Introduction to Linguistics: Course Description

AIMS OF THE COURSE

The overall purpose of the course is to introduce students to linguistics as a science of language, and provides adequate background in the various aspects of the discipline. It is an introductory study of the English language through the study of linguistics with all its various branches. This course is a general introduction to Linguistics, with emphasis on traditional schools of linguistics, modern schools of linguistics, subfields of linguistics, and branches of linguistics.

ORGANISATION AND CONTENT OF THE COURSE

- ✓ **Traditional Schools of Linguistics**

- ✓ **Modern Schools of Linguistics**

- ✓ **Branches of Linguistics**

- ✓ **Subfields of Linguistics**

TEACHING PEDAGOGY: FACE-TO-FACE AND ONLINE

- **Lecture discussions and practice sessions.**
- **Classroom activities and workshops**
- **Students' participation in the discussion of the concepts and issues involved in different schools, branches, and Subfields of linguistics.**
- **Online Learning through available online platforms and videos**

ASSESSMENT: SEMESTER FINAL EXAM

DEFINING STRUCTURALISM

A theoretical and methodological approach in linguistics and other human (including social) sciences that attempts to gain insights into its subject matter by assuming that everything to do with human beings is built of more or less autonomous systems as relations of oppositions. These oppositions may be of different types but in general are binary relations. The Swiss linguist Ferdinand de Saussure is often said to have initiated a structuralist movement, school or intellectual world view, rather than developing a coherent theory, and in linguistics a distinction is traditionally made between (Saussurean) European structuralism and American structuralism, the main figure of which is the linguist Leonard Bloomfield. Structuralism in a broad sense has mainly been applied in anthropology, especially by the French anthropologist Claude LéviStrauss and other French thinkers, and in literary studies.

The term structure is derived from Latin *structura* (from *struere*, 'to build') and just as human beings build houses, so structuralism contends that human existence – the physiological and mental set-up of individuals and their social life – is also built from structures in a way that more or less governs what people are able to think and do. In addition to the limitations of the laws of physics and rules of social behaviour, structuralism also maintains that less overt structures restrict psychological and behavioural alternatives by controlling individuals' preferences. In linguistics structuralism is affiliated with the so-called Saussurean ideas about language and other sign-systems (dealt with in 'semiology', later 'semiotics') and it may be most easily understood in the conceptual framework that is attributed to Saussure.

As opposed to the use of language (French *parole*), there is a system of languages and language (*langue*) that is a set of inherent relations that build a structure. In order to arrive at an exhaustive and consistent description of this system, one has to assert that the description is historically specific: characteristic of an abstraction from language use at a certain time and place. In other words, it produces what was labelled a synchronic description of the system. This is opposed to the view prevalent in the nineteenth century that the history and the genealogy of languages was the only (legitimate) theme in the language sciences; the results yielded in this tradition was labelled by structuralists as diachronic description. It is a general experience that words are put together in chains, and a basic notion in structural linguistics is that of syntagm. But since this is a matter of language use, the corresponding notion of paradigm is often more interesting for structuralists. A paradigm is not a discernible and evident entity like a syntagm because we can only identify a paradigm by abstraction and experiment: by playing with the words of a sentence by substituting them. In that way we learn that paradigms can be said to be sets of words that can replace each other on certain positions in chains of words, words that accordingly must be different in one respect and similar in some other respect. This potential of words is said by structuralists to be a matter of how their properties are structural and can be described as such.

The basic opposition, then, is that between the form of a word, the signifier (*signifiant*), and its meaning, the signified (*signifié*). According to Saussure, this relation is arbitrary, a claim that has caused some controversy. But one might say that the relation is, in principle, arbitrary while it is, evidently, not historically arbitrary since we use words in – almost – the same way as we have experienced them when acquiring our mother tongue. From this point of departure, both form and meaning can be subject to structural scrutiny. The extremes of such scrutiny are, on the one hand, phonology and, on the other, semantic orderings of the sense and meanings of words and their mutual relations within the whole of the language system. Phonology is the study of phonemes*: that is, abstract entities identified as generalisations of speech sounds and building a mental system of oppositions that makes the individual language user able to decode the sound chains as words in a language. The enterprise of setting up such phonological systems is often a fairly straightforward project, but the analysis of word meanings is a more challenging

task. Some approaches in semantics can be regarded as conceived within the framework of structuralism, for instance the notions of semantic fields and semantic components describing the features creating the basis of semantic oppositions.

