SEX-BASED DIFFERENCES IN ENGLISH ARGUMENTATIVE TEXT:

A TAGMEMIC SOCIOLINGUISTIC PERSPECTIVE

by

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Presented to the Faculty of the Graduate School of

The University of Texas at Arlington in Partial Fulfillment

of the Requirements

for the Degree of

DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS AT ARLINGTON

May 1986

PREFACE

Being (at least in part) a product of an intensely practical rural community in east-central Minnesota, I cannot help but feel that a project of this magnitude had better not be scholarship for scholarship's sake alone. Now that the project is almost finished, I can happily say that both the scholarly side and the practical side of me are satisfied. The time and effort that I have spent researching and writing this dissertation has been profitable for my own growth (both academic and personal), and I trust that others who read it will benefit as well.

I offer sincere thanks to the members of my committee: Lenore Langsdorf, Don Burquest, Harry Reeder, Irwin Feigenbaum, and especially to my supervising professor, Robert Longacre. Each has had a profound influence on this work and on me during my graduate studies. I would also like to thank Kenneth Pike and Luanne Frank, both of whom have left lasting impressions on me and have been a great help as I have worked to develop my ability to think and write as a part of the academic community.

I would also like to thank the members of my "support group": my husband, Gary; friends and collegues at U.T.A.; the folks at the Episcopal Church of the Good Shepherd in Duncanville, Texas; and those at the Episcopal Theological School (Bloy House) at Claremont, California. Their support and encouragement were vital.

Finally, I would like to dedicate this work to the women, both students and faculty, whose lives have touched my own during my time in the Graduate Humanities Program at the University of Texas at Arlington. I have learned and grown much from my contact with them as we have, side by side, struggled to discover what it means to be scholars, women, and human beings.

When the thanks have been proffered, and the dedications made, and all has been said and done; it must be said that this work is done to the glory of the one to whom my very existence is dedicated. Sola Dei Gloria. To God alone be the glory.

2 April 1986

ABSTRACT

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A TAGMEMIC SOCIOLINGUISTIC PERSPECTIVE

Publication No.

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The University of Texas at Arlington

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This work applies insights from sociolinguistics, text-linguistics, social psychology, women's studies, informal logic, and tagmemic theory to the task of investigating sex-based textual differences in argumentative text. More specifically, it (1) lays out a means (both theoretical and methodological) of analyzing argumentative text; (2) analyzes the differences between argumentative texts produced by university freshman women and those produced by their male counterparts; (3) compares the findings of this analysis to previous studies in sex-based differences in English; (4) presents a sketch of these texts' social production context with an emphasis on sex-based social patterns in communication style and in moral reasoning; (5) analyzes the findings in #2 in light of #4, developing a sociolinguistic description of conductive and deductive

arguments. In short, this work brings together the theoretical and methodological resources necessary to do interdisciplinary socio-linguistic analysis of argumentative text, and does some initial analysis, which can provide direction for later more exhaustive research into textual sex-based differences.

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CHAPTER I

INTRODUCTION

1.1 General Problem Area

This dissertation looks at a facet of one of history's most looked at (and most complex) topics, the differences in the social activities of men and women.   More specifically, it looks at a particular linguistic activity, the production of argumentative texts by men and women. The context for this research is the place where sociolinguistics, textlinguistics, social psychology, women's studies, informal logic, and tagmemic theory meet.

Sociolinguistics is part of this research insofar as the research is built on the sociolinguistic assumption that form and function are a composite, that to describe linguistic structure without view to the social functional context is not to describe language. In sociolinguistic research, describing linguistic structures is only a first step; explaining those structures as social phenomena is the second. This study will, therefore, investigate both how male and female argumentative texts contrast structurally and how they arise out of their social context. Its focus is both structural and contextual.

The word "structural" in this context refers, first of all, to textlinguistic structures.   A fundamental assumption of text-

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linguistics is that words, sentences, and other lower level linguistic units cannot be understood (neither interpreted nor structurally defined) without reference to their textual context. Under the rubric of textlinguistics, this study will look at its data-- lexical inventories, clause and sentence structure, etc.-- in light of textual context.

In addition to textlinguistic structures, this study will also look at the logical structures of argumentative texts. Informal logic will be used to discover the various kinds of logical structure in texts. Textlinguistics can then investigate the grammatical and syntactic devices used in natural language to encode these structures.

This structural analysis (the "-linguistic" component of "sociolinguistics") will then be complemented by insights from social psychology (particularly that branch that looks at the formation of moral judgements), women's studies, sociology, cultural anthropology, and speech theory. These fields will provide the "socio-" side of "sociolinguistics" by providing a social and psychological context in which the sex-based textual differences can be viewed.

In short, the general problem facing this dissertation is, how does one design and implement a necessarily interdisciplinary sociolinguistic strategy for investigating sex-based textual differences in argumentative text? Within this general problem area, then, lie various specific problems.

1.2 Specific Problem

The specific problem at issue in this dissertation can be stated in terms of two questions: (1) What are the differences between the argumentative texts produced by women and those produced by men? (2) How do these differences correlate with other differences known to exist between men and women?

The first question will be answered from within a framework that combines textlinguistic, informal logic and sociolinguistic description. (This method for description will be outlined in chapter two.) The texts that will be analyzed were produced by University of Texas at Arlington freshmen enrolled in Freshman Composition (ENGL 1302), in response to specific topics.

The answer to the second question must be interdisciplinary. We will look at various fields within the social sciences and the humanities to determine what sex-based differences have been already discovered, and we will then compare them to the sex-based differences that we find in argumentative text.

Even more specifically, the task of this dissertation is as follows: (1) to lay out a means of analyzing argumentative text that incorporates insights from textlinguistics (especially Pikean tagmemic textlinguistics), informal logic, and sociolinguistics; (2) to analyze the differences between argumentative texts produced by university freshman women and those produced by their male counterparts; (3) to compare the findings of this analysis to previous studies in sex-based differences in English; (4) to present a sketch of these texts' social production context with an emphasis on

sex-based social patterns in communication style and in moral reasoning; (5) to analyze the findings in #2 in light of #4.

1.3 Limitations and Key Assumptions

The texts that will be analyzed in this study are written texts. Their being written gives them special characteristics that may not be present in oral discourse (cf. Ricoeur, 1976:25ff.; Walrod, 1983:63). We begin in our analysis with arguments as finished products not with argumentation in process (more about this in section 2.2.3). We do not consider the pragmatic or kinesic aspects of argumentation. We do not look at phonology. Rather, we begin with text and work our way back, as far as possible, into context (again, more about this in chapter two).

Secondly, it must be said that this study, because it breaks new ground both theoretically and methodologically, is at times sketchy. It is sketchy because a more detailed analysis is beyond its scope. The data that will be analyzed is limited. The number of texts is necessarily relatively small; the group surveyed is relatively homogeneous. Any larger or more diverse group would have presented complications that would have made this study impractical. Similarly, the findings in chapter three and their interpretation in chapter four are not meant to be taken for a detailed statistical analysis. They are, rather, meant to be taken as a broad picture of the systematic differences between men's and women's arguments and of the argumentative factors that inform such differences. This study claims only to be a beginning; eventually, more data will have to be

analyzed (and data from a wider sampling), and results will have to be better systematized. Eventually we may be able to make society-wide generalizations and to back them with rigorous statistical evidence. But that is not the task of this dissertation. Its task is to begin to bring together the theoretical and methodological resources necessary to do an interdisciplinary sociolinguistic analysis of argumentative text, and to do some initial analysis, which can provide direction for later more exhaustive research into textual sex-based differences.

Thirdly, the texts that will be analyzed are samples of writing produced by white middle-class young adults. Labov (1972) has demonstrated that economic level is a sociolinguistic variable. Carlson (1971:275-6) maintains that sex-based differences in language use are different for Blacks, Asians, and Amerindians. The conclusions of this study, therefore, must be limited to only argumentative text produced by white middle-class young adults.

Finally, a definition is necessary. Throughout this dissertation, the words "sex" and "sex-based" will be used. Oakley (1972:16) describes how "sex", in the narrower sense, refers to biological differences between male and female, whereas "gender" refers to cultural differences, the differences between masculinity and femininity. In the broader sense, however, "sex" is a label that encompasses both "sex" in the narrower sense and "gender" (Oakley, 1972:17-18). It is in this broader sense that the word "sex" will be used here. This sense makes no attempt to separate biology from culture, for in practice they are rarely separate.

1.4 Importance and Contributions to Knowledge

This dissertation will make contributions primarily to three fields within the humanities: textlinguistics, women's studies, and informal logic. These contributions include expansion of theory, development of new research techniques, and compilation and inter- pretation of new data.

The contributions to textlinguistics lie mainly in the expansion of existing theory and methodology. Insights from socio- linguistics, philosophy, and informal logic will be joined with present textlinguistic theory and methodology to provide a framework for the analysis of argumentative text. This framework will take into account the sociolinguistic variables in the production process that lies behind textual variables in argument as product.

The next area of contribution is to women's studies. In the area of sex-based differences in language, virtually all of what has been written has had its basis in sentence level constructions, para- linguistic communication, or in folk linguistics. Very little has been done with the differences in text (particularly nonnarrative and/or nonliterary text) produced by men and women. It is one of the goals of this dissertation to help to rectify this situation by means of a rudimentary linguistic description of the grammatical and referential differences in argumentative texts produced by women and those produced by men. This study will also begin to investigate common stereotypes about women's logic to see what basis they have in fact. In short, its contribution to women's studies will be to begin to pinpoint some of the differences in the ways men and women seek to

persuade others in written language and to place these differences in the larger context of sex-based differences in acculturation.

Finally, in the area of informal logic, this dissertation contributes to both theory and methodology. First, it further expands the theory underlying informal logic's concern for argumentative context by presenting a model of argument production in which social aspects of argumentative context are crucial. It then presents a methodology for tracing argumentative textual variants back to their genesis in the production context. Secondly, this dissertation looks at argument types, especially conductive argumentation, giving a more detailed description of the social and linguistic characteristics of conductive argumentation than has previously been developed. Methodologically, this dissertation focuses more on linguistic structure of argument than do most informal logic studies. It begins to define linguistically the logical structures that informal logic uses in its analysis.

1.5 Synopsis of Chapters

The first chapter of the body of this dissertation (labelled chapter two) contains the theoretical foundation for the rest of the study. It includes a summary, critique, expansion and synthesis of relevant aspects of textlinguistic (with a focus on Pikean tagmemics), informal logic, and sociolinguistic theory.

Chapter three includes an analysis of fifty-six argumentative paragraphs produced by fifty-six different university freshmen. These paragraphs are analyzed for a range of grammatical devices,

lexical inventory, and referential and grammatical text structure (i.e. argument structure). Differences between texts produced by women and those produced by men are noted.

Chapter four investigates the larger context in which the arguments analyzed in chapter three were produced. Work being done in psychology, speech communication, women's studies, linguistics and other areas within the human studies helps us paint a picture of the broad social context that may have given rise to the sex-based differences in the arguments.

Chapter five looks at the descriptive findings of chapter three in light of the social backdrop described in chapter four. Sociolinguistic interpretations of the sex-based variants are made in light of the theory set down in chapter two.

Chapter six is a summary. It also suggests areas for further research.

CHAPTER II

THEORETICAL FOUNDATION

As was discussed in the introduction, the theoretical base for this study is interdisciplinary. Of the three theoretical frameworks for argument analysis it uses (tagmemic text linguistics, sociolinguistics, and informal logic) no one, in itself, is adequate for the task of sociolinguistic analysis of argument. The purpose of this chapter is to demonstrate why these theoretical frameworks are inadequate in themselves for this task. It will show the places in which tagmemic text linguistics (particularly Pikean tagmemics) is lacking in its resources for handling argumentative text. It will show why sociolinguistics can lend insight into argument as a product of a social context but not as a social process. And it will show how the relationship between argument-as-product and argumentation-as-process creates problems for argument analysis that informal logic (at this point in its development) has not dealt with satifactorily. The task of this chapter is to look at the shortcomings as well as the strengths of these three theories, to compare them, and, finally (and most importantly), to synthesize them into a workable theory and method for the analysis of persuasive text.

In order to accomplish this task, we need a scheme for interdisciplinary comparison and synthesis. The old saying goes,

"You can't compare apples and oranges." This is not entirely true. Perhaps a better saying would be "you can't compare apples and volcanic eruptions, or oranges and rock concerts." The criteria that allow us to make the first comparison and not the second is a principle of categorization. It is the principle that makes analogies possible, and it is the principle that will allow us to compare and synthesize insights from different fields within the humanities. It says: two selected units (things, theories, methods, etc.) have a given set of characteristics in common. They are the characteristics that allow us to categorize the two under a common heading (in of section 2.1, 'methods for the analysis of argumentative text'; in the above example, 'fruit'). This categorization helps us to sort out relevant factors for comparison. In the case of apples and oranges, an awareness on the part of (for example) a horticulturist of what constitutes "fruitness" allows for comparison between kinds of fruit. Such an awareness would include generalizations about photosynthetic processes, conduction of food and fluids through the plant, and the effects of weather and chemicals. In the case of methods for the analysis of argumentative text, we need to determine the essential characteristics of analysis methods. Just as doing so in our apples/oranges analogy would keep us from comparing apple seeds to orange peels, or orange ripening to apple spoilage, a look at the essential characteristics of argument analysis methods will keep us from making inappropriate or unfruitful comparisons or syntheses.

Within the field of English as a Second Language (ESL),

Edward Anthony (1963), and Jack C. Richards and Ted Rodgers (1982) have presented a tripartite system—approach, methodology, and technique—for the analysis of language teaching methods. Its applicability, however, extends beyond language teaching to methods of language analysis as well.

Approach, according to Richards and Rodgers (1982:153), "is a theory of language and of language learning" and, it may be added, of language observation and analysis. It is the theoretical underpinnings of a theory or method. Methodology, (also called "design", and described by Richards and Rodgers, 1982:153) is "a definition of linguistics content, a specification for the selection and organization of content, and a description of the role of the teacher, learner, and teaching materials." It could also be (in the context of language analysis) the delineation of particular linguistic data and the interpretation of that data in a way consistent with the view of language (etc.) in the corresponding approach. The methodology is the practical statement of which linguistic information is important (worthy of analysis) and which is not. Finally, technique (called procedure by Richards and Rodgers, 1982:153) is concerned with the practices involved in language teaching or analysis. It is concerned with the tools used (and how they are used) and what one does first, second, third, etc. Technique is the place where approach and methodology meet an actual teaching or analysis situation. It should be noted at this point, that the boundaries between approach, methodology, and techniques are fuzzy. Dividing a method into these three parts is often a call of

judgement. But a taxonomy that is imprecise or one that "leaks" is more useful for our purposes than none at all.

The tripartite distinction of approach, methodology, and technique is useful to us in the following way. We group tagmemic text linguistics, informal logic, and sociolinguistics under the common heading "methods for the analysis of persuasive text." We then say that if all three can be called "methods", the category system of approach, methodology, and technique is applicable and can serve as an aid in comparison and synthesis of the three methods. Using this system we then compare approach to approach, methodology to methodology, and technique to technique. The tripartite distinction of approach, methodology, and technique becomes a heuristic that will decrease the chances of unfruitful comparison.

Using this heuristic, each of the three methods will be analyzed in turn for: (1) Approach--What does this method say about the nature of language, language use, and observation of language? (2) Methodology--How does one select and organize data for analysis? or Through what methodological grid is language data viewed? (3)Technique--Because technique springs from approach and methodology, because it is, more than the other two, often tailored to the analysis/teaching situation, and because this section of the dissertation deals mainly with theory and not as much with practice, techniques will be presented, illustrated in the analysis section (chapter three) and not here.

2.1 Tagmemics

Tagmemics is the school of linguistic theory and analysis founded by Kenneth L. Pike, expanded upon by Robert E. Longacre, Larry and Linda K. Jones, and others, many, but not all, of whom are associated with the Summer Institute of Linguistics. Though insights from tagmemics have found their way into composition theory, anthropology, rhetoric, language teaching, and other fields, this study will mainly incorporate tagmemic text theory as presented by Pike. Insights of other tagmemicists and other textlinguists will be brought in as applicable, but the bulk of the material will be Pikean.[1]

2.1.1 Existing Approach

Tagmemics' views on the nature of language, i.e., its approach, have grown out of the work of members of the Summer Institute of Linguistics, who work in over 1000 languages, describing and learning other languages, writing them down, translating, developing literacy programs, etc. Pike and Pike (1982:xiii) describe the development of tagmemic theory this way:

> The theory ... is [an] attempt to explain why it is possible, at all, to train a student to be prepared to enter a language which neither student nor instructor has ever studied or heard. It should be clear that no such technique could have been possible unless human nature across language barriers is in some sense uniform. This uniformity the theory attempts to capture. The theory's postulates, therefore, are affirmations about the universals of human nature, universals which work out through language (and also through nonlinguistic behaviour) so that there is a continuity of pattern from language to ceremony, from speech to football, from the design of automobiles to the structure of algebraic systems.

The elements of tagmemic theory (approach) that will be considered in this section are: (1) the place of observer perspective in language analysis; (2) the notions of particle, wave and field as ways of viewing language; and (3) the relationship between linguistic and nonlinguistic behavior.

2.1.1.1 Observer Perspective

Tagmemics recognizes that linguists are human beings with limited perspectives. What they see therefore will depend, to a great degree, on what they are looking at. If a phenomenon is too large or multifaceted to be comprehended from one perspective, a linguist, like any other individual, will necessarily have to turn away from some details in order to examine others. Tagmemics' "observer perspective", then, is the postulate which says that individuals can see life only through their own eyes; what they look at, where they look for it, and when and how they look at it all influence what they see. This informs Pike's definition of theory. He says (1982:5):

> A theory is like a window. The intellect, in order to get outside itself and to interpret the sense data impinging on the body, needs in advance some kind of idea of the way in which the data may turn out to be organized. Then it can search for a pattern. A theory in this sense is <u>directional</u>.... By looking out of a south window we get one view, but out of a north window a different view. Both lead to a partial insight into one's surroundings, but in different directions. Sometimes, however, the same view may be seen through two different windows. Similarly, different theories may each contribute insight into the nature of patterns of language. If we look at the same pattern through different theories, we may see different aspects of a pattern.

Because the intellect must have some theory in order to get outside

itself, and because no one theory can deliver a view of all sides of

a phenomenon, tagmemics claims not to describe a phenomenon as it _is_,

but rather as it is _observed_ (cf. Pike, "Wherein Lies 'Talked-About'

Reality?", 1981). Pike and Pike say (1982:321),

> Tagmemics does not discuss the "thing-in-itself"--i.e., it does
> not discuss items or events abstracted entirely from perception
> or from speech,... but treats only items-in-relation to some
> observer, perceiver, or imaginer; the nature of the thing as it
> is apart from the perceiver or discussant is not a part of
> tagmemic analysis.... The theory neither affirms nor denies the
> presence of items apart from an observer; it is merely silent
> about them.

Tagmemics' view of observer perspective also influences its

views about formalism. Tagmemics tends toward a prose account of

data for the following reason (Jones, 1980:78):

> Tagmemics maintains that it is not possible to formalize all the
> relevant facts of language in as strict a fashion as can be done
> for, say, matter with the laws of physics. It must be recognized
> that there are limits to formalizing language, such that no
> uniform representational system can hope to accommodate all the
> relevant facts of a language.

In short, tagmemics uses a certain amount of formalism (as in Pike

and Pike, 1982) while acknowledging both the limits of formalism and

the merits of prose description of linguistic phenomena.

So then, tagmemics' views on formalism, on the

"thing-in-itself", and on theory are related to the observer

perspective postulate. The notion that our perspective determines to

a great degree what we see is a central part of tagmemic theory.

2.1.1.2 Particle, wave, and field

Among the perspectives that an observer can take are the

particle view, the wave view, and the field view (Pike, 1959:37).

The view of language as made of particles, is closest to the common
lay view of language (eg., that words are made up of letters,
sentences of words, etc.). In this view the pieces of language are
distinct and have sharp boundaries. The wave view, by contrast, sees
a linguistic string not as a row of bricks cemented together but as a
wave. In a wave, one can determine the highest point of a crest or
the lowest point of a trough, but the boundaries between crests and
trough are not discernible because they blend into each other. The
third view, that of field, sees language as a complex system of
interwoven parts and wholes where no part exists apart from its
function in the whole. This last view sees language as systematic.

For practical purposes, Pike has combined these three views
of language with the notion of structural meaning or "role" (eg., the
classes "subject" and "predicate" are roles in that they are
structural features of a sentence that convey meaning) to create the
four-celled tagmeme. (For more information on the development of the
tagmeme see Pike, 1983:104-121.) The four-celled tagmeme is
illustrated in figure 1 (cf. Pike and Pike, 1982:33).

SLOT	CLASS
ROLE	COHESION

Fig. 1. The Four-celled Tagmeme

In this system, class corresponds to particle, slot to wave, and
cohesion to field (with role being structural meaning) (Pike,
1982:75). In other words, class looks at a particular unit being
considered; slot at its immediate context (its place within a wave of

context); and cohesion at its broader context or network of relationships. Slot is <u>where</u>; class is <u>who</u> or <u>what</u>; role is <u>why</u>; and cohesion is <u>how</u>, particularly how is this unit related to something or how is it governed by something.

In short, an observer may see any given grammatical, phonological, or referential unit as particle, wave or field. Practically, these different perspectives on a unit are noted systematically using the four-celled tagmeme.

2.1.1.3 Linguistic and other behavior

Particle, wave and field, however, are not only perspectives on linguistic behavior. They are also ways of looking at any kind of purposeful human behavior. Jones (1980:18) says,

> At the heart of tagmemic theory is the assertion that language is an integral part of human behavior. That is, language is best analyzed and understood as one aspect—closely related to other aspects—of human behavior. Tagmemics is rather unique in that its most basic principles, or axioms, are claimed to hold for all human behavior including, but not limited to, language.... Consequently, tagmemics rejects any strictly mentalistic view of language.

Tagmemic postulates have found their way into anthropology, composition theory, rhetoric, second language teaching, stylistics, and Biblical studies, in addition to linguistics proper. This flexibility makes tagmemic theory particularly useful for an interdisciplinary dissertation.

2.1.2 Existing Methodology

We turn now to tagmemic methodology, that is: How does tagmemics select and organize data for analysis? This section will

concentrate on methodologies for sequencing and defining units within the referential hierarchy.[2]

2.1.2.1 Referential units

To date, the most complete published statement regarding the tagmemic account of referential units is found in Kenneth L. Pike's Linguistic Concepts (1982). He speaks of these units in terms of their place in the referential hierarchy. Lower in the hierarchy are referential identities. These correspond to, but are different from, lexical names in the following way:

> There is a further crucial difference between grammatical and referential units at this point. The lexical item Socrates must remain as a noun, the same noun, in all its occurrences. But as simultaneously representing--for the moment--a referential item, it has great flexibility of paraphrase without loss of its referential identity, even though it is no longer a noun. (98)

Higher in the hierarchy is "action affirmed" (98), which is an event and the items involved in an event. This event is then distributed into higher levels:

> An event may be a part of a larger event, which in turn is part of a still large event. In addition, a more complex situation frequently is relevant on the higher level: Two "separate" events may be occurring at the same time, which later turn out to merge into a single event ... Such a merging event complex also serves as a unit of the referential hierarchy analogous to the complex sentence (or even higher unit) of grammar. (99)

Though there are correspondences between the grammatical and referential hierarchies, the two are not necessarily isomorphic:

> It is [also] important not to confuse correctness of formation of a sentence grammatically with truth relative to a particular referential framework. A statement can be factually correct, or true, even though badly stated. (105)

That is to say that a statement may be grammatically well-formed and

still be incongruous with a particular universe of discourse. For example, the now infamous "Colorless green ideas sleep furiously" is grammatically well-formed but not referentially well-formed: it is a grammatical sentence but does not coincide with any universe of discourse within which we are accustomed to operating.

These two descriptions of referential units (developed mainly through work with narrative and expository texts) give us at least two tagmemic methodological statements which can be applied to argumentation. First, they offer us a notion of hierarchy in which lower level units, referential identities, combine to form higher level units. Second, they also caution us against expecting isomorphism between grammar and reference.

2.1.2.2 Referential sequencing

We now look at sequencing (i.e., the criteria that determine the sequence of units, usually encoded by sentences, in a text). The relationship between identities and higher levels in a hierarchy (such as was described above) is not implicitly temporal or spatial. That is, when we say that several smaller events combine to form a larger event, we are making no specific claim about the temporal relationship or spatial relationship between these events. We are only making a statement about how the parts are distributed into the whole. For example, to say that an inning in baseball is made up of several actions (including pitches, hits, strikes, catches, throws, etc.) is to say nothing about the sequence of those events. Yet we know in real life that there must be a temporal and spatial

relationship between events because events necessarily occur within space and time. So then as a part of reference, in addition to hierarchy, we must be able to deal with some kind of sequencing or grouping of identities and events.

The earliest work dealing with referential sequencing has been done using narrative text. Narrative seems to be particularly amenable to analysis of sequencing because the rationale behind the ordering of its events (which are its basic referential units) is generally temporal and/or spatial.[3] Among those working with narrative sequencing are Joseph Grimes (1975:35), who discusses the various temporal topologies which may comprise part of the reference of narrative. Similarly, Robert Longacre (1980: 131ff.) discusses the various kinds of temporal overlap and succession used in discourse of all kind, especially narrative. Gerard Gennette (1980:33ff.) discusses the interrelation between "narrative time" and "story time", focusing mainly on anachronisms. Susan Westrum (1976) proposes a particular kind of temporal mapping (which looks at the interrelation of time and character activity) as a useful tool in the analysis of stories. Mapping of events as performed by participants in a given time frame is also the methodology used by Pike and Pike (1983) in their "Bathtub Navy" material. Many others, too numerous to mention, from the fields of text linguistics, literature, stylistics, etc. have found temporal analysis to be a useful tool in the study of narrative text.

A possible reason why temporal analysis serves so well as a methodology for narrative referential research can be seen in Willard

Van Orman Quine's <u>Word and Object</u> (1980). Quine says, "Our ordinary language shows a tiresome bias in its treatment of time. Relations of date are exalted grammatically as relations of position, weight, and color are not" (170). From a linguistic standpoint, this "bias" can sometimes be seen in a highly developed tense system and a propensity for a large inventory of temporal expressions (for example in Germanic and Romance languages and in some of the languages of Papua New Guinea (Longacre, 1980:131)). Yet even in those languages not having elaborate tense structures, there are always means for distinguishing temporal succession from temporal overlap (Longacre, 1980:131). Natural language does indeed have "bias" toward temporal relations. Because of this "bias", temporal relations can be readily discerned in texts recounting events, and temporal analysis proves itself a highly valuable tool that lends great insight into the referential structure of these texts.

Another methodology that has proven useful in the referential analysis of narrative text is the analysis of spatial relations. This methodology is demonstrated in Lillian Howland's "Communicational Integration of Reality and Fiction" (1981). Howland's article demonstrates the charting of spatial relationship of events as they progress from location to location within the narrative (eg., "patio, inner-room, living room, porch" in the Carib story Howland analyzes). She demonstrates how these locations and the spatial relations between them form the skeleton of the referential component of the Carib narrative and how these spatial relations are relatively easily gleaned from the text. Similarly,

Nils Erik Enkvist (1981:100ff.) demonstrates how texts may be structured to be iconic of experience of spatial relations. Helen Dry (1981) notes the interrelationship between events and changes in locations (and also states), and the way this interrelation causes a forward movement of narrative time. Grimes (1975:52ff.), under the heading of "non-events in discourse" describes the various ways that descriptions of locations can function as "settings." Analysis of spatial relations proves in these studies and in many others to be a crucial component of narrative analysis.

Again Quine (1980:1) offers a possible explanation for the relative ease with which the spatial components of a text can be analyzed:

> Linguistically, and hence conceptually, the things in the sharpest focus are the things that are public enough to be talked about publicly, common and conspicuous enough to be talked about often, and near enough to sense to be quickly identified and learned by name; it is to these that words apply first and foremost.

Locations, by this criteria, would be easily named and so easily referred to. Because of this, and because locations typically play an important role in narration, spatial referential analysis of narrative text is relatively easy.

On the basis of what we have just seen, we can say that temporal and spatial relations are natural factors to consider when analyzing the referential structure of narrative text. However, we need to look at whether consideration of these factors would prove fruitful to nonnarrative analysis. (This will be done in section 2.1.3.2.)

2.1.3 Expanded Approach and Methodology

In this section we attempt to add to and modify the theoretical framework presented in sections 2.1.1 and 2.1.2 in order to handle the largest amount of data in the most useful (for our purposes) way. Working from the known to the unknown by analogy, and borrowing ideas from other thinkers as they prove beneficial, we will build an approach and methodology consistent with the above theory yet expanded to deal with argumentative text.

2.1.3.1 Referential units

In light of the discussion about referential units in section 2.1.2.1, we can see that in narrative text, lower level referential identities are most often participants, props and locations, things common and public. It was probably these notions that Pike had in mind when he developed the notion of "a wave of meaning of a lexical item" (1982:119). This notion says any given lexical item will have a central meaning (corresponding to the analogous peak of the wave) and other marginal meanings. Regarding the central meaning, Pike says:

> The central meaning will usually be considered the one which is learned earliest in life, is used most frequently, is the most physical in its reference, and is used analytically as the most convenient basis for descriptive order or rule derivation. (1982:120)

He illustrates this principle using the term run (120). The central meaning of run (according to Pike (1982:120)) is to run "on feet to or from a place." This meaning is the meaning most physical in its reference, the earliest learned in life, and the most frequent in

usage. Marginal meanings are found in "to run a business" and "to run a temperature," both of which are less physical in reference and less frequently used.

Pike has demonstrated how well his notion of central meaning applies to something as concrete as run. Yet, problems could arise when it is applied to something more abstract, for example, to the discussion of virtue in Plato's Meno. In the Meno, Socrates and Meno use dialectic to try to ascertain the meaning of the word virtue. The first time that Socrates asks Meno for a definition Meno responds:

> First, if you want the virtue of a man, it is easy to say that a man's virtue consists of being able to manage public affairs and in doing so to benefit his friends and harm his enemies and to be careful that no harm comes to himself; if you want the virtue of a woman, it is not difficult to describe: she must manage her home well, preserve its possessions, and be submissive to her husband; the virtue of a child whether male or female is different again, and so is that of an elderly man, if you want that, or again if you want that of a free man or a slave. And there are very many other virtues so that one is not at a loss to say what virtue is. There is a virtue for every action and every age, for every task of ours and every one of us--and Socrates, the same is true for wickedness. (71e-72a)

Here we see a very physically oriented description of virtue. Virtue is described in terms of outward observable actions of the virtuous person. However, Socrates is displeased with the definition. He states his objections like this:

> I seem to be in great luck, Meno; while I am looking for one virtue, I have found you to have a whole swarm of them. But, Meno, to follow up on the image of swarms, if I were asking you what is the nature of bees, and you said that they were many and of all kinds, what would you answer if I asked you: "Do you mean that they are many and varied and different from one another in so far as they are bees? Or are they no different in that regard, but in some other respect, in their beauty, for example, or their size or in some other such way?" Tell me, what would

you answer if thus questioned?

    Meno: I would say that they do not differ from one another in being bees....

    Socrates: The same is true in the case of virtues. Even if they are many and various, all of them have one and the same form which makes them virtues, and it is right to look to this when one is asked to make clear what virtue is. (72a-d)

For the abstract noun <u>virtue</u>, Socrates is not content with a physical and denotative definition. Rather he is looking for an abstract and connotative one. He seems to be looking for a central meaning by which actions may be judged to be virtuous or not, but that central meaning does not seem to be physical or simple. Socrates seems to be searching for the "idea" or "form" of virtue, and that "form" is, by definition, not physical.

The difference between Socrates's search for the central meaning of the word <u>virtue</u> and Pike's determination of the central meaning of the word <u>run</u> nudges us to consider the possible differences between the referential component of physical identities and that of abstract identities. In order to consider these differences, we must back up and consider the differences between the way we perceive and structure the two kinds of identities. At this point we begin to borrow from other theories and to work by analogy for we have reached the frontiers of established Pikean tagmemic theory and practice. The following charts represent a schema of perception and structuring. The first (figure 2) is a representation of well established tagmemic phonology (cf. Robinson, 1978; Pike, 1947; Mayers, 1978). The second (figure 3) is an analogous chart for the perception of referential identities. Many of the ideas in the second represent a synthesis of Kant, Cassirer, and Kuhn's views of

perception.[4]

In the first diagram (figure 2), stimuli, sound waves, are produced by the speech mechanism. The stimuli are received by the hearer and are segmented etically[5] etically the perceptual mechanism into phones.[6] These phones are then seen in the context of two different systems, the phonetic chart, and the words in which they are found. Through paradigmatic contrast, those phonetically similar segments that are in contrast in similar or the same environment in the word are said to be etically significant. This principle of emic contrast must play a part in both the production and in the reception of phonetic strings, for it is in discerning contrast that we distinguish one meaningful unit from another (or create a meaningful unit that can be distinguished from others).

