

FROM SAUSSURE TO CHOMSKY:

LINGUISTICS AND THE HUMAN SCIENCES

by

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0. The Department of Linguistics at the University of North Carolina, Chapel Hill, first offered the course "From Saussure to Chomsky: Linguistics and the Human Sciences" in the spring semester of 1979. This course constituted part of a university-wide effort to expand undergraduate interdisciplinary studies in the Humanities. It was team-taught by the co-authors of this article. We had twelve students: five linguistics majors and one major each from anthropology, art history, French literature, mathematics-computer science, oceanography, speech, and philosophy. Given the diversity of student backgrounds, we adapted parts of the course accordingly (see 5.2). The wide scope of the material presented in the course required the team-teaching format, at least for the first time the course was offered.

1. Goal of Course

We oriented the immediate goal toward highlighting the intrinsic pluridisciplinary nature of linguistics. A survey of the development of linguistics from Saussure to Chomsky provided the main axis for the course. We then applied linguistic theory to the human sciences which, in addition to linguistics, embrace the domains of psychology, social anthropology, and literature-myth. We argued for the central place of the linguistic model on the basis that: 1) the human sciences all share a fundamental concern for modes of human communication and representation. As a system of communication and expression, language happens to be the most complex, universal, and characteristic. This coincides with Saussure's conviction that language is the most important among all human semiotic systems. And 2), early on, anthropologists and psychologists alike recognized linguistics as the most advanced among the human sciences. They adopted linguistic theory and adapted linguistic methodology to their domains. Lévi-Strauss, for example, has attempted to interpret society as a whole in respect to a theory of communication, a semiotics, while advancements in psychology have depended in large measure on new insights into the nature and function of language.

The student was necessarily exposed from the beginning of the course to the major intellectual movement known as structuralism. This often misunderstood *-ism* refers to an even more bewildering variety of researchers and theories than the current proliferation of generative schools.

Structuralism in its broadest form can, as Piaget (1971 [1968]: see 6.4) advocates, include any discipline that studies structures, i.e. not only linguistics, but anthropology, sociology, psychology, mathematics, philosophy, economics, biology, as well as physics. In a more narrow definition, structuralism is the science of signs, or semiotics, which directly borrows the linguistic model and applies it to the following aspects of human culture to the extent to which they may be interpreted as systems of signs: literature, cinema, theater, mythology, fashion, and even cuisine. P. Caws (1968: see 6.4), for instance, specifically identifies structuralism as an exclusively French movement of the sixties led by J. Lacan, L. Althusser, R. Barthes, and M. Foucault, representing Freudian psychoanalysis, Marxism, literary criticism, and philosophy respectively. For the American linguist, structuralism often evokes only the names of Bloomfield and his followers.

We abstracted the common element from these various possibilities to define the structuralist approach in any discipline as an attempt to discern the arrangements underlying a given domain isolated by the analyst, to note the variations in these arrangements, and to relate the variations by specifying rules whereby one arrangement can be transformed into another. Within the human sciences, structuralism in psychology and anthropology in the early years took their lead from structural linguistics. These two disciplines have continued to derive inspiration from later innovations in linguistics, namely Transformational Grammar, where one seeks a structural model whose elements and transformations can be laid down in formal, mathematical terms. In this sense, Chomsky falls into a broader category of structuralists, although calling Chomsky a structuralist can be confusing, since his Transformational Generative Grammar was an open reaction against American Structuralism (2.14). We aligned Chomsky's interest in the underlying structures of language with Lévi-Strauss' analyses of kinship systems and mythologies, and with Piaget's study of child reasoning. In all three cases, the structures extracted from the fields of study reflect structures of the human mind. Although there are obvious divergences among these three thinkers, each focuses particularly on Man, seeing him as a constructive organism, with creative (generative) capacities, whose intellectual development is nonetheless informed by the structure of the brain and the forces at work in the human environment.

Thus, as a secondary goal of our course, we wanted to come to a definition of Man in the the twentieth century by understanding the conception of the self that hovers over all human sciences.

2. Format of Course

In the fourteen-week semester, we spent roughly seven weeks on linguistics (2.1) and seven weeks on the human sciences (2.2). As a general introduction to the course, we sketched in the first week of class the state of linguistics at the time of the Neogrammarians and the general intellectual environment at the turn of the century. To make our expos-

ition visually more comprehensible, we handed out on the first day of class a chart which organized names, dates, and disciplines that we would be talking about in the course (see Figure 1). Toward the end of the nineteenth century, there existed a general scientific 'climate of opinion' which was favorable to the reanalysis of previously held theories of physics, mechanics, psychology, philosophy, and linguistics, which may be broadly characterized as atomistic; that is, the objects of study of these disciplines were understood in terms of individual and separate observable phenomena. This approach was slowly replaced in most disciplines by a systemic approach where the phenomena under observation were perceived to have an underlying organization or relationship. It was that organization or system that eventually became the object of study.

2.1 Linguistics

In tracing the development of linguistics in the twentieth century, we discussed Saussure, Jakobson, American Structuralism, and Chomsky.

2.1.1 Saussure. Along with Freud in psychology and Durkheim in sociology, Saussure revolutionized the human sciences by conceiving of the object of linguistics as an underlying system, and in this case the system of signs. Saussure stated clearly that everything in language is basically psychological and that language is undeniably a social fact. But he wanted to set linguistics apart, make it an autonomous science, and he did so by isolating *langue* ('language') as the true and unique object of linguistics. It was helpful to point out that already in his *Memoir on the Primitive System of Vowels in Indo-European Languages* (1878), Saussure solved the problem of certain vowel alternations in the daughter languages by treating his 'sonorant coefficient' as a purely formal and relational unit in the vowel system. No longer could a linguistic fact be studied in isolation from the system of language. And no longer would the historical explanation of a fact suffice, for a linguistic phenomenon would be explained as a manifestation of an underlying system of representation.