The methods of structuralism make no consistent conceptual framework. Phonology investigates the sound systems of a language or a dialect in order to find the distinctive sound features that separate words. But some linguists take different methodological approaches. For example, Louis Hjelmslev, the inventor of glossematics*, started out by dividing a text into two and he continued like this until he ended up with the phonemes. One of the basic problems of structuralism is what answers are given to the question about the nature of meaning. There is obviously a difference between word meaning and the meaning of life, even though appeal to word meanings as oppositional relations may not be unequivocally convincing and even though the question of the meaning of general, abstract and fictional expressions may not be straightforwardly answered. This vagueness in what meaning is may be the background of the diffusion of the concept of structuralism into other academic fields such as anthropology and literature, and its popularity in semiotics.

Although it is often stated as fact, the attribution of the idea of structuralism in linguistics to Saussure may not be totally justified. The source of what we know about his thoughts is *Cours de Linguistique Générale* (*Course in General Linguistics*) from 1916, a work that is based on the lecture notes of some of his students. Furthermore, Saussure may be considered only part of an emerging movement in linguistics that could not reconcile itself to nineteenth-century positivism. Finally, the term structuralism had been used by psychologists in the nineteenth century but it was not used by linguists before the end of the 1920s; Roman Jakobson probably was the first to offer a definition of the theoretical concept. The expressions 'structure' and 'structural' in discussing linguistic phenomena were also used in the first half of twentieth century.

Nevertheless Saussure is usually considered the founding father of linguistic structuralism, and his thoughts as they are presented in *Cours* have had a considerable impact on general structuralist thinking; structuralism reached its peak as an -ism between 1930 and 1960. The broad movement of structuralism was not a unified endeavour but rather a patchwork of different groupings with different goals, different basic assumptions and different kinds of subject matter. In retrospect, European structuralism can be said to encompass some more important groups of people and some more peripheral groupings and individuals, while one person in particular is a travelling herald of the structuralist message: Roman Jakobson.

It may seem ironical that Jakobson, a linguist and passionate reader of Russian poetry, with a background affiliation with Russian formalism, was to become the main inspiring force of European structuralism, the Prague School (which was, with the Geneva School, the centre of European structuralism), and of American structuralism. Passing through Europe and ending up in the United States, he and other Russians contributed significantly to what has become known as the Prague School of structuralism. Fleeing from World War Two, he visited Denmark and influenced the glossematic version of structuralism, and in the United States he inspired anthropology and other sciences, at the same time more or less directly influencing Chomsky's ideas about linguistic universals.

European structuralism was not only a countermovement with respect to positivism but after World War One it was also an opportunity to find an alternative to the dominance of the nineteenth-century German neogrammarians and their 'sound laws'. Most of the characteristics of structuralism mentioned above apply to European structuralism, and a number of other features can be mentioned. Structuralism deals with systems (a word that can, in this context, be taken as a synonym for structure; structuralists who talk about 'structured systems' use a

pleonastic term), and knowledge about these systems (the entities of which are considered at least as real as observable entities) are arrived at through abstraction and analysis. The systems are also regarded as social. Even though Saussure's basic assumption about the linguistic sign was that it is a *entité psychique* (Saussure 1916: 99), or psychological entity, in general structuralists maintain that they talk about social phenomena, albeit studied through analysis of what people say. Indeed this may be a necessary theoretical prerequisite if one wishes to avoid philosophical inquiry into the problem of what is private, what is public, and what role language plays in making the private public.

European structuralism has had wide-ranging consequences for the sometimes not particularly explicit basic assumptions of all disciplines of modern European linguistics. This is especially true in phonology, where any textbook on pronunciation and speech sounds takes up the phoneme system of the language in question. This involves ascertaining the distinctive, contrastive features of minimal pairs (of words) in order to identify single phonemes, and, following this procedure, the objective of the process is to find all the phonemes of a single language. This *modus operandi* is now almost a standard method in phonology, whether phonologists perceive themselves as structuralists or not.

Phonology is a fairly technical discipline in linguistics, but structuralist ideas have not confined themselves to intricate linguistic phenomena: they have also been adopted by scholars in fields outside linguistics. In anthropology, one of the main figures is Claude Lévi-Strauss, who met Jakobson in New York, and who attempted to show that the myths and rituals of tribal cultures work as regulating kinship systems and other social institutions. He also analysed them in line with structural linguistic analysis conceiving of them as 'grammars' intrinsic to the human mind. Whereas Lévi-Strauss studied the built-in meaning of tribal behaviour, other French structuralists like Roland Barthes and Jacques Derrida have applied structuralist thought to literature; the French intellectual Jacques Lacan did the same to psychoanalysis and the French philosopher Louis Althusser founded a 'Marxist structuralism'. In Europe, therefore, structuralism as a broad notion is nowadays mostly associated with French structuralism, and while the structural mind in twentyfirst century Europe is most likely not a member of a club named 'structuralism', structuralist beliefs are almost common sense in many theoretical, often implicit, basic assumptions.