The second diagram (figure 3) is quite similar to figure 2. In it the individual's perceptual mechanism receives stimuli from the thing-in-itself in keeping with the physical laws governing the light and sound waves. Regarding such perception, Kuhn (1970:192) says, "if two people stand at the same place and gaze in the same direction, we must, under pain of solipsism, conclude that they receive closely similar stimuli." These stimuli, once received by the physical mechanisms, are filtered through the perceptual mechanism. Philosophers are at variance about the nature of this perceptual mechanism. Kant and Cassirer (a neo-Kantian) would say that it is the "place" where stimuli mix with the a priori or universal values. It is here that we make fundamental judgements

stimuli ⟶ perceptual mechanism ⟶ perception (ETICS) ⟶ paradigmatic contrast ⟶ EMICS

data:
[api]
[apa]
[ambi]
[imbi]
phonetic chart:
p i a
b

[p] and [b] are phonetically similar segments that do not contrast in the way they are distributed into the given data

phonemic chart:
p i a

$/p/ \rightarrow [b] \ /C_{nas}$ ——
$/p/ \rightarrow [p] \ /$——
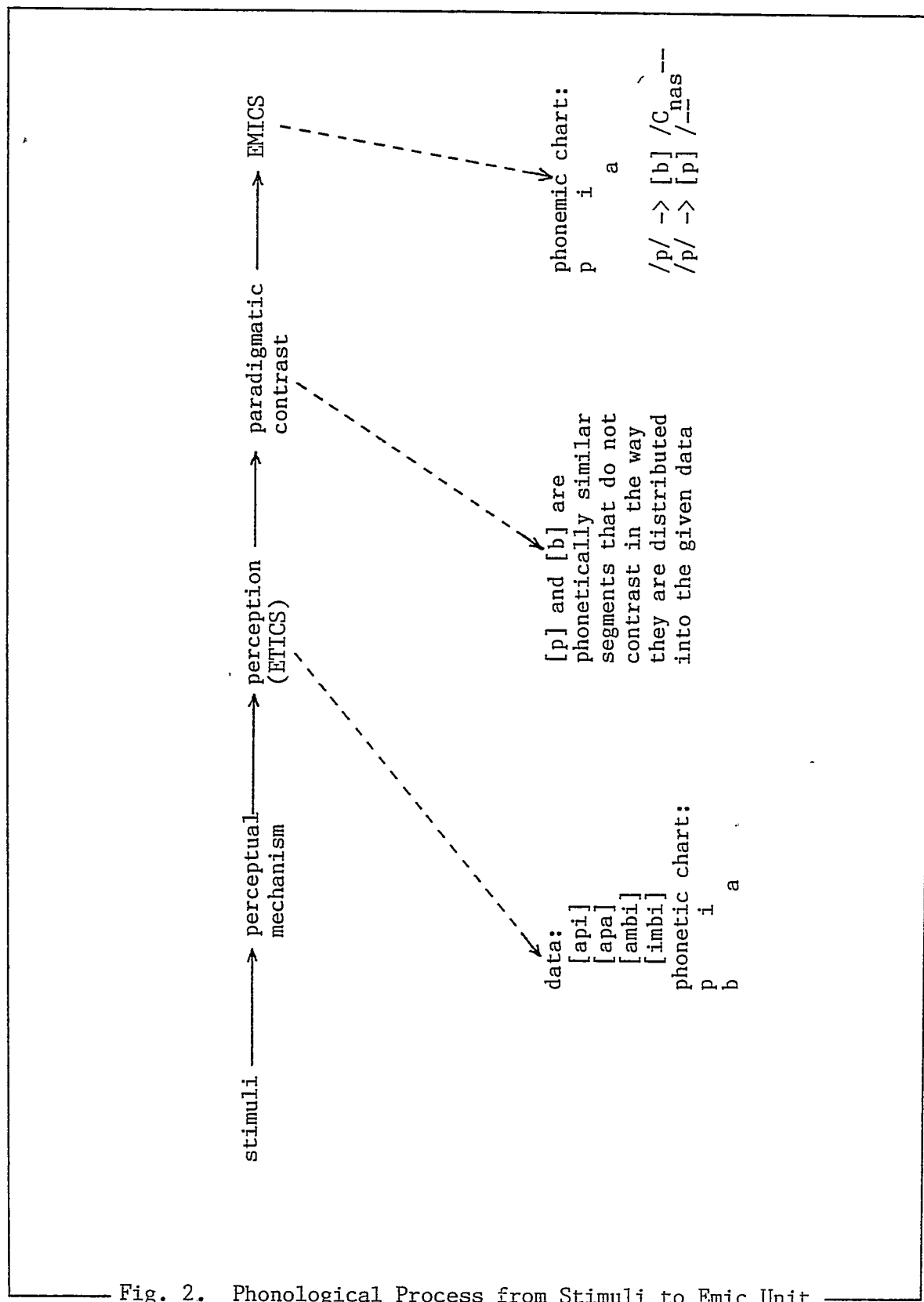
Fig. 2.   Phonological Process from Stimuli to Emic Unit
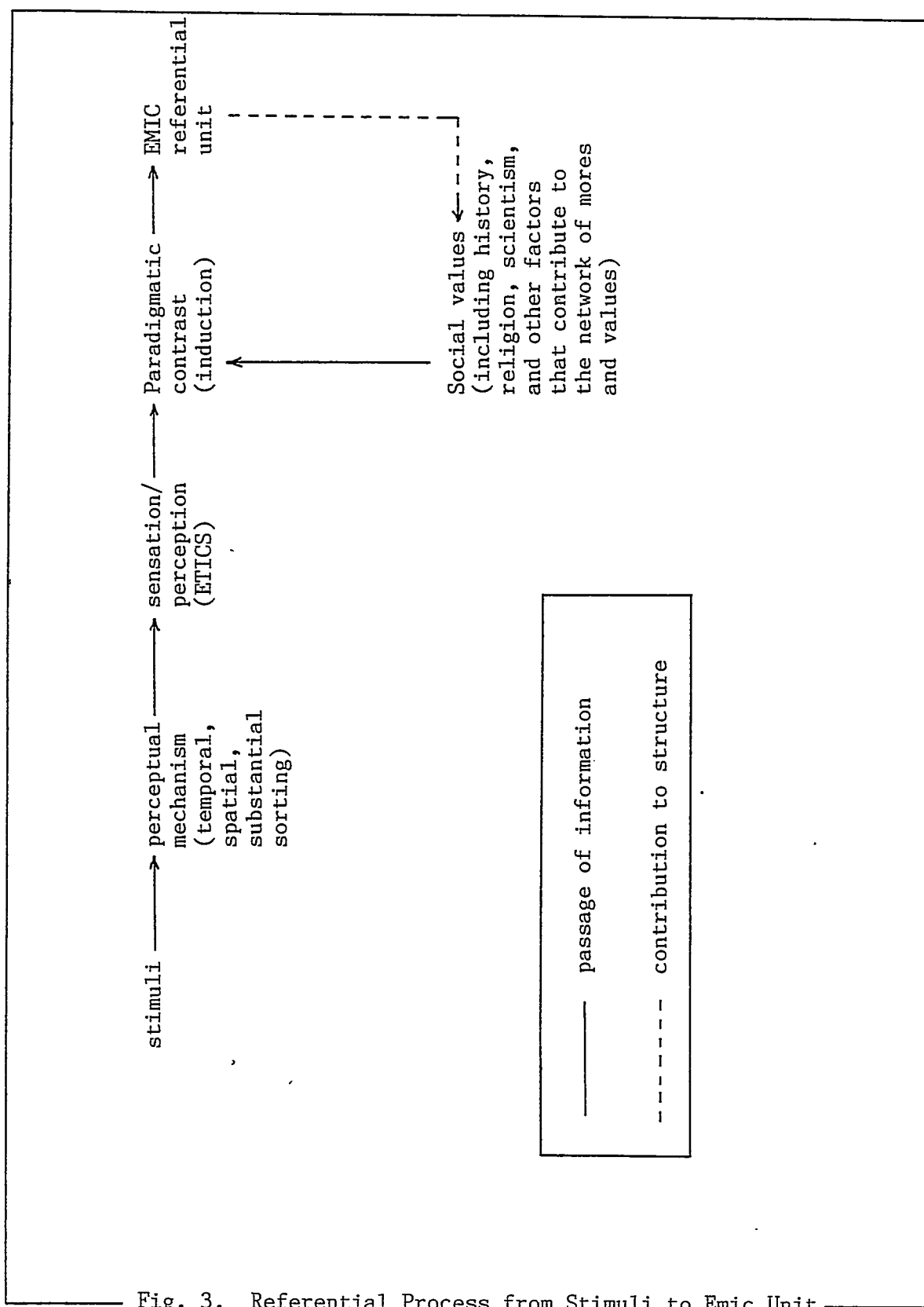
Fig. 3. Referential Process from Stimuli to Emic Unit

about a thing, judgements such as substance (Kant, 1929:44-5), temporality, and spatial relations. Kuhn (1970:193), on the surface of things, would disagree. He says,

> The route from stimuli to sensation is in part conditioned by education. Individuals raised in different societies behave on some occasions as though they saw different things. if we were not tempted to identify stimuli one to one with sensations, we might recognize that they actually do so.

Kant, therefore, sees the stimuli mixing with universal values, whereas Kuhn see them passing through a route conditioned by education.

This difference between Kuhn and Kant, however, may be reconcilable. It could be that Kant is speaking of a more rudimentary process than Kuhn. Kant is speaking of universals of human perception. These universals are the same as (or very similar to) what modern researchers are examining in the newly sighted. These researchers are finding (Dillard, 1974:25-9) that individuals who have been blind since birth, and who have subsequently received sight through surgery do not immediately process the visual stimuli they receive in terms of categories of quality, quantity, relation, and modality (cf. Kant). Rather they only receive sensations, a one dimensional plethora of unsorted color impressions. Though they can look at things in the same way as normal individuals do, they do not see things in the same way. On the basis of these findings, and on the basis of their observation of babies, these researchers are now positing that the sorting of stimuli into perceptions is a learned process, one that all normal human beings learn, and that once learned cannot be unlearned. So in a sense, Kant is supported by

modern research in his claim that there are "universals" of perception. There do seem to be things that all normal human beings (except for, perhaps, the youngest infants) do in their sorting of stimuli.

But there are ways in which we view the world that are not universal, but rather culturally specific. These ways seems to be what Kuhn is referring to in the above quotation. One example is the dividing of the color spectrum. A Dakota (Sioux) Indian looking at the range of the spectrum that we in English call <u>blue</u> and <u>green</u> will see only one color, <u>to</u> (Peterson, 1980:7-8). Some would claim, on the basis of evidence like this, that it is not universal categories (as in Kant) that structure our perception; it is, rather, sociolinguistic conventions and context (also called "paradigms," cf. Kuhn, 1970) that do so. To make this claim, however, is to ignore a crucial point: we cannot "unlearn" the way we <u>see</u> (or at least we cannot conduct our daily lives in a state of unlearning without walking into furniture and falling off balconies as the above mentioned newly sighted people have been known to do), but we can change what we <u>notice</u>. We can expand our sociolinguistic context by learning a new language, dialect or jargon or by living within a new culture. We can even, by being reflective about our present context, become aware of its limitations: the Dakota who stops to think about it, or who comes to need the distinction, will distinguish between (Dakota) <u>so to</u>, 'sky blue', and <u>pezhito to</u>, 'grass blue'.

So then, we can see three levels of empirical observation: the mechanical, the perceptual, and the paradigmatic. The mechanical

we come equipped with at birth It is the taking in of stimuli through the five senses. The perceptual (the ability to sort stimuli in terms of Kant's "universal" values) we learn after birth in ways still unknown, and the paradigmatic we gain along with our acculturation, from language and cultural conventions.

Observation of the empirical world, however, yields only concrete referential identities. Outside stimuli, going exclusively through the empirical observation process, cannot yield abstract concepts. Rather, these concepts arise in some way from social values when the conceptual analogue of the perceptual mechanism sorts through the flurry of social value stimuli, preparing them for paradigmatic contrast. The difference between these two tracks channeling into the contrast mechanism is similar to the difference between "nature concepts" and "culture concepts" in Cassirer (1960:ch.3).

Regarding cultural concepts, Cassirer (1960:139) speaks of a process called "abstraction," "concepts by abstraction," or "ideative abstraction." He became aware of the necessity of such a notion in a way similar to the way we have (i.e., he became aware of the differences between the process by which we arrive at concrete concepts and the process by which we arrive at abstract concepts). More specifically, in Burckhardt's <u>Civilization of the Renaissance</u>, he discovered a classic portrait of the man of the Renaissance; yet he could find no single individual who possessed all the traits delineated by Burckhardt. Cassirer (1960:139) says:

> Burckhardt could not have given his image of 'the man of the Renaissance' without relying upon an immense amount of factual

material in support of it. The wealth of this material and its
trustworthiness astonish us again and again as we study his work.
But the kind of 'conspectus' he executes, the historical
synthesis he gives is wholly different in kind from that of
empirically acquired concepts of nature. If we wish to speak of
"abstraction" here it is that we are dealing with that process
which Husserl characterized as "ideirende abstraction." That the
result of such an "ideirende abstraction" could ever be brought
to coincide with any concrete case--this can neither be expected
nor demanded.

According to Cassirer, therefore, there is a kind of abstraction that

is characterized not by paradigmatic contrast (as in induction), but

rather by a common spirit or "unity of direction."

Since we find differences between abstract and concrete

referential identities (in the source of stimuli giving rise to them)

we would also expect to find fundamental differences in the way the

two are best analyzed in referential analysis. We cannot tie

abstract concepts solely to the encoder's perception of them in the

real world. We must have some way of tying them to their cultural

context by noting the network of social values which form the

cohesion cell for such concepts. And we must investigate the means

by which humans abstract out particle-like concepts from their field

structure. This study can only begin to scratch the surface of some

of these issues.

2.1.3.2 Referential Sequencing

The second problem, in addition to the problem of abstract

concepts, is the difficulty of referential sequencing. In narrative,

as has already been discussed, referential sequencing and grouping

has been based mainly on chronology and spatial arrangement. In

nonnarrative, however, these concepts are of limited usefulness.

Consider, for example, the classic syllogism:

All men are mortal.
Socrates is a man.

Socrates is mortal.

No spatial relationship between these terms can be found. Though some kind of temporal relationship can be seen between the statements--Socrates's life span covered certain years, and the statement "all men are mortal" obtains throughout time--these relationships lend little or nothing to the understanding of the argument as a whole.[7]

So then, the referential sequencing of argumentative text is not necessarily temporal or spatial, but neither would we expect it to be unsequenced. Victor Vitanza (1979:270-4), speaking of expository paragraphs, cites research that demonstrates that "much like the sentences that compose them, [expository paragraphs] are uniformly structured." This structuring, which includes such phases as "topic, restriction, and illustration," appears to be referential structuring. Similarly, Beekman and Callow, (1974:286-312), Longacre (1980:111ff.), and others discuss structures that may be found non-narrative text. Because argumentation, like expository texts, employs typical structures (such as topic, illustration, etc.) as well as a range of structural cues not used in exposition, we might expect that just as narrative encodes temporal or spatial movement, nonnarrative (exposition and argumentation both) encodes some kind of mental or conceptual movement.

Before looking at this movement, however, we need a working definition of argument. Consider the following as a possible

four-celled tagmemic definition:

the range of acceptable argumentative structures (in logic: valid argument types)	a logical ordering of propositions with teleological movement toward a conclusion
purpose for arguing	the real-life engagement of individuals with varying social values in argumentation

Fig. 4. A Four-celled Tagmemic Definition of Argument

Here we have in the class cell a minimal description of argument: propositions, ordering based on reason, and movement toward a conclusion (all marked/encoded by appropriate surface structure features). The argument structure (class) fits into an immediate context (slot), a possible range of acceptable structures. Traditionally, these structures have been seen by logic as the valid argument types. Rhetoric and informal logic, however, have recently introduced the possibility of there being socially valid structures, which are not necessarily in keeping with traditional logic (cf. Feyerabend, 1975; Apostel, 1971; Peppinghaus, 1976). In fact, according to work done in speech communication, traditional validity structure may be less important to the common person than social validity structures are (Bettinghaus, 1968:157; McCroskey, 1969).[8] In the role cell we see that for each argument there is a purpose for arguing. The cohesion cell, which conveys the broader context, in this case holds the social and interpersonal argumentative context from which argument springs. (This description of argument will be expanded, illustrated, and applied in section 2.2.3.3.)

The contrast between, on the one hand, the argument as a particular thing having a particular structure (the fillers of the class and slot cells) and, on the other hand, the real-life argumentative engagement of individuals with varying social values and reasons for arguing, taking place in a specific context, i.e., argumentation as process (the fillers of the cohesion and role cells), is very close to the contrast between argument and argumentation as proposed by Harry Reeder (1983:2). He uses the terms "argumentation" and "argument" for "communicative context and abstractable content/structure, respectively." This distinction between argument and argumentation is a valuable one, and the two terms will be used in this way throughout the dissertation.

The tagmemic definition of argument described here, in which argument is a function of an argumentative context, is similar to Toulmin's description of argument (1958:94):

> An argument is like an organism. It has both a gross, anatomical structure and a finer, as-it-were physiological one. When set out explicitly in all its detail, it may occupy a number of printed pages or take perhaps a quarter of an hour to deliver; and within this time or space one can distinguish the main phases marking out the progress of the argument from the initial statement of an unsettled problem to the final presentation of a conclusion. These main phases will each of them occupy some minutes or paragraphs, and represent the chief anatomical units of the argument—its "organs", so to speak. But within each paragraph, when one gets down to the level of individual sentences, a finer structure can be recognized, and this is the structure with which logicians have mainly concerned themselves. It is at this physiological level that the idea of logical form has been introduced, and it is here that the validity of our arguments has ultimately to be established or refuted.

This statement helps us to redefine further our definition of argument, particularly with regard to argument structure. Toulmin tells us that the structure of the higher level, anatomical,

constituents of argument are different in kind from the lower level, physiological components. The higher level component can be seen as "phases marking the progress of an argument," that is, the sociolinguistic progress, or progress toward achieving an argumentative goal. This anatomical constituent is analogous to Longacre's (1980:42ff.) "notional structure" or "plot" of narrative. In it different textual phases (in structured sequence) play different roles toward the end of achieving a sociolinguistic (or in the case of argument, argumentative) goal. The lower level components, on the other hand, are structured by "logical form," i.e., validity structure. The lower (physiological) level, is the level of clauses, sentences, and paragraphs. On this level propositions are structured to create interrelations typical of valid arguments. Because it is well accepted among tagmemic textlinguists that patterns in lower level units signal phases in higher level units,[9] we can probably expect to find, in our analysis of arguments, lexical and grammatical devices signaling conceptual phases on both the anatomical and physiological levels.

On this foundation, we can now proceed to make some comments about conceptual movement (the nonnarrative analogue of narrative chronology) in argument. Let us look first at an example. A "B.C." cartoon (taken from Lindemann, 1982:65) pictures an argument set in an argumentative context, and so can serve as an example of conceptual movement. In the first frame of the cartoon a caveman makes the statement, "Mankind will never master the art of communication." In the second frame he receives the response,

"absurd," from one person, "ridiculous" from another, "tommy rot" from a third, and "hogwash" from a fourth. To prove his point, the caveman, in the third frame scoops up a handful of dirt and says, "OK. What's this?" The response comes back from the four in turn "Ground." "Soil." "Earth." "Dirt." In the final frame, the caveman tosses down the handful of dirt and proclaims, "The prosecution rests."

First of all, we see that because the B.C. cartoon is a caricature of argumentation, we can more easily see the anatomical structure. (For the same reason, however, it will be difficult to say anything about its physiological structure.) The argumentation in the cartoon can be broken down into three phases: the presentation of the controversy, the presentation of the evidence, and the evaluation of the evidence. These are the three principle components of a court presentation. It is one possible way of structuring the anatomical phases of an argument.

Secondly, we see the influence of context on argumentative conceptual movement. Notice how the rhetorical, or argumentative, context informs the surface structure of the argument. A tagmemic picture of argumentative conceptual movement is shown in figure 5.

structure	argument
purpose	content
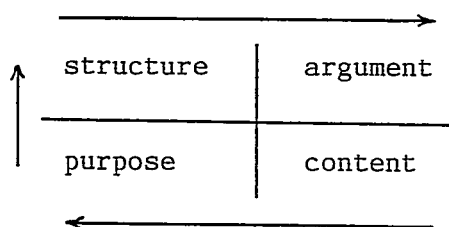
Fig. 5. Argumentative Conceptual Movement

In this diagram we see, first, how the argumentative context, the personalities and social context involved, gives purpose to the construction of an argument. In other words we argue (and we argue in a certain way) because the situation and people around us dictate that it is appropriate behavior. For example, an academic setting may dictate that our purpose be to persuade; a family setting may dictate that we argue to decide what to do; a church setting may use argument for encouragement toward a particular lifestyle. Secondly, we see that an arguer will choose an appropriate argument structure based on the context and purpose of the argument. This argument (slot) structure will then have certain "physiological" components.

In other words, an argument is a product of its argumentative context. It takes shape in response to that context. On the other hand, however, it also shapes that context. The argument, reintroduced into the argumentative context, changes that context. This reintroduction in turn may modify the overall purpose for arguing, the structure of the argument, and the surface structure of the argument itself. The process is cyclical. Based on this schema, the conceptual movement of argumentation consists of determination of purpose, structuring of ideas, decisions about substrategies, changes in argumentative context, modifications, readjustments, and restructurings. Conceptual movement in a social context is a fluid process whereas the static anatomical features seen in argument are a fossil of that that process.

Viewing conceptual movement in argumentation in this way, however, dictates that we necessarily have difficulty in our analysis

of such movement in written arguments. Whereas argumentation is a context which gives rise to argument, argument is the objectification (or perhaps reification[10]) of a part of argumentation. Argumentation is a living part of a culture; Argument is a cultural artifact. We cannot study conceptual movement in itself; we can only study the objectification of this movement in a static text. In short, we are faced with the problem of process and product. The process of argumentation involves the conceptual movement picutred in figure 6.

structure	argument
purpose	context
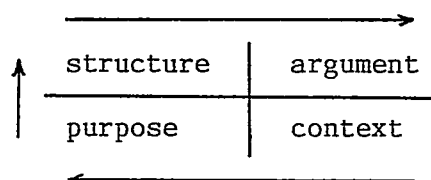
Fig. 6. Conceptual Movement in Argument Production

By contrast, in analysis we must necessarily begin with the objectified argument and from there attempt to discern its structure, purpose, and argumentative context. The conceptual movement of the analyst follows the pattern in figure 7.

structure	argument
purpose	context
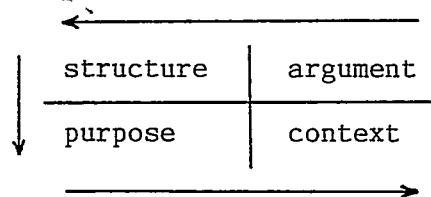
Fig. 7. Conceptual Movement in Argument Reception

The problem arises as we go from argument and structure to purpose

and argumentative context. The reason for the problem lies in much of the argumentative context's being lost as the argument takes shape in written form. Some aspects of argumentative context that would be useful in the interpretation of an argument are irrecoverable from the argument itself.

Paul Ricoeur (1976:25) calls this loss of meaning "the detachment of meaning from the event." He sees it as a function of writing, when "the human fact disappears," and "material 'marks' convey the message" (1976:26). In the process of writing a change in communicative content occurs. Ricoeur says that "what we write, what we inscribe is the noema[11] of the act of speaking, the meaning of the speech event, not the event as event" (1976:27). In other words, though the actual words used in conversation may be simply inscribed, communcative content carried in the prosodic and contextual aspects of verbal interchange must undergo a metamorphosis (ie. must be inscribed in punctuation, in a change of word order, lexical inventory, etc.) or be lost entirely. Through inscription, meaning is removed from its original context; and though some of that context may undergo the metamorphosis to find its way into the text, the text, by virtue of its divorce from communicative context, stands as a thing apart. Ricoeur calls this process the creation of "semantic autonomy." He says of it (1976:30):

> Exegesis begins with it, i.e., it unfolds its procedures within
> the circumscription of a set of meanings that have broken their
> moorings to the psychology of the author. But this
> de—psychologizing of interpretation does not simply imply that
> the notion of authorial meaning has lost all significance. Here
> again a non—dialectical conception of the relation between event
> and meaning would tend to oppose one alternative to the other.

> On the one hand we would have what W.K. Wimsatt calls the
> intentional fallacy, which holds the author's intention as the
> criterion for any valid interpretation of the text, and, on the
> other hand, what I would call in a symmetrical fashion the
> fallacy of the absolute text: the fallacy of hypostasizing the
> text as an authorless entity.

Ricoeur goes on to say (1976:89-95) that interpretation has traditionally been done in light of the historical (contextual) production of the text. In tagmemic terms, predominant thought has been that if a text is a thing (product, or particle in the class cell), we best understand it by viewing it against the temporal component[12] of the corresponding slot cell. According to Ricoeur (1976:89-90), this way of viewing interpretation is "historicism." It is

> the epistemological presupposition that the content of literary
> works and in general of literary documents receives its
> intelligibility from its connection to the social conditions of
> the community that produced it or to which it was destined.

One response to historicism, according to Ricoeur (1976:90) is "logicism." The logicist response is to maintain that "meaning"

> is not an idea that somebody has in his mind. It is not a
> psychic content, but an ideal object which can be identified and
> reidentified by different individuals at different times as being
> one and the same.

Again in tagmemic terms, to do this kind of interpretation is to cut the class cell free from the slot cell insofar as the relation between the two was temporal, maintaining that immediate context for meaning was logical instead.

Ricoeur's hermeneutics, by contrast focuses on distantiation and appropriation. Distantiation (according to Ricoeur, 1976:43ff.) is the process by which text is divorced from its production context

and is exteriorized into something separate from the producer. It is the process by which communicative content becomes a semantically autonomous unit. Writing is often a distanciating process. Appropriation, on the other hand, is the process by which a text is brought into the interpreter's context. Reading is often an appropriative process. This view of distantiation and appropriation maintains, as does historicism, that text is a product which stems from process. But it also maintains that a text is alienated from its producer; it becomes a thing apart as in logicism. In interpretation, therefore, we do not go through the text to the author's mind (to "know him better than he knows himself," as in the romanticist ideal); rather, we find objectified fragments of the author's mind in the text, so much a part of its fiber that the two are inseparable. As Gadamer (in Ricoeur, 1976:93) has said, we--the author and the reader--"fuse horizons" at the point of the text. In tagmemic terms, we would say that cohesion and slot give rise to product in the class cell, but in our (the readers') appropriation of product, we place it in a different tagmemic grid, interpreting it through our own slot and cohesion. Figure 8 illustrates this process using the four-celled tagmeme.

structure	argument
authorial purpose	argumentative context

distantiation ———→ autonomous text

structure	argument
purpose	reader's context

appropriation
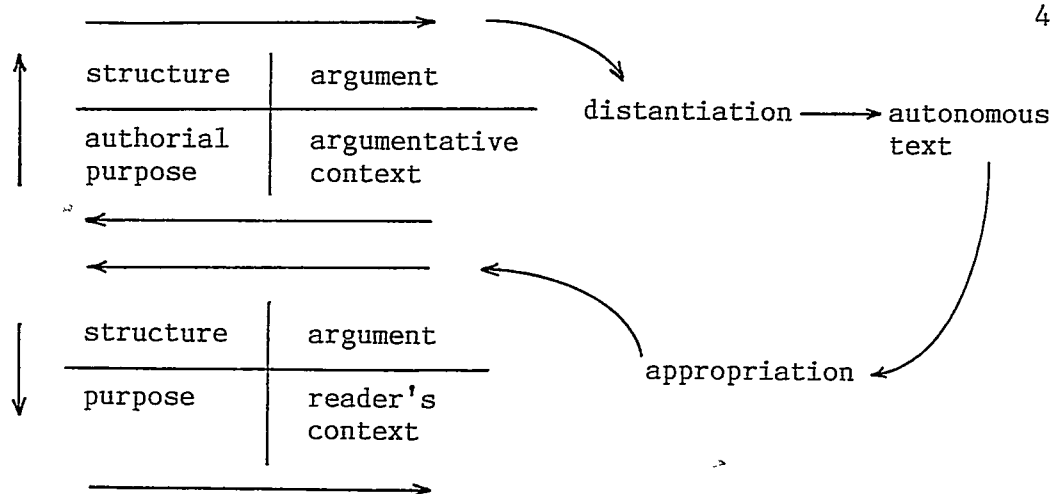
Fig. 8. A Tagmemic Sketch of the Process of Encoding and
Decoding Written Argument

To read the diagram, begin in the cohesion cell of the top
tagmeme: the place where an argument has its beginnings is in an
argumentative context (which includes situation and various
interpersonal dynamics). From with this argumentative context a
reason or purpose for arguing. It is with that purpose (and the rest
of the argumentative context) in mind that an arguer chooses an
argument structure. This structure includes logical structure,
syntactic devices, discourse grammar, etc.; and it combines with the
other linguistic and semantic components necessary for complete text
to form an argument. At times this process of argument production is
a part of the composing process (i.e., the argument takes shape
through writing and perhaps rewriting). At other times, however, the
formation of the argument takes place orally either in monologue or
in dialogue. It is then transcribed or written down from memory or
recording. Writing, therefore, may be a part of the process by which
argumentative context generates argument (in a highly literate

society such as ours, this would seem most typical), or it may be a separate stage after the argument has already taken form. Either way, it is at the point of writing that the argument becomes finally divorced from its argumentative context and becomes a semantically autonomous unit. That is not to say that one cannot find sedimentation of the argumentative context in the argument: bits and piece of the personality of the author and the context in which he/she was writing shine through the text. It is, however, impossible to go through argument (the text) into argumentation. One cannot reconstruct the entire argumentative context from the remnants of it that remain in the text. Rather when one attempts to appropriate a text, one begins with a product, a thing, and not an interpersonal situation. This argument, prior to appropriation is nothing more than linguistic elements having a particular structure. It is when the reader picks up the text, looks at those elements and structure, and tries to discern from them the text's purpose (what the text is trying to communicate, which is not, and perhaps cannot be, isomorphic with what the author was trying to communicate) that the text comes to mean something. Meaning implies interpretation or communication, and interpretation implies a human element. A text must mean something to someone; it cannot simply mean. The human element implies a new context for the text, the interpreter's context. Because interpreters see a text through their own eyes and contexts, the decoded meaning (or in Hirsch's terms, the significance (1976:2ff.)) is not exactly the same as the meaning originally conceived in the mind of the author. The argumentative context is

different from the interpretive context.

This way of looking at text transmission does not say, however, that the author's and reader's contexts are entirely different. On the contrary, in order for interpretation to occur there must be a good deal of overlap between the two: overlap in language, basic human experiences, the assumption that communication can and should take place and that the readers' minds can and should be changed by that communication are a bare minimum of overlap. This way of looking at text transmission does, however, impact upon our analysis of argument and argumentation. It shows us that a system of analysis that does not take into account observer perspective (i.e., that interpretation, in addition to analysis, is accomplished by the analyst's placing a text in a context other than its original one) is an incomplete system, one which may begin to make statements about argument structure, but one which will never be able to deal thoroughly with argumentation.   It also reemphasizes to us the necessity of direct investigation of as much of the argumentative context in which a text was produced as possible (for that context undergoes a long process of metamorphosis before it reaches us via the text). (We must however be cautious against the assumption that culture is homogeneous when we have only a broad context--as is true for many ancient texts and anonymous writing samples).

A view of textual transmission in which argument and argumentation are distinct offers us several advantages. First, it allows us to account for differences in interpretation. Two readers reading the same text, may claim that the text "means" two different

things. They may attach different significance to it and they may attach different social values to it. Differences in readers' contexts allows us to account for these differences.

Second, through the notion of semantic autonomy, it accounts for the fact that a text can be produced in a particular context at a particular time, can live beyond that context and time into another, and can then be appropriated by a reader of that different time and context. It accounts for our ability to read ancient Egyptian hieroglyphs, and to picture in our minds (with some degree of accuracy) the events to which they refer. The notion of a text as an independent thing allows us to account for similarities in interpretation that cannot be traced to similarities in the readers' contexts. Granted, we cannot directly know the text-in-itself. We cannot see it as it would look if no one were looking at it. We cannot know that it is, but only that we react in a certain way in the presence of printed words. We can, however, recognize a semantically autonomous text as the condition for the possibility of readers' interpretations that are similar in enough ways to allow us to form societies that depend on written communication.

Third, this theory allows us to account for our ability to often learn a good deal about an author by looking at his/her writing. We cannot see directly into the mind of the author by looking at a text. Were we able to do so, we as readers would have access to much more of what the author saw, heard, and felt in his/her argumentative context than we do. If the text were the romantics' window into the author's mind, we would never have a

situation where the reader perceives ambiguities in the text that the writer does not perceive. In this theory, we do not claim to "get into" the mind of the author, with all of the problems that such a claim engenders. Yet we do have some contact with the author. The text as a third thing—apart from reader and writer, but accessible to them both—acts as an interface through which information may pass.

Fourth, it gives us a scheme through which to view the influence of pragmatic context on text structure. By seeing argumentation as a productive process, we can see how conceptual movement within a text is tied very closely to the interpersonal dynamic (the actual dynamic in a dialogue or the imagined dynamic in a reader-based written monologue[13]) that produced it. This view of text production helps us to explain the sociolinguistic claim that linguistic structure mirrors social context.

2.1.4 Conclusions

The theoretical stance detailed in this section offers us the following boons to the study of argument and argumentation: (1) The notions of particle wave and field and of structural meaning (role) as seen in the four celled tagmeme, which enable us to systemize the complex interrelationship of process to product in argumentation. (2) The notion of participant observation, which is necessary to a thorough and realistic view of interpretation of argumentation. (3) The notion that behavior in general may be analyzed using the same set of principles used for linguistic behavior, which allows for

homogeneity in our analysis of both written argument and social argumentative context.

We still, however, lack elements of both approach and methodology that will be necessary for this study. Specifically, we will need a more detailed methodology for argument analysis. We will also need a more complete taxonomic system for systematizing types of arguments and argument structures. It is because of this lack that we turn now to informal logic.

2.2 Informal Logic

The second area contributing theory and methodology to this study is informal logic. Before beginning to discuss the approach and methodology of this field of study, some background information would be helpful.

First, we need a tentative definition of logic. According to the informal logicians, Johnson and Blair (1980:3),

> Logic might be said to be that discipline which articulates and refines standards (and their theoretical foundation) of right and wrong in matters of reasoning and argumentation.

