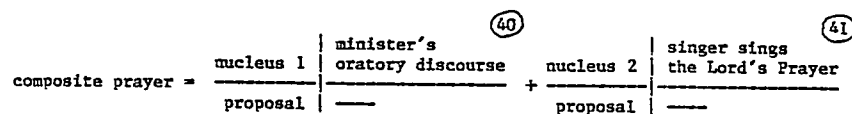
The prayer complex comes after the vow complex and after the pronouncement by the minister. It fills the first postmargin slot of the wedding rites complex. Three other postmargins follow the prayer complex. At this point the nuclear part of the wedding rites is finished and the ceremony is beginning its gradual denouement.

There are two parts to the prayer complex. In the premargin slot the couple prepares to pray, and in the nucleus slot is the prayer itself. The purpose of the preparation (kneeling) is to show respect to God, and the purpose of the prayer is to propose to God that he bless the newly married couple.

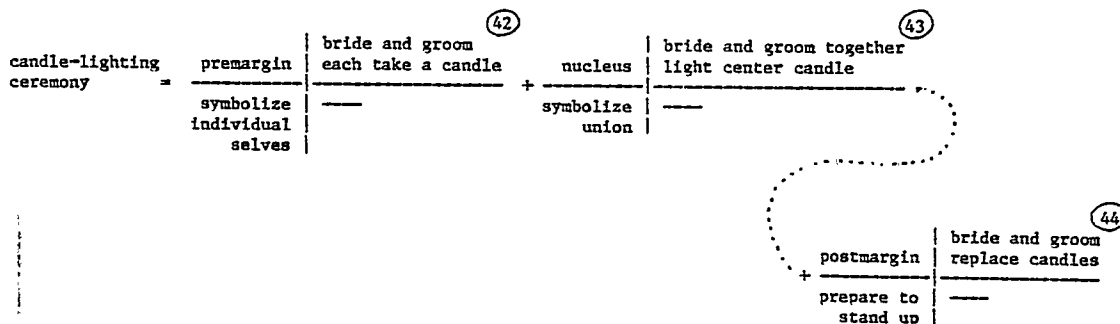
$$\frac{\text{minister-couple} \quad \text{initiation} \quad \left| \text{interrogative sent} \quad \textcircled{38} \right.}{\text{res exch} \quad \quad \quad \left| \text{proposal} \quad \quad \quad \text{---} \right.}} + \frac{\text{resolution} \quad \left| \text{bride and groom kneel} \quad \textcircled{39} \right.}{\text{compliance} \quad \left| \text{---} \right.}}$$

The resolved exchange that fills the premargin slot of the prayer complex has a verbal initiation and a nonverbal resolution. It is of the proposal-compliance type. The minister says 'Shall we kneel as we take time to pray God's blessing upon this union.' I have labelled this utterance an 'interrogative sentence', but this label is not quite

accurate. While this sentence is interrogative grammatically, it is declarative phonologically (i.e., it has a declarative rather than an interrogative type of intonation pattern). The role of this sentence in context is to make a proposal that the couple kneel. In compliance with this proposal the bride and groom do kneel at the kneeling bench and remain kneeling while the prayer is being said.

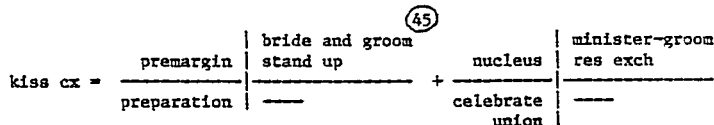


The prayer is in two parts. The first part is a discourse spoken by the minister. The second part is the Lord's Prayer sung by one of the singers.



After the prayer comes the candle-lighting ceremony. This is purely nonverbal, but symbolic. While kneeling at the kneeling bench, the groom and bride each take one of the lit candles in front of them, together light an unlit candle in the middle, and then replace the original two candles. The two original candles symbolize the two individual persons, man and woman, and the lighting of the third candle symbolizes the wedding. The third lit candle symbolizes the married

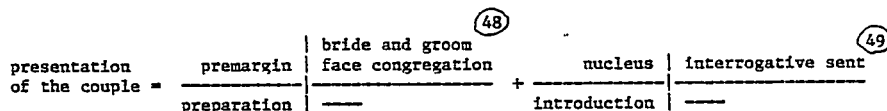
couple.



The third postmargin after the pronouncement of marriage is a complex of events associated with the kiss. The kiss complex is of two parts. The first part is the couple's act of standing up from the kneeling position in preparation for what is to follow. The second part is a resolved exchange between the minister and the groom in which the kiss actually takes place.

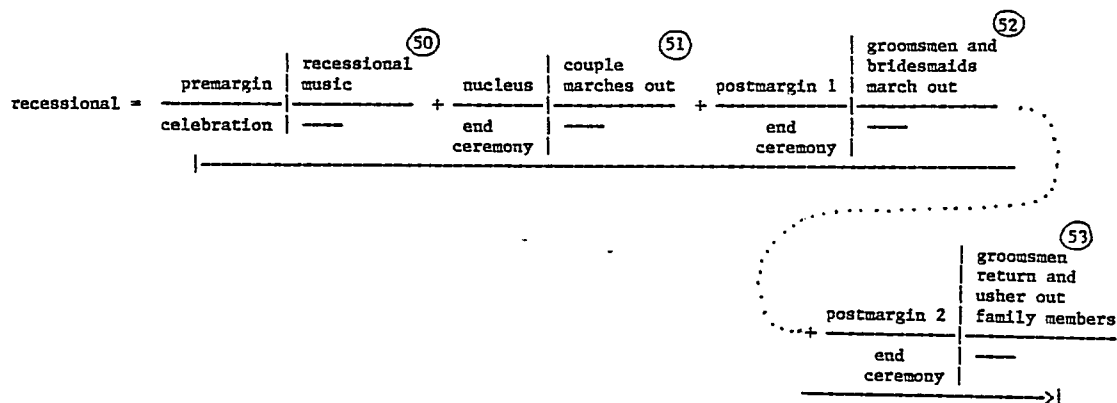


This is another instance of a proposal-compliance resolved exchange where the proposal is verbal and the compliance is nonverbal. The minister says to the groom 'You may kiss your wife' and then the groom kisses the bride. The minister uses the phrase 'your wife' perhaps to reinforce to the groom and everyone else that the official part of the wedding is completed and that the bride and groom are now married.

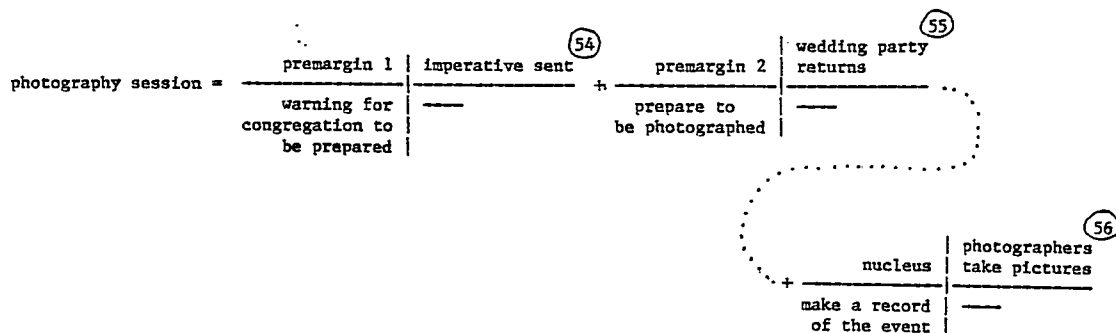


The presentation of the couple is of two parts. First the bride and groom face the congregation (after kissing) in preparation to be presented. Then the minister says 'May I have the privilege for the first time to introduce to you Mr. and Mrs. John Smith.' This is

another sentence that is interrogative grammatically but declarative phonologically. It has the role of introduction rather than question.



The recessional is the official ending of the wedding ceremony. It begins with some appropriate music played on the organ. This music continues until the end of the recessional. First the bride and groom march out together, down the aisle to the entrance to the sanctuary. They are followed by the groomsmen and bridesmaids walking in pairs. Then the groomsmen return to the front pews of the sanctuary to escort out the close family members of the bride and groom. Note that the purpose of the wedding party leaving the sanctuary is not so they can go somewhere else. The purpose of the recessional is to give the wedding a ceremonious ending. The wedding party returns to the front of the church shortly so that pictures can be taken, while the congregation remains seated in the pews.²⁷



The photography session comes after the wedding is officially ended. During the photography session the participants re-enact parts of the ceremony and also pose for group pictures. These group pictures help identify the social groupings in the wedding ceremony behavior.

There are three main parts to the photography session complex. First there is the proposal from the minister that the wedding observers should stay seated until the photography session is over. (They might have expected to leave the sanctuary while pictures were being taken.) Second the wedding party returns to the front of the sanctuary. Then the photographers begin to direct the events involved in having the pictures taken. (At this point my interest in the ceremony ceased and I left.)

3.4. CONCLUSIONS.

In this chapter I have attempted to show how language fits into its nonverbal context. I have used the same tagmemic framework that is used to analyze language to analyze the behavioral context of language. My analysis shows that speech and nonverbal behavior are not just analogous in certain ways, but work together as part of a single, consistent, structural system.

In order to accomplish my integrated analysis of language and nonverbal behavioral complexes, I have made some necessary refinements to the tagmemic model that should continue to enable the theory to more satisfactorily accomplish its goal of providing a unified framework for analyzing all types of human behavior.

NOTES - CHAPTER III

1. Bloomfield makes a major division between language and all other types of behavior:

The difference between utterance of speech and all other events is naturally paramount in the study of language. The human acts which are observable under ordinary conditions are thus divided into language, the vocal utterance of the conventional type, and handling activities, a somewhat narrow name to cover all other normally observable acts, including not only manipulation but also mimicry, gesture, locomotion, acts of observation, etc. The linguist studies sequences in which language mediates between nonlinguistic events. (1939:8)

2. Searle makes a distinction between constitutive rules and regulative rules. Constitutive rules, such as the rules of chess, make a certain type of activity possible; there would be no such thing as a game of chess if there were no rules for chess. Searle argues that language, too, is dependent on a set of constitutive rules. Regulative rules on the other hand, such as rules of etiquette, may control to some extent the way something is done, but do not bring a new type of activity into existence. According to Searle,

In general, social behavior could be given the same specifications even if there were no rules of etiquette. But constitutive rules, such as those for games, provide the basis for specifications of behavior which could not be given in the absence of the rule... "He voted for Wilkie", and "He hit a home run", are specifications which could not be given without constitutive rules, but "He wore a tie at dinner", "He held his fork in his right hand", and "He sat down", are all specifications which could be given whether or not any rules requiring ties at dinner or right-handed fork use, etc., existed at all. (1969:36)

I will say more about constitutive rules in section 3.1.3.

3. Fishing or horticulture or chopping food with a knife (especially at certain Japanese restaurants) can be taken as artistic behavior. Even surgery in a hospital or drilling and sawing parts in a factory can

be modes of artistic expression for an actor who attributes aesthetic value to a certain quality of work.

4. There are several best-seller books, such as Julian Fast's 1970 Body language that attempt to identify and explain what I call unconscious or semi-conscious gestures. The idea implied is that after reading these books a person could have a better idea of how to 'read' the 'body language' that another person uses. The cover of the paperback edition of Fast's book explains,

Your body doesn't know how to lie. Unconsciously, it telegraphs your thoughts as you fold your arms, cross your legs, stand, walk, move your eyes and mouth. The new science of kinesics deals with these physical signals that we all send out.

Read Body Language, so that you can penetrate the personal secrets, both of intimates and total strangers.

5. The illustration here is of Chrysostom, the 4th century church leader famed for his eloquence in public speaking. I took the illustration from p.101 of Spurgeon's Lectures to my students (n.d.).

Spurgeon, lecturing on the subject of rhetorical delivery, notes that Demosthenes considered action to be 'the first, the second, and the third point in oratory' (n.d.:118), but he warns with John Wesley that 'the hands should not be in perpetual motion, for this the ancients called the babbling of the hands' (110).

In the Toastmasters Club, whose purpose is to help people learn how to become better public speakers, the participants are encouraged to practice using gestures in their speeches. At least one of the speaking assignments focuses on the use of gestures.

The joke is told about the two Italians who were talking as they were out for a walk one winter day; one said to the other, 'I better let you talk for a while--my hands are getting cold.'

6. The full title of Austin's book is Chironomia; or a treatise on rhetorical delivery: Comprehending many precepts, both ancient and modern, for the proper regulation of the voice, the countenance, and gesture, and a new method for the notation thereof; illustrated by many figures, by the Reverend Gilbert Austin, A.M. The illustrations for the complete poem are reprinted on pp. 137-43 of Spurgeon's book, and I show only the first few. As a commentary on them, Spurgeon says,

As my lecture mainly shows how not to do it, this may be a little help in the positive direction. Of course I do not recommend that so much action should be used in reciting this one piece, or any other; but I would suggest that each posture should be considered apart. Most of the attitudes are natural, striking, and instructive. I do not admire them all, for they are here and there a little forced, but as a whole I know of no better lesson in so short a compass. (136)

Spurgeon gives the following maxims for the use of action during a sermon: 1) 'it should never be excessive', 2) 'action should be expressive and appropriate', 3) 'action and gesture should never be grotesque', and 4) 'be natural in your action'. He describes a number of incidents where these maxims have been violated, many of them humorous.

On the subject of his fourth maxim, Spurgeon comments that

we cannot express so much by action as by language, but one may express a few things with even greater force. Indignantly to open a door and point to it is quite as emphatic as the words "Leave the room!" To refuse the hand when another offers his own is a very marked declaration of ill-will, and will probably create a more enduring bitterness than the severest words. A request to remain silent upon a certain subject could be well conveyed by laying the finger across the lips. A shake of the head indicates disapprobation in a very marked manner. The lifted eyebrows express surprise in a forcible style; and every part of the face has its own eloquence of pleasure and of grief. What volumes can be condensed into a shrug of the shoulders, and what mournful mischief that same shrug has wrought! Since, then, gesture and posture can speak powerfully, we must take care to let them speak correctly.

7. I learned of the examples of the Bulgarians and Khrushchev from an

unpublished class paper by Andy Klemm entitled 'Kinesics and cross-cultural relations' (1982).

8. Miss Martin says, 'It is true that a button that says "KISS ME!" is clearer than a fan with the tip held to the lips, which meant the same thing, but Miss Manners is not sure that she likes living in a world where everything is quite that clear.' She adds that

the value of social props, was, indeed, their ambiguity. In a matter as serious as flirtation, it was considered essential to be able to make a complete denial if things did not turn out as hoped. Carrying the fan in front of the face with the right hand meant "Follow me", but if the fan-shielded lady happened to walk smack into her husband while her instructions were being obeyed, nobody could prove a thing.

9. Actually, this ought to be considered a case of an icon becoming a symbol, with a change in meaning.

10. I recognize that a wedding ceremony is not just a symbol of a change in social relations—it is an important element in effecting that change as well. Austin (1962) notes that the words 'I now pronounce you man and wife' not only describe what is going on but also perform the action that is being described. Extending Austin's analysis of 'performative verbs', I could say that the wedding ceremony as a whole is another type of 'performative symbol' that at the same time represents something and effects what it is representing.

11. Anttila amplifies on the subject of the uniqueness of human language:

Primates possess call systems, which contain some kind of holistic "calls" for a limited number of units of experience. Such units are, for example, 'threat, danger, desire for group contact', and the like; the corresponding holistic sound contours are describable as roars, barks, grunts, and so on. There is only one-to-one symbolization: a limited number of meanings corresponds to a limited number of sound units, each being monopolized by one meaning

only.... Their use is very indexical (i.e. here and now); there seems to be no displacement. (1972:27)

12. As Chafe puts it, in his Meaning and the structure of language (1970:25),

Through language man communicates not only the emotions and messages essential to his survival, but also an endless array of states, relations, objects, and events both internal and external to himself. Most remarkably, perhaps, it has become possible for man to communicate regarding matters totally foreign to his immediate environment—the Civil War, yesterday's news, tomorrow's weather—and even matters which have never had any external reality at all, like griffins, unicorns, and Valhalla.