In contrast to the European structuralistic vein – which was linguistic in its outset and all the time concerned at some level with linguistic meaning – American structuralism tended to ignore meaning and focus on linguistic form, while also in general maintaining so-called linguistic relativity*. Both attitudes can be explained in terms of the background of American linguistics. The United States was built on a mixture of immigrants and their descendants whose cultures had long philological traditions, while also comprising the ethnic Native American cultures, the anthropological and linguistic documentation of which was an immense task. It may therefore seem natural that describing each language on its own terms would be a reasonable goal, and this view, in combination with the low priority given to semantics, logically gave rise to the fairly extreme idea that the way people think depends on the structure of their language, the so-called Sapir Whorf hypothesis.

Franz Boas is regarded as the founder of American structuralism. An anthropologist untrained in linguistics, he contributed notably to the description of the phonological and grammatical structures of Native American languages. Boas incremented the prestige of language studies as a part of anthropological studies, which traditionally included archaeology and cultural and physical anthropology. But he was also an advocate of relativism, a view that he passed on to his students and followers, and, in line with this, one of his main concerns was to promote the basic methods of fieldwork. If languages are more or less self-contained entities, it sounds reasonable to call for careful and detailed investigation into each particular language in order

to offer exhaustive descriptions. And this may be one of the only reasons for the predicate structuralism to this stage of American structuralism: what was accounted for through linguistic fieldwork were the internal structures of particular languages.

The same characteristic may be attributed to the most prominent American structuralist, Leonard Bloomfield. In his principal theoretical work, *Language* (1935), the words 'structure' and 'structural' are not frequently found. The book offers more of a methodological account of categories and their hierarchies than an all-encompassing and consistent theory, but there are two features that are worth mentioning. In opposition to European structuralism, Bloomfield and American structuralism emphasise sentences as linguistic units, a bias that goes back to Boas and the (basically pragmatic) idea that human beings communicate in sentences, not by using words in isolation. The other thing is the fact that, contrary to general opinion, Bloomfield did not totally abandon linguistic semantics from his linguistic approach. For instance, he appeals to a special kind of meaning:

Since our study ordinarily concerns only the distinctive features of form and meaning, I shall henceforth usually omit the qualification linguistic or distinctive, and speak simply of forms and meanings, ignoring the existence of non-distinctive features. A form is often said to express its meaning. (Bloomfield, 1935: 141)

This is also by necessity consistent with his hierarchy of categories which would otherwise have been impractical because the notions 'meaningful' and 'meaningless' are necessary theoretical concepts for the distinctions between the classes of linguistic units, for instance in the expression the 'smallest meaningful unit …'.

But some of Bloomfield's followers in American structuralism took it further away from semantics and linguistic meaning, one of them being Zellig Harris, whose principal work actually has the word 'structural' in its title. And these two themes, the meanings of the words 'structuralism, structural and structure', and the question of whether semantics can be disposed of, are being transferred to the modern world's most famous linguist, Noam Chomsky. It may seem ironical that Chomsky's programmatic work, *Syntactic Structures* (1957), dealt with formal (mathematical in a broad sense) descriptions of phrase structures, accordingly using the term 'structure' while explicitly abandoning the idea of meaning having any role to play in this formal approach to linguistics. The position is repeated in *New Horizons in the Study of Language and Mind*:

As soon as the first attempts were made to provide actual descriptions of languages forty years ago, it was discovered that the intricacy of structure is far beyond anything that had been imagined, that traditional descriptions of form and meaning merely skimmed the surface while structuralist ones were almost irrelevant. (2000: 122)

The outcome of the structuralist project will find its place (cf. Chomsky 2000: 5) in this the latest theoretical paradigm, labelled generative grammar, in which the term 'structure' is a basic and axiomatic one, and in which the unearthed structures are assumed to be mental, but have nothing to do with meaning. On the one hand, Chomsky seems to carry further some of tenets of American structuralism and, on the other, he dissociates himself from its basic theoretical ideas and methods. In a way he is back at the starting point of Saussure (maybe not as a historical figure but as the icon of European structuralism), and in another way he is not. He says, like Saussure, that he studies mental (what Saussure calls psychological) phenomena, and, like Saussure, he does so as abstractions from mental products: words. In this respect they put forward comparable ideas. Where they part is the question of which phenomena they study. Saussure and his followers see language as words, primarily their phoneme structure and their semantics, while Chomsky sees language as phrase structures.