According to Irving M. Copi (1978:3-5), a more traditional logician, logic is

> the study of the methods and principles used to distinguish good (correct) from bad (incorrect) reasoning.... The study of logic will give students techniques and easily applied methods for testing the correctness of many different kinds of reasoning.

According to Young, Becker and Pike in their rhetoric and composition textbook (1970:230),

> Although logic is primarily a tool for inquiry, an aid in developing and evaluating hypotheses, it is relevant to communication.... Logic provides the writer with guidelines for making reasonable evaluations and for presenting them to the reader "in the clearest most unambiguous manner."

Corbett, a neoclassical rhetorician (1971:32) says,

> For the classical rhetorician, logic was an ancillary but distinct discipline. Aristotle, for instance, spoke of rhetoric as being "an offshoot" or "a counterpart" of logic. The speaker might employ logic to persuade his hearers, but logic was only one among many "available means of persuasion."

According to Paul Feyerabend, an epistomological anarchist (1975:252),

> By "logic" one may mean at least two different things. "Logic" may mean the study of, or results of the study of, the structures

inherent in a certain type of discourse. And it may mean a particular logical system, or set of systems.

Of Feyerabend's two definitions, the first (1975:252-4), is the more "anthropological." It is the study of what people do when they perform work within a discipline. The second is what is more traditionally called logic, and it is, again according to Feyerabend (1975:254-60), stifling to research. This first kind of logic is not unlike the logic spoken of by Ernst Cassirer in his Logic of the Humanities. In the translator's preface to the English edition (1960:xv), Clarence Smith Howe describes Cassirer's use of "logic" in the following way:

> It is a logic of style concepts, upon which we consciously, or unconsciously, build up our understanding of particular persons and of historic events.... The term "logic," then, is here to be taken as referring simply to a critical study of such type and style concepts and not to a supposed methodology of historical predictions or of formulas for artistic creation.

These definitions are by no means representative of all of the plethora of views of logic. They are, however, a starting point. They tell us that logic is a discipline, a study, a tool, a system (though not necessarily all at the same time). As a study or a discipline its object for study is reasoning in the context of discourse or a discipline. As a discipline or system of thought, it includes insights preserved from classical Greek philosophy along with insights of those scholars trying to analyze 20th century real-life arguments.

The question then becomes, What place does informal logic occupy within the broader study of logic? First of all, it is a relatively young movement (cf. Blair and Johnson, 1980:164ff.). With

the exception of a scant handful of mavericks (like Stephen Toulmin, Chaim Perelman, Richard Cole, and Robert Ennis), few scholars were considering argumentation in this new light before 1968. The years 1968 through 1976 witnessed the beginnings of serious interest in the subject and 58 articles published (according to Johnson and Blair, 1980:7). _Informal Logic Newsletter_ (now _Informal Logic_) was begun in 1979. Today informal logic has come into its own as an area of both theoretical inquiry and pedagogical importance.

What then marks off informal logic's territory within this larger area of logic as a whole? Johnson and Blair (1980:5) cite the following two distinctives:

> First, there has been a turn in the direction of actual (i.e., real-life, ordinary, everyday) arguments in their native habitat of public discourse and persuasion, together with an attempt to deal with the problems that occur as a result of that focus. Second, there has been a growing disenchantment with the capacity of formal logic to provide standards of good reasoning that illuminate the argumentation of ordinary discourse (Johnson and Blair, 1980:5).

The distinctiveness of informal logic, therefore, comes with its emphasis on argumentation as a phenomenon of human communication, its looking at texts that have been produced in real-life settings (as its object for study), and its search for alternatives to formal logic to define the structure of argument.

2.2.1 Existing Approach

Under the heading of the approach of informal logic, we consider the questions: What does the informal logic movement [14] say about language, particularly language used in argumentation? and How do we properly observe, systematize, and study argumentation?

Informal logic views argument as a phenomenon of natural language and a function of a sociolinguistic context. It studies argument, using natural language as much as possible and giving attention to argumentative context.

2.2.1.1 Formalism

We look now a more closely at these facets of informal logic's approach, beginning with its focus on arguments in natural language as opposed to traditional logic's focus on symbolic restatement. A crucial statement of approach in informal logic is that natural language arguments cannot be successfully captured using formal notation (cf. Blair and Johnson, 1980:x). This move away from formalism stems from an emphasis on argument being a product of a sociolinguistic context. This emphasis can be can be seen in the comments of Ralph Johnson (1981:141). He says,

> We do not yet possess an adequate theory of argument. Unless that is, one conceives of a theory of argument as do authors of formal logic texts: a set of statements (sans clutter) among which certain inference relationships supposedly obtain. It may be true that there are in the real world of arguments such domesticated little creatures. Anyone who has worked at all with arguments in their real setting knows that there are a great many ornery beasts whose logical structure is much more complicated.

It is because of informal logic's move toward considering these "ornery" arguments in their natural context that this movement has begun to doubt formalism's value to the study of argumentation. Because many real-life arguments are extremely difficult to formalize (because of vagueness, ambiguities, leaps in logic, missing pieces, etc.), informal logicians are both challenging formalization and seeking new alternatives to it.

One of the informal logicians challenging formal logic is Michael Scriven (1980:148). He speak of formal logic and the advent of informal logic in no uncertain terms:

> For a long time people thought all the beasts in the logic cages came from the real world, perhaps from a subterranean part of it where everything ideal resided, though it wasn't as easily seen. Now that we realize those weird creatures, like the one called "Paradoxes of Implication," are mostly just fakes, we should let them fade away in peace. It releases a great deal of valuable room. In short, logic has—with the emergence of informal logic—been called back to its proper task, away from pathology.... This movement is not just a way to pablumize baby logic, it is the last hope—or at least the latest hope—to save logic from lunacy.

Scriven's complaint against formal logic is that of informal logic in general: that its transfer to real-life is minimal, and that its focus on structure at the expense of semantics is pathological.

Another scholar who speaks against formal and syllogistic logic is P.T. Geach, who states, "I declared war on the bad old logic many years ago" (1979:12). Like Scriven, Geach's principle problem with formalism is that it cannot deal well with real-life arguments. He points out some of the difficulties of translating natural language arguments into formal arguments. For example, Geach (1979:12) notes that according to the "bad old logic," "any logically well-dressed proposition will wear on its head either an 'all' or a 'some' or a 'no'." This imperative, however, makes for difficulty in translating propositions from natural language to formal logic. "Only" is translated as "all" despite the difference in meaning. "Most" is translated "some" though "most" means over half, and "some" means at least one.

In short, informal logic has come to distrust formal

representation of argument because its (informal logic's) commitment to language in its real-life context implies a willingness to work with (or perhaps even an embracing of) natural language's natural polysemy. The complexity and ambiguity inherent in linguistic polysemy does not lend itself well to analysis using a precisely defined formal system. Hence, informal logic, for the most part, denies the validity of formalism as a way of viewing this kind of linguistic behavior.

2.2.1.2 Alternatives to Formalism

In place of the traditional emphasis on the structure of the argument (as product), informal logic is now exploring several different models that emphasize argumentative interaction. Part of this new emphasis is the search for interaction-based (as opposed to, or in addition to, structure-based) criteria for judging argument quality.

Among the alternatives to traditional formal descriptions of argument are the following that have come out of the informal logic movement. Leo Apostel (1971:94) maintains that an "assertion logic" (as a branch of modal logic) is "urgently needed" to deal with the probability in argumentation. He also argues (1971:107) for a more detailed accounting for audience in argumentation and for a concept that he calls "competent audience." This notion of audience and the interaction between the persons involved in argumentation is perhaps the most looked at facet of argumentation in informal logic. Brockreide (1972) uses a sexual analogy to describe this inter-

personal interaction. He calls some arguers rapists, some seducers, and some lovers. Peppinghaus (1976) also looks at this inter-personal interaction in argumentation, but he looks at logical miscues, things that happen between interlocutors to cause argu-mentation to break down.

It is not the purpose of this section to detail all, or even many of the new statements of approach coming out of the informal logic movement. The purpose is rather to look at a few of these statements very briefly to begin to discern the directions the movement appears to be heading. From what we see above, we could say, in sum, that the theoretical work being done at the forefront of the informal logic movement concerns itself with argument in context, with all of the uncertainty and complexity that comes with it. The theoretical work being done in informal logic is becoming concerned with argumentation as process.

2.2.2 Existing Methodology

This emphasis on the argumentative process makes informal logic's approach quite compatible with that presented in section 2.1. We need now to assess informal logic methodology to see how much of it can be combined with the methodology presented in section 2.1.3. Because there is no one informal logic method for analysis of argument and argumentation, we look at a sampling from four different sources.

2.2.2.1 Argument Taxonomy

We look first at taxonomies of argument types. Toulmin,

Rieke, and Janik (1979:148ff.), with the caution that their list not
be considered exhaustive, propose the following taxonomy of argument
types: (1) reasoning from analogy, (2) reasoning from general-
ization, (3) reasoning from sign, (4) reasoning from cause, (5)
argument from dilemma, and (6) argument based on authority.
Reasoning from analogy is predicting what will happen with (or be
true about) one thing on the basis of what has happened to another.
This can be done if the second thing "shares characteristics [of the
first] relevant to the claim being made and does not have differences
that would destroy the analogy" (148). Reasoning from generalization
produces claims about something after "examining a sufficiently large
and representative sample of the 'kind' in question" (150).
Reasoning from sign is explained like this: "Whenever a sign and a
referent can reliably be expected to occur together, the fact that
the sign is observed can be used to support a claim about the
presence of the object or situation the sign refers to" (151).
Reasoning from cause implies a cause and effect relationship between
two events. When the causal event takes place, it can be expected
that the effect will follow (151-3). In argument from dilemma a
"claim [conclusion] rests upon the warrant that two and only two
choices or explanations are possible, and both are bad" (154).
Finally, argument based on authority maintains that a conclusion is
true because it was supplied by a reliable authority (155).

Crossley and Wilson (1979) present a different categorization
of argument types. It includes four categories: deductive (55ff.),
inductive (131ff.), the dilemma (151ff.), and the reductio (161ff.),

with each of these categories being defined in fairly traditional ways.

Michael Scriven (1976) gives several "special types of argument": (1) samples and generalizations (science), (2) individuals and generalizations (ethics, bias, and prejudice), (3) properties and generalizations (analogy), (4) explanations and justifications (causes and reasons), and (5) dialogues and debates. Though he goes into considerable detail about the argumentative context in which these types of arguments would be used, he is referring in general to (1) deduction, (2) induction, (3) argument from analogy, (4) causal arguments, and arguments in a dialogue situation.

Others, such as Harry Reeder (1983:4) use the more traditional two part taxonomy of arguments: inductive and deductive. The principle differences between induction and deduction (as they are presented by Reeder) are the relationship of premises to the conclusion and the certainty of the conclusion: In a valid deductive argument all important information in the conclusion is also contained in the premises, whereas in an inductive argument this is never true. In a valid deductive argument, true premises necessarily imply a true conclusion whereas this is not true of an inductive argument.

2.2.2.2 Argument Evaluation

We will now look (under the heading of methodology) at a sampling of methods for argument analysis. Toulmin, Rieke, and Janik

(1979) use a system of argument analysis that has come to be known as the "Toulmin model." This model is pictured diagramatically in figure 9 (cf. Toulmin, et al., 1979:78).

Backing (B)

↓

Warrant (W)

Grounds (G) ————————→ Modality (M) ————————→ (C)
                                                 Claim

↓

Rebuttal (R)
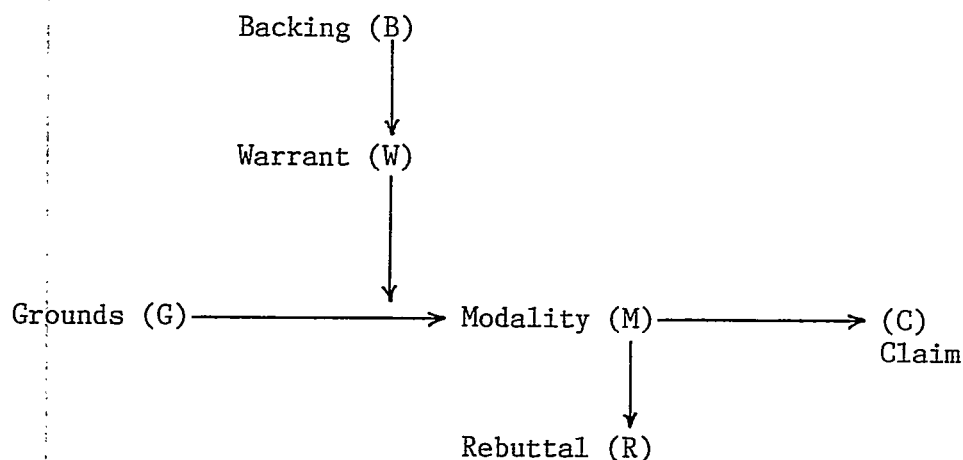
Fig. 9. The Toulmin Model

In this model, the claim (roughly speaking) is the conclusion of the argument. Grounds are statements of specific evidence for the conclusion. A warrant is the general principle to which the argument appeals, and backing is the reasons for believing that the warrant obtains. Modality is the statement of the degree of probability that this argument's claim is indeed true. Rebuttal states those conditions that would need to be present for all of the evidence for the claim to be true but the claim still false. The model is illustrated in figure 10 (1979:77).

B Clinical experience
   indicates that

W Straightforward URIs call for
   penicillin treatment.

                                    M

This patient has
straightforward ——————> So, presumably ——> This patient
URI   needs penicillin
                                             treatment

        G   C

                      Unless the patient is
              R   allergic to penicillin,
                      or there is some other
                      contraindication
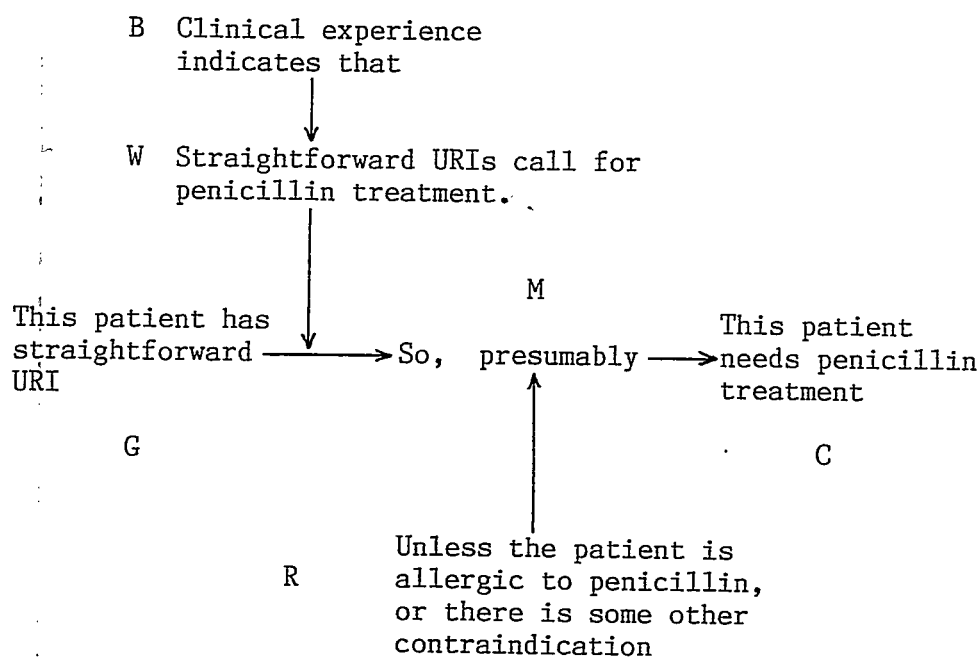
Fig. 10. The Toulmin Model Illustrated

The second methodology we will look at is proposed by Michael
Scriven (1976:39). Scriven offers seven steps in the analysis of an
argument:

1. Clarification of <u>Meaning</u> (of the argument and of its
   components)
2. Identification of <u>Conclusions</u> (stated and unstated)
3. Portrayal of <u>Structure</u>
4. Formulation of (Unstated) <u>Assumption</u> (the "missing
   premises")
5. Criticism of
       a. The <u>Premises</u> (given and "missing")
       b. The <u>Inferences</u>
6. Introduction of <u>Other Relevant Arguments</u>
7. <u>Overall Evaluation</u> of this argument in the light of 1
   through 6.

Under the heading of structure, Scriven has developed a means of
analyzing structure pictorially. He numbers all of the relevant
premises in an argument and then portrays their relationship in ways
like these (1976:42):

```
        1                    2
          \                /
           \              /
            \            /
             3
             |
             |
             4
```

or

$$1 \quad + \quad 2 \quad + \quad 3 \quad - \quad 4$$
$$\downarrow$$
$$5$$
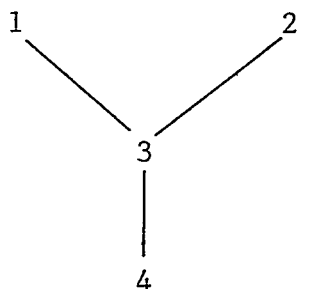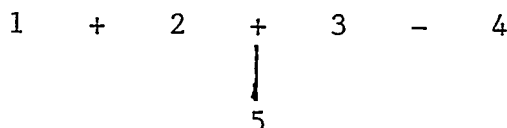
where each line and symbol represents a different kind of relationship from proposition to proposition.

Harry Reeder (1983), by contrast does not use an abbreviated diagramatic representation of argument (as does Scriven). Rather he offers a format for the organization of _all_ of the written information in an argument (so that the relationship between propositions can be seen) and a means for evaluating the argument once it has been organized. His steps for argument evaluation are (1983:15):

1. Find the conclusion of the argument
2. Find the argument's premises.
3. Put the argument into Standard Argument Form
4. Fill in any UPs [unstated premises] or UCs [unstated conclusions] required by the argument.
5. Ascertain the argument's validity or strength.
6. Judge the relevance of the premises.
7. Judge the acceptability of the premises.
8. Locate and argue for the presence of any informal fallacies.

"Standard Argument Form" (mentioned in #3) lists all of the propositions of an argument, labels premises and conclusions, shows the relationship of subarguments to the main argument, and fills in and labels the unstated premises that would make the structure of the argument clearer.

Crossley and Wilson (1979:200) offer no diagrams or ways of organizing the information in an argument. Rather, they offer a set of parameters by which an argument is judged. They call it the SCORE-FATE method. SCORE helps the analyst to find an argument:

S	Search	Search for cue words or anything that will help you to break up the argument into its parts.
C	Conclusion	Find the conclusion. First discover the main point or conclusion and then work back to the supporting reasons or premises.
O	Order	Find the order of the reasons given for the main conclusion. Arrange the argument so that these reasons (premisses) are first and the conclusion last.
R	Reasons	
E	Evidence	Decide whether any further evidence is provided to support the main premises. If so, what is it? Are there secondary arguments used to support those premisses?

FATE helps the analyst evaluate the argument:

F	Fallacies	Are there any fallacies or errors in the logical connections?
A	Alternative	Are the supporting premises the only possible ones? Are there alternatives that come to mind? Are there additions or counter-examples you can think of as you question the premisses?
T	Truth	Are the premisses true?
E	Evidence	This is similar to step E of the SCORE technique. In the FATE test, your interest lies in evaluating the evidence presented to support the main premisses.

Evaluation of the argument and its evidence, in Crossley and Wilson's view, ought to use techniques borrowed from formal logic (such as Venn Diagrams and truth tables).

2.2.3 Expanded Approach and Methodology

From the above brief look at informal logic, we can see that in its approach it lauds the importance of argumentative context to argument analysis. In its methodology, however, it tends to look mainly at argument to the exclusion of argumentation, or argument and argumentation mixed together in an unsystematic way. If (in this study) we are to use methodology from informal logic in the sociolinguistic analysis of argumentative text, we will need to look more closely at the relationship between argument as product and argumentation as process. We will need to expand informal logic methodology to account systematically for the influence of various facets of the production process on the final product. That is the purpose of this section.

2.2.3.1 The problem of product-centeredness

Scriven, for example, deals almost exclusively with argument to the exclusion of argumentation. Of his six criteria (excluding number 7, "overall evaluation"), most deal with structure. Those that would appear (at first glance) to deal with argumentative context on closer examination are found in fact to deal mainly with structure. For example, Scriven (1976:40) says of meaning (#1): "The 'meaning' of an argument (or word, or other expression) is not

what the arguer <u>intended</u> but what he or she <u>said</u> ..." (i.e., that meaning is a function not of argumentation but of argument; cf. Ricoeur, 1976:30, and section 2.1.3.2 on semantic autonomy).

Similarly, Crossley and Wilson (1979) begin with a chapter on "The Trouble With Words," which speaks briefly about argument in its natural language context. The rest of the book, however, deals mostly with argument structure, and would be perfectly under-standable without the first chapter. Others, for example Reeder and Toulmin, are more concerned with argumentative context, but even they have far more systematic means for dealing with argument structure that they do for dealing with argumentative context. A systematic means for dealing with the wider context will be suggested in section 2.3 below.

We can, therefore, see that though social (argumentation) context is central to the approach of these informal logic methods, and though a focus on context finds its way (at times) into their taxonomy of argument, for the most part an argument's social context plays a relatively small role in their analysis of it. One possible reason for this lack could be the immensity of that social context. It may be argued that context, because it is so large and complex, cannot be systematized on the level of methodology. It may be argued that the best that informal logicians can do is to be aware of context on the level of approach and to hope that such awareness comes to inform methodology. This, however, need not be so. Granted, it is impossible to systematize the entire argumentative context, but, there are ways of systematizing relevant parts of it.

What we must do, therefore, to supplement the current lack of attention to context in informal logic is (1) to expand the theory that defines the connection between argument as product and argumentation as process (on the level of approach); (2) to detail a process by which social production factors relevant to argument structure may be sorted from those marginally relevant or irrelevant (on the level of methodology); and (3) to detail a methodology that may be used to systematize the important aspects of relevant facets of context (again on the level of methodology). In this section we will look at the first task. The second task we will look at in section 2.3, and the third in chapters four and five (in the context of actual argument/argumentation analysis).

In an attempt to investigate the relationship of product to process and to understand more clearly the reason for the lack of systematic attention to argumentation, let us look at the productive aspects of critical thinking and logical analysis. Because of Marxism's well developed theories of production, we look at production in critical thinking using the notion of reification and the production process as presented by Georg Lukacs, a well-known Marxist thinker.

Reification, according to Lukacs's most concise definition (1971:83), occurs when

> a relation between people takes on the character of a thing and thus acquires a 'phantom objectivity', an autonomy that seems so strictly rational and all-embracing as to conceal every trace of its fundamental nature: the relation between people.

In other words, when relational networks that are a product of human

interaction become alienated from their origin, i.e., when they become reified, they begin to interact with human beings as would things that exist apart from human interaction. According to Lukacs, this interaction of reified object and human beings consists of humans viewing the laws governing the object as something separate and apart from themselves, something for the discoverer to learn and manipulate but not something to modify. For example, productive activity can become reified as a commodity that is alienated from its producers. The commodity, not to mention the social laws that govern its circulation, is seen to behave as an independent entity that acts upon its producers quite apart from their control (87). Insofar as reification occurs, and producers become objects rather than the subjects of their labor power, it (in Marx's and Lukacs's view) is an evil, and one that, furthermore, fuels an evil capitalistic economic system.

Though Marx and Lukacs speak mainly of reification as it applies to economic systems, this phenomenon can be seen in other kinds of production as well, for example, production of arguments. Most instruction in the production of arguments centers on some kind of western logic, i.e., logic built on ancient Greek foundations. Aristotle, with his bent toward systematization, looked at natural language and saw certain patterns. He (among others to be sure) saw that certain structures obtained seemingly independent of content. We have the record of his findings in his writings. That is to say that Aristotle focused more on argument that argumentation.

We might suspect, however, that there may have been others of

Aristotle's time and before, others who were perhaps far less prolific in their writing, who would have disagreed with his analysis of the structure of argument or who would have found his search for structure uninteresting or marginal to the study of argumentation. These two approaches to argument/argumentation, according to Richard Enos (1984), can be called the paratactic and the hypotactic styles. The hypotactic style is seen in Aristotle. The coherence of this style of discourse is achieved through the explicit tracking out of rational (logical) connections, and its focus is rational persuasion through written argumentation. In contrast is the paratactic style, which splits _logos_ into _dissoi logoi_. This is the style of Empedocles and Gorgias who chose not to separate form from content but rather to create structure for argument from language play in language context. (A more modern example offered by Enos for paratactic language is "veni, vidi, vici" where connectedness is achieved through phonological and grammatical structure rather than through explicit causal statement.) This was, according to Enos (1984), the style of the Sophists and ancient Greek orators.

We now return to the issue of reification in logic. Looking at the opposition of hypotactic and paratactic style, we see a distinct contrast: orality versus literacy. Consider the following (Walrod, 1983:63):

> Writing liberates the mind from the immediacy of the present context and the limitations of memory. Long and complex logical argumentation is difficult to create and deliver orally, and even more difficult to assimilate or comprehend in oral communication.

This statement would seem to indicate that writing increases the

potential for reification of argumentation into argument. Writing lessens the necessity for the mnemonics that lend themselves so well to the paratactic style while increasing the possibility of the intricate logical connections that mark the hypotactic style. According to Enos, it also, in freeing us from the immediate context, enables us to isolate abstract concepts: we who have a printed version of the Republic in hand have an advantage over Socrates's interlocutors as we all seek to determine the nature of virtue or justice in that we have the leisure to retrace and evaluate the course of the dialectic. Writing allows us to focus on intricate logical structures. It increases the possibility of our seeing these structures as something outside ourselves. Writing, therefore, increases the possibility of argumentation being reified into argument; for it can take a product of human interaction and objectify it into something with a seeming life of its own, something with powers to persuade the reader, something to be analyzed for structure.

The question then becomes, "What is the impact of this reification on contemporary critical thinking and informal logic?" As was seen above, critical thinking and informal logic have set themselves apart from traditional logic by their attention to context. This context is supposedly not only the context of a proposition within an argument as a whole, but also the context of argument in argumentation as a human experience. Yet a number of argument analysis methodologies (as seen above) focus solely on written arguments and their logical structure. Why? It may well be

the high value we in informal logic place on written language and our devaluation of oral. In an academic atmosphere, literacy is almost a virtue. To call an academic an outstanding writer is high praise. To call him/her an excellent story teller or a clever speaker is less so. Student who do not write well have difficulty throughout their university careers whereas those who can write but who do not speak well have no trouble in many classes. Informal logic is no exception to this rule. Most assignments in informal logic and critical thinking texts are written and not oral.

If, therefore, writing increases the chances for reification and if informal logic tends, like much of the academic world to focus on written argumentation to the exclusion of oral, Informal logic may be encouraging reification. Its focus on written arguments may be playing a part in its methodological tendency (despite its statements of approach) to see "logic" as an objective thing that dictates argument structure to us when really it is only a part (perhaps small) of the network of cognitive resources that we bring to bear on tasks of persuasion.

2.2.3.2 The problem of argument taxonomy

This tendency to reify logical thought into "Logic" can create problems for us as we attempt to analyze natural language texts. One such problem (a taxonomic one) is the problem of attempting to apply the induction/deduction distinction to real life arguments.[15] Weddle (1979:1-2) reports that traditionally induction and deduction have been seen to be

not just two argument paradigms--as silk screen and lithography might be said to be two color print paradigms--but rather to be opposites which bisect all arguments by means of a single distinction. What the distinction is, however, is not entirely clear.

Logicians' views on the distinction can be divided into four overall trends.

The first, a fairly traditional criterion, is based on the notion of universal and particular premises and is described by James Edwin Creighton (1922:384). It says that induction draws a universal generalization from particular premises, whereas deduction draws a particular conclusion from universals.

The second, a distinction also based on form (Reeder, 1983:4), says that a valid deductive argument is one in which there is no important information in the conclusion not also contained in the premises. By contrast, an inductive argument will always have information in the conclusion that is not in the premises. This distinction is also fairly traditional.

The third distinction is expressed by Copi (1978:32):

> Arguments are traditionally divided into two different types, _deductive_ and _inductive_. Although every argument involves the claim that its premises provide some grounds for the truth of its conclusion, only a _deductive_ argument involves the claim that its premises provide _conclusive_ grounds.... A deductive argument is _valid_ ... when premises and conclusion are so related that it is impossible for the premises to be true unless the conclusion is true also. Every deductive argument is either valid or invalid....
>   An inductive argument, on the other hand, involves the claim not that its premises give conclusive grounds for the truth of its conclusions, but only that they provide _some_ grounds to support it. Inductive arguments are neither "valid" nor "invalid" in the sense in which those terms are applied to deductive arguments. Inductive arguments may, of course, be evaluated as better or worse, according to the degree of liklihood or probability that their premisses confer upon their

conclusions.

So we see here a definition of induction and deduction that rests more on the truth of the propositions involved than does Reeder's or Creighton's. True premises necessitate a true conclusion in a valid deductive argument. If the premises do not necessitate the conclusion, the argument is inductive (or deductive and invalid).

The fourth distinction comes out of the informal logic movement. It has been put forth mainly by Samuel D. Fohr (1980:6-7). Fohr maintains that the distinction between deduction and induction is, as Copi states, based on the certainty of the conclusion in relation to the premises. But, he says, it is based not on the actual certainty of the conclusion, but rather on whether the author intended it to be certain. He says (1980:6-7),

> The person giving the argument usually has intentions regarding his argument. And these intentions determine whether his argument is inductive or deductive.... If a person intends that his premises necessitate his conclusion, the argument he is giving is a deductive argument. If he intends only that his premises render his conclusion probable, he is giving an inductive argument.

In Fohr, therefore, the distinction is made on the basis of author's intent.

These four distinctions seem relatively straightforward until one tries to apply them. Take for example the first distinction. It is easy to determine a universal to particular (deductive) argument when it is expressed in traditional syllogistic terms. "All men are mortal" is clearly a universal statement (being marked as such by the word all in the subject). However, in real-life arguments the distinction between universal and particular premises is not always

clear. Take, for example, the premise: "The members of the Philosophy Club finished the semester's work on time." It can be used as either a universal or a particular premise. In the argument:

    The members of the Philosophy Club finished the semester's work
    on time.
    Nicos was a member of the Philosophy Club.

    Nicos finished the semester's work on time.

it is a universal premise. However, in the argument:

    All those students who finished the semester's work on time will
    receive their grades by June first.
    The members of the Philosophy Club finished the semester's work
    on time.

    The members of the Philosophy Club will receive their grades by
    June first.

it is a particular premise. The reason that the surface structure "the members of the Philosophy Club finished the semester's work on time" can be used as either universal or particular is the multivocality, and hence ambiguity, of the lexical items and constructions used in it. For example, the preterite verb (in this case "finished") can be used to express either a general principle in the past or a completed action in the past. Therefore, the above proposition (if taken out of context) could mean either that it was a general practice throughout the semester (or throughout the years) for the members of the Philosophy Club to finish its work on time, or it could mean that on one occasion (the end of the semester) they finished the semester's work on time. Similarly, the word the contributes to the ambiguity. It can mean here either all the members of the Philosophy Club or a subgroup of the club that the author and reader both already had as a demarcated group within their

minds (either because of previous information supplied by the text or because of shared context) This ambiguity enables a single surface structure to be used as either a universal or a particular premise. At times the argument (textual) context of a proposition will clear up some of the ambiguity. At other times the argument itself will be ambiguous. In either case, the distinction between universal and particular premises is not as distinct as it would need to be for it to be part of the criterion by which inductive and deductive arguments are distinguished.

The second formal distinction (the one in which connection of the premises to the conclusion is the main issue) fares a little better as a criterion by which inductive and deductive arguments may be distinguished. It is, however, also difficult to apply to real-life arguments. The reason for this difficulty is the frequency with which premises are missing from arguments. Often writers will leave premises out of an argument for stylistic reasons (to avoid redundancy, etc.), for rhetorical reasons, or simply out of ignorance, inexperience or carelessness. In such cases, the text analyst has the choice of either calling these arguments inductive (for there is important information in the conclusion that is not in the premises) or of making the judgement that they would be valid deductive arguments with the addition of certain unstated premises. The former choice would categorize as inductive an argument that an author wrote as deductive but modified by removing a premise that made it stylistically awkward. To use this criterion in this way is to call the inductive/deductive distinction a primarily stylistic and

surface structure one. However, there is the option of filling in missing premises. The question then becomes, When ought we to make these additions? How do we judge whether an argument, one with information in the conclusion that is not in the premises, is in fact deductive (not inductive as per strict application of one definition of induction) and, therefore, warrants the inclusion of unstated premises? In particular, how do we make this judgement if the presence of a connection between premises and conclusion (a connection not originally in the argument but rather one we hope to make by adding an unstated premise) is the criterion by which we judge the argument's deductive nature? For this distinction between induction and deduction to be a complete and workable one, we must have some criterion that tells us when to add unstated premises to make an argument structurally deductive and when to leave it structurally inductive.

The third criterion for distinguishing inductive arguments from deductive arguments is the one proposed by Copi. It says that an argument in which all true premises _necessitate_ a true conclusion is a deductive argument. Those arguments in which the premises provide _some_ grounds for the conclusion are inductive. This definition also meets with difficulties in its application. Perry Weddle (1979) points out some of these difficulties. He notes that often (if not always) the general proposition in a deductive argument is the product of an "inductive leap." He says (1979:4),

> Not all deduction is categorical. Given that the problem of induction is genuine, however, even hypothetical deduction, in which, if anywhere, we would see deduction pure, would be

infected with inductive "assumptions." For if such matters as
the sun's rising tomorrow, or terra remaining firma beneath our
next pace are contingent, then would not, say, the coupling
condition in deduction also be contingent? If without begging
the question we cannot demonstrate that the sun will rise
tomorrow, then without equally begging it we cannot demonstrate
that "mortal" keeps the same meaning from its occurrence in the
antecedent of the Socrates argument recast in the hypothetical
mode, to its (its?) occurrence in the conclusion: if tomorrow's
sunrise requires the inductive leap, then so would today's
demonstration.