We found that Saussure's *Course in General Linguistics* was not easy reading for the undergraduate. Working very closely with the text, we structured our lectures around the four dichotomies: *langue/parole* ('language'/'speech'), signifier/signified, synchrony/diachrony and syntagmatic/associative relations. Since the understanding of these concepts was crucial to the further studies in this course, we spent about three weeks on Saussure.

2.1.2 Jakobson. A discussion of Jakobson also entailed a brief discussion of the Prague School, its members, its history, its aims both linguistic and literary. We introduced Jakobson's distinctive features in phonology and discussed in particular the principles of universalism and binarism which Lévi-Strauss would later borrow. We included a discussion of Baudouin de Courtenay and the psychological reality of the phoneme, but that was more of interest to only the linguistic majors.

ECONOMICS: K. Marx (1818-1883)
L. Walras (1834-1910)

PSYCHOLOGY: W. James (1842-1910)
S. Freud (1856-1939)

SOCIOLOGY: H. Taine (1828-1893)
E. Durkheim (1858-1917)

HISTORICAL & COMPARATIVE LINGUISTICS
W. D. Whitney (1827-1894)

The Neogrammarians
H. Paul (1846-1921)
K. Brugmann (1849-1919)

J. Baudouin de Courtenay (1845-1929)

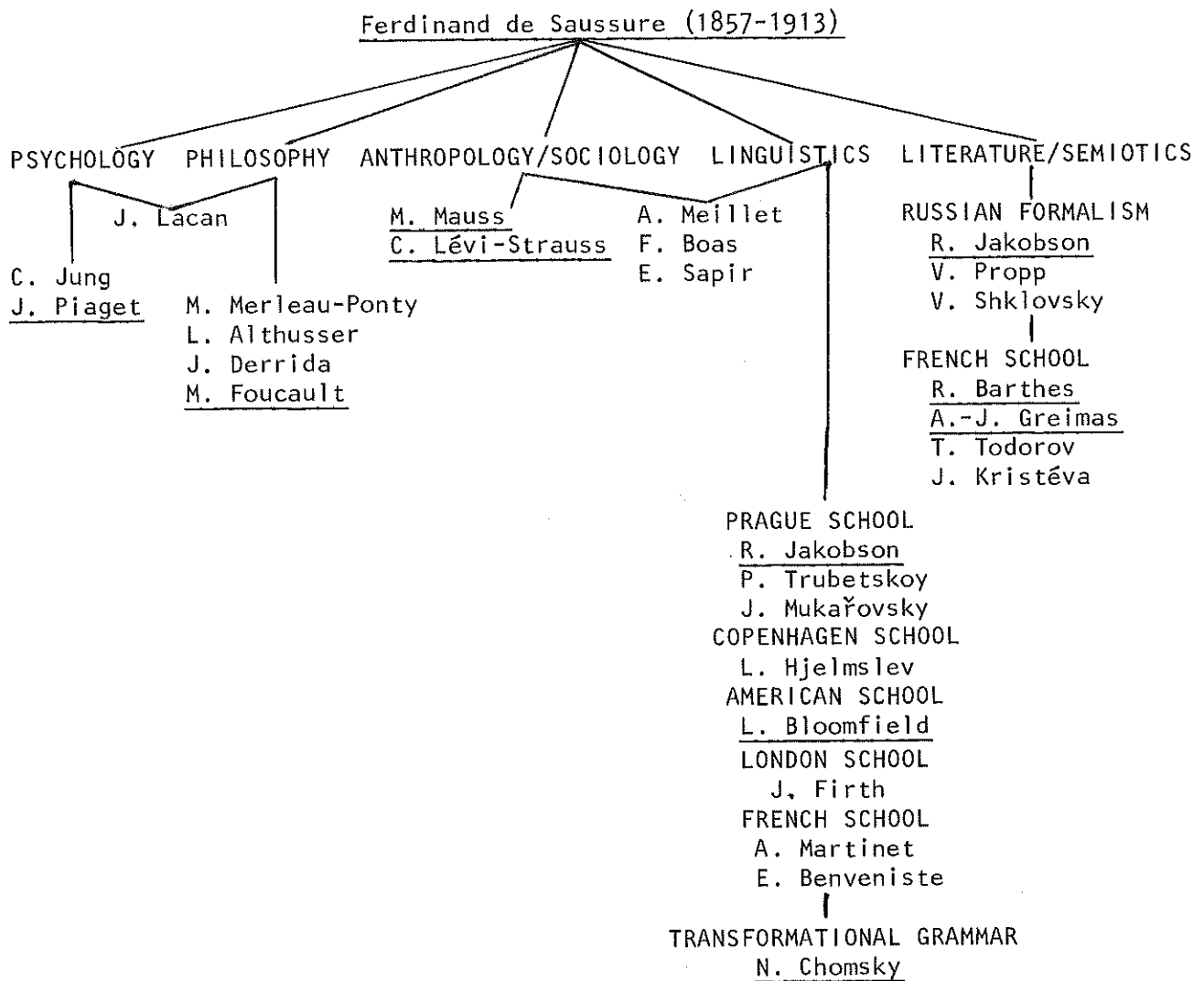


Figure 1: From Saussure to Chomsky: Linguistics and the Human Sciences.

(Underlined names indicate those emphasized in class lectures & discussions.)