One of the distinctions set up by some structuralists in linguistics is that between form and substance, meaning that, for instance, the physical nature of speech sounds studied in phonetics is interesting but secondary to the important effort of finding and modelling the phonemes – as mental and material entities – as the form of language systems. This illustrates a fundamental problem with structuralism, that some of its theoretical notions are extremely general, almost universal. Likewise, there is a certain kind of vagueness in the terms 'form' and 'structure'. From their classical origin they are the heirs of words that did not have different meanings. 'Form' and 'structure' meant almost the same, and in some contexts they still do. In formal logic, for instance, the *raison d'être* of arguments is that they have a certain structure, while in other contexts, for instance in architecture, it may be reasonable to distinguish between the form (shape and surface) of a building and its inner structure. So basically, the proposal of structuralism seems to be no more than the idea that things in the world are ordered in ways that make them more than silhouettes in a nebulous landscape. As such, structuralism has pervaded modern Western civilisation.

Structural Linguistics and Basic Concepts

This volume takes a Saussurean approach to language and meaning in language. Our first task will be briefly to examine Saussure's work in order to see what we mean by a Saussurean approach and why such an approach is useful and desirable. Next, we will, again briefly, examine the two schools of structural linguistics, Praguean and Bloomfieldian, on which the ethnoscience tradition in anthropology directly drew.

Langue and Parole

We begin our consideration of this volume's Saussurean underpinnings with Saussure's original conception of the opposition between *langue* and *parole* -- or, language and speech. *Langue* refers to the common system of expectations that we all share, and that we each induce from the practice of our speech community when we learn to speak. Langue is analogous to a code as opposed to a message (though it differs in significant ways from "artificial" codes such as computer languages or Morse Code [1]). In the Saussurean system, native speakers' knowledge of langue is similar to what Chomsky later called "competence" (with the reservation that Chomsky defines as intrinsic to this system certain syntactic operations (1965: 4, 1964: 59-60), that Saussure did not know existed). *Parole* (cf. Chomsky's "performance") refers to actual messages that we individually and uniquely construct on the basis of the regularities (or code) provided by langue, joined with various other code-like systems (which Saussure did not name, but which presumably include social class markers, situation markers, and so forth), various communicative intents, [2] and chance factors.

The contrast between langue and parole, then, is not a symmetric one between one system and another, but is an asymmetric one between a system in isolation and the concrete situation in that system is instantiated and interacts with other systems. The asymmetry explains why various calls for a theory of parole, or speech, comparable to a theory of langue (e.g. Bourdieu 1977) are misguided; the rules of langue are the axioms that generate a system, while the "rules" of parole are the devices by which -31- the products of different systems are combined with each other and adapted to whatever situational constraints exist.

Saussure was at one with Durkheim[3] regarding the collective and passive nature of the sign. Language was, for Durkheim, the example par excellence of a collective representation (Durkheim 1938:2-8; cf. Meillet 1904-05:1-2). In Saussure's formulations it was a human creation that any single human was nonetheless powerless to change. Saussure's strong assertion

of the collective, social nature of language [4] was basic to his conception of the science of linguistics (Ardener 1971:xxxiv) -- though not to his more general postulated science of serniology, which, in dealing with motivated as well as unmotivated symbols, would necessarily have had to encompass individual as well as collective representations. Saussure made clear that langue is intrinsically social, [5] inhering not in individual users but in communities. This assertion does not entail any mystical claim about any group mind; it only means that the term langue (that is, "language") and the theoretical concept to which it refers are restricted to those parts of individuals' linguistic knowledge that are shared generally by other members of their speech communities. Langue is a collective phenomenon that only exists in the shared understandings that enable communication to take place. It follows that we, either as linguists studying language or as children learning our native language, have no direct access to language (langue), but can only induce representations of it from the samples of speech behavior (parole) to which we are exposed. Each individual also induces or creates additional, idiosyncratic linguistic knowledge that forms part of only that person's personal instantiation of language (his or her own individual *representation* of langue) and that enters into only that person's speech performances (parole); on the other hand, any particular piece of language (langue) may not necessarily be shared by *all members of the speech community in question.*

Saussure emphasized the passive nature of language (langue) as opposed to the active nature of speech (parole). What he meant is that we create speech acts. In them we produce novel combinations of shared elements and sometimes even include some novel elements. But in order for these freshly and actively created speech acts to communicate to others they must be understood. To be understood, they must be constructed out of known, and thus shared, elements -- or provide enough redundancy and context for the meaning of novel elements to be inferred. The linguistic part of what enables this understanding is language: the regularities of pattern and reference that we have experienced in (and induced from) our speech community. Language is passive, in one sense, because we form it by taking the regularities we are given, rather than by seeking out the regularities we might want. But, more important, it is passive because it depends not on the regularities that any particular one of us, may experience, whether actively or passively, but on the regularities that happen to have been felt by enough of us to be shared by our speech community (as well as on the commonalities of the innate perceptive and cognitive apparatus we use to experience these regularities and to reason from them).