According to Weddle, therefore, we can make the assertion that no

valid noncategorical deductive argument always provides a certain

conclusion.

As for the fourth criterion, though author intent certainly

plays a large role in structuring an argument, we cannot expect that

the author's intent to present a certain or uncertain conclusion will

be always (or even frequently) encoded into the surface structure.

That leaves us to guess about the author's intent or to remain silent

about whether an argument is inductive or deductive. Neither seems a

good alternative to an analyst faced with an analysis task.

2.2.3.3 A process/product model
of informal logic

So we see that any single criterion alone is inadequate to

spell out the distinction between inductive and deductive arguments.

Yet, this inadequacy does not mean that we ought to dispense with the

distinction. If for no other reason than its long and distinguished

history, we ought to keep it, and use it for all it can offer us.

If, however, we wish to use the distinction as a tool for

textlinguistic analysis we must rethink what we mean by deduction and

induction.

Consider the following as a systematic (four-celled) schema into which a combination of the induction/deduction definitions presented above will fit. Such a schema allows us not only to use all of these time-tried insights in combination (thereby supplementing their individual lacks), it also helps us to see more clearly that their interrelationship lies in the relationship of argumentation as process to argument as product. In producing an argument an arguer does the following (see fig. 11).

Finalizes written argument as product having a structural relationship of premises to conclusion	Chooses from inventory of syntactic and textual structures based on decisions previously made (in other three cells)
Intends to present an argument for either a certain or uncertain conclusion	Abstracts out propositions appropriate to argumentation·from a system of beliefs

Fig. 11. A Four-celled Tagmemic Structure for the Definition of Induction and Deduction

This schema is another view of the one presented in the previous section (fig. 4). This view allows us to look specifically at the concepts that distinguish induction from deduction. It recognizes the truth of an argument as dependent on belief system, which is in turn a part of an overall argumentative context. Within that argumentative context, an arguer will form certain intentions. S/he may intend to present either an argument of sufficient force that it will change the members of the audience's minds, or to present considerations that the audience ought to think about when making a

decision (or some mixture of the two). In other words, an arguer intends to offer either conclusive, inconclusive, or partially conclusive evidence for a given conclusion (though s/he is probably more likely to think in terms of getting the members of the audience to change their minds or giving them "something to think about"). Based on this intention, and in keeping with the overall argumentative context, the arguer then chooses the most appropriate syntactic/argument/textual structure (sequence) from the inventory of such structures available to him/her. Within this structure, the arguer produces the product, an argument.

Using this schema, we now look at the notions of induction and deduction. In the cohesion cell, we see the notion of true premises and conclusions. This notion is similar to the principle consideration in Copi's definition (1978:32, cf. section 2.2.3.2). In a valid deductive argument, it is impossible for all of the premises to be true and the conclusion false. In an inductive argument or an invalid deductive argument, however, such a relationship is possible. In the role cell we see authorial intent. This statement of intent is similar to the principle consideration in Fohr's definition (1980:6-7, cf. section 2.2.3.2). An arguer produces a deductive argument when the intent behind that argument is to offer evidence that will necessitate a rational audience to change its mind about the topic of the argument. In the slot cell we have a choice of sequences for ideas. Among these sequences is the universal to particular/ particular to universal sequences presented in Creighton (1922:384, cf. section 2.2.3.2) as the distinction

between induction and deduction. Finally we have product-oriented structural relations, eg. the relationship of premises to conclusion as in Reeder (1983:4, cf. section 2.2.3.2). So then a valid deductive argument is one in which a number of premises are combined in such a way that their truth necessitates the truth of the conclusion given the truth of the premises (within a particular sociolinguistic context). This combination is the direct result of the intent of the author to present a conclusive argument, and it takes the form of a typically deductive sequence of propositions (these sequences having been deemed throughout their history to give reliably true conclusions from true premises). This combination of propositions as final product will then have a formal relationship between premises and conclusion such that all significant information in the conclusion will also be contained in the premises.

Outside of logicians' paradise, however, such ideal deductive arguments are relatively infrequent. Various things can "go wrong" to make a deductive argument less than ideal. Sometimes arguers will use purposely false premises for deceptive, humorous, or various other rhetorical purposes. Other times they do not consider whether the evidence they are presenting is conclusive or not, or they waver on a point in midargument. At times they wish to present a conclusive argument but, because of ignorance, carelessness, or some other reason, encode it in an inconclusive structure. They may leave out premises, or the conclusion, or for a number of reasons leave the structure of the argument incomplete or vague. Because of these factors, we can construct an argument that is clearly deductive, and

we can determine that some arguments are clearly deductive, but we can also produce and find arguments that have some of the marks of a deductive argument, some of the marks of an inductive argument, and some marks that seem neither inductive or deductive (or perhaps not even argumentative at all).

In tagmemic terms (cf. Pike, 1982:24ff.), we have a taxonomic system having categories with indiscreet borders. The categories of induction and deduction are, therefore, best pictured not as two distinct mutually exclusive classes into which all arguments can be sorted. (See fig. 12)
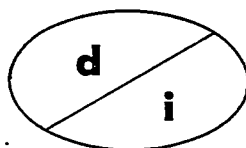
Fig. 12. Traditional Conception of Induction and Deduction

Rather they are best pictured as being two peaks of the same wave (the wave being argument form), the peaks of which are readily distinguishable, but the borders of which are fuzzy and which overlap. (See fig. 13.)

deduction   induction
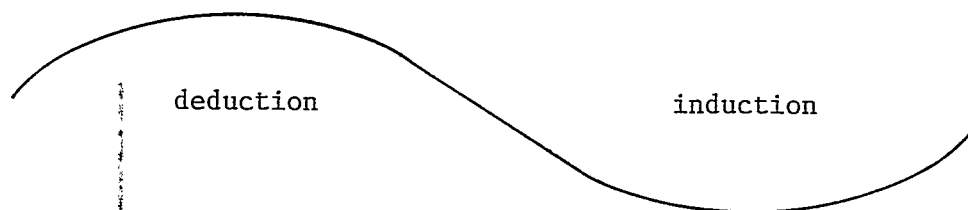
Fig. 13. Induction and Deduction as a Wave

So far in this section (2.2.3) we have seen how a focus on written argumentation can lead to reification, which in turn affects

methods for argument analysis. We have seen how a sketchily defined theoretical statement about the relationship between argument as product and argumentation as process can: (1) lead to a methodology that either fails to treat argumentation as thoroughly as it does argument or that treats argumentation and argument together unsystematically (without a view to the difference between structural features and contextual features), and (2) lead to a taxonomic criterion that is very difficult to apply to argument/argumentation in a sociolinguistic context. The purpose of this next section is to present a methodology for argument analysis based on a argument as product/process model.

How do we analyze written argument with a view to argumentation? Two different, but overlapping considerations are involved. The first is discerning of structural features. The second is placing those features into a living context. Again we use tagmemic categories to organize insights from other sources.

First we look at primarily structural considerations.[16] "Structure" in this context means both logical (in Pikean tagmemic terms: referential) structure and the grammatical structure that encodes it. The particular components of an argument are the individual propositions, which are normally encoded as clauses. These propositions fit into a wave-like pattern, with some being more crucial to the argument than others, but with all of them falling more or less relevantly into the flow of ideas that is the conceptual movement of the argument. Each of the propositions plays a role within the argument structure.

Practically speaking, each of these considerations can be accounted for in this system of structural analysis:

1. Class, analysis of propositions as particles:
   a) Make a tentative breakdown of the argument into propositions (cf. Reeder's method)
   b) Translate rhetorical implications and orders into statements (cf. Reeder's method)
2. Slot, analysis of argument conceptual movement as wave:
   a) Determine the main line of argument and separate it from digressions.
   b) Label premises and conclusion.
3. Role, analysis of the purpose of the propositions of the argument.
   a) Make finer distinction within the premises, distinctions based on their role within the argument (cf. Toulmin model).
4. Cohesion, analysis of the argument as a system of thought
   a) illustrate the overall structure of the argument as it was originally presented (cf. Scriven's method).

These steps in analysis can be illustrated using the following argument (taken from Time, Sept. 6, 1982):

We need prayers in our schools. If it is all right to pledge allegiance to a nation under God and sing God Bless America, why not a simple daily prayer? In starting its day, Congress asks for God's help. Surely it cannot be wrong for our children to do the same thing.

Doris K. McCoy
Lake Elsinore, California

1. Class:

We need prayers in our schools.

If it is all right to pledge allegiance to a nation under God, it is all right to say a simple daily prayer. (Rhetorical Question (RQ))

If it is all right to sing God Bless America, it is all right to say a simple daily prayer. (RQ)

In starting its day, Congress asks for God's help.

[If Congress asks for God's help,] surely it cannot be wrong for our children to do the same thing.

Here we have separated the propositions, translated

rhetorical questions and orders into statements, clarified what problematic punctuation had made obscure, and made explicit in each proposition what was implicit in the connection between sentences. In short, we divided an argument into its component particles, its propositions. A more detailed particular analysis would look at the internal grammatical structure of these sentences (i.e. the clause and phrase level grammar as well as the lexical inventory), but a such an analysis is not necessary for the purpose of illustration.

2. Slot:

P1 If it is all right to pledge allegiance to a nation under
    God, it is all right to say a simple daily prayer.
    (Rhetorical Question (RQ))

P2 If it is all right to sing God Bless America, it is all right
    to say a simple daily prayer. (RQ)

P3 In starting its day, Congress asks for God's help.

P4 [If Congress asks for God's help,] surely it cannot be wrong
    for our children to do the same thing.

C   We need prayers in our schools.

Here we begin to look at the syntagmatic movement of the argument, specifically the relationship of the propositions as they stand in sequence. It would seem that the first sentence is the claim that McCoy is attempting to make. The rest of the propositions seem to offer evidence for that claim. The argument is, therefore, set up as having four stated premises and a conclusion. However, the first two premises seem more closely related to each other than they are to the other two premises, and the last two seem more closely related than they are to the first two. Because of these

relationships the four premises are grouped into two groups of two. A more detailed look at slot would include analysis of the grammatical devices used to connect the clauses/sentences that encode the argument's component propositions.

3. Role:

B
|
v

W (P1) If it is all right to
pledge allegiance to a nation under
God, it is all right to say a
simple daily prayer. (Rhetorical
Question (RQ))

and

W (P2) If it is all right to sing
God Bless America, it is all right
to say a simple daily prayer. (RQ)

G ——————————— M ——> C   We need prayers in our
                                      schools.
                              ^
                              |
                              R

B
|
v

W (P4) [If Congress asks for
God's help,] surely it cannot be
wrong for our children to do the
same thing.

G (P3) In starting ——> M ——> C   We need prayers
its day, Congress asks   in our schools.
for God's help.   ^
                        |
                        R

Here we look at the function of each of the premises in relation to the conclusion using the categories presented in the Toulmin model. In this example three of the premises function as warrants, one as grounds. Both of the subarguments function as evidence for the single claim.[17]

4. Cohesion:

C   We need prayers in
     our schools.

W (P1) If it is all right
to pledge allegiance to
a nation under God, it is
all right to say a simple
daily prayer. (RQ)

        and

W (P2) If it is all right
to sing God Bless
America, it is all
right to say a simple
daily prayer. (RQ)

                              G (P3) In starting its
                              day, Congress asks
                              for God's help.

                              W (P4) [If Congress asks
                              for God's help,] surely
                              it cannot be wrong for
                              our children to do the
                              same thing.

Next we take all of the structural factors that we have noted by looking at the argument in terms of the other three cells, and we place them back into the context of the flow of the argument as it was originally presented. This scheme shows us the particles of the

argument (the propositions), the wave structure (the linear ordering of the propositions), and the structural meaning (role) of each proposition. This placement is done within the context of the argument's field structure, i.e., the individual propositions are arranged to demonstrate how they are structurally related to the other propositions.

What we have just looked at is argument analysis (analysis of argument as a product). We turn now to analysis of argumentation as a social process. This analysis has three facets: (1) an analysis of the argumentative context as it can be gleaned from the text, (2) an analysis of the extratextual argumentative context, and (3) a sociological evaluation of argument quality. In other words, we are first trying to reconstruct as much of the argumentative context as possible from the argument itself; however, because only sedimentation of the original context remains in the argument as product, a thorough analysis of argumentation must also go beyond text analysis to a sociological analysis of the argumentative context. Based on the information gleaned in these two analyses, we can then comment on the success of the argument. Looking at what we are attempting to do here from another angle, we can say that we are trying to increase the overlap between the argumentative context (that which produced the argument) and the reader's interpretive context.

We look first at argumentative context as it can be gleaned from the text, again through the grid of the four-celled tagmeme. In the class cell we look at particles, words, and how the choice of

words gives us a clue to the context of the argument. In the McCoy argument, notice the word <u>our</u> (as in "our schools" and "our children"). This word, seen in relationship to two other expressions: <u>nation under God</u> and <u>God Bless America</u>, and the reference to simply <u>Congress</u> (capitalized and without any further designation) would indicate that the writer is writing as an American, to Americans, and probably with the intended audience being readers of the American (not international) version of <u>Time</u>.

In the slot cell, we look at the wave, sentences. Notice the structural awkwardness with which the antecedent and consequent of the second sentence are connected. This awkwardness tells us something about either the writing skills of the author or the care with which she proofreads. One could assume that the person who wrote this argument has had only basic training in writing.

In the slot cell we look at statements of argumentative intent: Was this evidence meant to offer certain proof for a conclusion, or was it merely mustered to provide some evidence? We have within the argument the statement, <u>We need prayers</u> ... and the word, <u>surely</u>. Though they tell us little of how the author perceived the weight of evidence she was offering, they would seem to indicate that she intended her argument to be forceful.

Finally, we look at the discourse structure. This argument, (in a rough way) resembles a <u>modus ponens</u>:

P1 If pledge of allegiance, then prayer.
UP Pledge of allegiance.

C Prayer.

However, the discrepancy between the statements in the premises, "why not ... prayer" and "Surely it [a simple daily prayer] cannot be wrong," and the conclusion, "We need prayer..." would seem to indicated that the author did not have a modus ponens structure in mind while writing this argument. Rather, it would seem likely that she was attempting to convince her audience of a particular point; and, as she wrote, the text naturally took an argumentative structure (one that resembles modus ponens).

With these structural notes in mind, we now turn to the extratextual study of the argumentative context and the evaluation of the success of the argument. Context and argument success are interrelated. While investigating context, we look at the pragmatic and interpersonal aspects of argumentation; we look at the function of a particular argument in a particular social context, gleaning any information that we can to help us explain the selection of the argument's components and organizational scheme. In short, we wish to place the structural features of the argument (as a product) into a functional (production) context. We try to gather answers to the questions: Why this structure and not another? Why this word and not another? With this information in mind (and only then) can we judge the success of the argument. For example, again using the McCoy argument, we have no way of investigating the immediate pragmatic context in which the argument was produced. We could, however, make cautious statements about its broader social context. We know that this argument was written as a letter to the editor of _Time_ by a woman from Lake Elsinore, California, and that in itself can give us

some idea of the argument's social context. Arguments produced by American women (or perhaps even Californian women) may have certain characteristics that set them apart from arguments produced by, for example, Swedish women or American men. Arguments written to the editor of a news magazine will have characteristics that will set them apart from those written to the editor a scholarly or technical journal. Determining what exactly those characteristics are is another issue entirely, one that will be discussed in the next section.

Having in mind the structure of the argument, and the bits and pieces of the argumentative context that we have been able to reconstruct, we can now look at the success of the argument. As mentioned before, statements about the success of an argument must be made with a view to their context and purpose. For example, if we take the McCoy argument to be a deductive argument, i.e., an argument that weaves propositions considered true by the members of the argumentative context into a sound deductive pattern for the purpose of providing conclusive evidence for a conclusion, the McCoy argument is not very successful. Its propositions are unlikely to be accepted by many people within the intended audience, and its structure, measured by traditional deductive standards, is faulty. We need to ask ourselves, however, if labeling this argument as deductive and assessing it using deductive categories does the argument justice.

Those who have any formal background in logic are used to operating under a system that has only two categories, induction and deduction. This practice assumes that the distinction between

induction and deduction captures a crucial characteristic of all arguments. This assumption may be a poor one. Consider this analogy: researchers studying dairy products have become used to focusing on the characteristics of low fat versus whole milk. Because of this practice they focus regularly on one of the crucial characteristics of dairy products, namely butterfat count. As a fundamental notion to their study, the researchers set up a taxonomic system in which a dairy product is classified as having either more than 2% butterfat, or 2% or less butterfat. Granted, this distinction is an important one, especially for anybody marketing milk. Butterfat count makes a difference to, among others, farmers, who get paid more for high butterfat, and to consumers, who will for various reasons sometimes pay more for low butterfat. Undoubtedly, butterfat count is an important issue. But to categorize all dairy products as either whole milk or low fat, is to miss some important distinctions. It is to combine whole milk, butter, cheese, ice cream, and many other milk products into one category. Our researcher, in capturing one important and useful distinction, and in using that distinction exclusively as a taxonomic parameter, eventually may become blind to other, perhaps equally important, distinctions.

Similarly, if we persist in looking exclusively at how an argument is either deductive or inductive, we capture an important characteristic of arguments, but we also miss others. What we miss is that in real-life the force of a nondeductive argument comes sometimes from how representative and large the sampling is (as in

empirical generalization), sometimes from the arguer's skill in using the correct kind of language, sometimes from the appeal to the correct authorities, sometimes from presenting a conclusion that will upset the status quo in the smallest possible way, and sometimes from factors far more elusive.

For example, a sermon may appear at first glance to be a deductive argument. It may contain structures that resemble deductive arguments, as does the McCoy argument, but those structures may be deductive fallacies, or the arguments may be unsound. If, however, the preacher is preaching to an audience to whom traditional logic is unknown or unimportant, and if he can appeal to emotion and/or Scripture in the way to which his congregation is accustomed and can use the right language to establish a solidarity between himself and his people, gaining their trust in him as an authority chances are his sermon may be quite successful.

Do we, as analysts, call such an argument an unsound deductive argument? Do we point out the missing premises, the fallacies, and the ambiguities, call the argument a bad one, and end our analysis at that point? Some logicians would do so. We who choose to focus on real-life argumentation cannot afford to. For if we choose to focus only on the criteria that distinguish deductive arguments from inductive, and if we choose to recognize only the criteria that tell us whether a deductive or inductive argument is successful, we miss other important criteria for argument taxonomy and for measuring argument success. Many of the criteria are social. They are a part of argumentation rather than argument. But if we see

real-life argument as a product of argumentation, we also see that failing to trace certain facets of argument to their context in argumentation will limit our understanding of argument. Induction and deduction are only two structures that arise from real-life argumentation. We who study real life arguments can, therefore, not afford to limit ourselves to the bipartite taxonomy of induction and deduction. To do so would be to limit unnecessarily our view of the social facets of argument/argumentation.

2.2.4 Conclusions

Because we have established that argument as product arises from argumentation as process, because we have seen that argument taxonomies are complex and have boundaries as fuzzy as real-life social boundaries often are, because we are committed to analysis of real-life arguments, we must be open to taxonomic parameters that capture more argument characteristics than the ones we are currently using, and we must look (not just structurally but also socially) at what makes an argument successful. Neither current textlinguistics (as it was discussed in section 2.1) nor current informal logic has all the resources necessary to do this new kind of investigation. For this reason we now turn to sociolinguistics.

2.3 Sociolinguistics

Sociolinguistics proper is a relatively young field (approx-
imately 25 years old). Trudgill (1974:32-3) describes it as:

> that part of linguistics that is interested with language as a
> social and cultural phenomenon. It makes use of the subject
> matter, methodology or findings of the social sciences--sociology
> and social anthropology in the main, but also impinges in certain
> respects on social or human geography... [Sociolinguistics
> proper] covers studies of language in its social context which
> (whether they be sociological, anthropological or geographical in
> emphasis) are mainly concerned with answering questions of
> interest to linguists, such as how can we improve our theories
> about the nature of language, and how and why does language
> change.

Under this rubric of "the study of language as a social and cultural
phenomenon," one of the issues sociolinguistics concerns itself with
is the distribution of language variations. This topic interests us
here, in that we will be looking at the distribution of argumentative
text structure variations into their social context (specifically,
the distribution of the variations into the classes, "produced by
men" and "produced by women").

2.3.1 Existing Approach

We must, however, first look at the approach of socio-
linguistics, specifically, how it views language and language study.
William Labov (1972:xiii) sums up sociolinguistics' attitudes in that
area:

> I have resisted the term _sociolinguistics_ for many years,
> since it implies that there can be a successful linguistic theory
> or practice which is not social... [In the 1960s,] the great
> majority of linguists had resolutely turned to the contemplation
> of their own ideolects. We have not yet emerged from the shadow
> of our intuitions, but it no longer seems necessary to argue
> about what is or is not linguistics.   There is a growing

> realization that the basis of intersubjective knowledge in
> linguistics must be found in speech—language as it is used in
> everyday life by members of the social order, that vehicle of
> communication in which they argue with their wives, joke with
> their friends, and deceive their enemies.

From this statement, and from other work in sociolinguistics, we see
that this field focuses on language in use. It rejects the intro-
spection of so called "Cartesian linguistics," maintaining that
language is a form of behavior, and that the systematic aspect of
language is found not by peering into the minds of language users but
by watching them produce language in a systematic fashion. Again
Labov (1972:xiii) says,

> A decade of work outside the university as an industrial chemist
> had convinced me that the everyday world was stubborn but
> consistently so, baffling at the outset but rewarding in the long
> run for those who held to its rational character.

Sociolinguistics is empirical and is committed to the discovery of
patterns within real-life language use. In that way it is quite
compatible with the approach and methodology of the two fields
already presented.

2.3.2 Existing Methodology

The branch of sociolinguistics that offers us the most help
in investigating the distribution of language variations into society
has been developed by William Labov. Sometimes called varia-
tionalism, it is concerned with the social constraints on what was
previously referred to as "free variation." Free variation was
described as taking place when (1) a language has more than one
linguistic means of expressing a given content, and (2) no structural
factors inform the choice of variant. Free variation is a

traditional notion in linguistics, dating back the the work of Bloomfield (1933:76) in Structuralism and his notion that utterances could vary somewhat and still be the same. Unfortunately, because of the Structuralist emphasis on structure, and their lack of emphasis on context, "free variation" is somewhat a misnomer. Labov (1972) points out that though the choice of linguistic variants may not be structurally constrained, many times it is socially constrained. Factors involved in such constraint include socioeconomic level of either the speaker or the hearer, geographical origin of the speaker, care in speaking, sex of the speaker, etc.

Labov's scheme for plotting the social constraints on linguistic free variation (for example, as seen in his now famous New York postvocalic /r/ study (1972:43ff.)) is, roughly sketched, quite simple. First, he chose a set of linguistic features said to be in free variation. He described these variants as particular and distinct linguistic units, and set out to observe them in a social setting. That social setting was carefully monitored, controlling for age, socioeconomic level, sex, care in speech, etc. The frequency and context of each variation was then carefully recorded, and rules derived for the statistical preference for each of the variations.

This rough sketch of Labov's procedure makes plotting social constraints on linguistic free variation seem like a relatively simple process. The complexity, and perhaps genius, of variationalism lies in the mechanisms that Labov used to control for various social factors and still maintain a normal setting, i.e., one

that would be unaffected by the data being collected. His task was to overcome the observer's paradox: How does a researcher observe a person behaving as s/he does while not being observed? Or, how does a researcher compile speech samples that are unbiased by his/her presence? Labov's answer to this paradoxical question includes the following (1972:210-1): (1) Rapid and anonymous interviews—in strategic locations, where subjects' social identity can be fairly well predicted by their objective location, a large number of subjects can be quickly interviewed in a short time. For example, in studying postvocalic /r/ in New York, Labov asked department store clerks a question that would be answered "fourth floor." The kind of department stores these clerks worked for told him a good deal about their social background, and the answer to his question allowed him to determine whether or not they spoke an r-less dialect. (2) Unsystematic observations—in many public places speech is loud and public enough for a researcher to listen in on random conversations, unsystematically noting speech features being used. (3) Mass Media—television and radio interviews and documentaries offer a recorded speech sample, but one that may be influenced by the presence of the camera. (4) Observing at the formal end of the stylistic range—because formal speech is often speech produced in a context where careful monitoring of one's speech is an issue, the observer's paradox is less of a problem to researchers' observation of formal speech. (5) Emotionally charged material—when one is taking about a highly emotional topic, attention to topic increases and attention to speech decreases, minimizing the problem of the

observer's paradox.

2.3.3 Expanded Approach and Methodology

Variationalism, despite its innovative methodology, has certain weaknesses of approach and methodology that have caused a decrease in its popularity among contemporary linguists, and that would limit its usefulness to this study were they not corrected. The first weakness is that, given the wave-like nature of language (to use Pike's term), variables cannot be defined as precisely as variationalism would seem to indicate. Even in phonology, which was the domain of the earliest work in variationalism, the borders between phonemes is often fuzzy. Labov speaks in dichotomistic terms: for example, the presence or absence of /r/ postvocalically. This dichotomy, however, is deceptively simple. In English /r/ is a voiced egressive retroflexed glide. It is produced in two different ways (Smalley, 1977:180), one with the back of the tongue low and the sides and tip curling up, and the other with the back of the tongue high and the tip curled up slightly. The second is more likely used postvocalically. It is also the more vowel-like of the two. In fact, it is only the slight retroflexion of the tip of the tongue that distinguishes the second kind of /r/ from a low back unrounded oral vowel. The problem variationalism must face is determining when the tip of the tongue is low enough for the /r/ to cease to be an /r/.

If defining variants is a problem in phonology, it becomes even more of a problem as variationalism steps into the realm of

textlinguistics. We have already seen how some referential identities (culture concepts) are neither discrete nor determined by a single set of discrete parameters. We have also seen that induction and deduction as argument types are not two mutually exclusive sets with sharp boundaries, but rather two peaks of a single wave. Textual units rarely come in neatly packaged chunks.

This problem calls into question the quantification that was originally a part of variationalism. Precise reports of the number of occurrences of postvocalic /r/, or the lack thereof, lose a bit of their air of scientific rigor if the reader of the reports is made aware that some, if not many, of the occurrences were assigned to one class or the other based on purely subjective criteria. Because of the observer's paradox, objective measurement of the exact parameters of the variants is very difficult if not impossible. Quantification, therefore, despite early variationalist claims, can represent trends in the data but with very little precision.

Given these difficulties, what use is variationalism to this study? First of all, it challenges us to spell out the varieties we find in speech or written stylistics. Secondly, it sends us looking for social factors that may influence these variants (rather than simply sweeping them under the rug called "free variation"). On this foundation, this study will look at patterns in the variety of styles used in argumentation (i.e., varieties of argumentation). It will also look at the social factors that influence distribution of the occurrence of these variations throughout a given population's writing.

We must, however, first establish certain provisos, for it is not strictly variationalism that we will be using here. We will be, rather, modifying variationalism to recognize the role of the observer in research: the results of such research are not necessarily what _is_, but they certainly are what <u>has been seen</u> through a particular theoretical grid. We will also recognize, first, the limitations of formalism and quantification and, second, that in describing variants, we are describing the central characteristics of those variants: the variants may, in real-life language use, have very fuzzy borders.

Despite these modifications, however, we are indebted to variationalism for the basic structure of its methodology and for its work in describing the observer's paradox. More specifically, we will be incorporating into this study a basic notion in variationalism: if two variations encode the same or similar content, and if there are no structural constraints dictating choice of one or the other, the selection of one variant over the other must be informed by social considerations. We will also give attention to the observer's paradox by eliciting formal writing (cf. Labov, 1972:210-1). In this research we will ask students to write to be observed. That is, we will ask them to do academic writing. Writing for professors or writing for one's peers (as a graduate student or professor) is writing for a highly literate audience. There is the assumption that the reader of an academic piece of writing will pay attention, at least in part, to form as well as content. The audience, the permanence of a written text (which makes its form less

transient than that of speech), and the lack of spontaneity in the production of a text (one is expected to be more careful in written text than in oral) all contribute to the academic writer's writing to be observed. The students participating in this study will be producing writing meant to be observed.

2.3.4 Conclusions

Sociolinguistics, then, offers us a way of looking at language varieties in context. It offers us the basic principles of the methodology of variationalism, and it offers us the insights gained in language observation that have been summed up in Labov's work with the observer's paradox. In four-celled tagmemic terms, we maintain that factors in the production process (that we capture in the cohesion cell) are likely to inform the structure of the product (class and slot). If, therefore, we see variation between the class cells of two texts, and if the selection of one variant or another is not informed by structural considerations, we turn to the cohesion cell to determine the constraints informing selection of a particular variant.

2.4 Conclusions

What we have seen in this chapter is a statement of approach and methodology built from a combination of tagmemic, informal logic, and sociolinguistic theory. In sum, it looks like this:

Under the heading of approach, first, language is social behavior. It is first and foremost a system of communication, a semiotic system. Language, therefore, must be studied in its social context. Any linguistic method that intends to study real-life language must be sociolinguistic.

Second, we cannot observe linguistic behavior as it is (i.e., "in-itself"). That is to say that any time we look at linguistic behavior, or anything else for that matter, we see it through our biases and presuppositions (i.e., through our perceptual mechanisms and paradigms) and through the theoretical grid we choose to use. Because of this, we need to be aware (as much as possible) of the presuppositions we bring to linguistic analysis; and we need to use analysis methods that give us a number of perspectives on the data (and, therefore, a more complete picture of the thing we are looking at).

Third, argumentation is sociolinguistic behavior before it is logical system. Argumentation arises when a sociolinguistic context provides exigence, and the flow of argumentation shifts in response to the demands of changes in context. Argument, by contrast is the (usually written) sedimentation of argumentation (in a social context) in writing. Because of this, the study of logical systems, which are an essential characteristic of arguments, is only a part of

the study of argumentation. If informal logic wishes to deal with real-life arguments in context, its methodology must be, at least in part, sociolinguistic.

Fourth, all units and taxonomies of social behavior have fuzzy borders. This is due to the wave-like characteristics of human behavior. Because of this, though one may be able to find central meanings for a referential identity, or may be able to point to a typical representative of a certain class, it is difficult to chart the border between one identity and another or one class and another. We, therefore, try in analysis to pinpoint the peak of the wave that represents a meaning or a class. From there we work out to the borders as much as possible.

Under the heading of methodology, first, because language is social behavior, we work with real-life texts. To create texts for analysis through introspection is to bypass the social exigence that normally gives rise to text, thereby potentially biasing the data.

Second, as a way of systematizing the perspectives of particle, wave, and field, we use the four-celled tagmeme. It is more thorough than the two-celled tagmeme (which looks only at the relation of form to function), and, practically speaking, it is much simpler to handle than the nine-celled tagmeme (which combines the notions of particle, wave, and field with contrast, variation, and distribution).

Third, because argumentation is sociolinguistic, and because written argument bears the sedimentation of argumentation in its structure, we look for social explanations for argument variants.

However, because the borders of linguistic categories are by nature fuzzy, we do not expect these variants to be determinant.

CHAPTER III

TEXT ANALYSIS

We now turn to actual text analysis. The purpose of this chapter is comparative: we will look at a number of texts through the theoretical "window" discussed above, describe their characteristics, and then compare the characteristics of the texts produced by men to those produced by women.

3.1 Description of Texts and Analysis Techniques

Two provisos ought to be stated here. First, the texts analyzed are argumentative. No statements are being made about any other genre. Second, because of the nature of this research, the results will not be stated in absolute terms, eg., that a single sex alone uses a certain stylistic device. In fact, it is virtually impossible to assign any set of characteristics, linguistic or otherwise, to a single sex. That is, with few exceptions one cannot say without qualification either "If a person does or is X, then that person is female." or "If a person is male, then he will do or be Y." Some biological statements may be close to absolute descriptions of men or women, but given some of the wonders of modern technology, even biological boundaries between maleness and femaleness are at times fuzzy. At any rate, we cannot expect, in an area as culturally

determined as language, to find many (or perhaps any) sex-specific characteristics. The observations in this section will, therefore, take the form: Women/men <u>tend to</u> use more of this construction. This section makes statements of trends, not of absolutes.

3.1.1 Data Base

Seventy-two students (four sections) of The University of Texas at Arlington's Freshman Composition (ENGL 1301) course were asked to participate in this study. A brief questionnaire constituted the first page of the study. Based on the information it supplied, the scope of the data base was limited to texts produced by full-time UTA students, under 25 years old, native speakers of English, with less than one year of post-high school education and no formal training in argumentation, critical thinking, or argumentative writing. Fifty-six students met these criteria. Of them, twenty-six were female; thirty were male. Paragraphs written by part-time students, nonnative speakers of English, students over 25, upper division students, and students with formal training in argumentation were set aside as being outside the scope of the study. Also set aside were paragraphs unaccompanied by a complete questionnaire and paragraphs written illegibly.

Each students produced a one paragraph argument in response to the following instructions (which were on the second page of the study):

> Construct (write) a paragraph containing a GOOD argument (no more than 1/2 page in length) for ONE of the following theses:
> a) The legal drinking age should be raised to 21.
> b) The legal drinking age should not be raised to 21.

c) English composition should be a required course for all undergraduates at UTA.
d) English composition should not be a required course for all undergraduates at UTA.
Write the paragraph in the space provided below.

The instructions were written purposely to look like instructions for an essay examination question to elicit formal academic writing.

In order to minimize any bias that may have occurred as a response to the person administering the study, it was administered to two sections by a woman, and to two sections by a man.

The students were allowed to take all the time they needed to complete their writing. All of them finished within fifteen minutes.