2.1.3 American Structuralism. Bloomfieldian linguistics or American Structuralism offered a unique brand of structuralism which shared with other schools of structural linguistics the emphasis on taxonomy and classification rather than explanation and the exclusion of the study of meaning from linguistics proper. It did not, on the other hand, distinguish between language and speech, depending instead on the corpus or recorded examples of 'surface structures'. We placed American Structuralism rather against a historical background, indicating that American linguistics first got its impulse from the study of Amerindian languages; thus the emphasis was more on data gathering than on theory. In addition, given the radically different languages linguists were encountering, they naturally emphasized the dissimilarities of grammars, lending support to the Saussurèan idea of the relativity and uniqueness of each language. Secondly, American linguistics was conditioned by the reigning trend in psychology, namely behaviorism, which restricted explanations of human capacities on the basis of observable behavior. Thus, in contrast to other schools of structuralism, American linguistics was strongly anti-mentalistic. Chomsky, while reacting against this behaviorism, would introduce some of the principles of mind to be found in other structuralist oriented disciplines.

The sections on Jakobson and on American Structuralism covered about one week.

2.1.4 Chomsky. We devoted the remaining two weeks in the section on linguistics to Chomsky. We centered our discussion around the three well-known dichotomies: competence/performance, phrase structure rules/transformational rules, and deep structure/surface structure.

Chomsky rejected the Bloomfieldian dependence on the corpus and set up a new distinction based on competence/performance. In *An Integrated Theory of Linguistic Descriptions* (1964), Katz and Postal write:

In any linguistic study, it is necessary to distinguish between *language* and *speech*. Although this distinction has been classic in linguistics at least since the time of F. de Saussure, modern linguistics, influenced by behavioristic and positivist ideas, has often confused the two. Because of this confusion, the importance of this classic distinction must be re-emphasized. (p. ix)

Just as Saussure wanted to explain the system of language that was in each speaker (*langue* or language) which is not directly observable but below the surface, Chomsky wants to capture what the speaker knows (competence) which is also not directly observable. But we stressed that competence does not equal *langue*, as the Katz and Postal quote suggests and as is often the assumption in literary criticism, where the notion of literary competence is roughly equivalent to literary system. For Chomsky, competence is creative and dynamic, while for Saussure *langue* is a mechanism that limits arbitrariness, hence its first principle is the conservation of energy. Language for Saussure thus acts as a conservative force in the

human grasp of the world, and this language is conceived as a depository of fixed syntagmatic and associative relations. This is clearly not Chomsky's competence.

Furthermore, Saussure denied the existence of any autonomous syntax of the type Chomsky has so successfully posited. The sentence was particularly problematic for Saussure. He felt that it was the ideal type of syntagm and thus a unit of *langue* (language), but at the same time, he said that sentences were products of individual choice and were therefore instances of *parole* (speech), being willful acts. Saussure saw that groups of words are built on regular patterns, but he did not pursue the notion of regular pattern and extend it to sentence production. Chomsky's notion of competence, then, based on sentence production, encompasses the Saussurean *langue/parole* dichotomy. Sentence production for Chomsky is a creative and rule-governed activity and, as such, has more in common with the theory of mind proposed by Piaget and Lévi-Strauss than with Saussure's conception of *langue*.

We also discussed Chomsky's work on universals, which brings him in-line with the interests of other, later structuralist schools (e.g. Jakobson) in contrast to the strict relativism of early structuralism (e.g. Russian Formalism). The first three chapters of *Language and Mind* provided a good basis for explanation and discussion of Chomsky's linguistic theory, his work on universals, and his own conception of his place in the intellectual history of the twentieth century.

2.2 The Human Sciences

In the second half of the course, we introduced the students to the broad outlines of the relationship between linguistics and the various human sciences. We oriented our discussion around Piaget (psychology), Mauss and Lévi-Strauss (social anthropology), Greimas and Barthes (literary criticism), devoting about two weeks to each discipline. We found it necessary in the sections on social anthropology and literary criticism to have the students read articles by the major figures (see 4) and to teach by specific examples of structuralist analyses. The last week of class we reserved for a summary of the course framed by a discussion of Foucault (philosophy).

Needless to say, any one of these three disciplines in relationship to linguistics could provide material for a specialized course, e.g. 'A Piagetian Approach to Language and Cognition' taught at the 1979 LSA Summer Institute in Salzburg. Our purpose, however, was to give the student an introductory overview of the central place of language within these disciplines.

2.2.1 Piaget. We began with psychology, where the structure of lang-

uage is the direct key to the structure of the mind. There are generally two ways of getting into the mind through language. First, and this is the method of psychoanalysis common to Freud and Lacan, the analyst considers the object of study to be the discourse of the patient. There is simply no other way to explore the functioning of the conscious and unconscious of the patient than through the verbal interaction of the patient and the psychoanalyst. Secondly, and this is Piaget's psychology, the analyst can observe how children acquire certain logical and linguistic categories. Again, the best way of uncovering the speaking child's intellectual level is by focusing on his use and understanding of language.

We investigated that part of Piaget's work that deals with the interaction between cognitive growth and certain features of language acquisition, for instance, the child's ability to manipulate if-then relationships, correctly use past and future tenses, or the development of complex syntactic structures. For certain concrete operations, Piaget acknowledges that language is not crucial for development, but as one advances beyond these concrete operations, intellectual capacity depends on language.

One aspect of the Piagetian enterprise that parallels Freud and Chomsky is the emphasis on the child's linguistic errors and the logical immaturities that indicate the child's level of intellectual development. We related that in a general way to Freud's interest in slips of the tongue and lapses of memory as windows into the unconscious, and to Chomsky's insistence on performance errors as crucial to establishing the limits of competence. The structuralist strategy then lies in the ability to discover the discontinuities or the holes in our consciousness that open up onto the darkened spaces of the mind.

Later on in his work, Piaget came to minimize the role of language in the individual's intellectual level. Piaget claims that intellect is determined by the range of actions the individual can perform on the world, the degree to which these actions can be performed as mental operations, and the extent of coordination among actions. It is action that becomes the source of knowledge and not language. Man develops most fully, then, through activity. This is not unrelated to Chomsky's notion of creative competence and the structuralist conception of self (see 2.3).