The passive and collective nature of langue has important consequences for language change. Langue is never experienced directly, but only indirectly through the vehicle of acts of parole. It therefore is not taught directly to new generations of speakers, but rather is induced anew from parole by each new generation. It is thus a distillation of (and abstraction from) regularities experienced across the wide range -32- of speech that the learner encounters. Individuals are powerless to change langue (its subconscious nature makes it largely immune to effective political manipulation), but the cumulative (statistical) effect of a large number of parallel individual creations is to change the sample of events that one generation experiences from that experienced by the preceding generation, and thus to change the langue that generation induces from the langue of the previous generation. If enough new members of a community are exposed to the same new speech situation, and if enough of them make similar inferences from it, then the new regularities they infer from that new situation will be shared widely enough to become part of their language. Similarly, old regularities of speech, which had been incorporated into the language but subsequently drop out of use, cease to be experienced by new members, and thus cease to form part of the representation of the language that these new members induce; when enough members lacking the features in question have entered the community, the features then cease being part of the language. It is this (what we might call)

"sampling shift" that accounts for *linguistic drift,* and thus for the changes over time that give us language shifts and the family trees of diachronic (or historical) linguistics.

Our experiences now, unlike many people's experiences over much of the past, include written as well as verbal stimuli and products of mass media as well as of conversations within our local communities. These changes expand the range of sources from which we can induce regularities, and tend to retard the loss of some old regularities as well as to speed the spread of some innovations. However, they do not affect the nature of our induction of our individual representation of language, nor do they change the definition of language as that which is shared among our individual representations. [6]

We each participate in various alternative speech communities, and thus in groups in which slightly variant forms of language inhere. A "speech community" is accidental and incidental in the same way language is; it is a set of people who share enough speech experience to induce common regularities, whether or not they see themselves as a community, meet all together at one time, like one another, and so forth.

Signs: Signifiers and Signifieds

The key unit of langue is the sign, or the union of a "signifier" and a "signified." Related concepts from various vocabularies include word, morpheme, lexeme, and segregate. The signifier is the "sound image" -- that is, the sequence of phonemes -- that represents the phonic substance of the sign, and the signified is the concept referred to by the sign. Because sound itself is a continuum that we segment and make into discrete units as we hear it, we understand that the signifier is not the physical sound itself, but instead is our mental image of that sound (e.g., of the phoneme sequence /tri/). Similarly, the signified is not some entity (e.g., some tree) that exists outside of us, but is instead the mental concept by which we represent that entity. The sign is, thus, a totally mental or conceptual entity. [7]

Neither a signifier nor a signified (linguistic concept) has any linguistic significance without the other; they only become part of language when a signifier (sound image) is differentiated from other signifiers in the system of the language (see the next section of this chapter) by its isolating a signified that is then, and thereby, -33- differentiated from other signifieds. A signifier is only a signifier if it signifies something (without signification, a phoneme sequence is only a nonsense syllable or syllables), and a concept (or a potential signified) is only a part of language if it is signified by something. By their linkage to each other, each signifier-and-signified pairing is given an existence in the system, and contrasted with the other linked signifiers and signifieds of the system. Sound images, in turn, point out of language to actual phonic substance, and concepts point, at least most often, to the external, pragmatic world of experience.

In terms of the system, neither signs nor their signifiers and signifieds exist in isolation from other signs. Signifiers exist only in opposition (contrast) to other signifiers; that is, /p/ does not signify by itself, but only by contrast with /b/, /m/, and so forth (for instance, as English speakers hearing the Polynesian 1/r, we do not determine what actual sound was made, but instead decide only to which member of the relevant English opposition, 1 vs. r, it is to be assigned). Similarly, signifieds only exist in opposition (or contrast) to other signifieds; *tree* contrasts with *bush* and so, again as speakers and hearers, we decide, not what the ambiguous object in front of us is on its own, but rather only to which of the pre-existing opposed categories it is to be assigned. In

this sense one might think of the content of linguistic categories as relative rather than absolute, though Saussure knew (and we shall see) that they have absolute aspects as well.

Individual signs thus participate in a variety of relationships. Regarding the elements of the individual sign, there are three relationships that can be more or less independently investigated: (1) the relationship of sound to sound-image (signifier); (2) the relationship of signifier to signified; and (3) the relationship of concept (signified) to external referent. At one step further removed we have the relations of signs to one another: (4) the syntagmatic relations by which signs are combined with one another to make larger linguistic units; and (5) the paradigmatic relations of contrast that exist among alternative signs (and sets of signs). We have (6) the relationship between the representation of signs (or other linguistic phenomena) in one head and in another head; this relationship is by definition constrained for true signs in langue, but is more fully investigable in parole and among other semiological phenomena such as symbols. Finally, if at more remove, a Saussurean view of the function of sign systems would entail a consideration of the syntagmatic relations existing between the concepts entailed in a given sign system and other, pragmatic, concepts and a similar consideration of paradigmatic relations among alternative sign systems and among alternative pragmatic possibilities. (Kronenfeld and Decker 1979:511)