3.1.2 Analysis Methodology and Technique

The analysis methodology that will be used in this chapter is described (with its theoretical presuppositions) in chapter two. It is essentially a combination of textlinguistic, informal logic and sociolinguistic methodologies. This chapter will look specifically at argument structure (the structure of argument as product). Later chapters will investigate, first, the extratextual that make up the argumentative context for these arguments, and, second, how various facets of the argument can be interpreted as sedimentation of the production process (argumentation) within the argument (as product). We will also look, in a later chapter, at a sociolinguistic evaluation of argument quality.

As was detailed before, under the heading of argument structure we will look at both grammatical and argument structure:

A. Class
    1. analysis of the lower level grammatical units as

                particles
      2. analysis of lexical elements as particles
  B. <u>Slot</u>: analysis of argument conceptual movement as wave
      1. accounting for the presence and location of a conclusion
          within each argument
      2. inventory of the devices used to combine clauses into
          sentences
      3. inventory of rhetorical questions and orders
      4. description and inventory of the devices used to
          establish connections between sentences
  C. <u>Role</u>: analysis of the purpose of the propositions of the
          argument
  D. <u>Cohesion</u>: analysis of the argument as a system of thought:
      1. overall structure of the argument in the order it was
          originally presented
      2. analysis of the tenor of the argument.

3.2 Results of the Analysis

Analysis of the texts shows differences between men's and
women's texts throughout the four cells of the tagmeme. These
differences are in the areas of lexical inventory, types of low-level
grammatical constructions used, types of sentence constructions used,
transitional and cohesive devices, role and placement of premises
versus the conclusion, and overall argument structure and
organization.

3.2.1 Class

Under the heading of class, we will look at grammatical,
lexical, and referential particles: not only the kinds and frequency
of words and grammatical structures used, but also at the ways they
are used (both their reference and the way they are used as a part of
the overall structure of the text). We will focus on those elements
having a different distribution or frequency in women's texts than in
men's texts. Among these elements are pronouns (relative, personal,

partitive and universal); nouns and noun phrases (particularly verbal and deverbal nouns and those noun phrases having a personal noun as head); BE verbs; modal auxiliaries; and words expressing rights, privileges, and responsibilities.

3.2.1.1 Pronouns

One of the areas in which there is a noticeable difference between the men's and women's paragraphs is **relative pronouns.** These pronouns occur within the texts with the frequency (total number of occurrences/ average number of occurrences per paragraph) shown in table 1.

TABLE 1

INVENTORY OF RELATIVE PRONOUNS

	Female	Male
Personal		
Who	13/.5	8/.27
Restrictive	9/.35	8/.27
Nonrestrictive	4/.15	0
Whom	1/.04	0
Whose	0	0
Nonpersonal		
Which	1/.04	4/.13
Whose	0	0

We can see here that the frequency of use of the personal (i.e., human) relative pronoun is higher in women's texts, whereas in the men's texts, use of the nonpersonal relative pronoun is more frequent. The difference between the two patterns of usage is,

however, greater than this chart can show. The single case in a woman's text in which the nonpersonal pronoun is used is a grammatical error ("... due to drunk drivers, most of which are under 21 years old"). Those cases of personal relative pronouns in men's texts have (with one exception) either people or persons as their head. By contrast the heads of personal relative clauses in women's writing are more specific, containing a few instances of people, but also reporters, teenagers, drivers, etc. Women's texts also contain instances of nonrestrictive relative clauses whereas men's texts do not.

Similarly, there are also differences in the the ways the men and the women in the study used **personal pronouns.** Women used I over 50% more than men did (female (F): 37, 1.42/par. (37 total uses for an average of 1.42 uses per paragraph). Male (M): 27, .9/par.). They used me with about the same frequency as men (F: 2, .08/par. M: 2, .07/par.), and my twice as much (F: 7, .27/par. M: 4, .13/par.). Within these uses some further trends emerge. Of all of the uses of I in women's writing, 70% were in constructions such as I believe ... or I feel ... In the men's writing, only 55% of the uses of I were in such constructions. (See table 2.) We see in this chart that women were more likely than men to use phrases that appear to express reasoning, opinion, or emotion, phrases such as I think and I believe. On the other hand, men tended to use the I + verb construction to attest to their statements by personal experience, using phrases such as I see and I know.

TABLE 2

INVENTORY OF EXPRESSIONS OF
OPINION USING I

	Female	Male
I believe	10	3
I think	9	4
I feel	3	4
I know	0	3
I see	0	3
other	4	2

Similarly, women used my in expressions such as my opinion whereas men did not. Women also used my to express relationships: "my brothers," "my friends," "people my own age." Men did not use it in this way at all. They did, however, use I, me, and my in anecdotes about personal experiences more than women did.

There were also striking differences in the patterns of usage of the second person pronoun. Women used you over 200% more frequently than men did (F: 22, .85/par. M: 8, .27/par.). This pronoun is, in both the men's and the women's writing, informal and indefinite, and takes the place of one (as in "At 18 you are legally considered to be an adult." rather than "At eighteen one is legally considered to be an adult.") though in one case in the men's writing it is used as a personal pronoun referring to the reader. The most striking difference in the use of you is in the contexts in which the pronoun is used. All but one use of you in women's writing (i.e., 21 of 22 uses) occurred in sentences speaking of rights, privileges, or responsibilities (eg., "you are allowed ...," "you are held

responsible ..."). None of the occurrences of you in the men's were in sentences overtly dealing with these issues. In the women's writing, 86% of the uses of you (19/22) occurred in a sentence containing a passive verb. None of the men's uses of you were in a sentence with a passive verb. (More will be said about this pattern of usage in the section covering differences in the voice of verbs.)

Women used the pronoun your six times. Each time it referred not to ownership of concrete physical objects but to relations to people (eg., "your parents") or to abstract entities (eg., "your future", "your time"). This usage is quite similar to the way the women used the pronoun my (as noted above). The men did not use the pronoun your.

The differences in the use of the third person singular pronoun were as follows. Men used the pronoun he three times as frequently as did women (F: 5, .19/par. M: 17, .57). Of these uses by the men, 6% had masculine antecedents, 65% had generic antecedents (eg., "a person"), and 29% had generic antecedents and were a part of a compound pronoun construction (i.e., "he/she" or "he or she"). Women did not use these compound constructions, and all of the antecedents for their he occurrences were generic. Similarly, men used his 3 3/4 times more frequently than did women (F: 2, .08/par. M: 9, .30/par.). By contrast women used the pronoun it slightly more frequently than men (F: 34, 1.31/par. M: 38, 1.27/par.). However, the uses of this pronoun were somewhat different. (See table 3.)

TABLE 3

INVENTORY OF THE PRONOUN it

	Female	Male
w/ grammatical antecedent	56%	50%
no grammatical antecedent	35%	29%
anticipatory subject	9%	18%
idiomatic use	0	8%

Note particularly that a greater number of the women's uses of it had no grammatical antecedent.

As for the plural personal pronouns, women used we and our slightly more than did men (We: F: 8, .31/par. M:6, .20/par. Our: F: 5, .19/par. M:4, .13/par.) but they did so in no noticeably different way. There were, however, more noticeable difference in the uses of they. Women used they about 20% more than did men. It was used in the following way (percentages are percent of the total number of uses). (See table 4.) Notice here that almost 50% of the women's sentences containing they also contain grammatical errors in the agreement of that pronoun and its antecedent. This figure contrasts with 30% of the sentences having the same problem in the men's writing.

TABLE 4

INVENTORY OF THE PRONOUN they

	Female	Male
w/ plural antecedent	54%	70%
w/ singular "	36%	9%
w/ no "	8%	12%
w/ mass noun "	2%	9%

There is no noticeable differences in the men's and the women's writing in the uses of them. Again women used more of the possessive personal pronoun, their (F: 20, M: 9), and in those uses were more likely than men to use it in reference to a personal relationship (eg., "their friends").

We look now (briefly) at **partitive and universal pronouns.** These pronouns are used with the following frequency (seen in table 5). Note that men tended to use universal pronouns, particularly personal universal pronoun, more than women did. Also, when men used universal pronouns, those pronouns tended to be unmodifed whereas the women's pronouns tended to be modified by a clause or phrase.

Summary—Pronouns

Though differences in the male and the female uses of the pronoun are sometimes slight, we can see some patterns in their use. Women tended to use more first and second person personal pronouns. With the exception of his, they tended to use more possessive personal pronouns (and those used often to express relationships). They also made more grammatical errors of grammatical agreement of

the pronoun with its antecedent. Overall, they used more personal pronouns than did men. By contrast men tended to use more unmodified universal pronouns than did women.

TABLE 5

INVENTORY OF PARTITIVE AND UNIVERSAL PRONOUNS

	Female	Male
Personal		
Anybody	0	0
Anyone	0	2
Everyone	1	7
Everybody	0	2
Someone	3	2
No one	2	1
Nobody	0	0
Total	7	14
Nonpersonal		
Anything	1	3
Each	2	0
Everything	0	0
Nothing	1	1
Something	3	2
Total	7	6
Total	14	20

3.2.1.2 Nouns

We turn now to differences in nouns and noun phrases. The principle difference in the use of noun phrases was in **personal noun phrases** (noun phrases in which the head refers to a person). Though men used a slightly greater number of personal noun phrases than did

women (7% more), the personal noun phrases used by women were, on the average, twice as long as those used by men (2.76/1.27 words per phrase). Men more often than not used a simple personal noun phrase (a single noun or article plus noun) whereas women tended to modify their nouns with adjectives or adjectival clauses and phrases.

The next pattern of usage we look at is that of **verbal and deverbal nouns.** A deverbal noun is a noun that has been derived from a verb (i.e., a verb that has been changed into a noun through the appending of a derivational suffix such as -ment, -or/-er, -tion/-sion, etc.). A verbal noun is a word that has the form of a verb but that is used syntactically as a noun (i.e., <u>swimming</u> in the sentence, "Swimming is good for you."). In our data base, men used 24% more verbal and deverbal nouns per paragraph than did women (F: 148, 5.69/par. M: 211, 7.03/par.). Men used 51% more verbal and deverbal nouns as the object of a preposition (M: 1.8/par. F: 1.19/par.), 32% more as a subject (M: 1.37/par. F: 1.04/par.), and 54% more as a direct object (M: .83/par. F: .54/par.). There was no appreciable difference in the use of verbal and deverbal nouns as the head of a possessive phrase or as a predicate nominal.

Summary—Nouns

From this look at personal and verbal and deverbal nouns, we can see that men tended to use more abstract deverbal and verbal nouns and used unelaborated personal noun phrases. Women, by contrast, tended to use fewer abstract deverbal and verbal nouns and tended to elaborate personal noun phrases.

3.2.1.3 Verbs

Men's and women's texts also show differences in the kind of verbs used. We look first at **Transitivity**.

Transitivity (with a capital T) is, according to Hopper and Thompson (1980:251), "traditionally understood as a global property of an entire clause, such that an activity is 'carried-over' or 'transferred' from an agent to a patient". (though, also traditionally, the verb is the focal point of a transitive or in transitive clause in that we speak of "transitive/ intransitive verbs"). The effectiveness or intensity with which the action is transferred can be measured along at least ten parameters (Hopper and Thompson, 1980:252). These parameters are listed in figure 14.

		HIGH	LOW
A.	Participants	2 or more participants	1 participant
B.	Kinesis	action	non-action
C.	Aspect	telic	atelic
D.	Punctuality	punctual	non-punctual
E.	Volitionality	volitional	non-volitional
F.	Affirmation	affirmative	negative
G.	Mode	realis	irrealis
H.	Agency	agent high in potency	agent low in potency
I.	Affectedness of object	object totally affected	object not affected
J.	Individuation of object	object highly individuated	object non-individuated

Figure 14. Hopper and Thompson's Ten Components of Transitivity

Each of the independent clauses in our data has been assessed across these parameters. In this study, for each parameter, high Transitivity was scored as one, low as zero, giving a possible Transitivity score as high as ten or as low as zero for each clause.

The results of this assessment (as seen in table 6) show that women's writing was on the average higher in Transitivity than men's (F: 2.35/sentence. M: 1.90/sentence. (out of a possible 10)).

TABLE 6

TRANSITIVITY OF INDEPENDENT CLAUSES

		Female	Male
A.	Participants	59, .35/par.	48, .24/par.
B.	Kinesis	61, .36/par.	54, .28/par.
C.	Aspect	7, .04/par.	8, .04/par.
D.	Punctuality	1, .006/par.	1, .005/par.
E.	Volitionality	93, .54/par.	73, .38/par.
F.	Affirmation	129, .76/par.	152, .79/par.
G.	Mode	7, .04/par.	13, .07/par.
H.	Agency	14, .08/par.	6, .03/par.
I.	Affectedness of object	18, .11/par.	6, .03/par.
J.	Individuation of object	11, .06/par.	5, .03/par.

We turn now to look the **voice** of the verbs in our data. On the whole, women used 66% more passive verbs (per paragraph) than men did (F: 62, 2.38/par. M: 43, 1.43/par.). They (women) used 52% more passives in topic sentences (F: 25, .96/par. M: 19, .63/par.), and 80% more in independent clauses (F: 42, 1.62/par. M: 27, .90/par.). In women's writing, 37% of all sentences and 16% of all independent clauses contained a passive construction. This contrasts with 22% of sentences and 14% of independent clauses in men's writing.

If we look, however, at the patterns in the use of these passives verbs, we will see even greater differences between men and

women's writing. Of the sentences in women's writing containing the pronoun you, 86% also contained a passive verb. None of the sentences with you in men's writing contained a passive verb. Of those sentences in women's writing that speak of rights, privileges and/or responsibilities, 57% contained a passive verb. Only 22% of similar sentences in men's writing contained a passive verb.

Next, we look at **BE verbs.** Men tended to use slightly more BE verbs than did women (M: 92, 3.07/par. F: 71, 2.73/par.), and were more likely to use them in independent clauses (M: 53, 1.77/par. F: 31, 1.19/par.). BE verbs in independent clauses were used in the ways seen in table 7.

TABLE 7

INVENTORY OF BE VERBS IN INDEPENDENT CLAUSES

	Female	Male
W/ existential subj 　Total	13	11
W/ personal subject		
W/ modal verb	5	3
In contingent sent	2	8
Other	2*	10**
Total	9	21

*both with I as the subject
**2 with I as the subject

We see from this table, that women were more likely to use existential constructions ("It is ..." or "There is ...") but were

far less likely to make statements of being about people. Those that they did make were either modified (mitigated?) by modal auxiliaries or contingent constructions, or they were about themselves.

The next thing we will consider is **modal auxiliaries.** The auxiliaries <u>can</u>, <u>could</u>, <u>may</u>, <u>might</u> were used in the ways seen in table 8.

TABLE 8

INVENTORY OF THE MODAL AUXILIARIES: <u>can</u>,
<u>could</u>, <u>may</u>, and <u>might</u>

	Female	Male
<u>Can</u>		
'To be able to'. .	8 (42%*)	12 (80%*)
Personal . . .	8	10
Passive. . . .	0	1
'To have permission to' (i.e., may). . . .	10 (53%*)	2 (13%*)
Personal . . .	10	2
Passive. . . .	2	0
Other.	1	1
Total	19 (.73/par.)	15 (.50/par.)
<u>Could</u>		
Personal	3	1
Other.	4	1
Total	7 (.27/par.)	2 (.07/par.)
<u>May</u>	3 (.11/par.)	3 (.10/par.)
<u>Might</u>	2 (.08/par.)	2 (.07/par.)

*Percentages are of the total number of occurrences of the above lexical item.

Notice, first of all, that women tended to use the auxiliaries <u>can</u> and <u>could</u> more than men did. Notice too that the pattern of usage for <u>can</u> was different. Men used <u>can</u> 80% of the time to signify 'to be able to' (i.e., a particular action is possible because the agent has the capability to perform it or because the situation is right for it to happen). By contrast, only 43% of women's uses of <u>can</u> were with this meaning. The other 53% of the uses were with the meaning 'to have been granted the permission to'. That is a particular action can take place because the agent has been given the right or privilege to perform it. This is the meaning of <u>can</u> that is often encoded as <u>may</u>. Men used <u>can</u> with this meaning only 13% of the time.

The auxiliaries <u>should</u> and <u>will</u> also show different patterns of usage. (See table 9.) We see differences in the use of these auxiliaries as well. Notice that though women tended to use the auxiliary <u>should</u> more than men, this was because they were more likely to repeat the topic sentence assigned to them (which contained the word <u>should</u>). If we look at those instances of <u>should</u> that do not appear in the topic sentence/ conclusion of the argument, we see that men and women are about equally likely to use the word. However, the pattern of usage was somewhat different. Notice, first of all, that women tended to use the <u>should</u> in sentences containing passive constructions noticeably more than men did.

TABLE 9

INVENTORY OF THE MODAL AUXILIARIES: <u>should</u>
<u>will</u>, and <u>would</u>

	Female	Male
<u>Should</u>	44 (1.69/ par.)	40 (1.33/ par.)
<u>Should</u> (not in C)		
Passive	12 (71%*)	6 (32%*)
Personal	4 (23%**)	9 (47%#)
Total.	17 (.65/ par.)	19 (.63/ par.)
<u>Will</u>		
Personal . . .	8	14
Other.	9	14
Total	17 (.65/ par.)	28/ .93/ par.)
<u>Would</u>		
Personal . . .	4 (31%)	5 (38%)
Other.	9	8
Total	13 (.50/par.)	13(.43/par.)

* Percentages are of the total number of occurrences of the
above lexical item.
**all mitigated
4 mitigated

Notice too that women used fewer personal nouns or noun phrases as
subjects of a verb bearing the auxiliary <u>should</u>. Not only did they
use fewer personal subjects in these cases, but in the sentences
where they did use personal subjects with the auxiliary verb <u>should</u>,
they mitigated the subject either by an adverb (eg., "probably") or
by a contingency construction ("If ..., then ... should ...").
Notice too the frequency of the auxiliary <u>will</u>. Men used this

auxiliary 43% more frequently than did women.

Summary—Verbs

In summary, we see that the verbs women tended to use were higher in Transitivity and more passive in voice than were those used by men. Women tended to use fewer BE verbs, and those they did use generally did not have a personal subject without the additional presence of a modal auxiliary or a contingent sentence structure. Men, by contrast tended to use lower Transitivity verbs including more BE verbs (as likely as not with a personal subject). In the area of auxiliary verbs, women used <u>can</u> the majority of the time to mean 'to have permission/ the right to'. Men tended to use it to mean 'to have the ability to'. Women used the auxiliary <u>could</u> more than did men. Men tended to use the auxiliary <u>should</u> more than did women (not including uses in the topic sentence/ conclusion). Women tended to use it in sentences with the passive voice and with an impersonal subject or in a mitigated sentence with a personal subject.

3.2.2 Slot

We now turn to slot. Under this heading we will be looking at the propositions of the argument, more specifically, how they are encoded as sentences and how they work together to create a (syntagmatic) flow, the sequence of the argument.

3.2.2.1 Presence and Location of Conclusion

Under the heading of slot, we will first look at the conclusions of the argument. We will look at whether or not each argument has a stated conclusion, and where that conclusion is. Total number of stated conclusions in women's writing is 32 (1.23/par.) in contrast to 29 (.97/par.) in men's writing. Of these conclusions 24 (75%) occur as the first sentence of the paragraph in women's writing, 22 (76%) in men's. In women's writing, five conclusions (16%) occur as the last sentence; in men's writing five (17%) occur in this position. Three conclusions (9%) in women's writing and two (7%) in men's occur elsewhere. All paragraphs in women's writing have a stated conclusion. In men's writing five paragraphs had no stated conclusion

3.2.2.2 Sentence Structure

Next we look at the grammatical structure of the premises and the conclusion. We will look at whether these propositions are encoded as simple, compound, or complex sentences, as rhetorical questions, rhetorical orders, or as indicative sentences.

Before investigating the grammatical structure of the premises, however, we will need some definitions. For our purposes here a simple sentence is defined as an orthographic sentence having only one verb, that verb being the main verb of an independent clause. A compound sentence is an orthographic sentence having either two or more independent clauses joined by a conjunction or a connective, or a single independent clause having two or more main

verbs that share a single subject. A complex sentence is an orthographic sentence having a single verb in an independent clause plus a dependent clause or a phrase containing a verb (a verbal construction not being used as a verbal noun or adjective or as some other part of speech other than a verb). A compound complex sentence is a sentence having both compound and complex sentence characteristics. These sentence types were used in the arguments with the frequencies seen in tables 10 and 11.

We see in these tables several thing of note. First, we see that the preferred sentence structures among men were the simple and complex sentence structures. Together these two sentence types account for 85% percent of all sentences in the premises and all of the sentences in the conclusion. Secondly, we see that women are much more likely to use compound sentence than are men. They are also more likely to mix compound and complex structures in creating sentences. In comparing premise to conclusions, we see that whereas men tend to use primarily complex sentences in the premises, their preferred structure for the conclusion is a simple sentences structure. On the other hand, though women also use more simple structures in the conclusion than they do in the premises, they use equally as many complex structures. They also use some compound structures in the conclusion whereas men do not.

TABLE 10

INVENTORY OF SENTENCE TYPES IN PREMISES

	Female	Male
Simple	23/19%*	34/23%
Compound	14/11%	8/ 6%
Complex	59/48%	91/62%
Compound complex	26/21%	13/ 9%

* percent is percent of total number of premise sentences

TABLE 11

INVENTORY OF SENTENCE TYPES IN CONCLUSIONS

	Female	Male
simple	23/42%*	22/69%
compound	1/ 3%	0/ 0
complex	15/48%	10/31%
compound complex	2/ 7%	0/ 0

* percent is percent of total number of conclusion sentences

The second thing we will look at in this section is rhetorical questions and orders. These rhetorical structures are defined as sentences (in written texts) bearing interrogative and imperative surface structures (respectively) but carrying out a textual rather than an interpersonal interactive function. In the men's writing we see two rhetorical questions and no rhetorical orders. In the women's writing, we see three rhetorical questions and one rhetorical order. Overall, both groups used very few of

these devices, preferring, instead, indicative sentences to encode propositions.

3.2.2.3 Transitional Words and Phrases

Having considered the kinds of structures used to combine clauses into sentences, we now turn to the various lexical elements used for the same purpose.

TABLE 12

INVENTORY OF CONNECTING DEVICES WITHIN PROPOSITIONS
(DEVICES THAT CONNECT CLAUSES)

	Female	Male
and	29/1.11	24/ .08
also	0/ 0	1/ .03
because	7/ .27	9/ .30
before	3/ .11	0/ 0
but	6/ .23	5/ .16
however	1/ .04	1/ .03
if	29/1.11	24/ .80
or	10/ .38	3/ .10
not	2/ .08	0/ 0
on the one hand...	1/ .03	0/ 0
since	1/ .03	2/ .07
so	4/ .15	4/ .13
then	4/ .15	1/ .03
therefore	2/ .08	0/ 0
though	4/ .15	0/ 0
until	0/ 0	1/ .03
when	3/ .11	5/ .17
while	0/ 0	1/ .03
yet	2/ .08	0/ 0
deictic	2/ .08	12/ .40
pronoun	50/1.92	68/2.26

Table 12 is an inventory of the conjunctions, connectives,

and other lexical devices used between independent clauses or between dependent and independent clauses. Though there are more similarities than differences between the two columns of this chart, there are a few things worthy of note. First of all, notice how women are more likely to combine two contrasting ideas using either contrastive conjunctive adverbs such as <u>on the one hand</u>, or <u>yet</u> (cf. Quirk, et al., 1972:520-32 and Maclin, 1981:181-3 for description of these adverbs) or contrastive coordinating conjunctions such as <u>but</u> or <u>or</u> (cf. Maclin, 1981:118 and 122-6). In all women used 20 such contrastive devices to men's 6. Secondly, notice that men tend to use more pronouns as substitution connectives with anaphoric reference (i.e., the pronouns refer back to a previous mentioned noun or noun phrase and so perform a cohesive function between the clause containing the pronoun and that containing the noun). Of the pronouns used in this way 31 used by women are personal pronoun (62%) and 19 (38%) are impersonal. Men, by contrast, use a greater percentage of personal pronoun (55 for 81%) and fewer impersonal pronoun (13 for 19%) in this function. Notice, thirdly, that men tended to use more deictics as connective devices between clauses.

We now look at connective devices between sentences (i.e., connectives performing a discourse-level function). Table 13 is an inventory of those devices.

TABLE 13

INVENTORY OF CONNECTING DEVICES
BETWEEN PREMISES

	Female	Male
after all	1/ .04	1/ .03
also	6/ .23	5/ .17
as is evident	0/ 0	1/ .03
because	2/ .08	1/ .03
but	2/ .08	0/ 0
even	0/ 0	1/ .03
granted	1/ .04	0/ 0
however	0/ 0	4/ .13
in doing so	0/ 0	1/ .03
instead	1/ .04	0/ 0
nor	1/ .04	0/ 0
now	0/ 0	2/ .06
on the other hand	1/ .04	0/ 0
so	1/ .04	1/ .03
then	0/ 0	1/ .03
today	0/ 0	1/ .03
too	1/ .04	0/ 0
deictics	15/ .58	22/ .73
listing words	14/ .54	6/ .20
pronouns	25/ .96	15/ .50

We see in this table similar results to those above. Women are more likely to contrast ideas (6 occurrences of contrastive conjunctive adverbs and conjunctions as opposed to 4 occurrences in men's writing). Men are more likely to use deictics as connecting devices on the discourse level than they are on the sentence level. We do, however, see one difference between this inventory and the sentence-level inventory: women are more likely to use anaphoric pronouns on the discourse-level whereas men are more likely to use them on the sentence level. On the discourse-level, 60% of the 25 pronouns used by women were personal. This is about the same ratio

as on the sentence-level. Men, by contrast used 11 personal pronouns, 73% of the total number (15). This is a smaller ratio of number of personal to total number of pronouns than they used on the sentence-level.

Next we look at the connections between the premises and the conclusion. As has been already noted, the two most common locations for conclusions are at the beginning and at the end of a paragraph. Those conclusions occupying the former position will be called "paragraph initial conclusions" whereas those occupying the latter will be called "paragraph final conclusions." In women's writing, nine of the paragraph initial conclusions are followed by (i.e., connected to the premises by) "because" or "for." One paragraph final conclusion is preceded by "therefore." Of all the statements of conclusion, fifteen are preceded by statement such as "I think that ..." "It is my opinion that ..." (twelve initial, three final), and eleven are accompanied by phrase that speak of the reason for believing the conclusion (using the word reason or basis for argument explicitly). By contrast, in men's writing five of the sentence initial conclusions are followed by because or for. One sentence final conclusion was preceded by so, none by therefore. Of all the men's statements of conclusion, two were preceded by a statement such as "I think that ..." or "I feel that ..." (both paragraph initial). Three conclusions are accompanied by a phrase that speaks of the reason for believing this conclusion.

3.2.3 Role

Under the heading of "role" we will be using insights from the Toulmin model (cf. section 2.2.2.2 and fig. 9). Specifically, we will be looking at how different propositions function as (1) grounds (the specific evidence presented), (2) warrant (the general principles to which the argument appeals), (3) claim (the conclusion of the argument), and (4) modality (the mitigation or intensification of the claim).

3.2.3.1 Grounds

The paragraphs being analyzed here contain a large number of grounds. In fact, to someone seeing this writing in light of the Toulmin model, the presence of a number of disconnected grounds and the relative absence of warrants, backing, rebuttals, and modalities would be very striking features. What we will look at, therefore, under the heading of "grounds" is not the number of propositions that could be construed to be grounds, but rather the number of topics being dealt with by the grounds. For example, a student arguing against the drinking age being raised to twenty-one may have cited the unenforceability of the law, the inconsistency of the law with the present legal age, and personal objections to the law. This argument would be noted as having three topics within the grounds.

Women's writing shows on the average more topics within the grounds than does men's. Men averaged 2.2 topics per paper. Women average 2.73 topics.

3.2.3.2 Warrants

Next we will look at warrants. A warrant is the statement of general principle that forms the connection between the grounds and the claim. In a _modus ponens_ argument the hypothetical proposition is often the warrant. For example (cf. section 2.2.2.2),

P1 If a patient has a straightforward URI, he/she is to be treated with penicillin.
P2 This patient has a straightforward URI.

C This patient is to be treated with penicillin.

In this argument, P1 is the hypothetical proposition. It is also the warrant. Consider another example, this time of a disjunctive syllogism (Crossley and Wilson, 1979:174):

P1 Either we allow free speech _or_ we do not allow free speech.
P2 It is unacceptable not to allow free speech in this case.

C Therefore we should allow free speech.

Here we see that the disjunction is the warrant. Hypothetical and disjunctive propositions often encode general principles. They are also often used to connect a simple premise to its conclusion. This pattern of usage offers us a structural criterion by which to discern the presence of two kinds of warrants within arguments. With this criterion in mind, we will be looking in this section at hypothetical and disjunctive propositions used as warrants.

The following methodology was used to determine the presence of disjunctive and hypothetical propositions used as warrants. First, the conclusion (claim) of the argument was broken down into phrases, the noun phrase used as subject, the verb phrase used as verb, and the noun phrase used as direct object or subjective

complement (if any). Secondly, the argument was scanned for paraphrase sets for these phrases (i.e., for surface structure items that served to encode the same referential units as the phrases in the conclusion, cf. Pike and Pike, 1982:2, 452). The relationship between the propositions containing the two paraphrase sets (one being a conclusion, the other a premise) was then considered. If the premise could function as a conjunctive, disjunctive, or hypothetical premise in an argument containing its corresponding conclusion, this was noted. The results of this examination is as follows. In the women's arguments, there were 63 (2.42/par.) of the above described paraphrase sets, and 44 premises were tied to the conclusion by at least one paraphrase set (36% of total number of premises). In the men's writing, there were 70 paraphrase sets (2.33/par.), and 45 premises were ties to the conclusion by at least one paraphrase set (30% of the total number of premises). Of these ties, in women's writing, eight are in sentences that could function in the paragraph as a whole as a hypothetical premise of a hypothetical syllogism. One is in a paraphrase of an or construction that could function as a premise of a disjunctive syllogism. In the men's writing, 24 of the premises containing half of a paraphrase set could function as a hypothetical premise in a hypothetical syllogism. Many of these premises contain a grammatical if/then construction. In short, men are more than three times more likely to use a hypothetical proposition as a warrant than women are. From these statistics, we can see that though women make use of paraphrase sets as a cohesion device in their argumentative paragraphs, this repetition of key

ideas is not as reminiscent of repetition in syllogistic logic as the repetition in men's writing is.

3.2.3.3 Claim

Information under the heading of claim would simply be a rehearsal of information previous presented under the heading of conclusion. The reader is referred to information in sections 3.2.2.3 and in 3.2.2.1.

3.2.3.4 Modality

Next we will look at modality within the claims. Men used two modalities; both were intensifiers. Women used one modality, an intensifier. This however does not take into account statements such as "I think" and "I believe" in the claim. These constructions may be modalities as well. The reader is referred to 3.2.1.1, "personal pronouns," and 3.2.2.3, "transitional words and phrases," for more information on these constructions.

3.2.4 Cohesion

It is now time to step back away from the lower-level details of the argument and to begin to see patterns. In this section we will look at a synthesis of the work than has been detailed in earlier sections and will try to discern from it a field structure, the overall structure and tone of the arguments.

3.2.4.1 Argument Structure

On the basis of what we have seen above, we can say that there appear to be differences between the overall argument structure used

by men and that used by women. Women's structure, more than men's, seems to be one of compounding. Women present more topics within the grounds of their arguments. They use more compound sentences. They use more lexical items that compound and contrast pairs of clauses or sentences. They use more ennumerating devices (eg., "first," "second," etc.) as discourse markers, and hence more parallelism (and compounding) on the discourse level. They use repetition of lexical items, particularly anaphoric personal pronouns as cohesive devices.

Men, by contrast, use more complex or subordinating structures than do women. For premises they use more complex sentences. The overall structure of their argument tends to be more deductive in that they use more warrants to connect their grounds to their claims. They also present fewer topics within the grounds than do women.

3.2.4.2 Argument tone

Argument tone also seems to be different. There is evidence in women's arguments for an attention to networks of personal relationships and the place of the arguer and argument in these network. Firstly, women use more lexical items to encode personal identities. They use I and all of the personal pronouns more than men do. They are more likely to say "I think" or "I believe." They employ elaborate personal noun phrases. Secondly, women use more grammatical structures to encode people being acted upon as well as acting. They use can to mean 'to have someone else's permission to' more than men do. They use personal pronouns in passive construc-

tions more than men do. They speak of rights and privileges using the passive while men do not. Thirdly, women use more constructions that encode people in relationship to other people. They use possessive constructions largely to express relationship. They refer to "my friends" and or other such specific people as a part of their arguments. Finally, they are more explicit in their descriptions of individuals and less likely to generalize about people. They use generalizations such as "everybody" and "everyone" quite infrequently.

In addition to the focus on personal networks, we see two other distinctives in the tone of women's writing. They were less likely to give unmitigated directives or to make unmitigated predictions. They never used an unmitigated should with a personal subject. They use will to make predictions more infrequently than do men. Women's writing was also distinctive in its immediacy. Women used fewer verbal and deverbal nouns, preferring rather to use active verbs. This resulted in a higher overall Transitivity of verbs (more on the issue of immediacy in chapter 5).

Men, by contrast, tend to be more thing- and idea-centered. Men's references to people are less specific than women's. They use more impersonal relative pronouns. They use the generic he more than do women. They use people and everyone more than women. Men's arguments tend to use constructions that encode concepts rather than actions. They use more verbal and deverbal noun phrases, fewer action verbs, more BE verbs. Men are also more likely to use constructions that encode generalizations. They were also more

likely to make existential or descriptive statements about things and people using BE. They are also more likely to predict the behavior of people using <u>will</u>.

Put simply (and perhaps simplistically), the difference between the structure of men's and women's arguments as they are seen here revolves around the difference in the way the two groups employ coordination and ennumeration vs. subordination and deductive connections. The differences in the tone of the two groups' arguments centers on differences in the place of personal networks vs. abstract generalizations in argument.