13. Hockett uses the Morse code as an example of duality of patterning. The idea of the Morse code is to represent graphemes through a very simple medium. The Morse code enables a telegraph or radio operator to manipulate a continuous, monotone sound wave to represent the twenty-six letters of the alphabet, the digits zero through nine, and some punctuation marks. Just two lengths of sound—long and short—combine in different ways to represent 23 times the number of graphemes. Since the long and short lengths represent graphemes, and the graphemes represent morphemes or lexemes, you might say that the end result is a triality of patterning.

When the Cherokee scholar Sequoyah decided to devise a writing system for his language, he began by inventing a different symbol for every word. This writing system was becoming very complex, and he had spent several years working on this project when somebody burned down his house, destroying his records. Sequoyah decided to start over again, but fortunately he had 'discovered' phonology by the second time around. His new writing system, which is used today by the Cherokees, is a syllabary, mirroring the phonology of the language and taking

advantage of duality of patterning to represent words in an efficient way.

14. I might note that I have taken the use of the term 'conventional' from Malinowski, who says,

In language,...the purely conventional element is very much more pronounced than in any other human activity. Human beings have to eat, to sleep, to sharpen the point of a stick, to dig the soil and to paddle a canoe, if not exactly on the same pattern, at least in ways which are roughly comparable and have a conspicuous common denominator. But the words which they use to describe the act of sleeping and of eating, of digging or sharpening, are based on a specific convention which must be learned for every culture. (1935:10)

15. In the glossary of Pike and Pike 1977 (490), the tagmeme is defined as 'a constituent of a construction described in terms of four general features: slot, role, class, cohesion.' Presumably, a construction could be verbal or otherwise.

16. Pike says, 'As for the distribution mode of this acteme [grasping a knife], grasping actions are likely to come at the beginning of a number of the eating or drinking motifs of a meal, and in the middle of discontinuous eating motifs, when eating is resumed, etc.' (292) No reference is made to how actemes are distributed into anything except emic motifs. On the topic of phonemes, however, Pike says, 'The distribution mode of the verbal acteme /l/ includes its actual and potential occurrence at the beginning and end of English syllables; in clusters of consonants, e.g., after /p,k/ as in Play, clay; in stress groups; in morphemes; and in grammatical units' (294).

17. In fact Pike states that with a change of focus, an acteme could itself be an emic motif (293). The identification of something as a behavioreme, an emic motif, or an acteme seems to be a matter of level

of focus.

18. Crawford's tagmemic model had only two hierarchies instead of three. The phonological hierarchy consisted of phonological units (phonemes, syllables, stress groups, etc.) and their slot-class arrangements. The lexico-grammatical hierarchy consisted of lexical units (morphemes, words, phrases, clauses, etc.) and their slot-class arrangements.

19. Hwang's article was published before Howland's, but Hwang had access to a pre-publication copy of Howland's paper and makes reference to it.

20. I must give credit to Evelyn Pike for this insight. In a private conversation on the topic of nonverbal behavior, she made the remark to Ken Pike and me that she had always equated the referential structure of a narrative with the structure of behavior itself. To my knowledge this connection has never been suggested in print, though it seems to be implicit in Howland's article.

21. Pike says, 'As for language, so for society grouping, the general etic categories with which an investigator begins to study a society must be treated as only preliminary starting groupings which must give way to groupings identified by structural criteria from that particular society' (1967:646).

22. Hymes apparently had expected Pike's chapter on 'The context of behavior' to further develop the methodology that Pike had briefly sketched in the first few chapters of Language in relation... In his review of Pike's book, Hymes comments that

When Pike returns to sustained treatment of culture in the last chapter there is a disappointment. The promise had been of an open-

ended exploration of cultural behavior, actual integrated analyses. But Pike does not go beyond illustrations (a breakfast, church service, football game) and interesting leads (pp.526, 533)... The main energy seems to have gone into linguistic problems, tagmemics, and devices such as matrices. Whether because of the unforeseen theoretical challenge of Chomsky, the exigencies of training and supervising many field linguists, or these and other factors, Pike concludes his book by falling back on a treatment of language and society as separate and parallel structures that his opening chapters had transcended. His book ends with a discussion of S(ocietal) analogues of language, not of structures discovered in social life with the aid of linguistics and linguistic principles. (1969:362)

23. I do not apologize for this circularity. This is comparable to the case of language, where there are 'grammatical prerequisites to phonemic analysis'. Such is the nature of a system.

24. I include the word 'relevant' here to make the analysis manageable. In studying a particular behavior we are only concerned with the aspects of the participants' world view that are relevant to that behavior.

25. Goodenough's definition of culture fits neatly in my model for behavioremic analysis. He says that culture is the set of learned standards for behavior, and contrasts culture with overt behavior (1981:50,99-100). In his words,

An anthropologist's account of a people's culture is a statement of the generalizations about standards that he has abstracted from his experience of what is for him a significant set of others [i.e. a social group] and that he attributes to that set as the standards by which its members conduct their affairs. (99-100)

26. I have rejected my initial idea that belief complexes, value complexes, and norm complexes are the three immediate constituents of the highest level, world view, each being made up of lower-level units of its own kind. The different categories are more intermixed than that. A norm, for example, might have as its constituents both beliefs and values and not necessarily lower-level norms. A normative statement

such as 'We should overthrow the king' might have for its immediate constituents a belief ('The king is the leader of the system') and a value judgment ('The system is bad'). Could it be that norms are higher-level units in the situational hierarchy than beliefs and values (i.e., norms are beliefs and values organized into a scheme for action)?

27. I once witnessed another wedding that took place in a home where, as the bride and groom were getting into the car after the rites and reception were over, everyone threw rice. The car had been decorated. The couple sped off in the car and drove around the block and then came back to the house to spend the rest of the afternoon. This apparently was another occasion where the couple ceremoniously ended the wedding by leaving but then returned because their goal was not really to go somewhere else.

CHAPTER IV
CONVERSATION STRUCTURES

4.1. INTRODUCTION.

In the present chapter I am narrowing my focus. Whereas in the last chapter I was looking at the context of conversation in the behavior, in this chapter I will be considering the context of speech acts in conversation. The purpose of both of these chapters is to gain a better perspective on the functioning of utterances in the general scheme of human behavior and to examine the structural relationships among utterances, exchanges, conversations, and behaviors.

Firth writes in 1935, 'Neither linguists nor psychologists have begun the study of conversation; but it is here we shall find the key to a better understanding of what language really is and how it works' (1964[1935]:69). Conversation is very basic to language,¹ even if it has been considered to be outside the realm of the science of linguistics according to certain linguists. In recent years, especially since the early 1970's, linguists and sociologists have made notable progress in the analysis of conversations. Conversation analysis has become an area of attention in the approach to language known as 'sociolinguistics' (see section 1.6). In Sociolinguistic patterns (1972) Labov explains, 'The fundamental problem of discourse analysis is to show how one utterance follows another in a rational, rule-governed manner—in other words, how we understand coherent discourse' (252).

In the next section I will review some of the progress that has

been made in conversation (or discourse) analysis and some of the basic concepts and terms associated with conversation analysis.

4.2. SOME WORKING CONCEPTS FOR THE STUDY OF CONVERSATION.

Pike laid the foundation for conversation analysis to be included as a component of a more general linguistic analysis in his Language in relation... (1967[1954,55,60]). Here he says of conversation that 'the most prominent slots are those for give and take, i.e., utterance and response, between two speakers' (125). And in his lexical hierarchy he includes utterances or responses, utterance-response units, and conversations as levels above the clause and sentence levels (425). There is great potential in tagmemic theory for the integration of conversation analysis into a more general unified scheme that includes not only words, phrases, and sentences but also nonverbal behavior as well. In fact, attention to conversation structure is crucial if the dream of a unified theory is to be realized, since conversation comes at the level of interfacing between verbal and nonverbal behavior.

Before I go on to discuss the particular application of tagmemic theory to conversation data in section 4.3., I will first review some of the major contributions that have been made to the study of the organization of conversation.

4.2.1. General concepts and terminology.

As I mentioned in section 1.4., Austin's 1962 How to do things with words was influential in bringing speech acts into focus as an area of study. Austin saw an utterance as a type of action--a complex type of action actually involving three simultaneous sub-types of action.

Austin distinguishes locutionary acts (the speaker's act of saying something), illocutionary acts (acts the speaker performs in saying something; i.e. the way that a locution is being used, such as in asking or answering a question) and perlocutionary acts (acts the speaker performs by saying something, such as convincing) as three aspects of an utterance. Hymes points out (1965:588) that it is more accurate to say the locutionary, illocutionary, and perlocutionary aspects of a speech act; one act is made with different aspects. Austin seems to be saying this when he summarizes that 'the total speech act in the total speech situation is the only actual phenomenon which, in the last resort, we are engaged in elucidating' (147).

Austin begins his argument by pointing out that utterances such as 'I now pronounce you man and wife' and 'I promise I'll behave' perform the acts of pronouncing and promising. He then develops his argument to show that all utterances perform a similar sort of act even when it is not so obvious; acts such as telling or asking. Austin goes on to present a taxonomy of speech act types on the basis of function. His major categories are 1) verdictives, concerned with passing judgment (convict, find, rule, assess, etc.); 2) exercitives, concerned with exercising power (appoint, dismiss, name, demote, vote for, proclaim, etc.); 3) commissives, concerned with committing someone to something (contract, promise, agree, bet, consent, guarantee, etc.); 4) behabitives, concerned with attitudes and social behavior (apologize, thank, congratulate, resent, bless, defy, etc.); and 5) expositives, concerned with the role of utterances in common conversation (affirm, remark, tell, ask, agree, state, etc.).

John Searle follows in Austin's tradition in articles such as his 1962 'Meaning and speech acts' and his 1965 'What is a speech act?' and in his 1969 book Speech acts. Searle attempts to develop a more comprehensive philosophy of language out of Austin's concept of the speech act. According to Searle,

It might be objected to at this point that such a study deals with only the point of intersection of a theory of language and a theory of action. But my reply to that would be that if my conception of language is correct, a theory of language is part of a theory of action, simply because speaking is a rule-governed form of behavior. Now, being rule-governed, it has formal features which admit of independent study. But a study purely of those formal features, without a study of their role in speech acts, would be like a formal study of the currency and credit systems of economics without a study of the role of currency and credit in economic transactions. A great deal can be said in the study of language without studying speech acts, but any such purely formal theory is necessarily incomplete. (1969:17)

Included in Searle's book (1969) is a discussion of the rules for the successful use of speech acts and the connection of illocutionary function to an utterance (chapter 3).

Jurgen Streeck, in his critique of Searle (1980), points out a few difficulties in Searle's analysis. First, Searle's speech act analysis is not based on or checked against any corpus of discourse data. When Streeck tried to analyze conversation texts using Searle's model, he came to the conclusion that the model as it stands is inadequate to serve as the basis for such an analysis (Streeck 1980:133,140ff). Second, in analyzing speech acts Searle fails to place them in the context of a more inclusive unit--conversational interaction. Searle says that 'the unit of linguistic communication is not, as has generally been supposed, the symbol, word or sentence,...but rather the production or issuance of the symbol or word or sentence in the performance of the

speech act' (1969:16). I would argue that words, sentences, and speech acts (if they are not co-terminous with sentences) are all units of linguistic communication, but none of these is as primary as is conversational exchange,² from which the definitions of these lower-level units can be derived.³ Streeck points out, on this topic, that 'the performance of the speech act does not yet constitute a communicative event; rather it is constituted by the performance of the act plus its interpretation by the hearer' (136).⁴ Furthermore, 'the illocutionary force of institutional speech acts is not inherent in the act per se but in the conventional relation of the act to its context of use' (Streeck 1980:144). Third, Searle's theory is tied in with a sentence-based transformational theory of grammar (like Chomsky's). As a result, sentences are assumed to be the basic grammatical unit that speech acts are realized as (Searle 1969:25) and the illocutionary force of a speech act is assumed to be represented in the deep structure of sentences (Searle 1969:64). The former assumption is unrealistic in light of the data and the latter results in complications and contradictions in Searle's theory (Streeck 1980:139). Fourth, Searle takes the context of a speech act as a given factor, but Streeck argues that a speech act can participate in the establishment of its own context: 'The context is not simply given; it is constituted by speakers, in part through their speech acts, which at the same time are interpreted in the light of this context' (1980:145). Streeck concludes by proposing that speech acts must be studied 'only within a larger framework of interaction analysis' (152).

While Austin and Searle are the chief developers and representa-

tives of the philosophical, non-empirical approach to speech acts, Dell Hymes has been one of the chief advocates of an anthropologically-oriented, empirical approach to the study of speech acts. In 1962 he published an article proposing 'the ethnography of speaking' as an important area of study for both linguists and anthropologists. The ethnography of speaking would be a comparative study of 'the situations and uses, the patterns and functions, of speaking as an activity in its own right' (1968[1962]:101). This kind of study would focus on a linguistic unit Hymes calls the 'speech event'. A speech event could be characterized as culturally-recognized, emic unit of behavior in which speaking is the main activity. It could consist of only one utterance or a coordinated series of utterances. Examples Hymes gives of a speech event are a sermon, a salestalk, a bull session, and polite conversation (110). For the components of any speech event, Hymes lists the following: a sender, a receiver, a message form, a channel, a code, a topic, and a setting (110).

By 1964 Hymes had worked the term 'speech act' into his theory (now called 'the ethnography of communication'). He states that 'the ethnography of communication deals in an empirical and comparative way with many notions that underlie linguistic theory proper. This is particularly so when linguistic theory depends upon notions such as those of "speech community", "speech act", and "fluent speaker"' (1964:21). Later, in a 1972 article, Hymes goes into a little more detail about speech acts and their relationship to speech events and speech situations. A hierarchical relationship is obviously being set up between these three categories—though Hymes does not use the term

'hierarchy'--with speech acts at the lower end. He gives an example to explain the relationships:

An event may consist of a single speech act, but will often comprise several. Just as an occurrence of a noun may at the same time be the whole of a noun phrase and the whole of a sentence (e.g., "Fire!"), so a speech act may be the whole of a speech event, and of a speech situation (say, a rite consisting of a single prayer, itself a single invocation). More often, however, one will find a difference in magnitude: a party (speech situation), a conversation during the party (speech event), a joke within the conversation (speech act). It is of speech events and speech acts that one writes formal rules for their occurrence and characteristics. (1972:56)

I could add the example that a wedding ceremony would be a type of speech situation, the formalized dialogue within that ceremony would be a speech event, and one of the questions or answers within that dialogue would be an example of a speech act.

Hymes does not have nearly as much to say about speech acts in these articles as has Searle (especially in his 1969 book). The importance of Hymes' contribution, though, is in the development of the 'ethnography of speaking' model, in which speech acts are related to speech events and speech situations--more inclusive contexts--and an empirical analysis is encouraged. Hymes points out that speech acts exhibit syntactic patterns similar to the patterning of words in sentences: 'Discourse may be viewed in terms of acts both syntagmatically and paradigmatically; i.e., both as a sequence of speech acts and in terms of classes of speech acts among which choice has been made at certain points' (1972:57).

Hymes' challenge to study speech patterns empirically has been taken up by others; see especially Explorations in the ethnography of speaking, edited by Bauman and Sherzer (1974). The editors in their

'Preface' explain that 'this volume is rooted in the conviction that something is missing from our understanding of language, and that established lines of linguistic research will not—even cannot—fill the gap' (3). They later add,

Most formal description within linguistics has been limited to units of sentence length. With this limitation, insights have been achieved in the techniques and theory of linguistic formalization. Yet there is much more to language use than abstract, isolated sentences; and such uses of language as greetings, leave-takings, conversations, speeches, stories, insults, jokes, and puns also have a formal structure. (163)

Bauman and Sherzer refer to the ethnography of speaking, which 'was called into being by Dell Hymes' seminal essay of 1962', as a field of inquiry that seeks to remedy this problem (3). One might hope, however, that 'the ethnography of speaking' might come to lose its identity as a specialized field of inquiry and be absorbed into general linguistic theory.