2.2.2 Mauss. Marcel Mauss determined the future of social anthropology in the twentieth century not only by being Lévi-Strauss' mentor but also by steering structuralism away from static analysis to dynamic representation. Durkheim established that society was a primary reality and not reducible to the sum of its individuals; Mauss looked for the rule(s) that held this reality together. Mauss' major work, *The Gift* (see 6.2), was the first to explore the implications of (social) structure as a totality and the first to schematize the notion of transformation within that total structure. Mauss asked the question: How are contracts made in different societies? In his search for the answer, Mauss found the first and fundamental 'base rule': the gift in so-called primitive societies is never

voluntary nor is it given 'without strings attached'. This principle or rule of gift-exchange lies at the base of all societal structures in much the same way as $S \rightarrow NP VP$ figures in the base component of a grammar. Mauss understood the system of human transactions or exchanges as something total in that all human interactions within 'primitive' societies could be viewed as 'transformations' of the 'base-rule' of gift-exchange. All exchanges in these societies are at once economic, judicial, moral, aesthetic, religious, mythological, and socio-morphological phenomena. The rule then is at once creative and conservative, for it engenders new combinations of elements that belong to the structure and at the same time preserves the structural balance of the society. This parallels the basic idea of the transformation formalized by Chomsky, where a rule changes one phrase marker into another using approximately the same elements.

2.2.3 Lévi-Strauss. For Lévi-Strauss, kinship and myth are both 'languages', i.e. ways of communicating within society. Lévi-Strauss did for kinship what Mauss did for the contract, kinship being an example of Mauss' idea of general exchange, this time with people and not things. Kinship is a socializing, integrating or communicating agent in human groups, while myth is the expression of the unconscious system and general laws of a culture. Lévi-Strauss admittedly bases his structural anthropology on Jakobson's phonology. He sees everywhere binary relationships and searches for the minimal, universal 'distinctive features' of kinship and myth.

While kinship systems and kinship terminology are widely divergent throughout the world, Lévi-Strauss asserts that they all have the same underlying motivation: kinship systems are necessary because of the universal incest taboo. Lévi-Strauss has identified the 'distinctive feature' of kinship systems in what he calls the 'atom of kinship', the formalization of what anthropologists have called the avunculate. With this 'atom' societies are kept organized as well as dynamic.

Myth manifests the way a society represents itself. Its function is neither to explain some astronomical or meteorological phenomenon nor to reflect a societal organization, but to overcome the dichotomy Nature/Culture. The resolution of the dichotomy is not found in the isolated elements of the myth or in the story line. It lies rather in the conceptual oppositions (raw v. cooked, honey v. ashes, high v. low, male v. female) that are put into play and that are structurally organized, in much the same way a piece of music uses tonal oppositions to produce a feeling of satisfaction in the hearer. Lévi-Strauss also claims that the passage from Nature to Culture was not a one-time occurrence in the forgotten past of prehistory, but a continual and daily event in all aspects of human life through the telling and retelling of myths.

To animate Lévi-Strauss' analysis of myth, we had the students read both 'The Structural Study of Myth' and 'The Story of Asdiwal' (see 3). Our class lectures for the week on myth derived directly from those two articles.

2.2.4 Literary Criticism. Chapter 3, 'The Structures of Literature', in *Structuralism and Semiotics* by Hawkes (see 3) provided the students with a good general framework for literary criticism from the Russian Formalists to the present.

2.2.4.1 Greimas. The influence of Lévi-Strauss has moved beyond anthropology, and his analysis of myth has made an impact on studies of narrative structure. Greimas, following Lévi-Strauss, concerns himself with the 'deep structure' of a text which shapes the narrative at a level below the artist's conscious manipulation. This level is made up of the narrative, elementary, and mythic structures which all contribute to the understanding of a text. Such an interpretation precludes the possibility of conscious aesthetic control on the part of the artist. The code (*langue*, or language, in Saussure's sense) dominates the creation of all messages.

We illustrated the approach of Greimas with the Good Samaritan parable (Luke 10:25-37), using Greimas' semiotic square as the key to the internal structure of these verses. See Patte's article, 'Structural Network in Narrative' in the Wittig anthology (6.1).

2.2.4.2 Barthes. Along with Todorov and Kristéva, Barthes has been influenced by the Russian Formalists and their work on 'surface structures'. Barthes is interested in understanding both the aesthetic effect in a text consciously controlled by the artist and the difference between writing and speech. He contends that too little attention has been paid to the way readers understand a text, and argues for a literature which gives the reader an active role and function. He wants thereby to abolish the producer/consumer (writer/reader) division characteristic of bourgeois society.

Barthes builds on the principles of Russian Formalism and borrows, in particular, the distinction made by Jakobson between the 'referential' and the 'aesthetic' functions of language. Barthes assigns the former function to the WRITER (*scripteur*) and the latter to the AUTHOR (*écrivain*). Where the WRITER writes as a vehicle for an ulterior purpose (transitive writing), the AUTHOR simply writes as an activity in itself (intransitive writing). The WRITER wants to take us beyond his writing, using writing as a vehicle and not as an end in itself. The AUTHOR focuses our attention on the activity of writing itself and offers us writing as his art. WRITERS require the reader to passively assimilate their ulterior arguments and purpose. AUTHORS take the activity of writing as the subject of their writing and, in so doing, engage the reader in an active reading of the text.

The students agreed that the two articles 'The Structuralist Activity' and 'To Write: An Intransitive Verb?' by Barthes and the section on Barthes in *Structuralism and Semiotics* did much to demystify his seemingly arcane theory and terminology. We also presented here the analysis of Baudelaire's 'Les Chats' by Jakobson and Lévi-Strauss. Then, based on this analysis, we had each student do, as an outside assignment, a similar ana-

lysis for Shakespeare's sonnet 144, 'Two loves I have of comfort and despair', and explore it in its various codes. We compared the individual analyses in class, making both for a good structuralist exercise and a lively class period.