CHAPTER IV

WIDER CONTEXT

The purpose of this chapter is to provide a broader interpretive context for the findings of chapter three. More specifically, we discovered in chapter three that there are sex-based differences in our sampling of argumentative texts. That observation was a linguistic or structural one. This dissertation, however, is not meant to be a purely structural linguistic investigation. For it to be <u>socio</u>linguistic, we must investigate the possible social factors prompting structural variation. In this chapter we investigate those social factors.

This chapter will provide a survey of previous studies that have dealt with sex-based differences in human behavior. It will focus particularly on linguistic, moral, and persuasive behavior, and even more particularly on the intersection of the three.

In this chapter, we will look, first of all, at a brief history of the study of differences in men's and women's use of language. We will then focus in on the details of those studies that border on the sentence-level (and below) work in chapter three.

Next, we will look at the evidence for sex-based differences in persuasion, logic, and/or moral reasoning. Most of this work has been done outside of linguistics. We will, therefore, turn to

psychology, looking particularly at the Gilligan/Kohlberg debate, and to women's studies, looking at the research being done in academic research style.

What we discover from this investigation will give us the basis for a hypothesis. That hypothesis is that the central social factors giving rise to sex-based difference in linguistic behavior are (1) the amount of influence interpersonal interaction is allowed to play in the reasoning process and (2) the amount of influence abstract (context independent) principle is allow to play in that same process. This hypothesis will be tested against not only studies from several different disciplines, but also against folk wisdom and stereotypes. Finally, we will investigate the reason for this difference, whether it be biocultural or cultural.

4.1 Evidence for Sex-based Difference in Linguistic Behavior

Robin Lakoff, in her ground breaking work, Language and Woman's Place (1975:8) said,

> "Women's language" shows up in all levels of the grammar of English. We find differences in the choice and frequency of lexical items; in the situations in which certain syntactic rules are performed; in intonational and other supersegmental patterns.

When she made this statement, however, there was not a good deal of evidence to corroborate it. The study of sex-based differences in language use was still young. Lakoff's was a pioneering work.

4.1.1 History

Even the systematic study of sex-based differences in general is relatively young. Sir Francis Galton, who is also known for his

study of national and "racial" differences, is known as a pioneer in this kind of study. After extensive research, in 1907 he declared that his tests had proven that women were inferior to men in every way (as were people of other races to the British). Unfortunately, when challenged, Galton was unable to demonstrate that the tests he had used to arrive at these conclusions were significantly related to life activities of any importance (Sherif, 1979:145).

The earliest attempt by a modern linguist to account for systematic differences between men's and women's speech was on the part of Otto Jesperson. His studies, which are to this day infamous among those studying sex-based language differences, occupied a small section in his 1922 book and a chapter in his 1923 book. Though Jesperson did present some empirical data about differences in phonology, grammar, and taboos, his interpretation of this data was, at times, questionable. For example, when he found that women tended to be more fluent in speech than men in some contexts, Jesperson (1922:254) proposed that

> the superior readiness of speech of women is a concomitant of the fact that their vocabulary is smaller and more central than that of men. But this again is connected with another indubitable fact, that women do not reach the same extreme points as men, but are nearer the average in most respects.

The conclusions of studies such as Jesperson's and Galton's were not unusual when compared to other work being done in the early 1900s. The social evolutionary theorists of that time were also offering "proof" that women were inferior to men (in all ways but especially in language and reasoning ability) based on brain size, particularly the size of the frontal lobe (Sherif, 1979:145-6). Such

conclusions were the norm for those few early studies investigating sex-based differences in linguistic behavior, and went virtually unchallenged until the 1960s.

The 1960s and the women's liberation/feminist movement brought with them a heightened awareness of sexual discrimination and bigotry. Many of the early studies in sex differences in language came out of that climate. Studies in the late 1960s and early 1970s focused mainly on sexism in language, the differences in the ways men and women were referred to (eg., Toth, 1970; Bosmajian, 1972). It was a small leap from those studies to studies in which sex was considered as a variable in language production. The importance of the sex of the speaker to accurate linguistic description was beginning to be recognized by the linguistic community at large in the mid-1970s (Conklin, 1978:222).

In 1975 two particularly significant books were published. The first, edited by Barrie Thorne and Nancy Henley and entitled Language and Sex: Difference and Dominance helped to establish the study of sex-based language differences as a legitimate facet of sociolinguistic research. The second book, Language and Woman's Place, was written by Robin Lakoff. This book is significant in that, first, it was one of the first written by a linguist to look at language by and about women, and, second, it has served as a jumping-off place for numerous studies since that time (eg., Crosbey and Nyquist, 1977; Dubois and Crouch, 1975; Hartman, 1976 among others).

The late 1970s and the 1980s have witnessed a flood of books

and articles on the topic of sex-based linguistics differences. A new concern for methodology built on a sound theoretical foundation has developed (cf. Kramarae, Thorne, and Henley, 1983:233-8). Also since the mid-1970s a wide variety of differences have been documented—differences in word choice (eg., Crosby and Nyquist, 1977; Lapadat, and Seesahai, 1978), grammatical constructions (eg., Barron, 1971), pronunciation (eg., Levine and Crockett, 1979), intonation (eg., Richards, 1975) as well as other linguistic features. It would be impossible and unnecessary to consider all of the evidence for sex-based linguistic differences piece by piece. Suffice it to say that such differences have been well documented. Sex of speaker/writer has come to be a well attested variable in sociolinguistic analysis.

4.1.2 Parallels to this Study

Instead we turn to those studies that border on the work done in chapter three. We see here that some of the findings in that chapter are not proper to this study alone. Some, such as those dealing with pronominal reference, sentences structure and verbosity, are paralleled, and so attested to, by other descriptive studies. Others, the findings about modal auxiliaries, are paralleled in some places and not in others. Others, such as the findings regarding verbal and deverbal nouns, are contradicted.

4.1.2.1 Verbosity

First of all, we see that though in this study, men wrote only slightly longer paragraphs than women did, in other studies they

have been found to be notably more verbose than women. Swaker (1978:156) reports that at three professional linguistics and semiotics conferences men talked more than women during the question and answer session for an average of 23.1 seconds for women and 52.7 seconds for men. She also reports (1975:80) that when describing apicture men were more verbose (talking an average of 780.29 seconds as opposed to 221.70 seconds for women). Wood (1966), also working with descriptive discourse, found not only that men were more verbose than women but that when "pseudofeedback" given to them was negative (i.e., when they were given the impression that their communication was ineffective) the length of their verbal output increased. This was not so with women. Overall, male verbosity is well-documented (though better documented in oral settings than in written). Other studies that document men talking more than women when both were placed in similar situations are Leet-Pellegrini (1980), Doherty (1974), Marlatt (1970), and Strodtbeck, James, and Hawkins (1956).

4.1.2.2 Auxiliary Verbs

In chapter three we also saw differences in the uses of auxiliary verbs. Women tended to use can and could more than men. The frequencies of use of may, might, and would were about the same. Men tended to use will and should more than women. Other studies also report sex-based differences in auxiliary verb use though not the same differences as we note here. Key (1975:75-6) reports that women use more of the modal auxiliaries can, could, shall, should, will, would, may, and might. The source of these findings is,

however, vague and non-genre-specific. Similarly, Swacker (1978:158) notes that during the question/answer session of a professional conference women showed a distinct preference for past modal construction (eg., "mightn't it be the case that ..." and "would the relationship be ..."). Gleser, Gottschalk, and Watkins (1959) also found a higher number of auxiliary verbs in women's speech when they asked a group of plant employees to recount a personal experience. None of these studies, however, deal specifically with argumentative text, and this fact may account for the differences between their results and ours. (This will be discussed further in section 4.1.2.7.)

4.1.2.3 First Person References

Other studies also confirm the finding of this study in the area of frequency of first person references. In chapter three we found that women tended to use more first person pronouns than did men. Of these first person pronouns, a larger proportion of them were in constructions such as I believe and I feel in women's writing as opposed to men's. Swacker (1978), again in her study of the question/answer sessions of a sampling of professional meetings, reports that women used 71.1% of the total number of first person references (our study shows almost 60%). Most of these uses (72.11%) were in prefatory remarks such as "I would like to ask if ..." and "My impression is that ..." (our study shows 70%). Similarly, Gleser, Gottschalk, and Watkins (1959) discovered that when plant employees were asked to talk about a personal experience, women

tended to use more first person references as well as a greater number of words referring to their feelings and emotions. Similarly, Aries (1977) discovered in observing the interaction patterns of small groups of white undergraduates, that all-women groups tended to talk about their feelings and relationships far more than all-men groups.

4.1.2.4 Second Person Reference

The next thing we will look at is second person references. In chapter three we saw that women used you 200% more frequently than men. Similarly, Swacker (1978:157) reports that women used noticeably more second person pronouns than did men during the question answer session of a professional meeting. These pronouns were usually in forms such as "could you please clarify ..." and "would you please comment on...." Warshay (1972), also, in analyzing undergraduates' descriptions of past events, discovered that women tended to refer to others whereas men's discourse tended to refer mostly to themselves.

4.1.2.5 Sentence Structure

Under the heading of sentence structure, we found in chapter three that women used more compound and fewer complex construction than men did. Beck (1978), upon analyzing the descriptive language of undergraduate students, discovered that women used less complex syntax whereas men used more subordinate clauses. Swacker (1975), also working with descriptive discourse, found that women used more conjunction than men to mark topic shifts. Hiatt (1977), in a

computer survey of the features of men's and women's writing styles, found that in non-fiction women's sentences tend to be shorter and less complicated than men's.

4.1.2.6 Verbal and Deverbal Nouns

Warshay (1972) in analyzing the speech of 263 white middle-class undergraduates who were asked to describe past events that were important to them, found that men (more than women) tended to refer to events in a verb (rather than a noun phrase). This finding stands in contrast to our work in argumentative text, in which men used more verbal and deverbal nouns than did women. Warshay's work, however, was in a different genre, which could account for the difference between the two studies' conclusions. (Again, this matter will be discussed further in section 4.1.2.7.)

4.1.2.7 Conclusions

We see here that some of the findings in chapter three are attested to in other studies, others are not. It is interesting to note those places where we find contradictions between this and other studies: the modal auxiliaries should and will, and verbal and deverbal nouns. Because should is one way of encoding obligation, because obligation is often a central part of argumentative text, and because obligation does not necessarily play a large role in narration or description, we would expect the use and distribution of should to be different in an argumentative text than it would be in the other genres. Also because will is often used to encode prediction, because prediction of future events based on present ones

is often a part of argumentation (eg., some arguments by analogy), and because prediction is not necessarily a crucial part of narrative or descriptive text, we would also expect the distribution of <u>will</u> in arguments to be different from that in narrative or descriptive text. Similarly, if we look at the grammatical structure encoding propositions in classical categorical syllogisms, we see that actions are encoded as verbal or deverbal nouns and fill the role of subjects and subjective complements linked by a BE verb. Perhaps this pattern in syllogism reflects a characteristic of arguments in general. Perhaps the frequency of verbal and deverbal noun is higher in argumentative text than it is in narrative or descriptive. More descriptive work needs to be done to determine whether or not this is so.

4.2 Evidences for Differences in Reasoning

We now turn to the area of sex-based differences in reasoning, specifically in persuasion, logic, and moral reasoning. Discussion of this topic has typically been fraught with controversy. This has been so probably in part because our stereotypes about "women's logic" and "male rationality" necessarily form the backdrop for all our discussions. Attitudes toward men and women—and what they do, and how they think—are engrained in us from infancy. Because these attitudes about sex-based differences are so much a part of us, we can either argue dogmatically from unexamined biases, or we can assess those biases as a part of research; we cannot, however, argue without any reference to our biases.

Another reason that discussion of differences in moral reasoning (by social scientists) has been fraught with so much controversy is the difficulty in studying the thought that gives rise to social action. It is one thing to study publicly observable action in a morally charged situation. It is quite another to try to trace the mental and emotional processes that precipitated that action. It has only been in the last century that researchers in the social sciences have systematically tried to access and describe those processes, and they have found the difficulties in doing so to be legion.

Yet despite the difficulties, we feel impelled to study differences in moral reasoning, particularly sex-based differences. We use the best tools available to us in our time, realizing that they are inadequate to the task. It is possible that the future will give us better methods and more insight. It is possible that scholars in the year 2060 will see us and our work the same way we see Galton and Jesperson, with amusement, or disdain, or both. It is perhaps even possible that they will accuse us of holding back the progress of human rights (as some have accused Galton). This brings us to perhaps the greatest reason for the controversy that surrounds work in sex-based differences in moral reasoning: so much is at stake. Proof (or supposed proof) that one sex has a superior moral sense, or (more realistically) that one sex is better suited to a particular morally controversial task could eventually have a bearing on the work and power structure of our society in the future as it has in the past (cf. Brandt, 1985:95).

With these difficulties in mind, we now set out to explore the work that has been done to date in sex-based differences in persuasion, logic, and moral reasoning. We look first at common stereotypes, at so called "women's logic." We go from there to work being done in psychology, particularly the Gilligan/Kohlberg debate, and from there to British women's studies for an examination of sex-based differences in research style.

4.2.1 Stereotypical "Women's Logic"

Why look at stereotypes of men's and women's logic in a work of this kind? One reason has already been seen in this section: stereotypes play a part of our socially formed interpretive context. We look at stereotypes to help us be aware of our biases. We also look at stereotypes because they play a part of the production context of the texts we have been analyzing. Sex-role stereotypes have been shown to exert a prescriptive influence on social action (Berryman and Wilcox, 1980; Broverman, et al., 1972; Rubble and Higgins, 1976). They may exert a prescriptive influence on text production.

It is not surprising to see very clear statements of the differences between men's and women's logical capacities and activities coming out of the early part of this century. Jesperson and Galton were not working in a social vacuum. For example, Margaret Seebach, in a 1903 (580-1) issue of the Lutheran Quarterly, proposed the following ideas:

The quality of a woman's mind is different from that of a man.

> This does not mean necessarily that it is inferior. It simply means that things do not appear to her from the same side, do not appear to her in the same light, as to a man. We are not to be startled any more by saying that reason is the province of the masculine mind, intuition of the feminine mind. Yet this means that a woman ordinarily cannot convince a man of a thing by argument. In logical presentation of truth, she is usually a failure.

Seebach's article was apparently quite convincing, for it was well accepted and widely cited among the Lutheran authorities.

Women were seen in the early years of this century to be essentially less logical than men. But that did not mean that there were no women using their logical facilities. What it did mean was that if "by some freak of nature" a woman should shine at activities that require analysis or a logical bent, "it will be found that [that woman] has a man's mind" (Wright, 1936:87). Women, in the early 1900s were said to be interested in fiction, men in fact. Women read novels; men read the newspaper (Parsons, 1913). In short, women were incapable of dealing with abstract factual argument, and so shied away from it.

Such attitudes were certainly not confined to the average American of the early 20th century. They have, rather, been a part of the tradition of the Western world. For example, Hegel in the Philosophy of Right (1973:263-4n) has said,

> Women are incapable of education, but they are not made for activities which demand a universal faculty such as the most advanced sciences, philosophy and certain forms of artistic production ... The difference between men and women is like that between animals and plants. Men correspond to animals while women correspond to plants because their development is more placid and the principle that underlies it is the rather vague unity of feeling. When women hold the helm of government, the state is at once in jeopardy, because women regulate their actions not by the demands of universality but by arbitrary

> inclinations and opinions. Women are educated—who knows how?—as it were by breathing in ideas, by living rather than acquiring knowledge. The status of manhood, on the other hand, is attained only by the stress of thought and much technical exertion.

Hegel seems rather mystified by the process women supposedly use to arrive at moral judgements. The only concrete statement he can make about it is that it is not the same as the process men use, which is regulated by the "demands of universality" and characterized by "much technical exertion."

Lest one should get the impression that the notion that women are less logical than men—that they are unable to convince men of something through logical argument, that the process they use to reach moral judgements and convince others of them is somehow mysterious—was common only in days past and is now passe, one ought to consider the following from an advertisement in the March 1980 issue of Working Woman: "Look, all it takes to make your point is to keep your message short and your lashes long.... Don't You Love Being a Woman? Max Factor."

Stereotypes about sex-roles and sex-based differences in logical and moral reasoning are alive and well, not only in our history but also in our society. The work of psychologists and sociologists helps us to pinpoint more precisely the nature of these stereotypes.

Mathiot (1979:35-6) reports that in a 1965 class project at Valley State College, all male informants contributed to the following list of characteristics:

Masculine	Feminine
big	small
rough	frail
powerful	dainty
aggressive	passive
active	emotional
rational	unpredictable

Slightly later, in Rosenkrantz's (et al.) 1968 study (287-91), 154 college students (74 male, 80 female) responded to a stereotype questionnaire. The following traits (among others) were gleaned from the resulting responses:

Male desired traits: Aggressive, independent, unemotional objective, dominant, likes math and science, active, competitive, logical, direct, self-confident, makes decisions easily

Female desired traits: Doesn't use harsh language, tactful, gentle, aware of the feelings of others, neat, quiet, strong need for security, appreciates art and literature, expresses tender feelings

In 1978, Kramer (6) surveyed 366 high school and 100 college students, asking them for characteristics of the ideal speech styles of men and women. The students said that ideally men's speech is "in a demanding voice, boastful, straight to the point, logical, opinionated, confident, and blunt." Women's speech, by contrast, is ideally "relaxed, concerned for the listener, looking at the listener, emotional, enthusiastic, and polite."

As recently as 1980, Berryman and Wilcox made these observations (1980:50):

Sex-role images consistently portray males as independent, aggressive, task-oriented, stoic, objective, self-disciplined, analytical, unsentimental, authoritative, competitive, domineering, blunt, boastful, and violent while describing females as dependent, passive, nonaggressive, noncompetitive, interpersonally oriented, empathetic, supportive, indecisive, subjective, sentimental, and emotional.

The parallels between these studies are self-evident. Our society does indeed have a stereotype that says that women ought to be and are less logical, less verbally aggressive, and more concerned about people than ideas.

4.2.2 Linguistic Differences in
Argument and Persuasion

Very little has been done toward a structural description of sex-based differences in persuasive linguistic communication (either of the process of persuasion or of the argument as product of such a process). The work that has been done is vague and sketchy.

One study in this area has been done by Eakins and Eakins (1978:48-9). As a part of their survey of sex-differences, they report that

> Men's speech tends to be more centered around external things and is more apt to involve straight factual communication. It is more literal, direct and to the point. It employs stronger statements and forms that tend to press compliance, agreement, and/or belief on the listener.

Because men's speech bears these characteristics, Eakins and Eakins say, it lends itself well to argument. Women, by contrast, find the argumentative style difficult to use and intimidating if it is used against them (1978:29). Eakins and Eakins, however, provide no evidence (examples) from actual speech for their claims.

Bostrom and Kemp (1969) also report sex differences in persuasive communication. In their study, undergraduate subjects listened to taped speeches. These subjects rated the female speaker more effective when she delivered a racist speech and the male

speaker more effective when he delivered a nonracist speech. Bostrom and Kemp posit that women gain persuasive ability through violation of expectations.

Finally, Johnson and Goodchilds (1976:69-70) also deal with persuasion in interpersonal interaction. They asked college students how they would convince their dates to have sexual intercourse with them. Men were more likely to say that they would use direct arguments (stressing expertise, etc.) whereas women said they would be more indirect, using body language and subtle interpersonal cues.

None of these three articles were explicitly linguistic or descriptive. In fact, very little (if anything) has been done in the area of linguistic description of sex-based differences in persuasive communication in English.

4.2.3 Persuasion and Moral Reasoning in Psychology

In this next section we will, therefore, look at two issues related to persuasive linguistic communication. They are (1) moral reasoning as it is seen in the field of psychology and (2) persuasion also as it is seen by psychologists. Those psychologists studying moral reasoning study those psychological factors involved in an individual's deciding what he/she ought to do in a setting where conflict of interest is likely to stem from the decision. The study of persuasion looks at the psychological factors involved in convincing others of the rightness of a particular conclusion or decision.

4.2.3.1 Sex Differences in Moral Reasoning

The issue of sex-based differences in moral reasoning has been a long-standing interest in modern psychology. In this section we will look briefly at selected theories in the study of moral reasoning and then will turn to the Gilligan/Kohlberg debate, one of the most visible and viable debates in the study of moral reasoning today, and one of the most fruitful for our discussion here.

4.2.3.1.1 Selected theories in the study of moral reasoning

Any look at modern psychology's study of sex-based difference in moral reasoning would have to include mention of Sigmund Freud. Freud (1925:257-8) saw great differences in the moral reasoning of men and women. He attributed these differences to the influence of biology on the psyche. Freud ties the formation of the superego (and so the conscience) to castration anxiety and to Oedipal resolution. Women, he maintained, are deprived of the impetus for Oedipal resolution because of their biological makeup, resulting in the compromise of their superego. Because of this, he said, "for women the level of what is ethically normal is different from what it is in men." He also concluded that women

> show less sense of justice than men, that they are less ready to submit to the great exigencies of life, that they are more often influenced in their judgements by feelings of affection or hostility. (1925:257-8)

Freud attributed moral reasoning differences to the effects of biology on the psyche. By contrast, George Herbert Mead (1934) and Jean Piaget (1932) attribute it to socialization, particularly

socialization during childhood play. Piaget found that boys, during play, were very concerned with making and observing rules, resolving conflicts, and maintaining fair play. Girls, on the other hand, "regard[ed] a rule as good as long as the game repaid it" (1932:83). In other words, rules were a means to an end, not an end in themselves. Because of this attitude, girls were more tolerant to changes in the rules. Piaget maintains that it is this attention to rules that contributes to a legal sense, which in turn is essential to moral reasoning. A legal sense, and so a capacity for moral reasoning is, therefore, according to Piaget, less developed in girls than it is in boys (1932:77).

Freud, on the one side, and Mead and Piaget, on the other, illustrate two of the schools of thought concerning sex-based differences in moral reasoning. One says that the differences ultimately stem from biology. The other says they are a product of socialization. This debate will be revisited in section 4.4.

4.2.3.1.2 The Gilligan/Kohlberg debate

For now, however, we turn to one of the central debates in the contemporary study of differences in moral reasoning. On the one side of the debate is Lawrence Kohlberg. Kohlberg (1958, 1981; cf. Gilligan, 1982:18) conducted a study in which he followed the development of eighty-four boys over a period of twenty years. On the basis of his findings he proposed a six stage progression in moral reasoning. Stage one, the lowest stage in the progression represents the time in life when morality comes from outside, when a

person thinks in terms of rewards and punishments. Progress in moral reasoning, according to this schema, involves becoming more self-directed in moral judgements. Stage six, the highest stage, represents the ability to make moral decisions on the basis of universal principles of justice, a self-directed morality. Though Kohlberg claims universality for his six stages, people of the same ethnic, sexual, and economic status as the original sample are much more likely to reach stage six than other groups (cf. Edwards, 1975; Holstein, 1976; Simpson, 1974).

As for sex-based differences in moral reasoning, Kohlberg and Kramer (1969:93-120; cf. Gilligan, 1982:18) found that the moral judgements of adult women tended to be best characterized by stage three, the stage in which moral goodness is seen in terms of pleasing others and maintaining interpersonal networks. Women, however, who have contact with the marketplace or other traditionally male arenas tend to make judgements more in keeping with stage four, where relationships are subordinated to rules, or even, occasionally, with stages five or six where decisions are made in keeping with universal rules.

Carol Gilligan (1982:3-23), on the other side of the controversy, faults Kohlberg's research for constructing a male model and then labelling women as inferior when they fail to fit into that model. Hers is an attempt to begin with the study of women, and from that study to detail their moral development and the ways in which they make moral judgements.

Gilligan (1980:482-4) notes that in Kohlberg, Piaget, and

Freud women's judgments are considered less advanced than men's because women make these judgments with a view to pleasing or helping the people around them rather than on the basis of higher moral principles. Yet she notes (1980:484, cf. Broverman, et al., 1972) that character traits considered socially desirable for a woman are mainly traits that require a high degree of interpersonal awareness:

> prominent among the ... attributes considered to be desirable for women are tact, gentleness, awareness of the feelings of others, strong need for security, and easy expression of tender feelings. And yet, herein lies the paradox, for the very traits that have traditionally defined the "goodness" of women, their care for and sensitivity to the needs of others, are those that mark them as deficient in moral development. The infusion of feelings into their judgments keeps them from developing a more independent and abstract ethical conception in which concern for others derives from principles of justice rather than from compassion and care.

Gilligan, in response to this paradox, accepts Kohlberg's observation that women's moral judgments are more relationship centered than men. She rejects, however, Kohlberg's interpretation of the observation, that a mature woman's moral judgments are, therefore, inferior to or less advanced than a mature man's (1980:489). She proposes, rather, that women's moral development follows a different pattern from men's, a pattern neither more nor less advanced. Women's moral development, she says (1982:17), derives from an awareness and development of the intuitive or instinctive knowledge of the importance of "intimacy, relationships, and care," knowledge that is a function both of female anatomy and socialization. This development, according to Gilligan (1980:489ff.) can be described by seeing it in terms of three stages with transitions between them.

The first stage is marked by an "orientation toward individual survival" (1980:492). Moral decisions center on self interest. "The concern is pragmatic, and the issue is individual survival." A woman moves out of this first stage in response to "attachment or connection to others" (1980:493). Words like "selfish" and "responsibility" first begin to enter her vocabulary. She becomes aware of the society in which she is a participant (1980:496).

The second stage commences when a woman begins to subscribe to social values, when she begins to consider not only what is expedient but also what is "good" when making moral judgments (1980:515):

> Whereas at the first level, morality is seen as a matter of sanctions imposed by a society of which one is more subject than citizen, at the second level moral judgment comes to rely on shared norms and expectations. The woman at this level validates her claim to social membership through the adoption of societal values. Consensual judgment becomes paramount and goodness the overriding concern as survival is now seen to depend on acceptance by others (1980:496).

A reciprocity develops between the woman and the others in her closest social network. In an attempt to be "good," she is both active in caring for them and passive in her dependence upon them and so begins to "consider herself responsible for the actions of others, while holding others responsible for the choices she makes" (1980:498). The second transition comes when the woman begins to see the confusion in this stance toward other people. She begins to see the harm that this kind of relationship pattern can cause to her own self and starts to ask whether it is possible to be responsible to

others while still being responsible to herself. She begins to think not only about being "good" in caring for others but also about being "honest" or "real" in her care for her own self (1980:500-1). A woman in this transition finds herself caught between what she perceives as selfishness and responsibility (1980:504).

The third stage attempts to reconcile the conflicting demands of self and other through a "transformed understanding of self" and an elevation of "nonviolence ... to a principle governing all moral judgment and action" (1980:504). Moral judgments are made, not on the basis of abstract statements of rights, but rather are context-bound decisions based on a sense of responsibility to others. Gilligan (1980:507) describes such thought and action as follows:

> [For a woman in the third stage] the right to property and the right to life are weighed not in the abstract, in terms of their logical priority, but rather in the particular, in terms of the actual consequences that the violation of these rights would have in the lives of the people involved. Thinking remains contextual and admixed with feelings of care, as the moral imperative to avoid hurt begins to be informed by a psychological understanding of the meaning of nonviolence.... Responsibility for care then includes both self and other, and the obligation not to hurt, freed from conventional constraints, is reconstructed as a universal guide to moral choice.

We see here a great difference between Gilligan's description of moral maturity in women and Kohlberg's description of the criteria for mature moral judgments (presumably in all people). In Kohlberg's system moral judgments are based on universal principles (or principles that are supposed to be universal); in Gilligan's system they are contextual. In Kohlberg's system maturity comes along with the ability to separate self from the interpersonal context in which the judgment is being made; in Gilligan's maturity comes with being

able to be responsible to self while also being responsible to others within an interpersonal context. Kohlberg's is a morality of rights; Gilligan's is a morality of responsibility (Gilligan, 1980:509). The moral imperative in Kohlberg's system is "an injunction to respect the rights of others and thus to protect from interference the right to life and self-fulfillment" (Gilligan, 1980:511). On the other hand, the moral imperative in Gilligan's system is "an injunction to care, a responsibility to discern and alleviate the 'real and recognizable trouble' of this world" (Gilligan, 1980:511).

If we take Kohlberg's work to be universally applicable, as he originally claimed, there is indeed a conflict between these two positions. If, however, we call into question the universality of Kohlberg's findings, as does Gilligan, we find that the conflict is not nearly so great. Kohlberg studied boys and young men. Gilligan studied predominantly girls and young women. If we limit their generalizations to only the groups that they observed, we find sex-based patterns in moral reasoning. This is not to say that the moral reasoning process is entirely different between the sexes. It is to say, conservatively, that (1) there appear to be important differences in the development of moral reasoning abilities between young men and women, and (2) there may be differences between moral maturity in women and that in men. A crucial aspect in those differences seems to be the relationship of self to others and the effect this relationship is allowed to have in making moral judgments.

4.2.3.2 Sex Differences in the Use of Disclosure in Persuasion

We now turn to a related field of study in psychology, the study of the function of self-disclosure in the persuasion process. One such study in this field was done by Domelsmith and Dietch (1978). As a result of their test involving a group of undergraduate students at Duke University they report that there are sex-based differences in the interrelationship between a Machiavellian orientation and self-disclosure. A Machiavellian orientation is described as a "cynical view of human nature and a willingness to employ manipulative strategies in social interactions" (1978:715). Domelsmith and Dietch found that men who were high Machiavellian were characteristically low in self-disclosure. Conversely, women who were high Machiavellian were characteristically high in self-disclosure (1978:718-9). In other words, women were more likely to manipulate a persuasion situation using self-disclosure to promote a positive attitude and some degree of sympathy toward their position (1978:719).

The use of self-disclosure by women in other settings is also well documented. Cozby (1973) reports that though some studies find little or no difference between men and women in the use of self-disclosure, a number of studies find women more self-disclosing and none find men more self-disclosing.

4.2.4 Sex-based Differences in Research Style

We have seen so far in this section that there are

stereotypical differences in women's and men's logical and persuasive tactics and abilities. We have also seen that there is limited evidence for structural differences in the language used in persuasion. Thirdly, we have seen that studies being done by psychologists in the area of differences in moral reasoning and in self-disclosure in persuasion have also turned up sex-based differences. The final place that we look for evidence of sex-based differences in reasoning is in academic research style.

Much of the work being done in the analysis of sex-based differences in academic research has adopted the terminology of David Bakan. Bakan (1966:15) introduced the terms "agency" and "communion" in his book The Duality of Human Existence and defined them as follows:

> I have adopted the terms "agency" and "communion" to characterize two fundamental modalities in the existence of living forms, agency for the existence of an organism as an individual, and communion for the participation of the individual in some larger organism of which the individual is a part. Agency manifests itself in self-protection, self-assertion, and self-expansion; communion manifests itself in the sense of being one with the other organisms. Agency manifests itself in the formation of separations; communion in the lack of separations. Agency manifests itself in isolation, alienation, and aloneness; communion in contact, openness and union. Agency manifests itself in the urge to master; communion in noncontractual cooperation. Agency manifests itself in the repression of thought, feeling and impulse; communion in the lack and removal of repression.

Rae Carlson (1971) was among the first to consider these concepts as, at least in part, sex-based in human beings. Carlson studied upper-division college students, asking them to report incidents of seven different effects (shame, fear, joy, etc.). These reports were then coded as being primarily agentic or primarily

communal. The results were that 60% of men's responses were agentic in comparison to 40% of women's. When the preferred mode was tabulated on the basis of the reports for each subject, 10 of 14 men coded primarily agentic in their overall outlook whereas 5 of 20 women coded primarily agentic.

Jessie Bernard (1973) in an informal and (in part) autobiographical study took Bakan's and Carlson's ideas one step further to consider the research styles of men and women. Bernard maintains that men tend to prefer agentic research and women, communal (1972:23). The agentic, she says, is traditionally used by "scientists." In this kind of research, the researcher stands outside the data and observes it as something "other." From this perspective the researcher can create

> his own controlled reality. He can manipulate it. He is master.
> He has power. He can add or subtract or combine variables. He
> can play with a simulated reality like an Olympian god. He can
> remain at a distance safely invisible behind his shield,
> uninvolved (1972:23).

By contrast, communal research "disavows control" (1973:23). Communal research is a kind of participant observation in which the observer becomes a part of the system being studied. The agentic, according to Bernard (1973:23) yields "hard" data, and the communal "soft" data. In other words, she says, agentic research tends to be more prestigious than communal.

Dale Spender was the next widely known scholar to deal with agentic versus communal research styles. In her 1980 book, Spender looked at the political consequences of the two styles. This book was followed by in 1981 by <u>Male Studies Modified</u>, edited by Spender,

in which several women from different academic disciplines investigated the place of the two research styles in their fields. Their findings supported Bernard's thesis. Not surprisingly, given the authorship and the pro-communal sentiment that characterizes the book, most of the evidence in this book and in Bernard's article is based on uncorroborated personal experience.

Only recently have researchers begun to seek more systematic documentation of research style differences. Among these researchers are Paula A. Treichler and Cheris Kramarae (1983), who investigated "women's talk" in the university by going back to previous empirical studies of smaller scope and synthesizing the results. One of the things they discovered was that

> the structure and strategies for friendly interaction among women [in the university] show considerable continuity with the findings about girls' interaction..... The general orientation among women is interactional, relational, participatory, and collaborative (Treichler and Kramarae, 1983:120).

Likewise, Liane V. Davis (1985) sought to document differences in research style in her field, social work. In doing so she investigated the published literature. What she found was a rift between primarily male social work researchers and primarily female clinical social work practitioners. The former tend to focus on the "business aspects of practice," the negotiated rules between social worker and client, and the objective measurement of change (1985:110). The latter, on the other hand, speak of "the interchange between a human helper and help seeker," relationship, and problem resolution. They are also more likely to draw conclusions from narrative accounts of actual social work contacts (1985:109). In

short, according to Davis, though social work does have female researchers and male practitioners, much of the writing coming out of the field is male, agentic and concerned with research; or female, communal, and concerned with practice.