One of the senses in which the theory I am presenting is Saussurean is in its reliance on this analytic framework. [8] In the present volume we will be concerned primarily with relationships 2 (signifier to signified), 3 (signified to external referent), and 5 (paradigmatic relations among signs). Throughout the volume will be periodic discussion of relationship 6 (the relation of representations in one head to those in another). In chapter 8 we will briefly consider some of the ways in which our cognitive insights might apply to relationship 4 (syntagmatic relations by which signs are combined into larger linguistic units). -34-

Langue as a System

For Saussure, langue is not a happenstantial collection of isolated signs but is instead a *system* of signs. Because it is a system, changes in one area have ramifications throughout the rest of langue (even if each separate element doesn't *directly* affect every other element). Signs relate to each other in two general kinds of ways: *syntagmatically* and *paradigmatically.* Syntagmatic relations are ones of co-occurrence -- of what goes with what, and how. Rules of syntax provide one example of a kind of syntagmatic relationship. Since spoken language (and its written representation) is linear, syntagmatic relationships in language tend to be sequential; but in other kinds of language, such as the sign languages of the deaf, that are not linear, syntagmatic relations can be spatial.

Since we are concentrating on word meanings, and since we are not attending to any particular syntactic theory by which words might be concatenated into sentences, we are not in a position to look much at syntagmatic relations among words or at syntagmatic semantic structures. Our concentration, thus, will be on paradigmatic structures, though we will in chapter 8 point a little to how some of the same cognitive processes involved in certain paradigmatic structures may also explain some aspects of syntactic structures.

Paradigmatic relations . . . are [those] . . . which obtain among alternative possible fillers of some position in a syntagmatic chain (or fabric) and among the alternative forms that some particular filler might take in alternative positions (Saussure 1959, pp. 125-126, 128-131). Such relations in language can be phonological (spot vs. spit), morphological (run vs. ran), syntactic

(brought vs. had brought), semantic (hit the ball vs. catch the ball). or other (e.g. sociolinguistic; yes ma'am vs. yeah). For semiological systems in general, paradigmatic relations are those which we isolate when we ask "X as opposed to what?" . . . these relations are important because they represent all the non-present associations (or planes of contrast) which the use of some particular form raises or potentially can raise; it is through this aspect of the systematicity (cf. Saussure 1959, pp. 113-117) of language that a change in one place (e.g. the addition of "pork" to English along side of "pig") affects the whole system of a language (the meaning of "pig" in opposition to "pork" is notably different from the meaning of "pig" in opposition to "cow," "sheep," etc.; the meaning of syntagmatic units that include "pig" is also thereby affected). (Kronenfeld and Decker 1979:509)

Paradigmatic relations, thus, are ones of contrast or opposition -- the relationship among entities in a set (or paradigm) from which one makes a selection at some particular point in a speech production (or a syntagm). We will consider examples of phonological and morphological paradigms shortly, in our consideration of Praguean componential analyses. Elm, oak, beech, birch, and so forth represent a paradigm of tree species; love, hate, respect, detestation, and so forth a paradigm of emotional responses.

Before progressing we should remind ourselves of the different senses in which we are using the term "paradigmatic." First, at the most general *linguistic* level (the level we have just been using), it is the term Saussure used to label relations among the alternative items within the set from which a given item was selected at a given point in a given act of *parole*. Paradigmatic relations thus taken include phonological, morphological, syntactic, and semantic contrast and similarity (including inclusion, -35- superclasses, and subclasses). Second and more specifically, in linguistics, the term has been used to refer to structures of contrasting items formed by the intersection of two or more defining features. This usage developed out of the inflectional paradigms used in teaching the grammar of classical languages, where noun endings, for instance, could differ according to case and number. Phonological, morphological, and syntactic examples of such structures in which items contrast on a set of intersecting features are presented elsewhere in this chapter. It is in regard to this second sense that we have spoken of componential paradigms, and will continue to do so. Third, a more general usage than Saussure's made popular some years back by Thomas Kuhn (1962) uses "paradigm" and "paradigmatic" to refer to the shared rules of the game and shared presumptions (theoretical framework, important questions, needed data, relevant data, and so forth) that underlie the everyday practice of science -- and that are overturned in a scientific revolution. In this usage, "paradigm" carries the sense of a canonical framework, and one may speak of the Bloomfieldian paradigm in American linguistics having been supplanted by the Chomskyian.