2.3 Course Summary

In the last week of class, we reviewed the human sciences in the historical context of the twentieth century. We referred students to Foucault's article 'The Human Sciences' reprinted in the DeGeorge anthology (see 3). According to Foucault, the structuralist historian of knowledge, Man is a relatively recent invention only about a century and a half old. Man first appeared on our intellectual horizon in the nineteenth century with the rise of biology, economics and philology. Just as he has appeared so will he disappear when our knowledge has found a new form. This is not the pessimistic statement of doom it is often taken to be. Foucault only recognizes the structuralist paradox that the human being cannot be the object of science because it is its subject.

And what is that subject? Just as structuralism is essentially an activity, as Barthes has said, so is the (human) subject an activity and not a thing. The goal of the structuralist activity is to reconstruct the object—in this case, the object of the human sciences is Man—in such a way as to manifest the rules of functioning of that object. Time and again we have seen that the human being is defined in terms of action or activity: Piaget insists that the individual's intellectual level is determined by activity, Chomsky's definition of competence relies on the fundamental creative principle of the mind, Mauss and Lévi-Strauss consider society to be the dynamic interaction of goods and people, and Barthes advocates a literature where both reader and author are actors engaged in constructing a text either through reading or writing.

The human sciences investigate how we represent ourselves, be it through language, society, or art. When we want to come to an understanding of that representation, however, we immediately confront the conception of self that has dominated the line of linguistic-philosophic investigation from Descartes to Chomsky. The concept of 'meaning' can be understood only in relation to the self whose nature is inaccessible to scientific analysis, as it is both the ultimate source and the ultimate destination of the meaning of any kind of representation.

We must acknowledge then that the concept of self poses a fundamental epistemological limitation within the human sciences. We can analyze, dissect, and reconstruct Man as much as we want, but if it is a question of understanding the meaning of our analyses, of explaining the innermost secrets of the mind, we must admit that the human sciences are limited. But this should not prevent us from continuing to search for that meaning. Rather, we are averted that further advances in the study of the mind must come from studies of the brain.

We believe that the students in this course will bring to their future studies of language or any of the other human sciences a thorough understanding of the methods, applications, and limitations of the structuralist approach.

3. Course Texts

The students were requested to buy the following four books, which are all available in paperback:

Chomsky, N. 1972. *Language and Mind* (enlarged edition). New York: Harcourt Brace Jovanovich.

DeGeorge, R. & F. DeGeorge (eds.). 1972. *The Structuralists from Marx to Lévi-Strauss*. New York: Doubleday, Anchor Books. (Includes selections from Marx, Freud, Saussure, Jakobson, Barthes, Lévi-Strauss, Althusser, Foucault and Lacan. A very useful anthology [see 4].)

Hawkes, T. 1977. *Structuralism and Semiotics*. Berkeley & Los Angeles: University of California Press.

(Solid, readable synthesis of the main developments of structuralism with emphasis on literature and literary criticism. Contains an excellent bibliography.)

Saussure, F. de. 1966 [1916]. *Course in General Linguistics*. Trans. by Wade Baskin. New York: McGraw-Hill.

4. Course Readings

Reading assignments and class lectures were coordinated on the course syllabus. For the first half of the course, we required the students to read the entire *Course in General Linguistics* and *Language and Mind*, Chapters 1, 2, and 3. For the second half of the course, we had the students read the following articles:

Lévi-Strauss, C. 1955. The structural study of myth. Reprinted in the DeGeorge anthology, 169-94.

_____. 1958. The story of Asdiwal. Reprinted in E. Leach (ed.) (1969), *The Structural Study of Myth and Totemism*, 1-48. London: Tavistock. Also in C. Lévi-Strauss (1958), *Structural Anthropology*, trans. by M. Layton (1976). Vol. 11, 146-94. New York: Basic Books.

Jakobson, R. & C. Lévi-Strauss. 1960. Charles Baudelaire's 'Les Chats'. Reprinted in the DeGeorge anthology, 124-46.

Barthes, R. 1964. The structuralist activity. Reprinted in the DeGeorge anthology, 148-54.

Barthes, R. 1970. To write: An intransitive verb? Reprinted in the DeGeorge anthology, 155-67.

As a supplement to these articles, the students also read Chapter 3 in Hawkes, *Structuralism and Semiotics*. The students also chose an area of specialization within the human sciences and did readings in that field (see 5.2).

5. Course Requirements

This was neither a skill course nor one involving the assimilation of facts. Since we wanted the students to manipulate and apply concepts, we required only written assignments.

5.1 The students wrote one five-page paper due at the mid-term based on one of the following topics: a) Explicate the Saussurean notion of value; b) Discuss the formula: "language is a form not a substance" (Saussure, 122); or c) Relate Saussure's *Course* to one of the following articles: i) Freud's 'Psychopathology in Everyday Life', reprinted in the DeGeorge anthology, ii) Marx's 'Préface to *A Contribution to the Critique of Political Economy*', reprinted in the DeGeorge anthology, or iii) Chomsky's 'Linguistic Contributions to the Study of Mind - Past', in *Language and Mind*. As an aid to the student who chose to write on Marx, we referred him to: Godelier, M. 1970. System, Structure and Contradiction in *Das Kapital*, in the Lane anthology (see 6.1).

5.2 The students wrote one fifteen-page paper due at the scheduled final exam on the individual student's reading from his/her chosen field of specialization within the human sciences. We gave the students an eight-page bibliography compiled by us that included the headings: Psychology/Language; Anthropology/Sociology/Linguistics; Semiotics/Literature/Art; and Philosophy/Language/The Sign. With the team-teaching format, the course was small enough to give each student ample individual attention, especially during the second half of the course. Each student discussed at least once with one or the other of us the topic of his/her long paper plus the selected bibliography.