4.2.5 Conclusions

We see in this look at sex-based differences in logic, moral reasoning, and persuasion that there do appear to be differences between men and women. The differences are not just stereotypical, though they are that; they are also beginning to be documented by linguists, psychologists, and sociologists.

If there is a pivot point around which all the differences we have seen in this section rotate, that pivot point is the relation of the individual to his/her social context. Men are reputed to abstract themselves away from their interpersonal context and to be more "objective" and "logical" in their moral judgments, attempts to persuade, and research style. Women, on the other hand, supposedly are more immeshed in an interpersonal context. They are sterotypically more people-oriented; their reasoning is more "intuitive." In their moral judgments and attempts to persuade, they are less likely to see themselves as being apart from the situation, less likely to appeal to universal principles. They are more likely to use a communal research style. In short, an individual's social context is more likely to to play a role in the moral reasoning, persuasion, and research done in that context if that individual is a woman, and abstract principle is more likely to play a role in an

individual's moral reasoning, persuasion, and research if that individual is a man.

4.3 The Difference: Interpersonal Relationships

Studies in moral reasoning, logic, and persuasion show sex-based differences that center mainly on the role of a person's interpersonal context in his/her reasoning. That interpersonal context plays a different role in the lives and language of men than it does in that of women has been the conclusion of a number of studies. In this section we will look at some of these studies; specifically, the ones that deal with sex-based differences in conversational ability, conversation topics, descriptive language, aggressive or hostile language, and language used for dominance, power or control over other individuals.

4.3.1 Differences in Conversational Ability

We look first at sex-based differences in conversational ability. Spender (1980:79) maintains that "men frequently neither know nor can operate the rules of the art of conversation." This is a rather extreme statement, one that would be difficult to support with evidence gleaned from observation. Despite this difficulty, there is, however, evidence that women do more work than men in maintaining the flow of a conversation. Fishman (1977 and 1978) has found that women are more likely to introduce topics than are men, but that women's topic are less likely to succeed than men's because women are more likely to support a man's topic than vice versa.

Fishman also found that women ask more questions and offer more active conversational support. Haas (1979) maintains that this pattern begins early in life, for it is found in children's conversation as well. Girls 4, 8, and 12 years old in mixed-sex dyads provided more conversational support than did their male counterparts. Because women are more likely to do the majority of the interactional maintenance in a conversation, they are also more likely to feel insecure when conversations are faltering. This insecurity, according to Giles, Robinson, and Smith (1980:131) is not because of the women's inability but because women realize that men, on the whole, will provide less of the necessary work to keep a conversation going.

Other differences in the way men and women hold conversations have also been found. In conversations, according to Treichler and Kramarae (1983:120; cf. Maltz and Borker, 1982), women are likely to hear the statement of problems as a request for support. In response they may share experiences and reassurances. Men on the other hand are more likely to hear the statement of problems as a request for a solution and to respond by giving directions or advice, or by acting like experts or lecturers. This difference leads to a difference in management of the classroom on a University level (Treichler and Kramarae, 1983:121ff.). Women instructors at all levels of experience were less likely than men to respond harshly to students' questions or comments. Women were also more likely to engage in classroom give and take. Men by contrast were more likely to reprimand and correct their students.

4.3.2 Differences in Conversational Topic

In addition to differences in conversational interaction, there are also sex-based differences in the topic of conversations. Aries (1977), in studying the interaction patterns of small groups of white undergraduates, found that women were more likely to discuss feelings and relationships. Men were more likely to discuss sports, and things that they had seen, read, or heard. Similarly, Ayres (1980) in his study of student conversations found that females talked more about feelings, appearances, and home life, whereas males talked more about entertainment events. Levin and Arluke (1985:282) specifically studied conversation about any third person, i.e., gossip. Out of 194 instances of gossip overheard at a large northeastern university 76 involved male speakers and 120 involved female. For women, 71% of the conversations overheard were gossip compared to 64% for men. Women gossiped more about close friends and relatives whereas men gossiped more about acquaintances and celebrities. The number of positive and negative references were approximately the same for men and women.

4.3.3 Differences in Descriptive Language

A third sex-based linguistic difference we find is in descriptive language. Schultz (et al., 1984) as a part of a study with 15 male and 15 female subjects in each of the following three age levels, 8-9, 14-15, and 18-36, asked for descriptions of paintings. She found that females, regardless of age spoke more about the females represented in the paintings. They also spoke more

about clothing, color, and communication. Males more frequently spoke about objects and their location in the picture. Similarly, when Wood (1966) asked 18 male and 18 female college students to describe a photograph of a man's face, women tended to give a more interpretive and subjective description whereas men tended to give a more content-oriented description the man's features (i.e., whereas women tended to give their reaction to the photograph, men tended to describe what they saw). Nelson and Rosenbaum (1972) studied the speech of high school boys and girls, specifically the terms they used to describe their environment. They found that girls had more slang terms for "boys," "a popular person," and "an unpopular person" than did boys. Boys had more slang terms for objects such as "cars," "motorbikes," and "money." In Carlson's study (1971) 213 college students and community adults ages, 19-55, from diverse socioeconomic and marital statuses were asked to do several description: (1) of themselves, (2) of another person, (3) of their physical environment, and (4) of themselves as they see themselves in the future. Carlson concluded that "males represent experiences of self, others, space and time in individualistic, objective, and distant ways while females represent experiences in relatively interpersonal, sub-jective, and immediate ways." No criteria were given for the ways in which these judgments about the description were made.

4.3.4 Differences in Aggressive or Hostile Language

Yet another difference between men's and women's language use is in language expressing aggression or hostility. Gilley and

Summers (1970:34) tested fifty men and fifty women undergraduates at
Appalachian State University. Each subject was given a card with a
pronoun and two verbs, one neutral (eg., call) and one hostile (eg.,
murder, torture, etc.), and was asked to choose one of the verbs and
create a sentence. The researchers found that men chose the hostile
verbs more often than the women did. In another study, O'Connell
(1961) found that one outstanding feature that distinguished the
humor of men from that of women was the amount of hostility. Hos-
tility played a much larger role in men's humor. Hostility and
aggression also plays a larger role in men's graffiti than in
women's. Bruner and Kelso (1980:245) found in studying restroom
graffiti on college campuses that graffiti in men's rooms was more
violent than in women's rooms. They characterized the differences as
follows:

Male	Female
egocentric	interpersonal
individualistic	interactive
competitive	advisory
macho	caretaking
sex	love
erotic	romantic
organs	persons
more derogatory	less derogatory

These differences in aggression and hostility are also recognized and
perpetuated in stereotypes. Kramer (1974) in a widely known study of
cartoon captions (where the caption without the picture was given to
the subject, who was then asked to identify the sex of the speaker)
found that assertive, aggressive, and hostile captions were more
likely to be attributed to men. Similarly, when Siegler and Siegler
(1976) asked 48 men and 48 women from the University of Illinois to

identify the sex of the writer of various assertions, the stronger assertions (eg., "Professional football is a bloodthirsty game.") were more likely to be attributed to men whereas the modified assertions (eg., "Professional football must be a bloodthirsty game.") were more likely to be attributed to women. The stronger assertions were also attributed to a more intelligent speaker and the modified to a less intelligent one. Overall, hostility and aggression is more often seen as a male trait than as a female one.

4.3.5 Differences in Language-use for Dominance, Power, or Control

The final difference we will consider in this section is the difference between language used for dominance, power or control by men and by women. Just as Spender (1980:79) maintains that men are unfamiliar with the rule of conversation, she also maintains that women are unfamiliar with the means by which "leaders are made and followers are won." Though, again, this is a rather extreme statement and one proffered without evidence, studies do seem to indicate that men's language reflects more (and women's less) of an awareness of power, and that men tend to be more dominant or in control of many sociolinguistic situations.

For example, Selnow (1985) in studying 135 undergraduates found that men used more profanity than women did, and men associated profanity with power more than women did. Thompson (et al., 1981:525-31) investigated what 54 undergraduate students thought were the semantic components of each item in a set of interpersonal transitive verbs (eg., "rewards," "influences," etc.). These

researchers found that where women were more likely to see like or dislike, men where more likely to see power or control as a component.

Power and dominance also play a role in conversation and other interpersonal communication. Henley (1978) found that in terms of address, manipulation of space, touch, eye contact, and gestures men most frequently convey dominance and women submission. Men express dominance through interruption in conversations (Rogers and Jones, 1975; cf. West, 1979; Natale, et al., 1979), and through control of its direction (Fishman, 1978). In fact, Sattel (1976) maintains that even the lack of conversational work that men do, so called male inexpressiveness, is a strategy that men employ to maintain control in an interpersonal setting.

This male dominance or power is recognized and used by television. In a study of over one thousand television commercials, 90% of the directives (requests, commands, advice to buy) were given by men (Hennessee and Nicholson, 1972).

4.3.6 Conclusions

In this section we can see that the interpersonal factor is not confined to the sphere of reasoning alone.   In conversations, women tend to do most of the interpersonal work necessary to maintain the conversational flow. They are more likely to engage in give and take in advice—or information—giving situations (as opposed to dispensing that information or advice impersonally). Women are also more likely to talk about people and feelings in their conversations.

They seem to be more attentive to people and to their own reactions when describing people, situations, or pictures. Their language is less aggressive, less dominant, and they seem less concerned about power than are men. Men, by contrast, are likely to be more impersonal when giving advice or information. They are likely to focus more on things and precise physical description of things in their environment and in pictures shown to them. Their language is by and large more aggressive, hostile, and they often use it to achieve and maintain control in conversations. In short, we see here, as we saw in the previous section, women perform language-use activities from within an interpersonal context that greatly affects that language use. Men, by contrast, appear more independent of their social context. Interpersonal relations do not seem to impinge as greatly on their language use, but rather they seem more likely to employ aggression to gain control over their interpersonal setting.

4.4 Reasons for the Difference

Given the above sex-based differences in various kinds of linguistic behavior (including reasoning), we now begin to speculate about their possible sources. In section 4.2.3 we looked very briefly at the two different schools of thought on this issue as they appear in the field of psychology. Freud maintained that sex differences in moral reasoning stemmed from a biological difference. Mead and Piaget, on the other hand, maintained that the differences stemmed from a difference in socialization. In this section we will revisit this controversy and look at the evidence for sex-based

differences stemming from (1) biocultural sex differences (i.e., differences that have a biological base but a cultural component), and (2) differences that are strictly cultural.

4.4.1 Biocultural Reasons

If we wish to demonstrate that a sex-based differences in reasoning stem from a biological source, we must show that a strictly anatomical or physiological difference produces differences in psychological makeup or social activity, which in turn produces a difference in reasoning. There are three principle physiological differences that have been shown to have a possible effect on psychological makeup or social activity. They are brain lateralization, childbirth and childcare, and hormonal influence on aggressive behavior.

4.4.1.1 Brain Lateralization

An issue receiving much attention in recent years is that of brain lateralization. Though research in this area is still young, speculation is widespread about the import of the findings that have come in. For example, it has been found (Fairweather, 1976; Buffery and Gray, 1972) that women have a more developed corpus callosum than men (i.e., that the link between the two hemispheres of their brain is more developed). Speculation is that this connection between the two hemispheres could possibly serve to link the more integrative right brain to the more analytical left brain (the side in which lies most of the brain's reasoning ability) in women. This connection, in turn, would make women's reasoning more context-bound. The only

difficulty with this theory is that the scientists who discovered this structural difference can detect no corresponding functional difference. That is, they cannot prove that the anatomical difference has any impact on reasoning or any other function of the brain. The most that can be said at this time is "There may be sex differences in both linguistic ability and functional brain lateralization, and the two <u>may</u> be causally related" (Hirst, 1982). The connection between brain anatomy and linguistic or reasoning ability is by no means certain.

4.4.1.2 Childbirth and Childcare

Another biological fact that may cause differences in linguistic activity is the fact that women are solely responsible for giving birth to children and largely responsible for their early care. Nancy Chodorow (1974:43-4) maintains that sex differences in the biological capacity to bear and nurture a child lead to differentiation in social childcare roles (in most societies) and that this social differentiation is, in turn, largely responsible for most sex-based differences. Chodorow (1978:166-7) says that because women are largely responsible for childcare, feminine identity formation can come about as a product of an ongoing continuous relationship of a girl with her mother. In contrast, mothers tend to view boys as a "male opposite," thereby encouraging them to break free from the mother and to form more distinct ego boundaries as they develop as males. We could then speculate (and it is only speculation) that this contrast between feminine identity formed in relationship and

male identity formed in contrast would probably be reflected in the linguistic means men and women use to encode identity and relationship.

4.4.1.3 Aggression

A third biological difference that may impact upon linguistic differences and differences in reasoning is sex-based differences in aggression. In order for the link between biology and reasoning (or argumentation) to be made by this route, it would have to be established, first, that one sex is more aggressive than the other, second, that the cause of the more aggressive nature is biological, and, third, that a particular linguistic or reasoning style is more aggressive.

On the first count, it is a fairly well established fact that men are, on the whole, more aggressive than women (Seward and Seward, 1980; Deaux, 1976:82ff.). This sex-based difference is one of the few to hold up to long-standing and detailed scrutiny.

On the second count, there is some indication that aggression in men is caused by physiological factors. Some experiments with lab animals show that sex-linked hormones act on the brain during critical periods of development, possibly affecting the aggression level, and that hormones may affect aggression in the adult male as well (Deaux, 1976:6). Other studies (Oakley, 1972:75-6) show that newborn females are "significantly higher than newborn males in basal skin conductance (that is the degree to which their skin will conduct electricity)." Researchers suggest that this

is what makes them more sensitive to pain and to environmental changes. They also suggest that it may be a factor in female avoidance of aggression from childhood on. These links between physiological factors and aggression, however, are still uncertain. Better documented are the links between social factors and aggression. Harlow (1965) found in monkeys that transmission of social training from generation to generation was largely responsible for patterns of aggressive behavior displayed. Sears, Maccoby, and Levin (1957) found that in humans parents reinforced aggressive behavior in boys far more than they did in girls. It is, therefore, by no means certain that aggression has physical roots.

As for the connection between aggression and the male reasoning or argumentative style, this link is even less well established. One argument for this point could be made from the nature and use of deductive logic. The use of deductive argumentation in a context that recognizes and accepts the necessity of the conclusions of a deductive argument given its soundness (for example in an academic context), is an act that attempts to change another person's mind or attitudes. In such a context, sound deduction forces a conclusion on those who agree to play by its rules; it forces a change of mind. Such change of mind is thought to be an aggressive act by some who study persuasion (cf. feminist rhetoricians such as Sally Miller Gearhart (1979)). The use of traditional argumentation to change a state of mind, they maintain, is as much an act of violence as the use of physical force to change a physical state. If it is true, as Spender (1980 & 1981) maintains, that traditional

argumentation in academic settings is a vestige of traditional male domination, men traditionally have employed a more aggressive form of argumentation.

Given all these things, the link between biologically based male aggression and argument style can be made. The link, however, is very weak.

4.4.1.4 Conclusions

So then the claim that sex-based differences in reasoning or argumentation stem from biological differences can be backed only by shaky evidence. We do not know for certain that differences in brain lateralization contribute to differences in psychology and so to differences in reasoning. Similarly, the argument that differences in reasoning stem from biologically caused differences in aggression is weak at a number of points. Though we can say that men are more aggressive on the whole than women are, we do not know that aggression differences are caused by physiological differences. Even if we could prove that they were, the link between aggression and a particular style of reasoning or argumentation is shaky. Chodorow's position comes closest to meeting the criteria outlined at the beginning of the section. Her theses, however, are still relatively young and, to date, largely uncorroborated. On the whole, the case for a biological base for reasoning differences is shaky.

4.4.2 Cultural Reasons

It seems more likely (in light of the above discussion) that the primary source of sex-based differences is socialization.

Socialization is, in essence, the process by which a society rewards its members for conforming to social norms and values while it sanctions them for for nonconformity. Socialization is also the outcome of this process. Boys learn that they are to use men's language; girls learn that they are to use women's language. Much of this socialization is informal. It comes as a result of living and being a part of a society; it is learned almost as though by osmosis, without it ever having been taught. Some of socialization, however, is probably encouraged by formal education. In this section we will look at the influence social roles and stigmas, formal education, and power struggles have on the ways men and women reason and argue.

4.4.2.1 Social Roles and Stigmas

The first reason for sex-based differences that we will look at in this section is pressure from social roles and stigmas. This is the informal system of rewards and sanctions that encourage conformity, in this case conformity in linguistic behavior, among members of a society.

Maltz and Borker (1982; cf. Treichler and Kramarae, 1983) have suggested that the difference in socialization of men and women grows out of different interaction patterns that they are encouraged to develop as children. These patterns become observable for white children in the United States (according to Brooks-Gunn and Matthews, 1979) between the ages of five and fifteen years of age. Maltz and Borker (1982:10) maintain that it is during this time that

> Members of each sex are learning to self-consciously
> differentiate their behavior from that of the other sex and

to exaggerate these differences. The process can be profitably compared to that of accent divergence in which members of two groups that wish to become clearly distinguished from one another socially acquire increasingly divergent ways of speaking.

Boys during this time are encouraged to participate in peer-oriented and peer-structured play within a structured hierarchy of peers. The groups they play in are large, and an individual boy's status within it is constantly fluctuating. Girls, by contrast, are encouraged to participate in adult guided activities within a homogeneous community of equals. Groups are small, homogeneous, and leaderless. Because of the nature of their groups, when an adult is absent, girls must resolve conflict through talk rather than through assertion of authority (Carpenter, 1984; cf. Treichler and Kramarae, 1983:119). As a result of these interaction patterns, boys and girls learn to do different things with words. Boys, according to Maltz and Borker (cf. Treichler and Kramarae, 1983:119) learn to "do three things with words: (1) to assert a position of dominance, (2) to attract and maintain an audience, and (3) to be assertive when others have the floor." By contrast, girls learn "(1) to create and maintain relationships of closeness and equality, (2) to criticize others in acceptable ways, and (3) to interpret accurately the speech of other girls" (Maltz and Borker, 1982:12; cf. Treichler and Kramarae, 1983:119).

So then, in short, society encourages girls to play in small homogeneous groups. This play gives rise to speech that is concerned about relationships and equality. Boys, by being encouraged to play in large heterogeneous groups, are encouraged to use speech that is

assertive and dominant; they learn to win over an audience that does not necessarily think like they do.

This pattern of socialization, according to some researchers, follows individuals throughout adult life as well. Eakins and Eakins (1978:51-2) maintain that society rewards men but not women for intellectual argument. They say that "even with today's [1978s] changing attitudes, a woman who displays skill at argument risks losing social acceptance and approval in some situations." Similarly, Kuykendall (1976) says that "clean, effective vigorous speech and writing is just what women, qua women, learn not to produce so as not to appear too assertive and so to offend." Neither Eakin and Eakin nor Kuykendall offer any substantive proof for their assertions, but neither are they voices crying in the wilderness. Their theme appears frequently in literature dealing with this subject (cf. Berryman and Wilcox, 1980:50; Wolman and Frank, 1975; Unger, 1975).

4.4.2.2 Education

A second factor in the socialization of individuals is formal education. There is evidence that teaching in primary and secondary schools today contributes to sex-based differences social activity, which in turn affects linguistic activity. It would seem that girls are being encouraged into passive-dependent and caretaking roles. Weitzman and Rizzo (1977:60) note that a look at a sample typical of the textbooks used in the elementary schools in the United States shows that

> Throughout the textbooks girls are shown in domestic roles, doing household chores, caring for others, helping their mothers, sewing, baking, mopping, making beds, dusting, and washing dishes. One message for a young girl is that she should learn to help, care for, and serve others.

Not only are people-oriented, non-analytic activities modeled for girls in the textbook, they are also being reinforced by the teaching staff. Bardwick (1971:112) has found

> Girls do best in the cognitive tasks that are least demanding of independence, assertiveness, initiative, analysis and activity. These learning behaviors, and therefore the passive-dependent-conformist personality dimensions underlying them, are being disproportionately rewarded in school at a time when the influence of the teacher is maximal.

On the other side of the coin, boys are subtly being influenced into more "objective" and impersonal pursuits. Spender and Sarah (1980:114) have observed that science and history of science textbooks highlight the achievements of men in the scientific professions. Similarly, they frequently use the pseudo-generic "man" and "he" to refer to scientists. Spender and Sarah (1980:105-14) also speak of the social and academic means by which boys, by the time they reach high school, are channeled into science and math while girls are deterred from these subjects. Girls who do decide to attend elective courses that are traditionally male dominated, according to Spender and Sarah (1980:105) find themselves

> going against the mainstream of girls within society and the school, which entails many problems. But it is their "minority status" inside the class which can also affect their performance, their self-estimation and their commitment to the subject.

> So we see, be it consciously or not, educators have been

known to reinforce relationship-centeredness in girls while

encouraging idea-centeredness in boys. Such actions on their part may contribute to the kind of sex-based differences we have seen in this study.

4.5 Conclusions

In this chapter we have seen a sketch of the sociological context that forms the backdrop for this study. A number of researchers have studied the issue of sex-based differences, and from their work we are able to piece together a picture (speculative though it may be in places) of the origins and nature of male/female differences in language use.

A female child is born into a specific social atmosphere perhaps with certain behavior patterns genetically encoded as a part of her sex. The people who surround her, children and adults alike, have set views on the nature of femaleness. As she grows, her principle nurturer is her mother, and it is in relationship to her mother that she begins to develop her own ideas of what it means to be female (Chodorow, 1974). Even as a young child, aggression is discouraged whereas concern for others is encouraged (Maccoby and Levin, 1957).

As she enters school, these attitudes are reinforced. In textbooks, she sees women in helping roles (Weitzman and Rizzo, 1977). Her teachers reinforce what she sees (Bardwick, 1971). Between the ages of five and fifteen, she learns to play in small groups of girls, most of whom are her own age (Brooks-Gunn and Matthews, 1979). The groups are leaderless, and the members have

been told that aggression is unbecoming to them, so when conflicts arise the girls must learn to resolve them through nonassertive talk (Carpenter, 1984; Treichler and Kramarae, 1983). Through this experience, the girl learns to maintain relationships, to criticize in acceptable ways, and to interpret the speech of other girls (Maltz and Borker, 1982; Treichler and Kramarae, 1983).

As she grows, she learns the art of conversation, how to introduce topics, how to encourage dialog, how to salvage a faltering conversation (Haas, 1979; Fishman, 1977 & 1978; Giles, et al., 1980). By the time she reaches high school and college, her attention to social skills has given her a more extensive vocabulary for talking about people and personal relationships than her male counterpart (Nelson and Rosenbaum, 1972). She spends almost three-quarters of her conversations at school talking about people and her relationships and feelings toward them (Levin and Arluke, 1985).

As she graduates from school and enters the work world, she finds that person-oriented behavior is encouraged of her while aggressive or overly "logical" behavior is subtly discouraged. She is expected to make decisions based on "women's logic" or intuition (Berryman and Wilcox, 1980:50). She finds that whereas aggressive and direct businessmen are labelled aggressive and direct, aggressive and direct businesswomen are labelled "bitchy" (Wolman and Frank, 1975; Unger, 1975; Sweeney, 1975). Should she enter a research profession, her research style is likely to be more communal than her male counterpart's (Bernard, 1973; Spender, 1980 & 1981; Davis, 1985). Should she be faced with a moral decision, she is

likely to make that decision with a view to the people whom the decision will affect (Gilligan, 1980; 1982). If she needs to persuade someone else of her decision, she is more likely to do so by first establishing rapport with them through self-disclosure (Domelsmith and Dietch, 1978; Cozby, 1973). All in all, she learns to be a person-oriented female in American society.

A male child is born into a specific social atmosphere perhaps with certain behavior patterns genetically encoded as a part of his sex. The people who surround him, children and adults alike, have set views on the nature of maleness. As he grows, his principle nurturer is his mother who sees her son as a kind of sexual or social opposite. It is in contrast, not in relationship, to his mother that the male child begins to develop his own ideas of what it means to be male (Chodorow, 1974). Even as a young child, aggression, strength, and adventurous independence are encouraged in him (Sears, Maccoby, and Levin, 1957).

As he enters school, these attitudes are reinforced. In textbooks, he sees men as scientists and explorers (Spender and Sarah, 1980). His teachers further reinforce what he sees, and he is channeled into math and science classes (Spender and Sarah, 1980). Between the ages of five and fifteen, he learns to play in large groups of boys with a wide age spread (Brooks-Gunn and Matthews, 1979). The groups are hierarchically structured and the boy's status within the group is constantly in flux. When conflicts arise they are solved either by appeal to rules or by one of the boys asserting his authority and making a ruling on the proper solution (Carpenter,

1984; Treichler and Kramarae, 1983). Through this experience, the boy learns to assert a position of dominance, to maintain the interest and respect of his peers, and to be assertive (Maltz and Borker, 1982; Treichler and Kramarae, 1983).

As he grows, he learns how to gain and maintain dominance in an interpersonal setting, particularly in conversations (Henley, 1978, Rogers and Jones, 1975; Fishman, 1978). He learns how to speak within his group of friends and acquaintances as an authority on matters of common interest and how to appeal to rules and precedents to resolve disputes. By the time he reaches high school, he has a more extensive vocabulary for talking about the interests of the group to which he belongs--generally cars, motorbikes, and entertainment events--than does his female counterpart (Nelson and Rosenbaum, 1972). Hostility and aggression come to play an increasing role in his humor; he learns the art of the effective put-down (O'Connell, 1961). Many of his conversations at school are about things, and relatively few are about relationships as compared to his female counterpart (Ayres, 1980; Aries, 1977).

As he graduates from high school and enters the work world, he finds that goal- and idea- oriented behavior is encouraged. He is expected to be assertive, competitive, and rational (Mathiot, 1979; Berryman and Wilcox, 1980). If he works at a research- oriented job, his research style is likely to be agentic (Bernard, 1973; Spender, 1980 & 1981; Davis, 1985). As a mature adult, when he is faced with moral decisions, he makes those decisions with a view to rules and principles (Kohlberg, 1958 & 1981; Gilligan, 1982). He is unlikely

to use self-disclosure in any attempt to persuade someone else of his decision. He is rather more likely to assume the persona of the "expert" in order to persuade (Domelsmith and Dietch, 1978; Cozby, 1973). All in all, he learns to be a thing- and idea-oriented male in American society.

So we see that there are some well documented sex-based differences in moral reasoning, communication, and social inter-action. In chapter five we will look at (1) the ways that these differences impact upon argument and argumentation and (2) the ways these differences are reflected in the findings of chapter three.

CHAPTER V

THE ARGUMENTATIVE STYLES OF
MEN AND WOMEN

The purpose of this fifth chapter is to pull together all of the themes and findings of the previous chapters. Briefly, the previous chapters work together in the following way: Chapter two does two things. First, it sets down a methodology for the description of argument (a combination of textlinguistics (particularly Pikean tagmemic textlinguistics), traditional descriptive linguistics, and informal logic), and second it outlines a theoretical foundation for the analysis of this kind of text. We see in chapter two that the production of an argument takes place in a particular sociolinguistic context (i.e., in argumentation). In the analysis of text, however, we do not begin with argumentation but rather with argument as a product of argumentation. To help us go from product to process, sections 2.3.2 and 2.3.3 present the notion of variationalism. Variationalism (as modified for use here) says that when two linguistic variants express much the same content (or in this case are used to provide evidence for a particular kind of of conclusion) and when no structural factors inform the choice of one or the other variant, then the constraints upon their distribution must be social (i.e., must stem from a part of the social production context). In the study of argumentative text, variationalism takes

this form: when two argumentative texts, produced in response to the same instructions and attempting to prove the same conclusion, manifest grammatical, lexical, and textual differences not traceable to structural constraints, we assume that the differences are a result of differences in the argumentative social production context.

On the basis of this theoretical foundation, and using the methodology (for description of a product) outlined in chapter two, chapter three looks at arguments (as products) produced by two different social groups, men and women. We find that these arguments bear noticeable sex-based differences. The structure of men's and women's arguments differs in the way the two groups employ coordination and enumeration vs. subordination and deductive connections. The tone of the two groups' arguments differ in the amount and kind of personal references and abstract generalizations. In short, texts produced in response to the same stimulus on the same topic manifest sex-based variation.

To account for this variation, chapter four summarizes research pertaining to a number of sex-based personality differences, which may be operative in the social production context of the texts analyzed in chapter three. We see there that sex-based differences in linguistic behavior are well documented. We also see differences in moral reasoning and research style, which may be operative in the production context of the texts analyzed in chapter three.

The purpose of chapter five, as already stated, is to pull these previous chapters together. We will look at the descriptive findings recounted in chapter three and will try to account for the

their sex-based variants by placing them into the larger social production context described in chapter four.

Admittedly, it is difficult to pinpoint the genesis of argument variants within the production context. We cannot reproduce the production process in order to observe it. Neither can we say conclusively that a particular product always results from a particular element in the process. What we can do is (1) observe patterns in the product and patterns in social context in which the process took place (as best as we can reconstruct it), (2) note the similarities between the two, and (3) attempt to reconstruct theoretically the argumentative production context to see whether the patterns observed in argument (product) could have come from the patterns observed in argumentation (process). Such work is speculative, but it is informed speculation. We cannot make absolutely certain statements about argumentation's producing a particular variation in argument, but we can hypothesize.

In this chapter we will look at three areas in particular: interpretation of lower level argumentative structure, interpretation of higher level argumentative structures, and taxonomic evaluation of the differences between the structures used by men and those used by women in light of the argumentative context that produced them.

5.1 Interpretation of the Lower-level Findings of Chapter Three

In order to interpret chapter three in light of chapter four, we must first have a working summary of the findings in chapter

three. We will then look at this summary in the light of traditional prescriptive and descriptive accounts of the nature of argument. These traditional interpretations help us point out significant patterns of sex-based differences in argument, but they do not explain why these differences are present. We therefore argue that sex-based differences in argument (as described in chapter three) can be interpreted as being reflections of two different kinds of argumentation: context-bound argumentation and transcontextual argumentation, with lower level constructions in context-bound argumentation encoding individuals-in-relation and immediacy and the constructions in transcontextual argumentation encoding general- ization and timelessness.

5.1.1 The Findings of Chapter Three

In chapter three we saw the following patterns. In the use of pronouns, women tended to use more first and second person pronouns. They used I 50% more frequently than did men, and of these uses in women's writing 70% were in constructions such as I believe or I feel. Women used you as an informal indefinite 200% more fre- quently than did men. The vast majority of these occurrences were in sentences speaking about rights, privileges, or responsibilities. Possessive pronouns in women's writing were most often used to express relationship (eg. "my brothers") whereas men did not use them in this way. Men used more unmodified universal pronouns than women did.

Not only did women use more personal pronouns than did men.

They also used more elaborate noun phrases than did men. By contrast, men used more verbal and deverbal nouns than did women.

We also saw in chapter three differences in the use of active versus passive verbs. Women tended to use more passive verbs (particularly in independent clauses) than did men. They tended to use them particularly in sentences containing the pronoun you and in sentences dealing with rights, privileges, and responsibilities.

Men tended to use more BE verbs, particularly in independent clauses. They were also over twice as likely to make statements of being about people than were women.

In chapter three we also saw that the texts being analyzed bore sex-based differences in Transitivity. Women's writing was higher in Transitivity than was men's, particularly along the parameters of kenesis and participant.

We also saw differences in modal auxiliaries. For example, though we saw that the difference in the frequency of the auxiliary can was negligible, the difference in its use was noteworthy. While men tended to use the auxiliary can to mean 'to be able to', women tended to use it to mean 'to have permission to'.

The modal auxiliary should, when used by women, was always either in a sentences with a passive construction or somehow mitigated. Men use this auxiliary much more rarely in a passive sentence and were less likely to mitigate it. Men were also more likely to use should with a personal subject.

Finally under the heading of auxiliaries, men were more likely than women to use the auxiliary will to make predictions.

They were also more likely to make predictions about people.

5.1.2 Traditional Interpretations

We must now ask ourselves what sociological and structural functions these grammatical constructions might play and what sociological factors may have prompted sex-based differences in their use. Looking at men's and women's texts in light of traditional descriptive and prescriptive accounts of the nature of argument, we will see that elements in men's texts are more representative of traditional views of argument whereas women's texts employ typical argument structures in combination with elements more typically associated with other genres.

Traditionally, use of first and second person pronouns has been discouraged in academic writing. Composition textbooks have encouraged students to place themselves "in the background" and to avoid injecting personal opinion (Strunk and White, 1972:62-3, 72-3). Phrases such as <u>I think ...</u> or <u>in my opinion ...</u> have been branded as apologetic, overly personal and informal, immature, and, therefore, ineffective (Baker, 1980:18-9). The informal indefinite <u>you</u> has been labelled as being colloquial or informal, conversational and inappropriate for anything but the most informal writing (Praninskas, 1975:95; cf. Quirk, et al., 1972:222).

Can we, therefore, interpret the more frequent use of <u>I</u> and the informal indefinite <u>you</u> in women's writing as a signal that women's writing is more informal than men's? Probably not, because such an interpretation would be inconsistent with the frequent use of

passive verbs in women's writing. Granger (1983:282-3) maintains that writers (consciously or not) use the passive to lend a note of formality to a composition. Brown (1978) agrees, noting that frequent passive use achieves a distancing of an author from his/her composition. He also maintains that compositions high in passive use are also likely to use indefinites instead of I and you, an observation not in accord with the above formality/informality interpretation. Similarly, Brown and Levinson (1978:278) maintain that one principle function of the passive voice is to impersonalize the verb and hence the composition as a whole. Yet, women, who use far more passive verbs than men, also use more personal pronouns and more elaborate personal noun phrases. We can, therefore, only say that (1) the presence and number of personal pronouns in women's writing is atypical of formal academic argument as traditionally prescribed, and (2) the extensive use of passives in women's writing, though consistent with formal academic style, seems inconsistent with the frequent use of the pronouns I and you.