Arbitrariness

Saussure's name is often associated with the idea of the arbitrariness of linguistic relations. He clearly considered that all of langue was socially constrained or motivated. But he did assert that there was, in general, *nothing* about the *substance* of any particular signifier that caused it to be linked its particular signified; the linkage of /tri/ to *tree* was, in that sense, arbitrary. The kinds of sound symbolism investigated by Jakobson[9] vitiate this claim a little, but only for a very few vocabulary items and only in minor ways that have no general relevance to the system of language. Saussure also treated the relationship of signifiers to actual sounds as arbitrary, but in a less radical way: our languages do not group sounds into phonemes arbitrarily or randomly (in terms of their physical substance), but our languages do arbitrarily decide where to segment natural continua -- for example, whether [t[alveolar]] and [t[palatal]] are to be in the same category or

in contrasting categories. Similarly, the boundaries of our signifieds/concepts are arbitrary, as are aspects of their paradigmatic and syntagmatic relationships; the line between *tree* and *bush* in English is a little different from the comparable line in French, and our English associations with *father* are a little different from Fanti associations with their translation equivalent, *egya*.[10] The issue here is one we will return to later, in our discussion of "natural conventions."

Words in Semiology

Because it is focused on the sign, Saussure's linguistics is therefore one that deals directly and firmly with meaning, as opposed to a linguistics concerned primarily with the structure of signifiers, and thus focused on phonology, syntax, or some other aspect of the formation of simple or complex signifiers. [11] For Saussure the central topic of linguistics was the sign, a word-like unit that was from one perspective a sound image and from the other perspective a concept. Linguistics dealt first of all with the relationship between signifier and signified -- with semantics. The study of the paradigmatic relations by which signs contrasted with one another and the syntagmatic -36- patterns by which they were concatenated came only secondarily, within the context of that primary concern with the sign; in the *Course . . .* (Saussure 1959:122-131, esp. 126, 130) it is clear that syntagmatic and paradigmatic relations refer as much to conceptual relations as to grammatical relations.

It is for these Saussurean reasons, among others, that I feel a theory of word meaning represents a basic and important contribution to linguistics (as much as to anthropology) and that such a theory is best stated independently of any particular theoretical work on signifiers or their structure. Saussure's insistence that both signifiers (sound images) and signifieds (concepts) were mental constructs, and his reasons for that insistence, explain why I am treating word meanings as a special instance of cognitive structures; there exists at least a sense in which the emerging field of cognitive sciences represents something closer to Saussure's projected science of semiology than do any of the more particular studies offered lately under the name of semiology.

Referents and Signifieds: My Usage

In the remainder of this volume I shall, unless I clearly indicate otherwise, refer to signifieds [12] (Saussurean conceptual referents internal to signs) as "signifieds," and to the substantive objects or actions outside of signs to which the signifieds "point" (or, in the case of nonexistent things such as unicorns, purport to point) as the "referents" of those signs. I adopt this usage for the sake of consistency with the sources I will be discussing and to avoid overly ponderous locutions, but I do want to warn readers against the danger it poses -- of allowing one to slide too easily back into confounding the relationship between signifiers and signifieds with that between words (signs) and things (nonlinguistic phenomena) or with that between (external) sounds and (external) things.

Prague Componential Analysis versus American Descriptive Models

American Descriptive Linguistics

In Bloomfieldian or American descriptive linguistics, phone types were grouped (as allophones) into phonemes via free variation and conditioned alternation. Phone types were assigned to contrasting phonemes via minimal pairs. An example of conditioned alternation is provided by the patterning of aspiration of stops such as /t/ in English:

{[t],[t']} = /t/, where [t] follows /s/ and [t'] occurs in other environments.

Free variation can be seen in the point of articulation of /t/ in English:

$\{[t^{dent}],[t^{alv}],[t^{pal}]\}$ = /t/

Phonemic contrast is illustrated by the role of voicing in English in distinguishing /t/ from /d/:

{[t],. . .} = /t/; {[d],. . .} = /d/ -37-

The same idea was applied to morphs and morphemes. Morphs were constructed out of sequences of phonemes, and grouped (as allomorphs) into morphemes. For example, the /s/ of "cats," the /z/ of "dogs," and the /ez/ of "bitches" are grouped together as allomorphs of the plural morpheme in English. In this example, we have phonologically conditioned allomorphs. With "is" and "was," we have free alternatives (even after we parcel out whatever we want to label as the tense marker). Debates about the nature of descriptions of syntagmatic constructions arose in connection with issues such as the phonological instantiation of the tense marker in such irregular verbs.

Words were constructed of one or more morphemes. Bloomfieldian descriptions typically were concerned heavily with phonology and with major inflectional classes (morphology). They contained only minimal syntactic information.