In addition to the philosophers of language who study speech acts—most notably Austin and Searle—and the anthropologically-oriented 'ethnographers of speaking'—Hymes et al.—there is one other noteworthy school of researchers who focus on the patterns of speech. This is the 'ethnomethodology' school of sociologists. Ethnomethodology is not entirely directed toward the study of conversation; it is proposed as 'a naturalistic observational discipline [to] deal with the details of social actions(s) rigorously, empirically, and formally' (Schlegloff and Sacks 1973:289-90).

Harvey Sacks (until his death in 1975), Emanuel Schegloff, and Gail Jefferson are the most prominent of the ethnomethodologists to focus on the structure of conversation. Their analysis, like that of

the 'ethnologists of speaking', is oriented toward empirical data. The data in this case comes primarily from mainstream American society. For example, in his article 'Sequencing in conversational openings' (1972[1968]:349), Schegloff says, 'My object in this paper is to show that the raw data of everyday conversation can be subjected to rigorous analysis.'

Some of the more general observations that these sociologists write about are such facts as that participants normally take turns in speaking in a conversation and that there is a recurring pattern in conversation whereby utterances group into pairs, such as summons-answer or question-answer. This latter phenomenon they give the name adjacency pair; others prefer the term exchange. Other more interesting observations that the ethnomethodologists have contributed concern various specific types of sequencing in conversation--for example summons-answer patterns, pre-sequences, insertion sequences, and side sequences. I will discuss particular patterns such as these in section 4.3.

Three volumes containing articles on the ethnomethodological analysis of conversation are Studies in social interaction (1972), edited by David Sudnow, Studies in the organization of conversational interaction (1978), edited by Jim Schenkein, and Everyday language: Studies in ethnomethodology (1979), edited by G. Psathas.

The above discussion, in addition to describing some of the work that has been done in the area of speech acts and conversation and noting who some of the analysts are who have been doing that research, has also introduced some terminology referring to the levels of organization in conversational interaction. I will now review these terms and

add a few more.

The most inclusive level we are concerned with is what Hymes calls the 'speech situation'. This level is 'above' (more inclusive than) the levels involving linguistic units, but it is relevant for linguistic analysis because it is at this level that information about the participants in the conversation and about the context of the conversation is theoretically addressed. I dealt with the tagmemic handling of the speech situation in Chapter Three.

The most inclusive level of the verbal hierarchy is what Hymes calls the 'speech event'. I sometimes use this term, but generally I refer to this level of organization simply as 'conversation'. I follow Schegloff (1972:349-50) in using 'conversation' in a very broad and general way to refer to any cohesive body of verbal exchanges with a beginning and end, such that, for example, the verbal portion of a wedding ceremony would be considered as a type of conversation. The term 'dialogue' might be seen as a desirable alternative to 'conversation', especially when one wishes to relate conversation (or dialogue) theory to text (or monologue) theory, but since a precedent has been set by some researchers (see, for example, Larson 1978:24) to reserve the term 'dialogue' to refer to reported conversation within a narrative, I will follow this precedent.

Contained within conversations are groups of utterances that follow a stimulus-response pattern wherein one person's utterance is addressed or answered by another person's utterance. Schegloff and Sacks use the term 'adjacency pair', and they observe that

a basic rule of adjacency pair operation is: given the recognizable

production of a first pair part, on its first possible completion its speaker should stop and a next speaker should start and produce a second pair part from the pair type of which the first is recognizably a member. (1973:296)

Coulthard explains the adjacency pair to be 'the basic structural unit in conversation' (1977:70). Esau points out that

Sacks et al. have emphasized the significance of the 'adjacency pair' as a basic unit in conversational structure to the exclusion of higher levels of organization. Consequently, whenever certain patterns do not fit into this basic two-part structural pattern, they are defined against the norm of the adjacency pair as either a presequence, a side sequence, or an insertion sequence. (1981:13)

The term exchange is used by other analysts for this sort of cohesive grouping of utterances. Wells, MacLure, and Montgomery (1980) point out that the term 'exchange' might be preferable to 'adjacency pair' since the latter seems to imply that these structural patterns are always realized by groups of two utterances; there is a need, though, for a term (such as 'exchange') to cover a general patterning of this sort where there are often two parts but there may be more. I use the term exchange, or 'resolved exchange', following Pike and Pike 1977.

Exchanges are made up of smaller parts. These parts have been called 'speech acts' by Austin, Searle, Hymes, and other analysts of conversation. Some analysts simply prefer the term 'utterance'. The utterance is often thought of as being the constituent unit of the exchange, but Sinclair and Coulthard (1975:21) argue that an utterance can be made up of several moves, as they call them, and it is the move that is the immediate constituent of the exchange. An example of the need for the move level would be in the instance of an utterance consisting of two parts: an answer to a question, resolving one exchange, followed by a question, initiating a second exchange (e.g. 'I don't

know. Why do elephants paint their toenails red?). Another way of handling this phenomenon would be to say that speech acts are the constituents of exchanges, and some utterances are made up of more than one speech act (identifiable as being distinct by their different (illocutionary) functions). It is this second option that I will follow.⁵

4.2.2. Three basic distinctions.

Before going on to discuss some more particular structures in conversation, I will first look into three distinctions that need to be recognized and that will have some influence on the format of my analysis.

4.2.2.1. Etic vs. emic. Data is not divided into etic and emic categories. All data is emic in one way or another. But as the analyst addresses the data he may have to make judgments as to what is emic in reference to a particular subsystem of the data. Conversation data can be very complex, and just to transcribe the data, the analyst has to make decisions as to how etic he wants the transcription to be. He could regularize the data to focus only on the referential structure, ignoring phonological details, overlap of utterances, editing out false starts and stuttering, as a reporter might transcribe an interview or a novelist might present a dialogue in his story. Or he might try to make his transcription as etic as possible, including phonemic or even phonetic detail, noting exactly how long each pause in speaking is, to the tenth of a second, noting background noise and details about the context, and of course noting false starts, stuttering, and speaker overlap. Or he might make his transcription somewhere in between the two extremes, noting some of the detail that native speakers do not

normally focus on but neglecting many of the details that he thinks might not be relevant to his analysis. Most researchers settle on this third path. In transcribing a conversation, it seems to be a wise choice to make the transcription a little more detailed than one thinks he might need, but not with so much detail that he unnecessarily obscures the features of discourse that he wishes to focus on.

In cases where an analyst is working with data from his own culture, it may not be easy for him at first to take on a more analytical, more 'distant' perspective than usual. Clancy recounts having this sort of difficulty in detecting overlap and repetition in conversation. She notes,

In cases of overlap, the words of both speakers can usually be heard, and the hearer unconsciously interprets the sentences sequentially. In my original transcript, these overlaps were not marked, since I automatically heard them as the first speaker finishing and then the next beginning with no overlap. Other people who listened to the tape also did not hear any overlapping at first. It took much practice to detect this surprisingly frequent occurrence, and numerous replays to hear at what point it actually began. (1972:83)

Clancy's similar experience with the difficulty of detecting repetition led her 'to the hypothesis that the hearer is probably unaware of such repetitions consciously, screening them out unconsciously so that he hears only the message itself' (84). But in reference to these difficulties, Clancy notes concerning the value of conversation analysis that

one interesting insight gained by a study of this transcript is an appreciation of the difference between the way people actually speak and the way they think they speak. The discrepancy, I believe, is due to the fact that most of the processes involved in conversation are so basic and automatic that people are not fully conscious of them.... One value of studying actual speech is that it clarifies and makes conscious the processes which are used proficiently but without conscious understanding in conversation. (86)

In the transcripts I present in Appendix Two, I have recorded

features that I do not expound on in my analysis. I have noted where pauses occur, where there is a relatively heavy degree of phonological stress, and where there is overlap of utterances. My analysis is not one of phonological features of discourse or of pauses and overlap in conversation. I do not mean to suggest that the aspects of conversation that I am ignoring are uninteresting or irrelevant to linguistics—they are just outside of the scope of this particular analysis. The reason I included as much detail as I did is that I wanted to give the reader a 'feel' for what the conversation was like. If I had included any more detail, the transcripts would have been unnecessarily difficult to follow.

The words in my transcripts are presented graphemically rather than phonemically or phonetically. I have given a sort of emic interpretation to the stress and pause details, noting only two degrees of heavier-than-usual stress and only two degrees of pause—short and longer (rather than noting precisely how long the pause was in tenths of a second). In one of the conversations I edited out some utterances that could be heard on the tape since they were judged to be part of a different conversation than the one I was interested in analyzing.

In analyzing the transcribed data, I made further judgments as to its emic organization. I did not just analyze the data formally (if that is possible), but rather tried to determine the functions of the different parts. For example, if Bill is telling a story and he is interrupted three times by John's attending utterances ('uh huh'), I would analyze Bill's story as a single speech act, rather than saying that Bill uttered four speech acts that alternate with John's three

utterances.

A couple of complete transcripts that I used in my analysis are presented in Appendix Two. In section 4.3. I analyze examples from Appendices One and Two and also data that I have that is not presented in the appendices.

4.2.2.2. Slot vs. filler. Analysts of conversation have discovered and pointed out that conversation has structure. Speech acts are not randomly distributed in discourse. The structural relationships between speech acts in a conversation can be described in terms of syntagmatic and paradigmatic relationships. Schegloff begins to develop this perspective when he says, 'It is an easily noted fact about two-party conversations that their sequencing is alternating. That is to say, conversational sequence can be described by the formula ababab where "a" and "b" are parties to the conversation' (1972[1968]:350). Sacks takes this idea further and phrases it in a tagmemic-like terminology. He begins with a set of observations:

1. A piece of talk which regularly is used to do some activity—as "Hello" is used to do "greeting"—may not invariably be so used, but may do other activities as well....
2. Certain activities not only have regular places in some sequence where they do get done but may, if their means of being done is not found there, be said, by members, to not have occurred, to be absent....
3. Certain activities can only be done at certain places in a sequence. For example, a third strike can only be thrown by a pitcher after he has two strikes on a batter.

Sacks then comes to the conclusion that 'observations such as these lead to a distinction between a "slot" and the "items" which fill it, and to proposing that certain activities are accomplished by a combination of some item and some slot' (1972:341, emphasis added).

The discovery of slots and fillers in conversation leads to the discovery of an intermediate-range construction in discourse (i.e. between the speech act and conversation levels). This is the 'exchange', or as Schegloff and Sacks call it, the 'adjacency pair'. The exchange is a recurring construction in common conversation with slots for a give and take of utterances. One person can be said to initiate the exchange, and another person normally resolves it. The name of the slot could properly be derived from the part that the utterance (or more properly, speech act) plays in the exchange—initiating or resolving it (or other possible slots—see section 4.3.). This is the approach Wells, MacLure, and Montgomery follow when they define the 'exchange'

as consisting of two structural positions: an INITIATING move by a first speaker and a RESPONDING move by a second speaker. The exchange is thus the minimal unit from which longer stretches of discourse are constructed. On the paradigmatic axis, the move types which can fill the two syntagmatically defined positions are derived from the basic dynamics of any social interchange—whether verbal or nonverbal. (1980:465)

Pike and Longacre have also contributed to the understanding of the slot-filler structuring of conversation. I am overlooking their contributions for now, but in section 4.3. I will return to their contributions, which will serve as the basis for my analysis.

4.2.2.3. Form vs. function. In the modern study of speech acts, the question of function (or 'illocutionary force') has always been in the foreground. Both Austin and Searle realized that the function of an utterance needed to be distinguished from its form. According to Austin, 'it is, of course, not really correct that a sentence ever is a statement: rather, it is used in making a statement' (1962:1). Searle notes

Suppose at a party a wife says "It's really quite late". That utterance may be at one level a statement of fact; to her interlocutor, who has just remarked on how early it was, it may be (and be intended as) an objection; to her husband it may be (and be intended as) a suggestion or even a request ("Let's go home") as well as a warning ("You'll feel rotten in the morning if we don't"). (1969:70-1)

The question of an apparent tension between speech act form and function eventually came into focus. In a 1972 article, Susan Ervin-Tripp points out that a question such as 'Would you mind closing the window?' or 'Do you know where the post office is?' is normally intended as a request for the hearer to close the window or tell where the post office is. To answer these yes/no questions with a simple 'yes' would not normally be appropriate. To borrow a coat one could say 'It's cold today', 'Lend me your coat', 'I'm cold', 'That looks like a warm coat you have', 'Br-r-r', or 'I wonder if I brought a coat'--the particular form chosen would depend on factors of the speech situation (Ervin-Tripp 1972:245-6). In the same volume Hymes explains, 'A sentence interrogative in form may be now a request, now a command, now a statement; a request may be manifested by a sentence that is now interrogative, now declarative, now imperative in form' (1972:57).⁶ Similarly, Lyons notes,

What might be described as the characteristic function, or use, of a declarative sentence is to make a statement (i.e., to inform someone of something); of an interrogative sentence, to ask a question; and of an imperative sentence, to issue a command (or request). But 'declarative sentence' and 'statement' do not always correspond in this way, nor do 'interrogative sentence' and 'question'; nor 'imperative sentence' and 'command'. Questions may be asked by uttering declarative sentences, commands may be issued by uttering interrogative sentences, and so on. We must therefore distinguish between the grammatical structure of a sentence and the kind of communicative act that is performed, in a particular situation or in an identifiable class of situations, by the utterance of that sentence. (1977:30)

To explain instances where the function of a speech act seems off-norm,

some have posited sets of rules to explain the unusual relations of form to function, such as Gordon and Lakoff's 'conversational postulates' (1971) and Grice's 'cooperative principle' and 'conversational implicatures' (1975). Searle has written on the subject of 'indirect speech acts', which he defines as 'cases in which one illocutionary act is performed indirectly by way of performing another' (1975:60).⁷

The possibility of different roles for a speech act or different grammatical realizations for a particular role is allowed for and anticipated in tagmemic theory. Still, the reason why a certain function is manifested by a certain linguistic construction is not always self-evident and must be explained by directing attention to the situational context.

4.3. CONVERSATION CATEGORIES AND RELATIONS.

Longacre (1976:255-86) presents a hierarchy of grammatical levels that he judges to be more-or-less universal. He explains that some adjustments to this universal hierarchy will have to be made for particular languages, especially concerning the definitions of the different levels. The levels that Longacre lists are (from minimum to most inclusive): morpheme, stem, word, phrase, clause, sentence, paragraph, monologue discourse. Pike and Pike (1977:23-6) present roughly the same hierarchical generalization except that they add two more levels above the monologue discourse level—exchange and conversation—for which they give the following definitions:

A speech by one person plus an interacting reply by another is an exchange. A conversation is the highest unit postulated for the verbal system (although it is itself included in much larger behavioral structures); it is indefinite in length with an indefinite number of exchanges, that is with numerous taking of turns seen via

different speaker-addressee axes. (25)

A speech act would correspond to the monologue level in the hierarchical arrangement I have been describing. A speech act is a monologue seen in the larger context of verbal exchange. Many examples of speech acts could be cited that are not fully expanded monologues, and to explain how a speech act can be equated with Longacre and Pike and Pike's monologue discourse level, I will have to turn attention to some auxiliary concepts to the general concept of hierarchy.