6. Bibliography

The following four sections by no means exhaust the overwhelming literature on structuralism and the human sciences. For added bibliographical sources we suggest: Harari, J. 1971. *Structuralists and Structuralism: A Selected Bibliography of French Contemporary Thought (1960-1970)*. Ithaca, New York: Diacritics. See also the bibliography at the end of *Structuralism and Semiotics* by Hawkes.

6.1 Anthologies

- Ehrmann, J. (ed.). 1970. *Structuralism*. New York: Doubleday, Anchor Books.
 (Reprint of a special issue of *Yale French Studies* 36-7 (1966). Articles by Martinet, Lewis, Lévi-Strauss, Scheffler, Nodelmann, Miel, Lacan, Hartman, Ehrmann, Riffaterre, Rippere. Also has excellent bibliography.)
- Lane, M. (ed.). 1970. *Structuralism: A Reader*. London: Cape.
 (Very broad anthology containing nineteen articles ranging from child language acquisition, the Prague school, semantics, anthropology, myth, fairy tale, mathematics, to name only a few subjects.)
- Macksey, R. & E. Donato (eds.). 1970. *The Languages of Criticism and the Sciences of Man*. Baltimore: Johns Hopkins Press.
 (Contains articles by Lacan, Girard, Derrida, Goldmann, Hyppolite, Rosolato, among others. More advanced than the other anthologies.)
- Robey, D. (ed.). 1973. *Structuralism: An Introduction*. Oxford: Clarendon Press.
 (Very useful survey of structuralism in its various manifestations. Includes articles by Lyons, Culler, Leach, Eco, Todorov, Mepham, Gandy. Along with Ehrmann and Lane, one of the standard anthologies.)
- Wahl, F. (ed.). 1968. *Qu'est-ce que le structuralisme?* Paris: Le Seuil.
 (Excellent anthology (no English translation) with articles by Ducrot, Todorov, Sperber, Safouan and Wahl, covering linguistics, poetics, anthropology, psychoanalysis and philosophy, respectively.)
- Wittig, S. (ed.). 1976. *Structuralism: An Interdisciplinary Study*. Pittsburgh: Pickwick Press.
 (Despite the title, the articles focus on literary analysis and criticism.)

6.2 Primary Sources

- Chomsky, N. 1956. *Syntactic Structures*. The Hague: Mouton.
- _____. 1965. *Aspects of the Theory of Syntax*. Cambridge: MIT Press.
- _____. 1971. *Problems of Freedom and Knowledge*. New York: Pantheon.
- _____. 1976. *Reflections on Language*. New York: Pantheon.

Foucault, M. 1970 [1966]. *The Order of Things: An Archaeology of the Human Sciences*. London: Tavistock.

(A translation of *Les mots et les choses*, this book contains the most comprehensive historical and philosophical analysis of the human sciences and the place of language and linguistics within them. Very valuable for the professor, but too difficult for the undergraduate.)

Jakobson, R. 1962 --. *Selected Writings*. The Hague: Mouton.
(See particularly Vol. I: *Phonological Studies* (1962) and Vol. II: *Word and Language* (1971).)

_____. 1978. *Six Lectures on Sound and Meaning*. Trans. by J. Mepham, with preface by C. Lévi-Strauss. Plymouth: The Harvester Press. Also reprinted in 1978 by the MIT Press.
(Lectures given in 1946 in Paris. Good introduction to Jakobson's phonological theory. Particularly useful is Jakobson's dissections of the inconsistencies in Saussure's conception of phonology.)

_____ and M. Halle. 1956. *Fundamentals of Language*. The Hague: Mouton.

Lévi-Strauss, C. 1963 [1958]. *Structural Anthropology, Vol. I*. Trans. by C. Jakobson and B. Schoepf. New York: Basic Books.
(See in particular Chapter 2, 'Structural Analysis in Linguistics and in Anthropology'; Chapter 3, 'Language and the Analysis of Social Laws'; and Chapter 4, 'Linguistics and Anthropology'.)

_____. 1970 [1964]. *The Raw and the Cooked*. Trans. by J. and D. Weightman. London: Cape.
(Famous collection and analysis of myths from the Americas. Mostly deals with South America.)

_____. 1973 [1966]. *From Honey to Ashes*. Trans. by J. and D. Weightman. London: Cape.
(More on mythology.)

Mauss, M. 1954 [1923-4]. *The Gift, Forms and Functions of Exchange in Archaic Societies*. Trans. by I. Cunnison, introduction by E. E. Evans-Pritchard. Glencoe: The Free Press.
(One of the most important structural analyses in social anthropology of the twentieth century, and Mauss' masterpiece. Highly suggestive, very provocative reading. Makes for an exciting class presentation and a good introduction to what will come later with Lévi-Strauss.)

Piaget, J. & B. Inhelder. 1969. *The Psychology of the Child*. New York: Basic Books.
(The best brief introduction to Piaget's work.)

Vygotsky, L. 1962 [1934]. *Thought and Language*. Trans. by E. Hanfmann and G. Vakar. Cambridge: MIT Press.
 (Responds to the age-old Western preoccupation with consciousness. Rejects both Cartesian dualism and the materialist reductionism/mentalism dichotomy. An interesting complement to Chomsky's ideas on thought and language from a Russian point of view.)

6.3 Secondary Sources

Boon, J. 1972. *From Symbolism to Structuralism*. Oxford: Basil Blackwell.
 (Brings Lévi-Strauss' work on myth into the literary tradition of the French Symbolist poets. Not just literarily oriented but contains a comprehensive view of Lévi-Strauss' philosophy. Includes a chapter on Baudelaire's 'Les Chats'.)

Cassirer, E. 1945. Structuralism in modern linguistics. *Word* 1.99-120.
 (Excellent survey of the intellectual 'climate of opinion' at the turn of the century. Insightful analysis of the methods and aims of linguistic structuralism.)