The major thrust of Bloomfieldian linguistics was descriptive; that is, linguists were primarily concerned with developing a metalanguage and a methodology that would enable them to easily and consistently describe previously unknown languages in ways that facilitated later comparison. This approach stemmed, at least in part, from the language situation in America, in which there existed a great number of American Indian languages that seemed on the verge of extinction. The immediate, primary enterprise was seen as a kind of salvage linguistics.

In their methodology, Bloomfieldians looked for *minimal pairs,* which were used to identify phonemes; then they found *frames* within which *substitution classes* could appear. So /b_t/ is a frame in English which isolates /i/, /a/, /ai/, /u/, /"uh"/, and so forth. Similarly, for morphology, in English /walk_/isolates /0/, /s/, /d/, /ing/, and so forth. Thus, in English syntax, "The man hit the ball" yields a variety of frames:

The man hit the _____.
The man hit _____.
The _____ hit the ball.
_____ hit the ball.
The man _____ the ball.
(Etc.)

The man hit the _____
ball, puck, bag . . .
man, bull, dog . . .
big ball, big bad ball, ball that the pitcher threw.

From these kinds of patterns were induced word classes (noun, verb, etc.), types of members of classes (animate, inanimate, and human *nouns,* etc.), types of phrases (noun phrase, etc.), clauses, and the like.

Chomsky has since shown the impossibility of a completely automatic discovery procedure (that is, an algorithm that would automatically and mechanically make the indicated inductions), but the descriptive procedures worked out by the Bloomfieldians were quite good as heuristics, and provide the basis for all modern work on the description of unknown languages, especially where sensitive translation is a goal (for example, for Bible translators). These descriptive procedures have also provided the model for the frame elicitation techniques of ethnoscience (see Black and Metzger 1965 and Frake 1964). -38-

Prague Componential Analysis

European structural linguistics was much more analytically (as opposed to descriptively) oriented compared to the American descriptive linguistics discussed in the previous section. The languages it dealt with were mostly known ones, for which basic description was not an issue. It was much more concerned with finding elegant analyses that revealed underlying regularities.

Before turning to Praguean componential analysis, let us summarize the ways in which Prague School structuralism differed from Saussurean.

First, the Prague theorists placed much less emphasis on the sign itself (the unit of signifier/signified) or on relations among signs, and instead concentrated on the contrastive and sequential (paradigmatic and syntagmatic) relations of signifier to signifier, [13] and on the basic elements -- distinctive features that tend to be binary -- out of which signifiers are built (cf. Jakobson 1971:718). . . .

Second, this focus on the relationship of Saussure's "sound image" to external sounds led them to think in terms of less arbitrary and more motivated linguistic phenomena than had Saussure (Jakobson 1971:717). Additionally, one gathers that the threat represented by archaic theories of the naturalness of linguistic signs was less significant by the time they were working than it had been when Saussure did his work, and that therefore they had less reason to make a point of stressing the arbitrary nature of linguistic phenomena. However, it is worth stressing that, even for Saussure, different aspects of the sign were arbitrary in different ways, and that it was only the relationship between signifier and signified that he called "radically arbitrary." (Kronenfeld and Decker 1979:509-510)

The major analytic contribution of Prague linguistics, originated by Trubetzkoy and elaborated by Jakobson, was componential analysis (sometimes called distinctive feature analysis). By way of illustration, let us assume articulator/point of articulation is one dimension that takes the values or features of bilabial (lips); apical/alveolar (tip of tongue, to place behind teeth); and labio/palatal (back of tongue touched to palate). Let us assume mode of articulation is another, with the alternative values being stop or continuent. Let us assume voicing is a third, with the alternative values or features being voiced or unvoiced. The values or features on these dimensions create a grid or paradigm (as in table 3-1), in which each slot represents a phoneme (or potential phoneme in the wider case of the full system).

In this system the question of allophones does not arise. One finds the proper set of components for the language at hand, and any strange sound is allocated to a category according to the values it takes on those components (that is, by the rules). Presumably, if the theory is correct, something similar occurs in our heads -- as, for example, when English speakers hear the Polynesian sound that falls between the English [1] and [r] sounds clearly as either an /l/ or an /r/.

TABLE 3-1. A Phonological Paradigm

		Articulation/Articulator		
		Bilabial	*Apico-Alveolar*	*Labio-palatal*
Stop	Unvoiced	/p/	/t/	/k/
	Voiced	/b/	/d/	/g/
Continuent		/m/	/n/	/n/

-39-**TABLE 3-2. A Morphological Paradigm**

	Number	
	Singular	*Plural*
Person		
First Person	amo	amamus
Second Person	amas	amatis
Third Person	amat	amant

This phonological idea was in part an outgrowth of the European concern with morphological inflectional paradigms such as that (partially) shown in table 3-2, and in that sense was reflected the way in which they attacked morphological problems. However, they did nothing distinctive (from the point of view of our concerns in this volume) with syntax.