The hierarchical generalizations that Longacre and Pike and Pike give are based on the fully expanded forms of the constructions. A fully expanded monologue consists of several (at least) paragraphs and a fully expanded conversation consists of several (at least) exchanges. If such potential for expansion were not evident then there would be no need to distinguish terms such as monologue and paragraph, conversation and exchange, word and morpheme. But the model must also be able to account for instances where a construction type is not fully expanded. The definitions we give the different construction types must not be so restrictive that they cannot account for the contracted as well as the expanded forms. It is recognized that a sentence might consist of only a single clause at a time, or a word might consist of only a single morpheme. Similarly a speech act could consist of a series of paragraphs, but it might consist of only a single sentence, a single phrase, or even a single word (e.g. 'No'). In fact a speech event might consist of a single word ('Fire!'). This phenomenon--particular instances where the distinctions among different levels are not obvious--is called level-skipping. There are also instances where a unit is embedded in

another unit of the same level or in a lower-level unit, such as where a speech act is embedded in another speech act (i.e. a quote within another monologue) or a conversation is embedded in a speech act (e.g. a dialogue within a narrative monologue). This is called recursiveness or backlooping. For a further explanation of level-skipping, recursiveness, and backlooping, as well as the normal hierarchical progression, I fall back on the chapter 'Hierarchical organization and surface structure' in Longacre 1976—see especially pp. 255-76.

My discussion so far may seem to indicate that, since morphemes, words, sentences, etc. are grammatical constructions, exchanges and conversations are grammatical constructions as well. In order to fit phonological and referential structure into the framework I have been describing, I need to give some further specification. Pike's Language in relation... (1967) refers to phonology, grammar, and lexicon—or now, reference—as characteristics of the uttereme, which corresponds to the speech act. I could use the term 'trinality of patterning' to describe the three distinguishable types of internal structuring—phonological, grammatical, and referential—at work in a single utterance. This triality of patterning is explained by Hockett's 'duality of patterning', which explains the distinction between phonology and grammar, in conjunction with the concept of symbolism, which explains the distinction between phonology and grammar on the one hand and reference on the other. My point now is that as one progresses from higher to lower levels, from behavioreme to conversation to exchange to speech act, when one reaches the speech act level there is a three-way split. The lower levels are named according to whether phonology, grammar, or reference

is in focus. In my discussion above I have had grammar in focus. If phonology were in focus one might say that the speech act, exchange, and conversation are higher levels than the phoneme, phonological word, phonological phrase, phonological sentence, and phonological paragraph.⁸ But at the levels of speech act (monologue), exchange, and conversation there is no distinction among phonological, grammatical, and referential structures.⁹ Terms such as 'phoneme' and 'morpheme' are specific to phonology or grammar but speech act/monologue, exchange, and conversation are not. This point is illustrated in Figure 36.

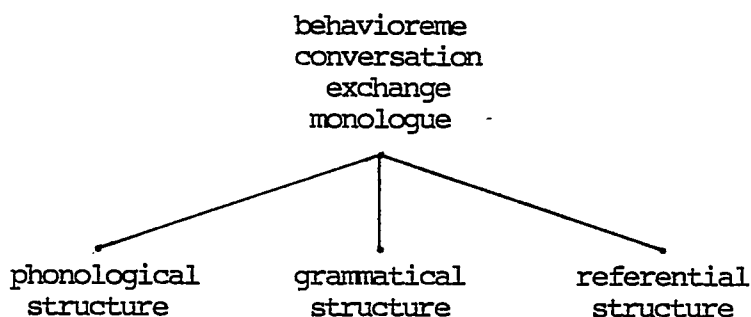


Fig. 36. Relation of phonology, grammar, and discourse to conversation units.

In Chapter Three I dealt with the behavioreme level. In the remainder of this chapter I will discuss the speech event, exchange, and speech act levels and a tagmemic methodology for analyzing and describing these levels. I will focus primarily of the exchange level.

4.3.1. The speech act level.

A fully expanded speech act is what Longacre calls a monologue discourse. According to Longacre (1976:chapter 5) the four basic monologue types are narrative, procedural, expository, and hortatory. A monologue is composed of sentences grouped into paragraphs. The para-

graph is seen as a grammatical unit, identifiable by its functional unity in correlation with lexical patterning. Longacre has written extensively on the internal structuring of monologues and paragraphs; my interest here is primarily in their distribution in the context of the speech situation.

A speech act need not be a fully expanded monologue of the sort Longacre describes. In conversation a speech act is typically a unit of several sentences in length at most, though in a conversation type involving the exchange of anecdotes or stories the speech acts can be of the more developed sort. If a speech act is not developed and consists of only a paragraph,¹⁰ a sentence, a phrase, etc., we recognize this as an instance of level-skipping.

Speech acts can be categorized according to their communicative function. Wardhaugh states that 'a basic assumption behind any attempt to understand linguistic functioning is that most utterances have a purpose, that is, that they are spoken with an intent to communicate something' (1976:95-6). It is one thing to ask what grammatical and phonological form an utterance takes, and it is another thing to ask what function that utterance has in its context of speaking. The function that we might attribute to an utterance when considering it in isolation might not match up with its function in actual use. A sentence that is interrogative grammatically and has a question intonation could in context have the function of being a proposal rather than a request for information. In The intonation of American English Pike notes that

there is no superimposed phonological characteristics of intonation

or of pause yet discovered, nor any characteristic of grammatical structure as such, which can serve as a sure criterion, and be applied consistently to all the data, for determining by its consistent application whether specific isolated phrases are questions or not. (1945:168)

Though the characterization of general categories such as 'question' might be somewhat elusive, one way to make analysis manageable would be to look at the data from different angles: 1) determine its phonological characteristics (i.e. its intonation pattern, 2) determine its grammatical characteristics (e.g. whether or not it follows a type of interrogative grammatical pattern), 3) determine its function in conversation (e.g. whether it has a questioning or statement or proposal function). A rule of thumb might be that if a sentence is put in the question category in at least two of the three areas mentioned above, then as a whole it could be considered to be a question.

Most speech acts could be grouped by function into one of the following broad categories: statement, question, proposal. A statement function (not to be confused with a declarative sentence form) involves the communication of information that can be measured on a true-false scale. Examples of statements are observations ('The milkman is late today'), reminders ('You have a plane to catch'), opinions ('I don't like avocados'), criticisms ('You are really stupid'), compliments ('That's a pretty dress you have on today') and complaints ('This is too hard!'). A statement function expressed by means of an interrogative sentence is called a rhetorical question.

Another basic speech act function is that of question. A question function can be defined as a request for information from another person. There are often interrogative sentences in conversation that

have the function of statement or of proposal rather than a true question function. A proposal is an explicit attempt to get someone else to do something (other than to answer a question, that is). For examples of types of proposals there are commands ('Stop that right now!'), suggestions ('Let's play football'), and requests ('Would you please help me?'). In order for the speaker to avoid seeming blunt or rude he often expresses a proposal through a declarative or interrogative rather than imperative grammatical pattern.

There are other minor speech act types that do not fit into any of the above functional categories. There is Austin's (1962) performative ('I now pronounce you man and wife'), there is acknowledgement ('Yeah', 'Uh huh'), expression of appreciation ('Thank you'), summons ('Hey, John!'), and others.

I will have more to say about speech acts in the next section, where I put them in the context of verbal exchange.

4.3.2. The exchange level.

Speech acts function in the context of higher-level structures, and one can gain a more adequate perspective on speech acts by studying them in this context than by studying them in isolation. There is a higher-level construction that speech acts commonly function in, which I call the exchange. A verbal exchange is a cohesive grouping of two or more speech acts (usually no more than three except in the case of an embedded exchange). By 'cohesive' I mean that the exchange relationship is a culturally-governed, emic pattern of interaction with recognized slots (though the speakers and hearers are generally unconscious or only semiconscious of these slots except when the normal rules for patterning

are violated). Thus a question is properly followed by an answer of some sort, a greeting is matched by a counter-greeting (or else the person who fails to respond may come across as being unfriendly), and a 'Thank you' is politely answered by a 'You're welcome' or some other sort of acknowledgement, etc. In this section I will continue the study of speech acts by examining the way they relate to each other by way of relating to the exchange-level units. This analysis owes much to Longacre's (1976) chapter on 'Repartee'.¹¹

Speech acts are the immediate constituents of exchanges, and the relationships between the exchange-level and the monologue-level units can be examined in terms of the slot, role, class, and cohesion relations. The main two slots of an exchange will be called the initiation and the resolution slots. An initiation is an utterance or part of an utterance that begins an exchange. A question or a greeting is a typical sort of initiation. After an exchange is initiated, it is appropriate for another person's utterance to resolve the exchange. These two parts of a verbal exchange—initiation and resolution—are a manifestation of a general type of patterning in human and animal interactive behavior known as stimulus and response.

In addition to the two major exchange slots, there are three minor slots that an exchange might include. The first is a tag (Longacre's 'terminating utterance'), which is an optional add-on to an exchange that has already been resolved. The tag would be uttered by the person who initiated the exchange, after he hears the response. It is a response to the response and may be associated with the function of expressing surprise at the response, or acceptance or rejection of it, or an

evaluation of good or bad. A tag might take the form of 'Really?!', 'okay', 'impossible!', 'good', or the like as illustrated in the following exchange from Text C:

Doug: Those bookplates that you gave me come from Baltimore?

Linda: Came from a jewelry store in uh Bethesda Maryland... No, not just a jewelry store: china and silver.... Across the street from where we (uh)

Doug: Oh really?!

The second type of minor exchange slot is an attending utterance. While one speaker has the floor, the person listening might say such things as 'uh huh', 'did you', 'is that so', 'is that so', 'uh oh', 'oh', 'oh?', 'hm!', and so forth. These 'attending utterances' function to show that the listener is following the other person's monologue, and they are not taken to be interruptions but rather something more like suprasegmentals to the monologue. Text B in Appendix Two contains a great number of attending utterances. The following extract serves as an example:

Mrs Jones: You go to Hastings. Well Central, school, uh is uh the oldest school uh but it's not the first school

Martha: hm

Mrs Jones: But it was the only school, even in nineteen and forty uh seven, my daughter graduated from Central high school

Martha: did she, did she

Mrs Jones: in nineteen and forty-seven,

Martha: uh huh

Mrs Jones: an' it'll tell all in there, they only went to the tenth grade an' then they had to either go to Lancaster or Oak Cliff and there was one school in Oak Cliff an' it was Adamson it was Oak Cliff High School

Martha: uh huh

Mrs Jones: It's down on Ninth Street. An' uh my Dad had a route there for forty-two years sold butter 'n' eggs,

Martha: he did

Mrs Jones: an' uh, so uh that school, was there, 'n' me'n' him used to go to all the football games, every one of 'em.

Martha: huh

Mrs. Jones: in fact I played basketball seven years.

Martha: did you

The third type of minor exchange slot is a continuation slot. A continuation interrupts, at least momentarily, the normal initiation-resolution pattern. For example if one person asks a question, the other person might ask a counter-question, either for the purpose of clarifying the original question or for the purpose of avoiding the question. if the purpose of a continuation element is just for clarification, then the original question will probably be resolved eventually, but if the purpose is of avoidance, then the question might never be answered. A proposal could similarly be met with a continuation element. The following exchange from Text A (Appendix Two) is an example of a continuation for the purpose of clarification:

Stranger: Could you tell me where I could find the office? (initiation)

Bill: Which office? The main office?

Stranger: Oh, all the main offices.

Bill: Okay, if you'll go to OU one?... The first trailer out there. (resolution)

Note that in this example the continuation introduces an embedded ex-

change into the structure of another exchange. The embedded exchange (Bill: 'Which office? The main office?', Stranger: 'Oh, all the main offices') is of the question answer type, and it fits into the continuation slot of the main exchange (Stranger: 'Could you tell me where I could find the office?', Bill: 'Okay, if you'll go to OU one...'). An embedded exchange like this is an exception to the general rule that speech acts are the immediate constituents of exchanges; in this case an exchange is the immediate constituent of another exchange. This exchange cited above is diagrammed later in Figure 37.

The roles associated with these slots could be equated with the speech act functions discussed in section 4.3.1. An exchange initiation could have the function of greeting, or question, or proposal, or statement, or expression of thanks, or leave-taking, or other functions. An exchange resolution could have the role of counter-greeting, or statement, or compliance, or acknowledgement, or other functions. A tag might have the role of expressing surprise, or acceptance or rejection of a statement, or evaluation, or asserted verification or inquired verification. Attending utterances would have the role of showing involvement and interest. And a continuation slot could function either for clarification or avoidance of the force of the exchange initiation.

The forms that fill the constituent slots of an exchange were also discussed in section 4.3.1. An exchange slot can be filled by anything from a fully-developed monologue to, by level-skipping, a single word. Compare the following two examples. In the first, taken from Text C, the response slot is filled by a single word. In the second, from Text B, the response slot is filled by a story.

Linda: Think you'll be doing church work?

Don: Possibly.

Martha: hm Did you have singing in your church?

Mrs Jones: oh yeah, night service an' everything. I'll never forget one night, me and my sister was was supposed to go to church and we was double datin' an' we went. An' it was late when we got through with work at home. An' uh, we had to milk the cows and gather up eggs in five gallon bucket an' so, I sa-, we started to church and I says, 'Why it'll be half over a time we get there.' I said, 'Let's go to the show.' So we went to the picture show. The Bison I b'lieve up on Jefferson. Anyway, we went to the picture show. So, Ms. Brandenburg the next morn- the next Sunday we went to church and uh uh she uh- said 'Jewel' my dad's, they all call him Jewel, said, 'Jewel where was you all at last Sunday?' He said 'Well my brother came in to town an' I an' I was home,' said, 'them girls was supposed to been here.' Well we started home an' an' Dad said uh, 'Did y'all go to church last Sunday night' an I said, 'No', he said, 'Where'd ya go', I said, 'Well we were so late gettin' through with all that old work', I said, 'that we went to the picture show', and he said uh, 'well Miss Cara asked where you all were', and he said, 'well didn't you tell uh tell me', and I said, 'well ya didn't ask. If you'd ask I would have told you.' But he never said nothin' to Mother.

The verbal forms that fill the exchange slots could each be given some sort of grammatical characterization, and except for the utterances that just consist of a single morpheme, each could also be analytically broken down into further constituent structures.

Sometimes an exchange slot has a nonverbal rather than a verbal filler. A nonverbal action can either initiate or resolve an exchange. The following two exchanges serve as examples. The first is taken from data that does not appear in the appendix and is an example of a nonverbal initiation and a verbal response.¹² The second example, taken from the wedding ceremony data in Appendix One, involves a verbal initiation

and a nonverbal response.

Linda: ((sneezes))

Doug: Bless you!

Minister: The congregation may be seated.

Congregation: ((sits down))

There are, of course, interaction patterns in human behavior where a nonverbal initiation is matched with a nonverbal response. I do not have any purely nonverbal exchanges of this sort recorded in my data, and in this chapter I am restricting my discussion to exchanges where at least one of the parts is verbal.

As for the cohesion relations, there are a few prominent cohesion relations I could point out. First, some utterances govern what follows. A question has the force of determining that an answer of some sort should follow. It is not invariable the case that a question is answered. Sometimes it is ignored or challenged with a continuing utterance. But the norm is that a question constrains what can follow. The same can be said for a proposal; it at least is an attempt to govern what follows. Second, some utterances are governed by what precedes in conversation. If a statement follows another person's question, this statement may be recognized to have an answer relationship to the question.¹³ What follows a proposal may be recognized to have either an acquiescence or a rejection relationship to it. Third, some utterances, especially statement-type utterances, are just sort of 'thrown out', not matched with another utterance in an exchange relationship. The term

remark could be used to note a speech act's lack of a pairing relationship with another speech act. Related to this are other statements that attempt to draw out information. They have a statement function, but like a question they have the effect of eliciting information. This eliciting relationship could be marked by the term eliciting remark appearing in the cohesion cell. Conversely, a statement that is elicited in this fashion could be marked as a responding remark. The following exchange, from Text B, exemplifies this relationship:

Martha: You were saying your father sold butter and eggs to people.

Mrs Jones: Yeah in Oak Cliff over there in Ma Skillern's, Skillern Drug people, Ma Skillern was the one () she lived down on ninth street. She was uh uh one of the uh one of his first customers.

On the basis of the slot, role, class, and cohesion categories that I have been discussing for exchange constituents, a number of basic exchange types can be identified. The remainder of this section presents and describes a list of exchange types that can be used to analyze most of the data I have studied, including most of the data in Appendix One and Appendix Two.