Culler, J. 1975. *Structuralist Poetics: Structuralism, Linguistics and the Study of Literature*. Ithaca: Cornell University Press.
 (Structuralist literary criticism, with chapters on Jakobson's poetics and Greimas. Discusses most other current French critics. This book should provide the linguist with the necessary introduction into literary trends past, present and future.)

_____. 1977. *Ferdinand de Saussure*. New York: Penguin.
 (Straightforward but not in-depth analysis of Saussure. Could be recommended to the undergraduate as a companion guide to Saussure's *Course*.)

Gardner, H. 1972. *The Quest for Mind: Piaget, Lévi-Strauss, and the Structuralist Movement*. London: Anchor Press.
 (As the title indicates, a philosophical approach to the relationship between structuralism and the mind. Pulls together the often diverse threads of structuralism. Particularly good in relating Chomsky's interest in language and mind to the wider structuralist movement. See the last chapter, 'Structuralism as a World-View'.)

Koerner, E. F. K. 1975. European structuralism: Early beginnings. *Current Trends in Linguistics* 13.717-827.
 (Thorough background to the linguistic 'climate of opinion' in the nineteenth century. Traces the concept of structure from the early nineteenth century through the 'Schleicherian Paradigm' to the emergence of the 'Saussurean Paradigm'. Good complement to the Cassirer article.)

Leach, E. 1970. *Lévi-Strauss*. London: Fontana.
(Best introduction to the work of Lévi-Strauss.)

Lyons, J. 1970. *Chomsky*. New York: Penguin.
(Clear, readable introduction to Chomsky suitable for the undergraduate.)

Pettit, P. 1975. *The Concept of Structuralism: A Critical Analysis*. Berkeley and Los Angeles: University of California Press.

(Philosophical introduction to structuralism. Chapter 1 compares the linguistic models of Saussure and Chomsky.)

Stent, G. 1975. Limits to the scientific understanding of Man. *Science* 187.1052-7.

(Concise discussion of the impasse faced by the human sciences where the concept of self is central. Brings Chomsky into the larger framework of the history of science and philosophy.)

Wittmann, H. 1966. Two models of the linguistic mechanism. *Canadian Journal of Linguistics* 11.2, 83-93.

(A comparison of Saussure and Chomsky.)

6.4 Student Bibliography

The students were given the following bibliography as an aid in their research for their fifteen-page paper (see 5.2). We originally included in the bibliography the anthologies listed in 6.1 and many of the titles in 6.2 and 6.3.

PSYCHOLOGY/LANGUAGE

Fodor, J. 1974. *The Psychology of Language: An Introduction to Psycholinguistics and Generative Grammar*. New York: McGraw Hill.

Freud, S. 1938. *The Basic Writings of Sigmund Freud*. New York: Modern Library.

_____. 1957. *A General Introduction to Psychoanalysis*. New York: Liveright.

Funt, D. 1973. Piaget and structuralism. *Diacritics* 1.15-20.

Jung, C. 1959. *Basic Writings*. New York: Modern Library.

_____. 1967. *The Collective Unconscious in Literature*. New York: Analytical Psychology Club.

- Lacan, J. 1953. Some reflections on the Ego. *International Journal of Psychoanalysis* 34.11-17.
(This is listed mainly because it is in English, but not necessarily one of his more well-known articles.)
- _____. 1968 [1956]. *The Language of the Self: The Function of Language in Psychoanalysis*. Baltimore: Johns Hopkins Press.
- _____. 1957. The insistence of the letter in the unconscious. Reprinted in the DeGeorge anthology, 286-323.
(An important theoretical article on the linguistic orientation of Lacan's theory in relation to Saussure and Freud. Very difficult reading.)
- _____. 1977 [1966]. *Ecrits: A Selection*. New York: Norton.
- _____. 1977. *The Four Fundamental Concepts of Psychoanalysis*. London: Hogarth Press.
- Piaget, J. 1971 [1968]. *Structuralism*. London: Routledge & Kegan Paul.
- _____. 1973. *Main Trends in Psychology*. London: Allen & Unwin.
- _____. 1977. *The Essential Piaget*. New York: Basic Books.

ANTHROPOLOGY/SOCIOLOGY/LINGUISTICS

- Banton, M. (ed.). 1965. *The Relevance of Models for Social Anthropology*. Association of Social Anthropologists of the Commonwealth, Monograph 1. London: Tavistock.
(See particularly D. Schneider, B. Ward and M. Sahlins.)
- Bastide, R. (ed.). 1962. *Sens et usage du terme structure dans les sciences sociales*. The Hague: Mouton.
- Boudon, R. 1971. *The Uses of Structuralism*. London: Heinemann Educational.
(The uses of structure in mathematics and social sciences.)
- Durkheim, E. and M. Mauss. 1963 [1903]. *Primitive Classification*. London: Cohen & West.
- Gladwin, T. and W. C. Sturtevant (eds.). 1962. *Anthropology and Human Behavior*. Washington, D.C.: Anthropological Society of Washington.
(See E. Frake's 'The ethnographic study of cognitive systems', 72-84.)