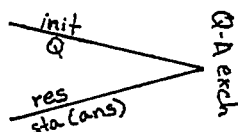
The first and most obvious type of exchange is the question-answer exchange. A question-answer exchange is identified as having a speech act in the initiation slot with the function of question and a speech act in the resolution slot with the function of statement and a cohesion relation of answer to the initiating question. (Not every statement that follows a question is perceived as being an answer to that question.) The data texts in Appendices One and Two contain numerous

question-answer exchanges. The following examples are diagrammed to show the structure. In these diagrams, the slot label appears above the branches and the role label appears beneath. The cohesion label, if mentioned, appears in parentheses after the role label.

(from Appendix One)

Minister: Who gives this woman to be married to this man?

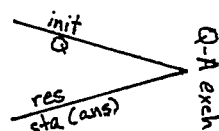
Father-of-the-Bride: My wife and I do.



(from Text A, Appendix Two)

Fred: What kind of housing are you looking for?

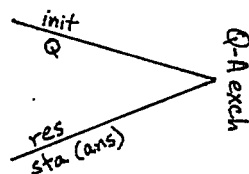
Stranger: Um, well, I'm looking for the first semester housing.



(from Text B, Appendix Two)

Martha: Well, now when you used to come uh to church here in Duncanville, were there very many people that just lived here in Duncanville you knew that weren't farmers?

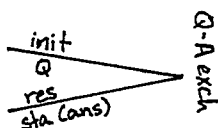
Mrs Jones: Uh no, not very many. There's just a, uh the oldest house, in Duncanville, you know where the post office is. Go one block, and Ida Allens lives in a white house over here on the corner. And Ms. Nance lives next door to 'er. An' uh, they are the two oldest houses in Duncanville.



(from Text C)

Gary: Were you here then?

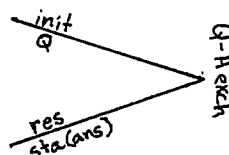
Linda: Yeah



The initiation of a question-answer exchange might normally take the grammatical and phonological form of a question, but this is not invariably the case. The following example shows a speech act with a question function but a declarative form:

(from Text B)

Martha: Now when you say Carter's Dairy, uh, that wouldn't by hap- by any chance be the same Carter s the street Carter, right up here there's a street called Carter Street.



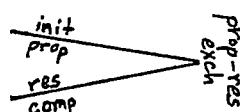
Mrs Jones: I don't know, I don't know.

A second obvious type of exchange, though not nearly as frequent as the question-answer exchange, is the proposal-response exchange. An exchange initiated by a proposal can be resolved by a compliance or a refusal to comply. There are several examples of proposal-compliance exchanges in the wedding ceremony text, such as the following:

(from Appendix One)

Minister: You may kiss your wife.

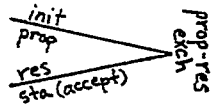
Groom: ((kisses bride))



The compliance to a proposal does not necessarily have to be nonverbal. Consider the case when a child says 'Tell me a story' and a story is told, or one person says 'Tell my sister I'm not speaking to her' and another person says to the sister. He says he's not speaking to you.' In cases where the compliance or refusal to comply is not immediately obvious, the exchange may be resolved by a statement that accepts or rejects the proposal. In the following example, taken from Text D, the proposal is intended as a joke and the exchange is resolved

with a statement that jokingly accepts the proposal.

Jim: Oh, run over that kid if you can.
 Paul: Oh, huh ((laughingly)) Gladly.

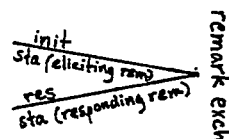


A third type of exchange is the remark exchange. This type of exchange is very common, especially in Text B. Sometimes a statement is matched up in close relation with another speech act. It may pair up with another statement such that an exchange structure results where the initiation is a statement and the resolution is a statement. The following examples show this sort of pairing:

(from Text A)

Fred: I could look it up in the directory.

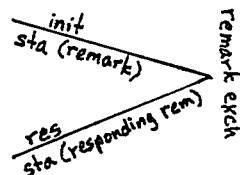
Stranger: Uh, that's okay.



(from Text B)

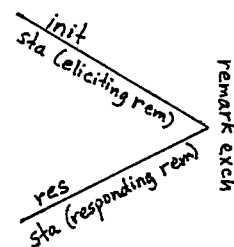
Mrs Jones: and they uh Grandpa Treiss gave this right of way, through his property, as long as there was a passenger train on uh, on the uh trucks. And if there was a, if they ever took the passenger train off, the, but in them days, you know they would uh word o' mouth you know was they didn't get these lawyers an' all then. But anyway, after ah they took the, Santa Fe it was to go back to the heirs, the Treiss heirs, and after they took the uh passenger train off, nobody had any writing or papers or wudn't no record anywhere, and so they got a

Martha: But it really should have gone back right ((laughs)),



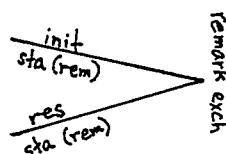
Martha: There is a Fouts Road.

Mrs Jones: Oh yeah it's a name Mildred Fouts just pa- old Grandma Fouts just passed away. She, it was about a year. I think she was either seventy-five or seventy-six, just a few weeks ago. They fo- her son went to the her home and found her sittin' in the chair. They were fixin' to go campin' that weekend an' he run up to see if she had, needed anything from the store or anything before they went an' he, she was getting meals on wheels and she had eat her dinner and taken uh the plate an' all to the kitchen an' she came back an uh she was watchin' she always watched soap operas, and whe was watchin' uh the TV was on, she was sittin there in the chair still warm, she just passed away after she had eaten her lunch.



Martha: So I noticed that little music room has its chimney coming out the middle and Julie said

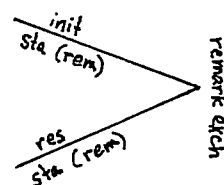
Mrs Jones: Oh they had a little coal stove.



(from Text C)

Gary: My wife's cousin married to a Methodist pastor in Baltimore.

Linda: hnm...I haven't even been to Baltimore yet. ((embarrassed laugh)) Shame. Wait a minute, I did go to that harbor. They've redone it too and it's really...it's a real tourist attraction....It's really fun to go there. The first time I had been there was last fall.



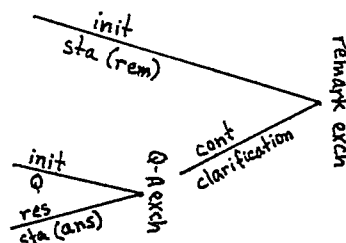
Another type of remark exchange involves a statement in the initiation slot and an embedded exchange for the purpose of clarification in a continuation slot, as in the following example:

(from Text C)

Linda: My brother-in-law was in the Army, and they lived in what they called 'on the economy' off-base housing. I don't know what the prices were but, sure nice.

Gary: You say you've lived in Germany?

Linda: He was in the Army Corps of Engineers.

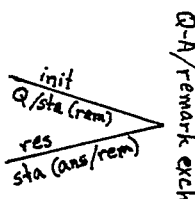


Sometimes an exchange is on the borderline between being of the question-answer sort and the remark sort of exchange, such as when a remark is followed by the discourse particle 'you know?' The following exchange is an example:

(from Text B)

Mrs. Jones: That Mr. Van Smith that was killed over here you know.

Martha: Yes I remember about that, I didn't know him.



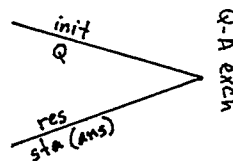
Some statements in conversation do not match up with another speech act to form an exchange unit; they are relatively independent. The following excerpt from Text B gives two examples. Both of these 'isolated remarks' are sandwiched between two question-answer exchanges. The second isolated remark is fairly lengthy, with attending utterances.

(from Text B)

Martha: Do you know the Smiths, that go to the Christian Church? Mister and Miss Smith?

Mrs Jones: I might know 'em if I was to see 'em. I just can't uh remember names too well.

Martha: Oh yeah. They live over, We live um on Maryland Avenue just off Center Street, um, and there's this couple, I



don't know their first names or anything but they live in a house just kind of across the street and down a ways they're a retired couple. He used to work for the post office.

*isolated
remark*

Mrs Jones: What's their name?

Martha: Smith is their last name. She I think, she came from Germany. I think he married, I don't know if he was maybe in the war or something and married her but I know they go to the Christian Church here in Duncanville.

*init
Q*
*res
sta (ans)*
Q-A exch

Mrs Jones: Well you know the churches now is not like they used to be.

Martha: Yeah. Yeah. It's bigger

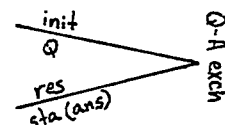
Mrs Jones: When church is over everybody wants to get home to see the Cowboys.
((laughs)) And you know uh and most all of the elderly people that I uh worked in the church with are gone. And there's just lotsa people up there that now our church has a membership of over five hundred. But some Sundays there ain't more than sixty there, you know. It's It I I don't know. It seems like all the churches have built up, uh, more than then uh then our church has. Now see they used to be two churches here in Duncanville. The Methodist Church was organized first. And then the First Christian Church. Uh, one of the boys at uh the church, wrote, our uh, it was homecoming in uh, nineteen and seventy-seven. And they started our church in uh, wait a minute,... believe it was about nineteen eleven. I'm not for sure,...uh huh, in nineteen eleven. An' uh it burnt, in nineteen seventeen. Wait a minute,...yeah and uh, the Methodist church would have church on the uh second and fourth Sundays and we would have church on the first and third Sunday. And each church would go to the other when they'd have the service. And it was just all one big happy church family really, and, us, teenagers was always

*isolated
remark*

glad when fifth Sunday come we didn't have to stay at church ((laughing)) uh...that was in nineteen thirty-eight. They had alternating services with the Methodist neighbors. And they had a big old uh arbor up there with brush over it y'know. And they'd always have a a revival, every uh, every summer, and both churches would, would have the revival.

Martha: Well uh, now do re- was the church, at the spot where it is now, when you were coming here as a young person.

Mrs Jones: u huh, yeah



The exchange types that I have presented can also have additional, optional constituents such as continuations, attending utterances, and tags. The following example is of a continuation within a question-answer exchange:

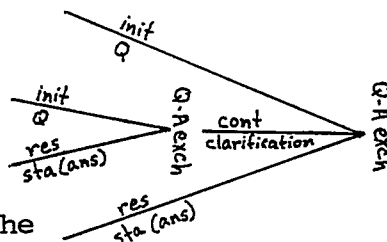
(from Text A)

Stranger: Could you tell me where I could find the office?

Bill: Which office? The main office?

Stranger: Oh, all the main offices.

Bill: Okay, if you go to OU one?... The first trailer out here.



This embedded exchange in the optional continuation slot does not destroy the identity of the including exchange as being of the question-answer type.

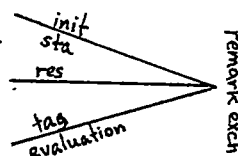
Also a tag constituent can be added on to an exchange. The following are examples of a tag being added to a remark exchange and a question-answer exchange.

(from Text A)

Stranger: Okay, first trailer on the left.

Bill: Yeah, straight up the street.

Stranger: Very good.

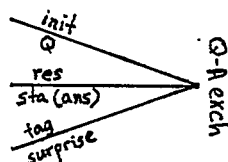


(from Text C)

Gary: Were you here then?

Linda: Yeah

Gary: Oh



Again, the addition of an optional constituent does not change the identity of these exchange types.

If attending utterances are added to an exchange, it is easiest to diagram the exchange by separating out the attending utterances but then noting the actual overlap. This would facilitate the recognition of the speech act that is being 'interrupted' by the attending utterances as a whole. The following example shows an exchange with attending utterances, first presented as in Appendix Two and then diagrammed with the attending utterances sifted out.

(from Text B)

Mrs Jones: You go to Hastings. Well Central, school, uh
is uh the oldest school uh but it's not the
first school

Martha: hm .

Mrs Jones: But it was the only school, even in nineteen
and forty uh seven, my daughter graduated
from Central high school

Martha: | did she did she

Mrs Jones: in nineteen and fifty-seven

Martha: uh huh

Mrs Jones: an' it'll tell all in there, they only went to the tenth grade an' then they had to either go to Lancaster or Oak Cliff and there was one school in Oak Cliff an' it was Adamson it was Oak Cliff High School

Martha: uh huh

Mrs Jones: It's down on ninth street. An' uh my Dad had a route there for forty-two years sold butter 'n' eggs

Martha: he did

Mrs Jones: an' uh, so uh that school, was there, 'n' me'n' him used to go to all the football games, every one of 'em.

Martha: huh

Mrs Jones: in fact I played basketball seven years

Martha: did you

Mrs Jones: You go to Hastings. Well Central, school, uh is uh the oldest school uh but it's not the first school. But it was the only school, even in nineteen and forty uh seven, my daughter graduated from Central high school in nineteen and fifty-seven an' it'll tell all in there, they only went to the tenth grade an' then they had to either go to Lancaster or Oak Cliff and there was one school in Oak Cliff an' it was Adamson it was Oak Cliff High School. It's down on ninth street. An' uh my Dad had a route there for forty-two years sold butter 'n' eggs an' uh, so uh that school, was there, 'n' me'n' him used to go to all the football games, every one of 'em in fact I played basketball seven years

Martha: ((overlapping with Mrs Jones' utterance)) ...hm ...did she, did she...uh huh...uh huh...he did...huh ...did you...

init
sta (rem)
attending with
show interest
remark exch

For the purpose of my analysis, this 'sifting out' of the attending utterances is helpful, but if one is studying the placement of attending utterances in discourse it would not be helpful to sift them out his way.

Now in addition to these major exchange types there are some minor types of exchanges. These are identified as being minor because of their more limited distribution in conversation. The first of these is a greeting exchange, as is found at the beginning of Text A:

Bill: Hello. *init*
 greeting
 Stranger: Hello. *res*
 greeting

*greeting
exch*

The initiation and resolution of a greeting exchange both have the function of greeting. A greeting exchange of course normally opens a conversation.

Another type of minor exchange might be called the politeness exchange. An example of a politeness exchange can be found at the closing of Text A:

Stranger: Thank you. *init*
 thanks
 Bill: Uh huh. *res*
 acceptance

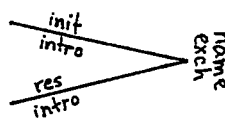
*politeness
exch*

The initiation of a politeness exchange is an expression of gratitude. The resolution is normally an acceptance of that expression of gratitude.

A third minor type of exchange could be called the name exchange. A name exchange comes at the beginning of Text C:

Linda: My name is Linda Erickson. I think I've met you before.

Gary: Gary and Gerrie...seventy-eight.



The role of both the initiation and the resolution of a name exchange is that of introduction. If a name exchange is used in a conversation, it normally comes at the beginning after or combined with a greeting exchange.

The exchange types that I have discussed, in conjunction with isolated remarks and optional exchange constituents such as continuations, attending utterances, and tags, can serve as the basis for analyzing the exchange structure of the texts in Appendices One and Two. I have cited a number of examples from these texts, and the remainder of these texts follows the same set of patterns. No doubt additional data would point out the need to posit some additional exchange types.¹⁴ A diagram showing the structure of one short, complete conversation is presented in the next section.

4.3.3. The speech event level.

Exchanges function in the context of speech events. There are different types of speech events that follow different rules¹⁵ and exhibit different structural patterns. A major distinction could be made between monologue-type speech events, where one person does all the talking (or writing, as the case may be) and one or more other persons do all the listening, and on the other hand conversation-type speech events, where two or more participants talk and listen to each other. A lecture or a novel would be an example of a monologue-type speech event.

A service encounter or a polite chat during a meal or a bull-session would be an example of a conversation-type speech event. I have been focusing on conversation-type speech events.