- Glucksmann, M. 1974. *Structuralist Analysis in Contemporary Social Thought*. London: Routledge & Kegan Paul.
(Compares the theories of Lévi-Strauss in anthropology and Althusser in political and social philosophy.)
- Goodenough, W. H. (ed.). 1964. *Explorations in Cultural Anthropology: Essays in Honor of George Peter Murdock*. New York: McGraw Hill.
- Hymes, D. (ed.). 1964. *Language in Culture and Society: A Reader in Linguistics and Anthropology*. New York: Harper & Row.
- Lamb, S. 1965. Kinship terminology and linguistic structure. *American Anthropologist* 67.37-64.
- Leach, E. 1961. Lévi-Strauss in the Garden of Eden: An examination of some recent developments in the analysis of myth. *Transactions of the New York Academy of Sciences* 11.23.4, 386-96.
(A good discussion of the study of myth, with an example taken from Genesis.)
- _____ (ed.). 1967. *The Structural Study of Myth and Totemism*. London: Tavistock.
- _____. 1969. *Genesis as Myth*. London: Cape.
- Lévi-Strauss, C. 1969 [1949]. *The Elementary Structures of Kinship*. London: Eyre & Spottiswoode.
- _____. 1966 [1962]. *The Savage Mind*. Chicago: University of Chicago Press.
- _____. 1969 [1962]. *Totemism*. New York: Penguin.
- Spier, L., A. I. Hallowell, and S. S. Newman (eds.). 1941. *Language, Culture, Personality*. Menasha, Wisconsin: Banta.
- Wallace, A. F. C. 1962. Culture and cognition. *Science* 135.351-7.
(The method of componential analysis is applied to data from American-English kinship systems.)

SEMIOTICS/LITERATURE/ART

- Babb, H. S. (ed.). 1972. *Essays in Stylistic Analysis*. New York: Harcourt, Brace, Jovanovich.
- Barthes, R. 1957. *Mythologies*. Paris: Seuil.
- _____. 1967 [1964]. *Elements of Semiology*. London: Cape.

- Barthes, R. 1972 [1964]. *Critical Essays*. Evanston: Northwestern University Press.
- Eco, U. 1976. *A Theory of Semiotics*. Bloomington: Indiana University Press.
- Greimas, A. J. 1966. *Sémantique structurale*. Paris: Larousse. (A synthesis of the ideas of Jakobson, Hjelmslev, Brøndal, Bloomfield and Propp, to form a unified general theory of semantics applicable to problems ranging from individual word meanings to the semantic structure of the literary work as a whole.)
- Heath, S., C. McCabe, and C. Prendergast (eds.). 1971. *Signs of the Times*. Cambridge: Granata.
- Jencks, C. and G. Baird (eds.). 1970. *Meaning in Architecture*. London: Barrie & Jenkins.
- Kristéva, J. (ed.). 1971. *Essays in Semiotics*. The Hague: Mouton.
- Levin, S. R. 1962. *Linguistic Structures in Poetry*. The Hague: Mouton.
- Matejka, L. and K. Pomorska (eds.). 1971. *Readings in Russian Poetics: Formalist and Structuralist Views*. Cambridge: MIT Press. (Articles by Tomaševskij, Tynjanov, Jakobson, Propp, Brik, Ejxensbaum, Vološinov, Baxtin, Trubetzkoy.)
- Matejka, L. and I. Titunik (eds.). 1976. *Semiotics of Art: Prague School Contributions*. Cambridge: MIT Press. (Articles by Mukařovsky, Honzl, Veltrusky, Vodička, Levy, and others.)
- Metz, C. 1974 [1968]. *Film Language: A Semiotics of the Cinema*. London: Oxford University Press.
- _____. 1974 [1971]. *Language and Cinema*. The Hague: Mouton.
- Mukařovsky, J. 1977. *Structuralism, Sign and Function: Selected Essays*. New Haven: Yale University Press.
- Norberg-Schulz, C. 1966. *Intentions in Architecture*. London: Allen & Unwin.
- Scholes, R. 1974. *Structuralism in Literature*. London: Yale University Press.
- Summerson, J. 1966. *The Language of Architecture*. London: Methuen.

Todorov, T. 1973. *The Fantastic: A Structural Approach to a Literary Genre*. Cleveland: Case Western Reserve Press.

_____. 1977. *The Poetics of Prose*. Ithaca: Cornell University Press.

Ullmann, S. 1962. *Semantics: An Introduction to the Science of Meaning*. Oxford: Blackwell.

Yale French Studies, No. 41. 1968. *Game, Play, Literature*. (A special issue devoted to the structural implications of 'play'.)

PHILOSOPHY/LANGUAGE/THE SIGN

Allén, S. 1969. Lingual expression and generative grammar. *Actes du Xe Congrès Internationale des Linguistes* 1.235-40.

Althusser, L. 1969 [1966]. *For Marx*. London: Allen Lane.

_____. 1971. *Lenin and Philosophy, and Other Essays*. London: New Left Books.

Benveniste, E. 1966. *Problèmes de linguistique générale*. Paris: Gallimard.

Caws, P. 1968. What is Structuralism? *Partisan Review* 35.1, 75-91.
(An introductory essay on the French structuralist movement in the 1960s, focusing on Lacan, Althusser, Barthes and Lévi-Strauss.)

Harrison, B. 1971. Sign theory and linguistic structure. *The Journal of Philosophical Linguistics* 3.1-33.
(Discusses C. Peirce, C. Morris and others, but not Saussure.)

Fodor, J. 1975. *The Language of Thought*. New York: T. Y. Crowell.

Greenberg, J. H. 1957. Language as a sign system. In J. Greenberg: *Essays in Linguistics*, 1-17. Chicago: University of Chicago Press.

Merleau-Ponty, M. 1964 [1960]. *Signs*. Evanston: Northwestern University Press.

_____. 1969. *The Essential Writings of Merleau-Ponty*. New York: Harcourt, Brace & World.

Revue internationale de philosophie, no. 73-4, fasc. 3/4. 1965.
(A special issue devoted to 'la notion de structure'.)

Ricoeur, P. 1967 [1950]. *Freedom and Nature: The Voluntary and the Involuntary*. Evanston: Northwestern University Press.

_____. 1967 [1960]. *The Symbolism of Evil*. New York: Harper & Row.

_____. 1970 [1965]. *Freud and Philosophy*. New Haven: Yale University Press.

Schaff, A. 1978 [1974]. *Marxism and Structuralism*. Oxford: Pergamon Press.

Sebag, L. 1969. *Marxisme et structuralisme*. Paris: Plon.