Exchanges and isolated remarks can be analyzed as the constituents of a conversation. An exchange in this context would have the role of information exchange, except for the minor exchange types, which would have specialized roles. A greeting exchange would have the role of conversation opening, a name exchange would have the role of participant introduction, and a politeness exchange would have the role of showing appreciation. The exchanges with these various sorts of roles can be seen to fill the nuclear or marginal slots of a conversation.

The emphasis in this chapter is on speech acts in the context of exchanges, but below I will present an analysis of one short, complete conversation. (In chapter 3 I already analyzed another complete conversational speech event in its context in the wedding ceremony.) Figure 37 presents an analysis of Text A.

Bill: Hello.

Stranger: Hello.

Bill: This your desk?

Stranger: No,
uh, could you tell me
where I could find the
office?

Bill: Which office? The
main office?

Stranger: Oh...all the main
offices.

Bill: Okay, if you'll go to
OU one?... The first
trailer out here.

Fred: What kind of, what
housing are you
looking for?

Stranger: Um, well, I'm looking
for the first semester
housing.

Bill: It might, it might be
out at the center, if
it's not they'll give
you the new number.

Fred: I could look it up in
the directory.

Stranger: Uh, that's okay.
Okay, the first
trailer on the left.

Bill: Yeah, straight up the
street.

Stranger: Very good.
Thank you.

Bill: Uh huh.

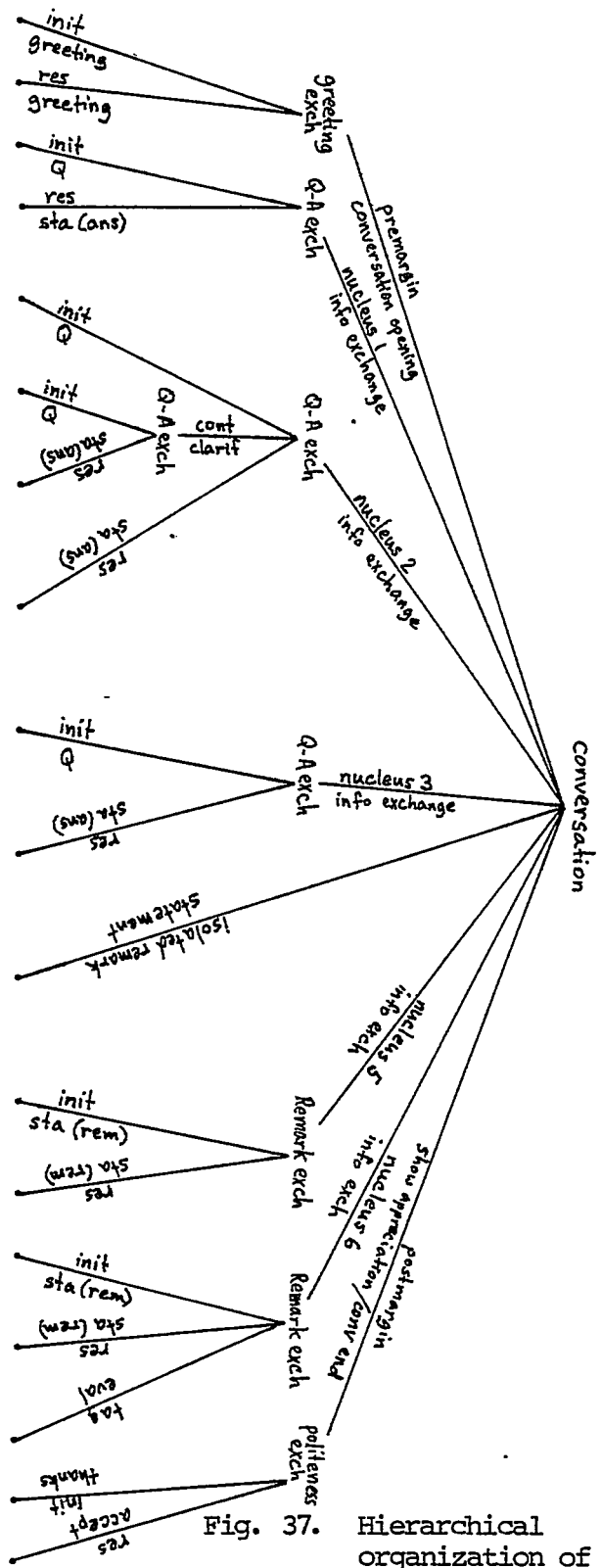


Fig. 37. Hierarchical organization of a conversation.

Text A is actually a conversation embedded within another conversation. Bill and Fred had been sitting around talking when the stranger came to them for help, to ask directions. The conversation has an opening ('Hello', 'Hello'), a closing ('Thank you', 'uh huh'), and five exchanges and one isolated remark in between, functioning as the constituent parts of the conversation. The greeting exchange and the politeness exchange, which function as the opening and closing of the conversation, are judged to be marginal constituents; the other exchanges are judged to be more nuclear, with the role of information exchange. One of the question-answer exchanges has another question-answer exchange embedded in it, with the role of clarification. The politeness exchange at the end has a double role: it both expresses appreciation and closes the conversation.

Speech events, when seen in a larger context, can be said to have a role or function as a whole. Van Dijk recognizes this and uses the term 'macro-speech act' to refer to a sequence of speech acts united by a single function (1977:238). I addressed the question of the function of speech act sequences in their context in Chapter Three, though I did not use van Dijk's term 'macro-speech act'.

An alternative to the analysis I have presented would be to posit an additional hierarchical level called the topic group between the exchange and speech event levels. Sometimes exchanges can be seen to group together according to topic. In text A the exchanges beginning with 'Could you tell me where I could find the office?' and ending with the last remark exchange are all on a different topic than the first question-answer exchange ('This your desk?' 'No'), and so they might be

grouped together as a unit. The problem with positing the topic group as a structural unit is that the flow of talk from one topic to another is often without clear boundaries. Still, the idea of a topic group has some validity and would be worthy of further investigation, which I will not attempt at this time.

4.4. CONCLUSIONS.

In this chapter I have attempted to do three things. First, I have tried to show how a number of insights from other scholars concerning the structure of discourse fit neatly into a tagmemic framework. The general tagmemic model easily accommodates such concepts as the speech act, the exchange (or adjacency pair), the speech event, the distinction between speech act form and function, and the distinction between conversational slots and fillers. Second, I have tried to develop the details of the tagmemic model to enable it to accommodate some of the detail of conversational structure. In doing this I have identified some basic slot, role, class, and cohesion categories of exchanges and identified some basic exchange types. Third, I have tried to contribute to the understanding of how conversation is structured. Conversations are made up of recurring, identifiable structural parts, and the same sort of patterning that has been observed in sentence structure can be seen to occur in conversation structure as well, and in all human behavior.

NOTES - CHAPTER IV

1. In his dissertation on dialogue within literary works, Klammer writes, 'The dialogue relationship between two human beings...is the sine qua non for the existence of language [and] not only underlies all of linguistics, but also is the foundation upon which the very possibility of human social interaction depends' (1971:341).

2. Pike and Pike propose that 'dialog exchange should be considered more basic than the small included units' (1977:280). See also Pike, 1978, 'Social interaction as the break-in point for the analysis of verbal behavior'.

3. See Principle 2.2. of Pike and Pike (1976:22-3), and later where they add,

Basic to the understanding of any of the units in preceding chapters is the presence of an exchange between a speaker and hearer, as an utterance and a response. This sets up the social situation within which language operates, and provides a frame for the initial differentiation of various classes of fillers such as sentence and word. (277)

4. Pike writes that in his 1967 tagmemic model,

we shall assume that meaning has reference to COMMUNICATION between individuals. Meaning, in this view, would have reference to the activity of the communicating individuals. Both covert and overt characteristics of the activity both of the speaker and listener would thereupon be relevant. (1967:598)

Note that both the intended meaning of the speaker and the understood meaning of the hearer are taken into consideration.

5. 'Utterance' is perhaps not an emic level of discourse structure. Sinclair and Coulthard explain,

Initially we felt the need for only two ranks, utterance and exchange; utterance was defined as everything said by one speaker

before another began to speak, exchange as two or more utterances. However, we quickly experienced difficulties with these categories.... Although utterance had many points to recommend it as a unit of discourse, not least ease of definition, we reluctantly abandoned it. We now express the structure of exchange in terms of moves. (1975:21)

Note that in Sinclair and Coulthard's hierarchy of discourse levels, they posit a level called act (not to be confused with Austin and Searle's 'speech act'). According to their theoretical model,

the units at the lowest rank of discourse are acts and correspond most nearly to the grammatical unit clause, but when we describe an item as an act we are doing something very different from when we describe it as a clause. Grammar is concerned with the formal properties of an item, discourse with the functional properties, with what the speaker is using the item for. (1975:27-8)

The need for an 'act' category in Sinclair and Coulthard's model is motivated by their distinction between units of function and units of form. In tagmemics there is no need for an act level as distinct from the clause, sentence, paragraph, and speech act levels. I will use the term 'speech act', but in my tagmemic framework it will more closely correspond to their move level than to their act level.

6. Hymes adds elsewhere (1974:132-3),

Some of the organization of linguistic means can only be discovered by starting with higher level functions and contents, such as acts and genres. There is no internal linguistic makeup that would lead one to group together "See you later, alligator", "Ta Ta", "Au revoir", "Don't take any wooden nickels", "Glad you could come", and "I'm going, I'm going", as leave-takings or "Hi" and "Well, I'll be a son of a gun, if it isn't Sid Mintz" as greetings.

Wells, MacLure, and Montgomery clearly and succinctly state that 'there is no one-to-one correspondence between the forms of utterances and the conversational functions that they perform in particular contexts' (1980:464).

7. In this article Searle says,

The hypothesis I wish to defend is simply this: In indirect speech acts the speaker communicates to the hearer more than he actually says by way of relying on their mutually shared background information, both linguistic and nonlinguistic, together with the general powers of rationality and inference on the part of the hearer. To be more specific, the apparatus necessary to explain the indirect part of indirect speech acts includes a theory of speech acts, certain general principles of cooperative conversation (some of which have been discussed by Grice (this volume)), and mutually shared factual background information of the speaker and the hearer, together with an ability on the part of the hearer to make inferences. (1975:60-1)

8. I take these levels of the phonological hierarchy as 'given'—cf. the articles by Eunice Pike (1976) and Paul Tench (1976).

9. According to Pike and Pike, the

speaker-addressee exchange event comprises a social unit with special characteristics:

- (i) Both the initiating speech and the response (under normal circumstances) begin a referential unit, begin a phonological unit, and begin a referential unit.
- (ii) Both the initiating speech and the response (normally, ignoring hesitations and the like) end a referential unit, a phonological unit, and a grammatical unit. The beginning and end characteristics of these units give crucial cues for the segmentation of a stream of speech. (1977:22)

10. Note that the paragraph is here seen as a unit in spoken—and not just in written—language.

11. I used Longacre's chapter on 'Repartee' as the starting point for my structural analysis of conversation, modifying this model at places to enable it to handle the data to my satisfaction and to make it consistent with the tagmemic model I described in Chapter Two.

12. A sneeze is not normally a deliberate exchange initiation, but still some people's interaction patterns are governed by the norm that 'if your conversation partner sneezes, you should respond with an utterance such as "Bless you" or "Gezundheit"'.

13. Goffman makes note of this sort of cohesion relationship between

questions and answers:

Notwithstanding the content of their questions, questioners are oriented to what lies just ahead, and depend on what is to come; answerers are oriented to what has just been said, and look backward, not forward. Observe that although a question anticipates an answer, is designed to receive it, seems dependent on doing so, an answer seems even more dependent, making less sense alone than does the utterance that called it forth. Whatever answers do, they must do this with something already begun. (1981:5)

14. Sinclair and Coulthard (1975) discuss an interesting exchange pattern consisting of three parts. It is a variation of the question-answer exchange and is used extensively in some 'teaching' speech events. The three parts are an initiation with a question function, a resolution with a statement function and answer relationship to the question, and a tag whose function is to express evaluation, affirmation, or correction of the response (in my terminology). This exchange pattern is used when a teacher is testing his or her students' knowledge and could be called the pedagogical exchange. The following exchanges from Sinclair and Coulthard's data serve as examples:

(from Sinclair and Coulthard 1975:68)

Teacher: What makes a road
slippery?

Student: You might have rain
or snow on it.

Teacher: Yes, snow, ice.

Anything else make
a road slippery?

Student: Oil?

Teacher: Oil makes it very slip-
pery when it's mixed
with water, doesn't it?
The oil skims on top he
of the water.

15. Ryan (1981) points out that while some types of conversation may follow the maxims that Grice (1975) posits in connection with his 'co-operative principle', other types of conversation do not. Ryan distinguishes (31) between two types of dialogue (her term) on the basis of whether or not the dialogue aims to follow these maxims.

CHAPTER V

CONCLUSIONS

In this dissertation I have used and developed the tagmemic theoretical model to describe levels of linguistic structure that have mostly been ignored by linguists. In doing so I have gone one step further and described the structure of the behavioreme, which is the context of speech. The hierarchical levels I have focused on are the speech act, exchange, speech event, and behavioreme levels.

In Chapter One I argued in favor of a particular orientation toward language study. This orientation involves studying language empirically rather than by introspection, in context rather than in the abstract. A popular distinction between a theory of competence and a theory of performance is rejected.

In Chapter Two I sought to present the basic tagmemic model as clearly and as comprehensively as possible. The postulates of tagmemic theory are taken to be reflections of innate characteristics of the human mind, manifested in all human behavior. Thus tagmemics, though it has been applied mostly to language, is not just a linguistic theory—it is a model for all human behavior. While tagmemics can be used to analyze and describe phonology, sentence, and other linguistic units, it can also be used to analyze and describe nonverbal behavior, social structure, and possibly even the organization of belief systems.

In Chapter Three I examined some differences and similarities

among language and other types of behavior and demonstrated how these differences and similarities affect analysis. I then took a closer look at the referential structure of narrative texts and pointed out the parallelism between referential structure and the structure of nonverbal behavior. Some modifications to the tagmemic model were proposed and defended, and then a corpus of data was analyzed using the modified model. The data was of a behavioremic unit, a wedding ceremony, which involved speech in the context of nonverbal behavior.

In Chapter Four, having already investigated the context of speech, I narrowed the focus, focusing now on speech events and their constituent units, which in the previous chapter were examined in terms of their functioning in a larger context. Speech acts were analyzed in terms of their functioning in exchanges, and exchanges were analyzed in terms of their functioning in conversation. Patterns and relations were explained by reference to the categories of slot, role, filler class, and cohesion. Some of the insights that other investigators have provided were also tied in with the tagmemic model.

This dissertation makes two main contributions. First, it shows conversation to be structured and identifies some of the recurring patterns in conversation. The social, behavioral, and conceptual context of conversation is shown to be structured as well. Second, it further develops a descriptive model for the analysis of conversation and proposes some modification for the tagmemic model in connection with its application to referential structure and nonverbal behavior. These two contributions are of course related. There are recurring structural patterns that members of a culture intuitively, and largely unconscious-

ly, recognize and follow in their verbal and nonverbal behavior. It is these emic patterns that the theory seeks to uncover.

APPENDIX ONE:
WEDDING CEREMONY DATA

APPENDIX ONE

WEDDING CEREMONY DATA

1. People begin seating themselves in the sanctuary of the church.
2. Organ music begins.
3. Two ushers light inside candelabra at the altar with matches.
4. Ushers start seating people.
5. An usher lights the two candles at the kneeling bench.
6. A song is sung by a member of the wedding party ('Two candles').
7. Two children stroll down the aisle with candle lighters and light the outside pair of candelabras.
8. A second singer begins a second song.
9. Ushers seat members of the couple's family.
10. Another song, performed by both singers (('The wedding song')).
11. Organ music resumes (('I love you truly')).
12. Minister takes his place behind the kneeling bench.
13. Groom and best man enter from the right and take their places, facing the audience.
14. Ushers and bridesmaids stroll down the aisle and take their places.
15. Organ fanfare is played.
16. Bride's processional music begins.
17. Everybody stands up and faces the bride.
18. The bride's father escorts her down the aisle.
19. Minister asks 'Who giveth this woman to be married to this man?'
20. The father answers 'My wife and I do.'
21. Minister: 'The congregation may be seated.'
22. Everybody sits down.
23. Minister reads I Cor. 13 from the Living Bible.
24. Minister addresses couple: 'John and Mary, you've come here today to express your love for each other upon this (trial) of witnesses to share with God your commitment to each other in your marriage today. I would ask you that for any reason you would know why you should not be wed to each other at this time you will speak or forever hold your peace. But as you've made this commitment to each other because you love each other, we're going to ask that you commit yourselves to the agreement of vows and then to the exchanging of vows with each other, and then finally to the exchanging of rings as a symbol of your love.'
25. Minister to John: 'John Brown, will you take this woman to be your wedded wife, to live together after God's ordinance, in the holiest state of marriage. Will you love her and comfort her, honor and keep her, in sickness and in health, and forsaking all others keep thee only unto her as long as you both shall live. You may answer "I will".'
26. John: 'I will.'

27. Minister to Mary: 'Mary Jones, will you have this man be your wedded husband, to live together after God's ordinance in the holiest state of matrimony. Will obey him and serve him and love him and honor him and keep him in sickness and in health, and forsaking all others keep thee only unto him so long as you both shall live. You may answer "I will".'
28. Mary: 'I will.'
29. Minister: 'If you would like to at this time take and hold your right hands together, facing each other as you repeat to each other the vows of holy matrimony.'
30. Minister, leading John through the vows: 'I, John Brown, (I, John Smith) will take thee, Mary Jones _____ to be my wedded wife _____, to have and to hold _____ from this day forward _____ for better, for worse _____, for richer for poorer _____, in sickness and in health _____, to love and to cherish _____, till death do you part _____, according to God's holy ordinance _____, and thereto I pledge thee my troth _____ ((John has a hard time saying this))
pledge thee my troth _____.' ((laughter))
31. Minister, leading Mary through the vows: 'I, Mary Jones, _____ take thee, John Brown—SMITH ((laughter))—take thee John Smith _____ to be my wedded husband _____, to have and to hold _____, from this day forward _____, for better, for worse _____, for richer, for poorer _____, in sickness and in health _____, to love and to cherish _____, to (serve) and obey _____, till death do us part _____, according to God's holy ordinance _____, and thereto I pledge thee my troth _____.
I apologize for using the wrong name as minister for John Smith.'
32. Minister, to couple: 'As a symbol of your love for one another, John and Mary, you have chosen to exchange rings. Let me share with you a little bit about the rings before you share them with (each other). If you'll note, the ring is a circle. It really has no beginning and it has no end. But this night as you (make) your commitment to one another, your life together becomes as that circle, without end. The ring is a symbol of your commitment to your faithfulness to one another. As he wears that ring, he signifies to everybody that sees it that he has a faithful wife. As you wear his ring, you signify to everybody that sees you and that ring on your hand that you have a faithful husband. And so as you share that precious ring of value, your love (). And that commitment to each other is a symbol of the wearing of that ring.'
33. Minister, to John: 'John, you may place the ring upon her left hand and repeat after me:
34. With this ring _____ I thee wed _____, and with all my worldly goods _____ I thee endow _____. In the name of the Father _____, and of the Son _____, and of the Holy Spirit _____.'
35. Minister addresses Mary: 'Mary, you may place the ring upon his left hand at this time and repeat after me:
36. With this ring _____ I thee wed _____, and with all my worldly goods _____, I thee endow _____. In the name of the father _____, and of the Son _____, and of the Holy Spirit _____.'

37. Minister, to both of them: 'As you have made this commitment to one another by the commitment of a vow, by the sharing of the vows with one another, and by the exchanging of rings, by the authority invested in me by the state of Texas as a minister of the gospel, I now pronounce you man and wife.'
38. Shall we kneel as we take time to pray God's blessing upon this union.'
39. Bride and groom kneel at kneeling bench.
40. Minister, praying: 'Our Father, tonight we have taken John Smith and Mary Jones, two individual people, and united them in holy marriage according to Your ordinances given by Your holy Word. They have upon this commitment to each other become one within that relationship. And so Father, at this time we ask that Your blessing may be upon this home. May You bless them as they have time together to enjoy life and (play—recreation). May You bless them as they join together in Your worship of Your Son through the reading of the Word, through attendance at churches. May You bless them through their relationship to their neighbors and to their friends. May You give them a home which is full of joy, a home which is full of gladness. And may each and every person that comes and goes from their place of residence find Your love there, Your love as expressed to one another in their lives through this relationship. We ask for Your very special blessing upon John and Mary in their life that they have joined together to become one this evening. In Jesus' name we pray.'
41. Singer sings 'Lord's prayer' while the couple remains kneeling and they and the minister keep their heads bowed.
42. John and Mary each take a candle at the kneeling bench.
43. They light the center candle.
44. They replace the two candles.
45. John and Mary stand up.
46. Minister, to John: 'You may kiss your wife.'
47. They kiss.
48. Then they face the audience.
49. Minister, to audience: 'May I have the privilege for the first time to introduce to you Mr. and Mrs. John Smith.'
50. Recessional music begins and continues until participants have exited.
51. Couple marches out.
52. Ushers and bridesmaids march out.
53. Ushers come back in to escort the family members out.
54. Minister, to audience: 'I want to ask that the congregation remain seated for a few moments because they're going to come in and (do portraits) and we're going to get the opportunity to watch some of this, so just remain seated for a few moments while they come in.'
55. Bride and groom come back in.
56. Photographers go to work.

APPENDIX TWO:
CONVERSATION DATA

APPENDIX TWO

TEXT A

Bill: Hello.

Stranger: Hello.

Bill: This your desk?

Stranger: No, uh, could you tell me where I could find the office?

Bill: Which office?

Stranger: Oh,

Bill: The main office?

Stranger: all the main offices.

Bill: Okay, if you'll go to OU one?... The first trailer out here ().

Fred: What kind of, what housing are you looking for?

Stranger: Um, well, I'm looking for the first semester housing.

Bill: It might, it might be out at the center, if it's not they'll give you the new number.

Fred: I could look it up in the directory.

Stranger: Uh, that's okay (). Okay, the first trailer on the left.

Bill: Yeah, straight up the street.

Stranger: Very good. Thank you.

Bill: Uh huh.

TEXT B

Martha: Do you know the Smiths, that go the the Christian Church? Mister and Miss Smith?

Mrs Jones: I might know 'em if I was to see 'em. I just can't uh remember names |too well.

Martha: |Oh yeah. They live over, We live um on Maryland Avenue just off Center Street, um, and there's this couple, I don't know their first names or anything but they live in a house just kind of across the street and down a ways they're a retired couple. He used to work for the post office.

Mrs Jones: What's their name?

Martha: Smith

Mrs Jones: |Smith.

Martha: |is their last name. She I think, she came from Germany. I think he married, I don't know if he was maybe in the war or something and married her but I know they go to the Christian Church here in Duncan|ville ().

Mrs Jones: |Well you know the churches now is not like they used to |be.

Martha: |Yeah. Yeah. It's |bigger

Mrs Jones: |When church is over every- body wants to het home to see the Cowboys. ((laughs))

Martha: They don't stay aroung and talk, |huh?

Mrs Jones: |and you know uh and most all of the elderly people that I uh worked in the church with are gone.

Martha: Mhm, mhm.

Mrs Jones: And there's just lotsa people up there that now our church has a membership of over five hundred.

Martha: Is that right.

Mrs Jones: But some Sundays there ain't more than sixty there, you know.

Martha: O|h

Mrs Jones: |It's It I I don't know. It seems like all the churches have built up, uh, more than then uh then our church has.

Martha: mm

Mrs Jones: Now see they used to be two churches here in Duncanville. The Methodist Church was organized first. And then the First Christian Church.

Martha: mm

Mrs Jones: Uh, one of the boys at uh the church, wrote, our uh, it was homecoming in uh, nineteen and seventy-seven. And they started our church in uh, wait a minute,...believe it was about nineteen eleven. I'm not for sure,...uh huh, in nineteen eleven.

Martha: hm

Mrs Jones: An' uh it burnt, in nineteen seventeen. Wait a minute,...yeah and uh, the Methodist church would have church on the uh second and fourth Sundays and we would have church on the first and third Sunday. And each church would go to the other when they'd have the service. And it was just all one big happy church family really,

Martha: hm

Mrs Jones: and, us, teenagers was always glad when fifth Sunday come we didn't have to |stay at church ((laughing))

Martha: |((laughing))

Mrs Jones: uh...that was in nineteen thirty-eight. They had alternating services with the (?) Methodist neighbors.

Martha: hm

Mrs Jones: And they had a big old uh arbor up there with brush over it y'know. And they'd always have a a revival, every uh, every summer,

Martha: m|h

Mrs Jones: |and both churches would, would have the revival.

Martha: Well uh, now do re- was the church, at the spot where

it is now, when you were coming here as a young person

Mrs Jones: u huh |yeah

Martha: |right there near the bank

Mrs Jones: the- , there, we just had those two front lots

Martha: mhm

Mrs Jones: at at that time. Now in my- I was borned in
nineteen eight

Martha: m|hm

Mrs Jones: |and see the church, was organized in nineteen and
seventeen and my father was one of the first uh
seventeen members

Martha: is that |right

Mrs Jones: |and there was a Mister Daniels, uh R.N.
Daniels that gave the property, and uh, and five
hundred dollars and at that time five hundred dollars
built the church. It was just a little frame church
with (?) Sunday School rooms on the back, |But the most

Martha: |hmm

Mrs Jones: I know about Duncanville see is through the church

Martha: yes

Mrs Jones: and I've seen it all built up as I said this, property
here was, a, a, a dairy

Martha: this |here this here

Mrs Jones: |It was Carter's Dairy this area |here

Martha: |Is that right.

Mrs Jones: and all this land was farmin' land. There was, just a
little, there was a depot and a post office and uh, and
a general store, and a little fillin' station that was
about all there was when we first started comin' to
church up here. Oh, as well as I can remember, we came
in a surrey. Two seated surrey, you know.

Martha: Pulled by horses

Mrs Jones: uh huh

Martha: ah hah, yeah, yeah

Mrs Jones: and, this uh, this land (...) all here was just farmin'
land

Martha: Now when you say Carter's Dairy, uh, that wouldn't by
hap- by any chance be the same Carter as the street
Carter, right up here there's a street called Carter
street.

Mrs Jones: I don't know, | I don't know

Martha: | Was it C-A-R-D-E-R or T do you remember
if it was

Mrs Jones: It was T-E-R, okay, that's a D-E-R over there I
noticed, yeah maybe it wasn't them

Mrs Jones: When do you have to have this up hon'

Julie: Monday

((everyone laughs))

Martha: Well

Mrs Jones: There's a whole lot right there in that paper

Martha: When you used to come to church, um, we- I guess the
roads were dirt, right

Mrs Jones: Oh yeah,

Martha: | uh huh, uh huh

Mrs Jones: | oh yeah before I married in nineteen twenty-eight I
started church, to the ladies meeting one evening, and
that mud balled up under I had a little old model A
coupe and ((laughs)) mud balled up under it till it
just stopped

((everyone laughs))

Mrs Jones: I had to g- walk back to the farm an' my husband got
the horses and came up there and pulled me out
((laughs)).

Martha: Oh...my goodness

Mrs Jones: Oh, and you see uh a section of land is a mile square

Martha: m hm

Mrs Jones: and most everybody owned a half section a quarter section or a, the whole section

Martha: m hm | m hm

Mrs Jones: | My uncle George Penn owned all eight hundred acres down here acrossst uh Cockrell Hill Road. See mosta I know about Duncanville, is what my family had, out here. He was a great uncle. And uh in nineteen, let's see he died in nineteen and forty-two and-

Martha: Now what was his name

Mrs Jones: George Penn

Martha: George Penn | was he

Mrs Jones: | and he sold the farm after his wife died, he died, uh, the executor sold the farm to Bulldeckers and they had a horse ranch over there, until uh, Redbird bought it from 'em. Bulldeckers bought it from uh uh the executor

Martha: mmm

Mrs Jones: and uh he had tore up his will and there was twenty one ne- twenty-two nephews and nieces got the property. And my my mother was one of the nieces. And uh, me uh- she had passed away, when I was four and my dau- sister was uh, six. She had passed away an' uh, that's what I bought my first home with, what we got, I haven't had to farm down there

Martha: well, that's you know there's this uh new park area called Penn Springs

Mrs Jones: | Penn springs, distant, distant relatives

Martha: | Now does that have anything to do with them? Is that | right | uh huh

Mrs Jones: | Now I couldn't | tell you just what. But | they were distant relatives

Martha: | uh huh I see.

Mrs Jones: And that spring was where Ms. Penn kep' her cream and butter on' it was cold there' 'as cold water running thr|ough there all the time

Martha: |
|hm

Mrs Jones: That's what they call a spring you know

Martha: ()

Mrs Jones: An' uh that's where they kep' their butter an' their
. eggs an' an' things cold

Martha: uh huh

Mrs Jones: milk

Martha: Did they have a little house, a little spring house |or
anything |

Mrs Jones: |uh

Martha: do you know

Mrs Jones: I been there but |I can't, I don't I don't know

Martha: |mhm mhm
mm Julie, uh, do you have ano- some other question you
want to ask

Mrs Jones: I wi- I wish that we had, now that that history of
Duncanville, they uh have them at the library up |here

Martha: |mhm

Mrs Jones: you know where it is on |Main Street

Martha: |yes yes uh huh

Mrs Jones: But it it really tells everything in there about

Martha: Yeah but you know there's something especially nice to
hear somebody who remembers ((laughing)) you know how
that is. 'Cause

Mrs Jones: but

Martha: uh you know that makes it really int'resting too

Mrs Jones: well tha- uh, there was uh, a that paper'll tell
|ya

Martha: |uh huh

Mrs Jones: I think the man's name was Charles, Charlie Nance

Martha: uh huh |hm

Mrs Jones: |that uh bought property here in Duncanville

Martha: hm

Mrs Jones: But it tells all about |the schools in there and I
think that's |

Martha: |mm

Mrs Jones: one thing she'd like to write about.

Martha: |yeah

Mrs Jones: |When the first schools now old Central, you know where
Central, is that where you go

Julie: I go to Hastings.

Mrs Jones: You go to Hastings. Well Central, school, uh is uh the
oldest school uh but it's not the first school

Martha: hm

Mrs Jones: But it was the only school, even in nineteen and forty
uh seven, my daughter graduated from Central high
|school

Martha: |did she did she

Mrs Jones: in nineteen and fifty-seven

Martha: uh huh

Mrs Jones: an' it'll tell all in there, they only went to the
tenth grade an' then they had to either go to Lancaster
or Oak Cliff and there was one school in Oak Cliff an'
it was Adamson it was Oak Cliff High School

Martha: uh huh

Mrs Jones: It's down on ninth street. An' uh my Dad had a route
there for forty-two years sold butter 'n' eggs

Martha: he did

Mrs Jones: an' uh, so uh that school, was there, 'n' me'n' him
used to go to all the football games, every one of 'em

Martha: huh

Mrs Jones: in fact I played basketball seven years

Martha: did you

Mrs Jones: That mister Van Smith that was

Martha: |yes yes

Mrs Jones: |killed over here, you know

Martha: yes I remember about that, |I didn't know him

Mrs Jones: |Now his wife's mother was a
second mother to me. I grew up with those ()
girls, she was around

Martha: uh huh

Mrs Jones: and their farm was over there at Redbird airport

Martha: m hm m hm I read about him you know last year

Mrs Jones: uh huh

Martha: When he was killed in that accident,

Mrs Jones: |He was my coach, when I played basketball.

Martha: |that was too bad.

Mrs Jones: I played |basketball seven years, an'

Martha: |is that right

Mrs Jones: an' uh on the on- an' well I played ball after my
little girl born, she was three years old. I played on
the outside team an'

Martha: hm

Mrs Jones: an' then uh, an' the church team |and he was

Martha: |hm

Mrs Jones: our coach

Martha: Well, now when you used to come uh to church here in
Duncanville, were there very many people that just
lived here in Duncanville you knew that weren't
farmers? .

Mrs Jones: Uh no, not very many. There's just a, uh the oldest house, in Duncanville, you know where the post office is.

Martha: mhm

Mrs Jones: Go one block, and Irene Adams lives in a white house over here on the corner.

Martha: Yeah.

Mrs Jones: And Ms. North lives next door to 'er. An' uh, they are the two oldest houses in Duncanville.

Martha: Is that right huh | uh huh

Mrs Jones: |an' this this history book'll
tell ya,

Martha: mhm

Mrs Jones: tell ya all about that

Martha: mhm

Mrs Jones: and you have to have this by Monday

Martha: well she doesn't have to have a huge report

Mrs Jones: |no well there'll be a lot of,

Martha: |you know it's just a

Mrs Jones: |about the schools, all the schools |when they

Martha: |okay |uhuh

Mrs Jones: star|ted.

Martha: |uhuh

Mrs Jones: I started to say while ago we had no freeways or anything

Martha: |mhm

Mrs Jones: |these sections of land, they would be uh a road, we all said roads then you know. They'd be a road around every every section

Martha: mhm

Mrs Jones: of land

Martha: mhm

Mrs Jones: and Polk Street over over you know where Polk | is

Martha: | yes yes

Mrs Jones: well it | used to be (Yule) road for it was

Martha: | uhuh

Mrs Jones: named Yule

Martha: uhuh

Mrs Jones: after a family of Yules here and uh it was Yule Road.
The next one over was Hampton but it wasn't called
Hampton then it was Meridian Road.

Martha: u huh

Mrs Jones: and the next one then was Cockrell Hill Road you see
they went ever- every mile|...

Martha: | yeah

Mrs Jones: there would be a road |...

Martha: | mhm

Mrs Jones: an' then the cross ways the other way.

Martha: sure

Mrs Jones: Wheatland and Duncanville, used to be Wheatland-
Duncanville, it's just called Wheatland now

Martha: It was called Wheatland Duncanville

Mrs Jones: uh|uh or () and it went

Martha: | I see uhuh and that was one of the

Mrs Jones: | it went u|huh that went

Martha: | main roads | between sections

Mrs Jones: north and south | see ever mile there'd

Martha: | yeah

Mrs Jones: be one north and south | and one east and west

Martha: |mhm well now
was after Cockrell Hill then, do you remember what was
the next one, was it what | was it called

Mrs Jones: | East was Meridian Road

Martha: Okay and then west, what was west of Cockrell Hill

Mrs Jones: well uh, Duncanville | uh uhuh

Martha: | Duncanville Road uhuh and it
was called Duncanville Road was it back then

Mrs Jones: yeah

Martha: uhuh. That's that one that comes in past uh De Fords
| and so forth

Mrs Jones: |mhm right through there

Martha: yeah huh yeah well, so there was the Post Office and
there was a general store

Mrs Jones: and a depot

Martha: and a depot, now where was that depot.

Mrs Jones: Right there at Center

Martha: Right at Center and and Main, just | by

Mrs Jones: |mhm

Martha: the rail|road track there

Mrs Jones: |mhm

Martha: u huh and uh

Mrs Jones: it tells in there about what I was telling you the
other night about uh Duncan Switch, you asked if it was
Switch and it | was

Martha: |mhm

Mrs Jones: because its its in there 'bout it and about the
railroad

Martha: u huh was there what do you remember if there was like

one train a day or do you have any idea | if there was
yeah

Mrs Jones:

| No I don't

know. Only I know my uh uh great uncle, great
grandfather gave the right of way through his property
which is out here on the old Duncan- the old
Duncanville Road, what they called the Old Duncanville
Road to Cedar Hill went by uh the the uh (Little)
Cemetery that | road that goes

Martha:

| yes yes

Mrs Jones: through there, that was the only road that was in
through there that you could get to Cedar Hill

Martha: Well, Julie, do you know where that is, you know when ya
go out Cedar Hill like we used to go to Mrs. uh

Mrs Jones: There's a cemetery

((Change side of tape))

Martha: That's interesting, isn't it

Mrs Jones: yeah

Martha: was there a, li|ke a little um

Mrs Jones:

| and they uh Grandpa Treiss gave this
right of way, through his property, as long as there
was a passenger train on uh, on the uh trucks. And if
there was a, if they ever took the passenger train off,
the, but in them days, you know they would uh word o'
mouth yu know was they didn't get these lawyers an' all
then. But anyway, after ah they took the, Santa Fe it
was to go back to the heirs, the Treiss heirs, and
after they took the uh passenger train off, nobody had
any writing or papers or wudn't no record anywhere, and
so they got a

Martha: But it really should have gone back |right ((laughs))

Mrs Jones:

| that's the same
way with all this property down here on Hampton that
the Yules owned. They gave the, you know the um,
Wheatland Methodist Church down there is one of the
oldest churches in Dallas county. If it's not the
|oldest. And uh, the Yules gave the

Martha:

|hm hm

Mrs Jones: gave the property for the school as long as there was a school there. And the cemetery as long as it was a cemetery and the church property they gave it all, but it was to, if it wasn't used for that purpose it was to go back to the Yule heirs

Martha: hm uh huh well

Mrs Jones: I got to the senior citizens center every day, almost every day I was home this week. An' uh, there was a girl up there. There was an elderly couple that lived at Wheatland named uh we always called 'em Aunt Sue an' uh Uncle Sam Ewell... but we called 'em that and they uh um lived there for years and years. She was a teacher, there at, at uh Wheatland School.

Martha: mhm

Mrs Jones: and that house an'all is is still there

Martha: I see mhm

Mrs Jones: down there on, Wheatland

Martha: hm, well

Mrs Jones: My mother was a Penn. My dad was a Penn.

Martha: hm

Mrs Jones: At one time in this community, there was four John Penns

Martha: ((laughs))

Mrs Jones: John really did run in this family in our family

Martha: ((laughs)) Your-so your father's name was John Penn.

Mrs Jones: No my father's name was () Penn. His dad his father my grandfather was named John Penn.

Martha: u huh I see.

Mrs Jones: There was uh uh him and uh, and uh the gran- my grandmother they had ten uh thirteen children

Martha: hm you just don't hear that anymore

Mrs Jones: Thirteen children and there's one of 'em still living. He's Uncle Randolph. He ninety, ninety-some years old

Martha: Is that right?

Mrs Jones: We have a reunion every year at Cedar Hill

Martha: Well

Mrs Jones: This ain't much about Duncanville

Martha: ((laughs)) well it's interesting, well it's about this area

Mrs Jones: We had our uh fifty uh second reunion at Cedar Hill Texas this year

Martha: fifty-second

Mrs Jones: I was thinking it was the fifty-first but they had the first one in uh August of nineteen thirty. My little girl was ten and a half months old and I've never missed a one.

Martha: Is that right

Mrs Jones: So this'd be fifty-two wouldn't it?

Martha: You oughta get some special award ((laughs))

Mrs Jones: My dad started 'em

Martha: hm

Mrs Jones: and at one time there was one, one sister that died young an' uh at one time there was twelve of the brothers and sisters at the reunion. And now, see, it's their children like me, that's carrying it one.

Martha: sure. Did they was there um uh like a little café or a little restaurant or something like that in Duncanville back when you were-

Mrs Jones: No there wasn't one here in for I don't know how I- oh the Fouts did though, they did have a little...believe it was the Fouts

Martha: There is a Fouts Road.

Mrs Jones: Oh yeah it's a name Mildred Fouts just pa- old Grandma Fouts just passed away. She, it was about a year. I think she was either seventy-five or seventy-six, just a few weeks ago.

Martha: hm

Mrs Jones: They fo- her son went to the her home and found her sittin' in the chair

Martha: oh hm

Mrs Jones: They were fixin' to go campin' that weekend an' he run up to see if she had, needed anything from the store or anything before they went an' he, she was getting meals on wheels.

Martha: Yeah

Mrs Jones: and she had eat her dinner and taken uh the plate an' all to the kitchen

Martha: mm

Mrs Jones: an' she came back an uh she was watchin' she always watched soap operas

Martha: mhm

Mrs Jones: an she was watchin' uh the TV was on

Martha: m

Mrs Jones: she was sittin there in the chair still warm

Martha: well

Mrs Jones: she just passed away, after she had eaten her lunch

Martha: my goodness, but they used to run a a café did they

Mrs Jones: I think they had a little café there

Martha: mhm mhm | your

Mrs Jones: | and uh uh, the first m- the first people that owned that general store was that I remember was Strauss. And then after he had it, the Fouts, twins, the Fouts there was Ray and Ray Fouts that was twins they had real estate, here for a long time

Martha: hm

Mrs Jones: Ray may still be in real estate here I don't know

Martha: Did, you um like, your family ever go in the store I suppose the store was closed on Sunday or was it open?

Mrs Jones: Oh everything closed on Sunday you know in them, in them days

Martha: mhm was that the kind of store where you could just buy everything

Mrs Jones: Everything, material for everybody sewed you know then. Material groceries. Where they had the cracker barrels where the children could go for a cracker

Martha: How 'bout meat you di- you butchered

Mrs Jones: |oh yeah most everybody did
|

Martha: |your own meat didn't you For people that that didn't live, on a farm y'know what would they-

Mrs Jones: I- I- imagine they did have have meat there

Martha: You were saying that your father sold butter and eggs to people

Mrs Jones: Yeah in Oak Cliff over there in Ma Skillern's, Skillern Drug people, Ma Skillern was the one () she lived down on ninth street. She was uh uh one of the uh one of his first customers

Martha: hm mhm

Mrs Jones: She gave me and my sister two big red New Zealand rabbits

Martha: oh wow

Mrs Jones: Daddy Daddy built us a hutch for 'em. Before that you was up we had fifty-seven rabbits ((laughs)) Both of 'em was bred. Mine has thirteen and my sister's had fifteen I think and they raised every one of 'em

Martha: oh wow

Mrs Jones: Then they all had rabbits and we had fifty-seven rabbits in one year's time ((laughs))

Martha: My goodness, oh, uh. In your church, you had a minister, that was a full-time minister or

Mrs Jones: uh no, wait now uh I got this all back here ((referring to book)). Uh, we had students from TCU, uh that came out and I was gonna see what year, uh Stuart came and brought us uh every Sunday, preaching. 'Four Sunday School rooms was added. Disciple Penn did inspire the

financial needs' that was my daddy. Never...didn't know what he did. He made me so mad. He uh uh me, there was three of us girls, neither one of us didn't have a home and goes over here and buys a parsonage for the church

Martha: oh

Mrs Jones: it kinda hurt all of our feelins I'll tell you

Martha: hm - oh you didn't have a home at that time.

Mrs Jones: oh no. We were helpin' him on the farm. We were livin' in the () and we ha- we had he'd seen that wehad a home but I mean we didn't own one

Martha: you didn't own your own, uh huh

Mrs Jones: Nineteen thirty-eight, was alternating services with our Methodist neighbor and it didn't say what year, nineteen sixty-eight is when the new building uh um, no its was in nineteen and sixty-eight my daughter passed away in nineteen fifty-nine. And uh the fellowhip building, the kitchen 'n' all was built in nineteen sixty-eight. But uh, it don't say what year that we had. It was just the students that would come out twice a month and um from TCU and preach but it was Jack Stuart and oh he is a big, big shot over there at TCU now. He married, uh, right after, right before he came to our church. And him an' Erica had two children, while they were livin' here. And that's when my dad bought the parsonage.

Martha: hm Did you have singing in your church?

Mrs Jones: oh yeah, night service an' everything. I'll never forget one night, me and my sister was was supposed to go to church and we was double datin' an' we went. An' it was late when we got through with work at home. An' uh, we had to milk the cows and gather up eggs in five gallon bucket an' so, I sa-, we started to church and I says, 'Why it'll be half over a time we get there.' I said, 'Let's go to the show.' ((laughing)) So we went to the picture show. The Bison I b'lieve up on Jefferson. Anyway, we went to the picture show. So, Ms. Brandenburg the next morn- the next Sunday we went to church and uh uh she uh- said 'Jewel' my dad's, they all call him Jewel, said, 'Jewel where was you all at last Sunday?' He said 'Well my brother came in to town an' I an' i was home,' said, 'them girls was supposed to been here.'

Martha: oh dear

Mrs Jones: well we started home an' an' Dad said uh, 'Did y'all go to church last Sunday night' an I said, 'No', he said, 'Where'd ya go', I said, 'Well we were so late gettin' through with all that old work', I said, 'that we went to the picture show', and he said uh, 'well Miss Cara asked where you all were', and he said, 'well didn't you tell uh tell me', and I said, 'well ya didn't ask. If you'd ask I would have told you.' But he never said nothin' to Mother.

Martha: you didn't get in trouble.

Mrs Jones: No we didn't get in trouble

Martha: um did did the uh was there like a piano or an organ in the church

Mrs Jones: Piano

Martha: piano, uh huh

Mrs Jones: we don't have a built-in organ, now

Martha: u huh

Mrs Jones: It's just a it's just a organ

Mrs Jones: yeah, m hm

Mrs Jones: The baptistry in the church was dedicated to my dad and the organ was dedicated to brother Henry. They both joined the church and was baptized in what they call a blue hole. It's in that history book.

Martha: u huh

Mrs Jones: Down here.

Martha: I see.

Mrs Jones: other side of Duncanville

Martha: u huh

Mrs Jones: But I know she can get a lot out of that paper 'bout the schools an' when they (built) and when they were built en' there's a lotta information in there, all about this rail-road, an' about how Duncanville got the 'ville' added onto the Duncan an'

Martha: m hm

Mrs Jones: and it's all there in the paper

Martha: one things the kids had been talking about with their teacher at school was this little, white house across from Central school-

Mrs Jones: that's the music room.

Martha: yeah, yeah. Now when your daughter went to school was that after the time

Mrs Jones: that was in forty-eight, she graduated in forty-seven

Martha: and that was after they had used that little house

Mrs Jones: oh yeah

Martha: or was she, did she go over there for music

Mrs Jones: no uh uh

Martha: u huh. Now what was the situation with that, they just needed extra room for for the music, was that it, or do you know

Mrs Jones: I, I don't know but every school had a little music room like that. Now I went to school at Wheatland. I never did go to Duncanville.

Martha: Yeah

Mrs Jones: My dad was on the school uh was president of the school board at Whealand many many years. He signed my diploma when I graduated.

Martha: How 'bout that. But you say every school had one. Are you saying that every school had a little separate house like that

Mrs Jones: uh huh yeah. We had one down there at Wheatland.

Martha: Well and

Mrs Jones: And they taught music, see it would be away from the school, where it didn't interfere with the the music didn't interfere with the lessons at school.

Martha: uh huh I see

Mrs Jones: Ms Lottie Beasley was our teacher down at Wheatland.

Martha: and and now did she have a piano in there

Mrs Jones: yeah

Martha: Did she. I noticed in this little

Mrs Jones: Now where did they move this little, uh they moved it this

Martha: well you know where it is now, you know how uh there's the police station there on Center and Main

Mrs Jones: yeah

Martha: well its just where Freeman comes there off Main there's kind of a great big lot there behind the police station and the courthouse and its right in the corner of that lot, just um...see so it's not right on Center, but it's in that big lot kind of catty corner behind the police station. It's sitting there, right on the corner you know it's uh let's see, what is on that other corner there on Freeman, there's the Telephone Company or the big Telephone Building. It's just

Mrs Jones: |yeah

Martha: catty-corner across from that. It's just sitting

Mrs Jones: We have a center there at the Lions Club building there at by the Central School. Y'know it sits out there by itself.

Martha: uh huh. Yeah...so I noticed that little music room has its chimney coming out the middle and Julie said

Mrs Jones: oh they had a little coal stove

Martha: a little stove what right-

((end of tape))

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