Another place where women's argument departs from traditional genre expectations is in Transitivity: the Transitivity of the verbs in women's writing is higher than we would expect of nonnarrative text. Hopper and Thompson (1980:280) have drawn correlations between the degree of Transitivity and grounding. They have observed that higher Transitivity verbs tend to encode foregrounded material, and lower Transitivity, backgrounded. This observation, however, only proves true in narrative text. In nonnarrative text, high Transitivity does not necessarily mark foregrounded material

(Peterson, 1981b:10). In fact, Transitivity in nonnarrative text, particularly expository and argumentative text, is very low overall (Peterson, 1981a). This is due mainly to the high frequency of BE verbs. In light of this information, the question becomes, why do women use higher Transitivity (in comparison to men and to other non-narrative texts)? Why do they use fewer BE verbs? The above studies have no answer to these questions other than to say that such usage seems atypical and more characteristic of narrative text than non-narrative.

Also more characteristic of narrative than nonnarrative text is the centrality of persons in women's writing. Character has long been recognized as being a key component of narrative text (Longacre, 1980:24; Pike and Pike, 1983; Grimes, 1975:43ff.).[18] In non-narrative text, however, character typically plays smaller role. Jones (1977:132ff), comparing narrative to nonnarrative text, notes that in narrative text the lowest referential unit is the "identity," a concrete unit that usually takes the form of participant or prop (cf. Grimes, 1975:ch.3). By contrast, the lowest referential unit in nonnarrative text is the "concept," an abstract unit having no physical extension. This difference between narrative and non-narrative text is reflected in men's writing, where narrative illustrations within an argumentative paragraph have noticeable low-level identities, but where stretches of argument proper are characterized more by low level concepts encoded in verbal and deverbal nouns. In women's writing, however, identities, encoded by detailed personal noun phrases and personal pronouns, play a large

role even in the argument itself.

The final thing that we will look at is the use of _should_. As noted earlier, men are more likely than women to use _should_ particularly with a personal subject. Why should this be so? What is necessary before an arguer can say that an individual "should do" something? Toulmin, Rieke, and Janik (1979:313ff.) maintain that a person reasoning about ethical matters in a social context (i.e., not in the context of one's own personal scruples) decides what to do on the basis of transcontextual warrants (cf. section 2.2.2.2). These warrants may be general (i.e., held by most of society as being morally admirable standards) such as "It is wrong for anyone to break a promise." Or they may be individual such as "My personal religious commitments make it wrong for me to risk transgressing the orthodox Jewish dietary rules" (Toulmin, et al., 1979:314). Whether personal or general, however, these warrants are transcontextual principles superimposed upon a particular (contextual) situation.

Toulmin's observations about the use of _should_ helps us to interpret the structural pattern that we see in men's writing. In men's arguments we see a greater number of warrants than we see in women's writing. We also see a higher number of BE verbs used to encode transtemporal fact. According to Toulmin, et al., this pattern is exactly what is necessary to draw conclusions about what should be done in a particular setting. We can, therefore, say that men's writing contains the elements traditionally deemed necessary to support the higher number of propositions containing the auxiliary verb _should_. Yet what can we say about women's writing in light of

Toulmin's description of ethical reasoning? We can say that women use fewer warrants, make fewer transtemporal statements, and so make fewer statements about what people should do than do men. But it remains that women do make some statements about what people should do. In fact, they are more likely than men to state a conclusion containing a "should + main verb" verb. What are the bases for these conclusions? Toulmin's chapter on ethical reasoning cannot help us answer this question.

5.1.3 Context-bound Versus Transcontextual Argumentation

Section 5.1.2 has offered us a jumping off point for the interpretation of the lower level structural elements of chapter three. We saw there that in light of traditional accounts of the nature of argumentative text, men's texts are more typical and women's less typical of argument as a genre. In this section we will, therefore, attempt to compare the patterns seen in men's and women's argument structure with the patterns in argumentative context seen in chapter four, in order to discover why this may be so.

It must be said at this point that the attempt to describe patterns in arguments and argumentation is an attempt at caricature. No single argument will perfectly realize the structural patterns sketched here. Rather, in tagmemic terms, what we see here is the peak of the wave (cf. fig. 13), men's and women's argument styles at their clearest and most distinct.

One of the first things that we have noticed when contrasting

men's and women's writing is the centrality of persons versus the centrality of concepts. As mentioned earlier, a focus on persons or characters is much more characteristic of narrative than of argumentative text. Yet women tend to employ a large number of references to persons in their arguments. Conversely, "concepts" (as Jones (1977:132ff.) uses the word (cf. section 5.1.2)), which are more characteristic of nonnarrative text, are more frequently used in men's arguments.

Also more characteristic of narrative than argumentative text are the high Transitivity verbs employed by women. High Transitivity verbs encode actions that are highly affective, i.e., transferred from agent to object. In a high Transitivity sentence, identities (as opposed to concepts) tend to fill the roles of agent and object. High Transitivity sentences also tend to encode action as opposed to states of being. In short, texts containing high Transitivity verbs are more concrete and more narrative. By contrast, men tend to use more BE verbs, typical of argumentative text.

In light of these facts, the question then becomes, What makes women's argumentative writing bear characteristics not typical of argumentative text as traditionally thought of, and what makes it bear characteristics of narrative text? In answer to these questions we must again take a step back into narrative theory (cf. sections 2.1.2.2; 2.1.3.1; and 2.1.3.2).

Narrative discourse makes use of two crucial elements: character and temporal sequencing (sometimes called agent orientation and contingent succession, cf. Longacre, 1980:23ff; Pike and Pike,

1983; Westrum, 1976; Grimes, 1975:43 ff.; etc.). These two elements reflect temporality, and individuals (and things) as contrastable discrete units, essential components of the human experience. Narrative discourse because it preserves these two elements of real-life experience by relatively straightforward grammatical and lexical means (i.e., nominals and sequences of tensed verbs), is less removed from real-life experience than argumentative discourse, which imposes a greater degree of social values in the process of generalizing.

This preservation of temporal sequence and discrete identities in narrative versus generalization in nonnarrative text is perhaps best attested to by an example. A neighbor of the Jones family steps outside in the morning to pick up the newspaper. She sees Mrs. Jones running across the street in the park. Mrs. Jones runs along the far edge of the park and then cuts across the center, past the pond, and across the street. She then runs up her front sidewalk and into the house. The neighbor could tell what she saw in the following way:

> Mrs. Jones was running in the park when I stepped out for the newspaper. She ran along the far side of the park, then cut across the center past the pond. When she got to the street she paused, looked for cars and then crossed. She ran up her front sidewalk and into the house.

Notice that the participants and temporal sequence of the real-life events are captured in this narrative. The former are contained in nouns and pronouns, the latter in verb tense, temporal adverbs, and sequencing of verbs bearing the same tense. To continue the illustration, let us say that the Jones' neighbor later goes out to

water the lawn. She sees Mr. Jones and and the Jones' only child, Tammy, out running. As she watches, they run along the far side of the park, cut across the center, past the pond, across the street, up the sidewalk, and into the house. Each morning for a week this happens. In response the neighbor concludes that "the entire Jones family runs," and that "they run the same route every morning." Notice that the neighbor's conclusion no longer takes the shape of an antecdote. It is no longer a narrative but a description. A simple present verb encoding habitual action has replaced the past tense. Individual persons have been grouped together into a sociological category, "family." In addition, other words have been added to encode inductive and comparative thought about the events, the Joneses run the <u>same route</u>, and they run <u>every morning</u>.

This example illustrates the difference between narrative and argumentative text mentioned above. Narrative text is more immediate to the real-life situation from which it stems. The emic referential concepts of participant and temporal ordering result from less influence of social values than do generalizations resulting from induction or comparison (cf. fig. 3).

The same elements that encode immediacy in narrative (focus on participants and tensed action) are also present in women's arguments and could very well serve the same function. Were this so, the more detailed references to individuals in women's writing would reflect a closeness to the argumentative context, a kind of immediacy. Conversely, in men's writing, generalizations encoded in verbal and deverbal nouns would reflect a greater influx of social

values into the process by which aspects of the argumentative context became objectified as text.

Another way of thinking about the issue of immediacy is to see it in light of the iconicity of texts. Enkvist (1981) describes certain descriptive texts that sequence nontemporal textual components by analogy to real-life events that occur in a temporal context. For example, one may describe the floor plan of a building by discussing first the first thing one would see coming in the door, discussing second the second thing, etc. Similarly, an argument could be considered iconic if structural elements of the text reflected elements in the argumentative production context. Women's argument employs the pronouns I and you to a great degree. These may be iconic of the importance of individual people and the inter-relation between them in women's argumentation. Their arguments employ higher Transitivity verbs, these may be iconic of the events providing exigency for argumentation.

But why should we see immediacy in women's writing but not in men's? It is at this point that the studies in moral reasoning (cf. section 4.2.3.1) and research style (cf. section 4.2.4) step into our argument. Carol Gilligan, as a result of her study of moral reasoning, maintains that women's moral reasoning tends to be inter-personal and contextual whereas men's tends to be conceptual and transcontextual (cf. section 4.2.3.1.2). Similarly, women's research style tends to be more context-bound than men's (cf. section 4.2.4). Women's reasoning is, therefore, crucially dependent on context. If we consider argumentation to be reasoning made social, then we would

expect women's argumentation also to be dependent on context. This contextual dependence, as a central part of argumentation, would then find its way into the argument produced by argumentation (cf. fig. 6). If women's reasoning and argumentation are dependent on interpersonal context, we would expect elements in their arguments to reflect that dependence. We may, therefore, hypothesize that the narrative-like elements seen in women's writing are the result of employment of common resources (narration being extremely widespread if not universal) for encoding immediacy. In other words, the narrative-like elements in women's writing serve to make the argument iconic of the argumentative context, preserving more of the interpersonal and temporal factors of the context than could strictly argumentative structure.

By contrast, men's writing bears more traditional argument structures such as verbal and deverbal nouns and BE verbs. In verbal and deverbal nouns, a verb encoding a concrete action undergoes grammatical changes when either morphologically or syntactically it takes on noun-like characteristics. For example, the verb _swim_ is used in sentences such as "Ann swims every day" to refer to a specific activity. If we knew Ann and where she swims, we could go and observe her, a particular person, swimming, a particular activity. On the other hand, the verbal noun, _swimming_ as in the sentence "Swimming is a healthy activity" refers not to a particular person and activity but rather to an abstract referential unit (cf. section 2.1.3.1). _Swim_ as a verb requires a subject; _Swimming_ implies a swimmer but does not require that this swimmer be

explicitly mentioned. <u>Swim</u> can be easily defined denotatively; <u>Swimming</u> is more easily defined connotatively. In other words, the verbal and deverbal nouns men use reflect the tendency toward concept-orientedness in moral reasoning where universal or near-universal generalizations about one context play a greater role than specific people or activities within that context.

This, again, can be taken to be the grammatical means by which an argument encodes elements in the argumentation context. Gilligan maintains that men's moral reasoning (and so men's argumentation) is more conceptual and transcontextual than women's. This being so, we would expect to see the kinds of information encoded by verbal and deverbal nouns and BE verbs in their argument.

This view of the differences between men's and women's arguments/argumentation also helps us interpret other lower level structures seen in men's and women's writing. Among these lower level structures are the passive, the modal auxiliaries <u>should</u> and <u>can</u>, and the modal auxiliary, <u>will</u> as it is used to predict.

The function of the passive, as traditionally seen (cf. section 5.1.2), is to impersonalize the verb. This interpretation of the function of the passive stems from passive constructions' having optional agents. In creating a passive construction, one couples the appropriate form of the BE verbs with the past participle of a transitive verb. The noun or noun phrase referring to the recipient of the action (the direct object in the corresponding active sentence) is fronted (placed before the verb), making it thematic. The noun or noun phrase referring to the agent (subject of the

corresponding active sentence), on the other hand, is either eliminated or incorporated into a prepositional phrase.

Many (perhaps most) interpretations of the function of the passive voice focus on the potential agentlessness of the voice (Brown and Levinson, 1978:278; Quirk, et al., 1972:807). However, as we can see above, this is only one of the of the characteristics of the verb. As the agent in a passive construction is obscured the recipient of the action is highlighted. The passive construction allows a writer to highlight the notion of "being acted upon."

The latter is the probable function of the passive in women's writing, which tends to be iconic of an argumentation context in which interpersonal networks are crucial. Women frequently use passive construction with a personal subject or with the pronoun <u>you</u>. They also frequently use it in referring to rights, privileges, or responsibilities. By using the passive in this way, women focus on a person as recipient of an action. The passive voice conveys the notion that rights, privileges and responsibilities are a part of context in which an individual not only acts but is also acted upon.

This use of the passive could encode (very effectively) aspects of Gilligan's second stage in the maturation of women's moral judgement (1977:498). In this stage the distinction between action and being acted upon is blurred:

> The underlying assumption of Level Two ... leads the woman to consider herself responsible for the actions of others, while holding others responsible for the choices she makes. This notion of reciprocity, backwards in its assumptions about control, disguises assertion as response. By reversing responsibility, it generates a series of indirect actions, which leave everyone feeling manipulated and betrayed.

Though this confusion in responsibility is characteristic of level two, Gilligan maintains throughout her description of the three levels that responsiveness to others is central to the feminine conception of morality throughout all three levels. According to Gilligan a woman makes choices with reference (at least in part) to the consequences of her actions on others and others' actions on her. In other words, a woman making moral judgements is aware (consciously or not) of the constraints that others' activities have upon her own actions. The passive may be iconic of this awareness.

We see similar attention to interpersonal constraints upon action in the use of the modal auxiliary can in women's writing. Women are more likely to use can to mean 'to have permission to'. This may reflect, again, a realization that the possibility of doing something often depends as much on the consent of ones personal network as it does on ability.

The theory of sex-based differences in context-bound and transcontextual argumentation not only offers an interpretation of the passive and the auxiliary can, it also offers us help in interpreting the sex-linked differences in the use of will and should. As investigated above, men's moral reasoning, and hence, argumentation, makes frequent use of abstract concepts and transcontextual principles. It is these concepts and principles that enable men to make more predictions than women and to make more generalized statements of what a person or people ought to do.

In section 5.1.2 we saw Toulmin's statement about what is necessary before one can say that another "should" do something.

Toulmin maintains that a person makes a decision about what to do in a particular situation on the basis of transcontextual warrants. We see in men's writing a relatively large number of the grammatical constructions that would be necessary to encode such warrants. We see in moral reasoning studies men's tendency to make decisions on the basis of such warrants (Gilligan, 1982:24-34). A comparison between these facts leads us to believe that once again we are seeing sex-based differences in moral reasoning reflected in men's surface structure use of unmitigated should.

However, this comparison still does not explain why we see a large number of the modal auxiliary should in the conclusions of women's writing. To explain this phenomenon we must look a little more closely at each conclusion, its relation to the instructions (given to the student as a part of the survey), and to the rest of the text. We see in women's writing that every text had a stated conclusion. In men's writing, 17% of the texts did not. In women's writing, the stated conclusion was more likely to be the exact conclusion given in the instructions. In women's writing 34% of the conclusions were tied to the body by a construction such as because, for, or There are many reasons for this. In men's writing 17% of the conclusions were tied to the body of the text in this way.

In other words, conclusions in women's writing functioned both as conclusions of arguments and as links between the instructions and the bodies of the texts. We see women first repeating the conclusion given to them in the instruction, and then using various constructions to link that conclusion to the remainder

of the text. Treichler and Kramarae (1983:120; cf. Hirschman, 1973) have also observed this practice in women: "Women explicitly acknowledge previous utterances and try to connect with them while men have no such rule and often ignore preceding comments." In other words, the frequency of _should_ that we see in women's writing may not be due as much to an attempt on their part to direct behavior as it is to make connection with the limited immediate argument production context. Women may have used _should_ in their conclusions merely because the word was a part of the conclusion given in the instructions.

The final thing that we will look at in this section is the use of _will_ by men and women to make predictions. As already noted, men tend to make more predictions than women, and the predictions that they make are more likely to be about people than are women's. One possible reason for this pattern is similar to the reason that we have investigated for the higher number of unmitigated _shoulds_ in men's writing. If argumentation proceeds from transcontextual, transtemporal principles, what is true at the time of argumentation will, assumably, be true at some projected time in the future. If, however, argumentation proceeds within a specific context, that context may change between the time of argumentation and the projected time. If men argue from transtemporal principle, it would not be at all surprising to find more statements of prediction in their writing. The converse would be true for women.

5.2 Interpretation of Higher-level Findings

of Chapter Three

We look now at the higher level findings of chapter three. We will look specifically at warrants and at compounding versus subordination in men's and women's texts. What we saw in section 5.1, we will see again here: that differences in argumentative context produce differences in structure.

5.2.1 The Use of Warrants

The use of warrants has already been alluded to briefly in the sections dealing with _should_ and _will_ (in section 5.1.3). We saw in chapter three that men were three times more likely to use a hypothetical proposition as a warrant (i.e., hypothetical premises stating a general principle that contains information repeated in the conclusion). Structures reminiscent of _modus ponens_ (not to mention affirming the consequent) were more usual in men's writing than they were in women's writing. Overall, the argument structures that men used were more deductive than those used by women. On the other hand, women used repetition in order to tie the premise to the conclusion. Repetition in women's writing appeared not unlike that used in a narrative or a descriptive text, its purpose not to weave concepts together into an argument but to maintain a thematic progression of ideas throughout a text.

5.2.2 Compounding Versus Subordination

In order to understand these findings about the use of warrants, repetition, and deductive structure, we must look at them

in conjunction with compounding vs. subordination. We see in men's arguments a tendency to use subordination, and in women's to use coordination on both the sentence and discourse level.

Again we say that the reason for such usage, and the reason for differences in the patterns of usage of warrants, repetition and deductive-like structure, stems from sex-based differences in the production context. The differences in production context relevant here can be depicted in terms of "a hierarchy of rights" versus "a web of relationships" (Gilligan, 1982:57).

The notion of hierarchy is not foreign to the male experience. We saw in section 4.4.2.1 the role that hierarchy plays in a boy's peer group. In such a groups a boy learns to assert his authority and to appeal to principle to resolve disputes. Growing up in such a context (among other factors) structures the development of his moral reasoning skills. According to Gilligan (1982:50), boys learn to focus on standards of justice and fairness in making moral judgements. They learn to think in terms of "the right thing to do" (26), that right thing being decided upon on the basis of the process of bringing deductive logic to bear upon a particular situation (26-7). Boys learn that it is more important to be right than to be connected within a system of relationships, that orderly relationships stem from knowing what is right and doing it (62). As he grows in maturity a boy develops "a principled conception of justice" (27).

In short, a boy as he grows into young adulthood learn to see himself as a part of a hierarchical system. Hierarchy soon begins to

inform his moral reasoning. A young man has been acculturated to subordinate particular activities to general principles. He learns to think conceptually and in terms of subordination. It is little wonder, then, that we see such a large amount of subordination in men's writing. We see it on the text level as particular claims are subordinated to more generalized warrants. We see it even on the sentence level as some clauses are subordinated to others in sentences.

Subordination in women's writing, however, is less evident than it is in men's, again reflecting elements in production context. The image that best depicts women's production contexts is that of a web or network of relationships. As is true with boys, girls' moral reasoning begins to develop in the context of childhood activity and play. Girls most often play in small, homogeneous, and leaderless groups (see section 4.4.2.1). They learn to use talk to maintain relationships and equality. Girls' relationships are not hierarchized, and girls do not appeal to abstract principle but rather to the concrete network of relations to solve disputes. Because of the way that girls grow up, they learn to make moral judgements with reference to the "web of relationships" of which they are a part. Similarly, rather than appealing to abstract principles, women are more likely to return to a concrete context when making decisions (Gilligan, 1982:101). They employ "an ethic of care" (30) rather than an ethic of rights. Tension in women's making moral judgements comes not from a clash between principles and a particular context but rather from the difficulty of harmonizing individuality

and connectedness, responsibility to themselves and responsibility to others (57-8).

This focus on web rather than hierarchy may come to play a large role in a girl's thinking as she grows into young adulthood. Young women have learned to see themselves as a part of a network of individuals. They are acculturated to seek connectedness and to fear separation (Gilligan, 1982:62). They learn to think and to speak concretely, with reference to specific individuals and circumstances. Such things defy hierarchy, for the relation of one person in the network to another is not "above/below" but "next to." If such a "web" plays a significant role in women's production contexts, we may speculate that it is this "web" that gives rise to the large amount of coordination in women's writing. We see it on the text level as claims are strung together using enumerative devices and parallelism. We see it even on the sentence level as clauses are linked to other clauses in coordinate constructions.

5.3 A Contrastive Look at Deduction and Conduction

Having in mind chapter three's description of men's and women's argumentative texts, chapter four's sketch of argumentative context, and chapter five's interpretation of chapter three's findings in light of chapter four's, we are now ready to begin to make some taxonomic observations about the kinds of arguments employed by men and women.

The theoretical assumptions for these observations are found in sections 2.2.3.2 and 2.2.3.3. In section 2.2.3.3 (fig. 13) we saw

a model of induction and deduction that pictured the two not as mutually exclusive classes into which all arguments can be sorted but as two peaks of the same wave. That is to say that the essential characteristics of induction are readily distinguishable from those of deduction, but the border of the two classes in real-life are fuzzy and overlap. A similar statement holds true for deduction and conduction. These two argument types in their pristine textbook form are readily distinguishable from one another. In actuality, however, the boundaries between the two are fuzzy. In this section we will see that conduction differs from deduction in (1) the argumentative context from which it stems, (2) the purpose for which it is used, (3) its textual structure, and (4) the lower level grammatical and lexical elements it uses. We must bear in mind, however, that these differences are differences between the "peak" of conduction and the "peak" of deduction. As we could see if we were to compare the following definitions to the texts of chapter three, rarely if ever is a single argument archetypical of either conduction or deduction. We can (and will) say, however, that some arguments bear more conductive characteristics that deductive (and vice versa). In fact, we can say that women's arguments more often bear conductive characteristics than do men's. Conversely, men's arguments more often bear deductive characteristics than do women's. Even further, we can say that conductive arguments stem from more typically female experience and deductive from male.

In section 2.2.3.3 we saw the following definition of deduction:

A truly deductive argument is one in which a number of premises are combined in such a way as to necessitate the truth of the conclusion given the truth of the premises (within a particular sociolinguistic context). This combination is the direct result of the intent of the author to present a conclusive argument, and it takes the form of a typically deductive sequence of propositions (these sequences having been deemed throughout their history to give reliably true conclusions from true premises). This combination of propositions as final product will then have a formal relationship between premises and conclusion such that all significant information in the conclusion will also be contained in the premises.

Contrast this definition with Wellman's definition of conduction (Govier, 1976:12):

[A conductive argument] derives its conclusion from a variety of premises each of which has some independent relevance. Typically, although by no means always, several reasons are given in such arguments; and in those cases where a single reason is advanced, there are others which might have been given as well. Since what is characteristic of this sort of reasoning is the leading together of various considerations, it seems appropriate to label it "conduction."

In these two definitions we see at least two important differences. First, in a conductive argument (seen apart from its argumentation context) the choice of premises seems random. Several propositions can be incorporated, or only a single one. When several are used, Wellman mentions no criteria for their selection; when one is used, Wellman notes that another may have served just as well. By contrast, the selection of premises in deduction is not random. If all significant information in the conclusion is necessarily contained in the premises as well, the formulation of a conclusion dictates at least some the information found in the premises. The second difference is in the intent of the two argument types. In conduction the intent (at least in part) is "the leading together of various considerations." In deduction the intent is "to necessitate

the truth of the conclusion."

So we see that conduction is characterized by enumeration of premises and uncertainty of the conclusion given the truth of the premises whereas deduction is characterized by subordination of premises to the conclusion and certainty of the conclusion given the truth of the premises. Comparing these definitions to the conclusions of the previous sections in this chapter, we may hypothesize that the arguments produced by women are more typically conductive and those produced by men more typically deductive. That being so, we can now use the argument descriptions that we have been investigating to further define the nature of conduction and deduction as they are seen in real-life arguments. These definitions will be based on a tagmemic structure for the definition of argument/argumentation types (cf. fig. 11).

Chooses from inventory of syntactic and textual structures based on decisions previously made (as noted in cohesion and role cells)	Finalizes written argument as product having a structural relationship of premises to conclusion
Intends to present an argument for either a certain or uncertain conclusion	Arguer abstracts out propositions appropriate to argumentation from a system of beliefs

Fig. 15. A tagmemic structure for
the definition of argument/argumentation types

In terms of this schema (fig. 15), we now go on to define

deduction and conduction more thoroughly. We will begin with the argumentation context (cohesion) and proceed to argument as product (class).

The cohesion cell for a deductive argument would have to include some means of generating universal or general principles. It would have to include some notion of abstract truth, i.e., truth not dependent on context but rather on relations of ideas. It would also have to include the concept of hierarchy, specifically that particular behavior is appropriately subordinated to general principles. By contrast, the cohesion cell for a conductive argument would include, centrally, a view of the concrete interpersonal network associated with the arguers. It would include notions of cause and effect, which would then be applied to concrete events (eg., "If I do X, she is likely to respond with Y"). Finally it would include a commitment on the part of the arguer to be responsible to the people in the interpersonal network.

The role cell, purpose, of a deductive argument would be to deduce the correct way of thinking or the right way of behaving given a general principle and a concrete situation. For a conductive argument, the purpose would be to bring to light various considerations involved in the mediation of conflicting responsibilities to the end of deciding on a proper way of behaving.

The slot cell, the flow of the argument from premises to conclusion, in a deductive argument would include one or more (particular) grounds, (general) warrants, and conclusions. The relationship between these elements would be much like that described

by Toulmin model (1979:78; cf. section 2.2.2.2). Given the truth of the premises and a proper structural relationship between them, the conclusion will also be true. By contrast, the relationship between the premises in a conductive argument would be one of conjunction. Given the truth of the premises, a person would not have to accept the truth of the conclusion.

Finally, the class cell in a deductive argument would contain resources for encoding generalizations (BE verbs, low Transitivity verbs), abstract ideas (verbal and deverbal nouns, abstract nouns, universal pronouns), a way to encode hierarchy of ideas (subordination in sentence structure), and a way to make transcontextual predictions (will). By contrast, the conductive argument would need to have resources for encoding elements of an interpersonal network (personal pronouns, personal noun phrases), the importance of the specific events in the argumentative context (high Transitivity verbs), the recognition of acting and being acted upon (can to encode 'to have permission to', passive verbs), and equality among considerations (conjunctive sentences structure).

In short, the difference between conduction and deduction is not primarily that they are two mutually distinct structural patterns. Rather, conduction and deduction are two different ways of going about the process of arguing and making moral judgements. These two different ways, when they become reified as argument, reflect their differences in surface structure differences, and hence we posit two different kinds of argument. In other words, the distinction between deduction and conduction can only become clear

when we look at argument/argumentation sociolinguistically. Conduction and deduction in English argumentative texts reflect differences in the two largest sociolinguistic classes, men and women.

As a closing note in this section--a coda, perhaps--we now look briefly at conduction as it is attested to by women of various professions. None of them calls the thinking that they are doing "conduction," but that they are doing conductive thinking is apparent when one compares their statements to the description of conduction seen above.

From within the field of philosophy, Carol McMillan (1982:28-9) has this to say about rationalism and logic apart from context:

> At any rate, to think that feelings are important and have their place only in a human life is not to commit oneself to a denial of objectivity and the possibility of knowledge because ... the notion of objectivity need not be restricted to those activities which are independent of feeling and emotions. Indeed, it must not be so limited if some of the most profound experiences of men and women are to be recognized for what they are. In effect, it shows that the rationalist account of knowledge cannot even accomodate those spheres of activity which rationalists would like to see as their special achievements because logic and rationality exist neither in any one thing nor in isolation from the diverse and concrete situations in which they have their place.

From within the field of rhetoric, Sally Gearhart (1979:198) proposes a "non-persuasive notion of communication" as an alternative to traditional aggressive persuasion. She says,

> Communication can be a deliberate creation or co-creation of an atmosphere in which people or things, if and only if they have the internal basis of change, may change themselves; it can be a milieu in which those who are ready to be persuaded may persuade themselves, may choose to hear or choose to learn.

From within feminist studies Dale Spender (1981:7) calls into question the traditional research process:

> Feminists have long been extremely critical of the way in which knowledge has for so long been presented as a _fait accompli_ with little or no acknowledgement of the part played by the personal in the process of producing such knowledge. Instead of trying to be 'detached' feminists are blatantly 'involved' in the knowledge which they are producing, and unlike the traditional model in which the researcher is presumed to be 'outside' the subject matter being researched, feminist contributions frequently testify to the way in which women are changed by the research process.

Finally, from within the field of literature, Toni Cade Bambara (Tate, 1983:23), a contemporary black author, speaks of a narrative approach to moral judgements. She says,

> What I strive to do in writing, and in general ... is to examine philosophical, historical, political, metaphysical truths, or rather assumptions. I try to trace them through various contexts to see if they work. They may be traps. They may inhibit growth. Take the Golden Rule for example. I try to live that, and I certainly expect it of some particular others. But I'll be damned if I want most folks out there to do unto me what they do unto themselves. They are a bunch of unevolved, self-destructive wretches out there walking around on the loose. It would seem that one out of every ten people has come to the earth for the "pacific" purpose, as grandma would say, of giving the other nine a natural fit. So hopefully, we will not legislate the Golden Rule into law.

CHAPTER VI

CONCLUSION

6.1 Summary

In the introduction, the task of this dissertation was described as follows: (1) to lay out a means of analyzing argumentative text that incorporates insights from textlinguistics (especially Pikean tagmemic textlinguistics), informal logic, and sociolinguistics; (2) to analyze the differences between argumentative texts produced by university freshman women and those produced by their male counterparts; (3) to compare the findings of this analysis to previous studies in sex-based differences in English; (4) to present a sketch of these texts' social production context with an emphasis on sex-based social patterns in communication style and in moral reasoning; (5) to analyze the findings in #2 in light of #4.

In chapter two we saw how insights from tagmemics, informal logic, and sociolinguistics can be combined to provide both approach and methodology for the analysis of argumentative text. Tagmemics provides theoretical statements about observer perspective; particle, wave, and field; and the analogy between linguistic and other kinds of behavior. These insights prove to be valuable elements of approach when analyzing argumentative text. Methodologically, Pikean

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tagmemics provides us with the four-celled tagmeme that helps us form a single coherent picture of several aspects of argument and argumentation. The four-celled tagmeme proves a valuable heuristic for organizing and seeing relationships in the various ways of looking at an argumentative text.

Chapter two also described why insights from informal logic can be combined relatively easily with tagmemics. Both have an inherent distrust of formalism, and both emphasize the importance of context and point of view both in argument production and in analysis. Furthermore, informal logic provides us with a taxonomic system for argument types and several methodologies for argument analysis that tagmemics lacks. Combination of insights from tagmemics' particle, wave, and field with the approach and methodological statements of informal logic yield a process/product model of argument.

The final section in chapter two presented this model of argument as seen through the insights of sociolinguistics. The field of sociolinguistics provides us with variationalism as both approach and methodology. For our purposes variationalism is modified to establish the link between structural variants in the argument as product and the social constraints on production in argumentation as a production process.

This combination of tagmemics, informal logic and sociolinguistics forms the theoretical foundation for chapter three. In chapter three we saw various sex-based differences in arguments produced by university freshmen. These differences involved lexical

choices, grammatical structuring, and the structuring of text. In short, women tended to use more lexical items and grammatical and textual constructions to encode personal identity and relationship between persons. Men tended to use those that encoded general-izations and abstract concepts. Women tended to use sentential and textual coordination whereas men tended to use subordination.

In chapter four we saw that previous studies had found linguistic sex-based differences similar to the ones found in this study. Previous studies have found similar emphasis in women's writing on people and their relation to the text. They have also found a tendency of women to use coordination and of men to use subordination. More notable, however, were the number of previous studies recording stereotypes of men's and women's logic. Most studies of stereotypes dealing with thinking and logic record the popular view that men and women do indeed think and reason differently.

Such stereotypes are, as was noted in chapter four, a part of the production context of the texts being examined. Also a part of this context (and also detailed in chapter four) are actual documented difference in moral reasoning. The principle differences between men's and women's moral reasoning seem to revolve around women tending to make moral judgements with reference to their interpersonal context more than men do. Men, by contrast, tend to make judgements with reference to abstract or universal principle more than do women. Similarly, women when doing academic research tend to see themselves as a factor determining the shape of the data

whereas men tend more to see the data as something outside themselves. This orientation (simplistically stated) toward people on the part of women and toward principle on the part of men is also evident in a number of other sociological studies (other than those studying moral reasoning). These studies were examined and summarized to provide a sketch of the production context of the texts.

In chapter five the pieces of the previous chapters were brought together. Actual textual structures as seen in chapter three were interpreted in terms of the social production context outlined in chapter four. The outcome was description of two different kinds of texts: conductive arguments and deductive arguments. Conductive arguments, which women are more likely to write, are characterized by an attention to context. By traditional standards they would be considered less formal than deductive arguments. They bear characteristics of conversation and narrative discourse, perhaps because these genres have greater resources for attention to the interpersonal production context than does traditional argumentative text. Conductive arguments tend to rely more heavily on coordination than on subordination both on the sentence and on the discourse level. They are more active and transitive. By contrast, deductive arguments, which are more typically written by men, tend to be more concerned with structure. The connections between the premises and the conclusion are more easily made in deductive argument than they are in conductive. They are more formal and rely more on BE verbs and verbal and deverbal nouns. They employ subordination and are

more likely to supply general warrants for specific claims.

In short, there do indeed appear to be sex-based differences in English argumentative texts, and these differences appear to stem from differences in the texts' social production context.

6.2 Implications for Textlinguistics and Informal Logic

In chapter two we saw some of the strengths and weaknesses in tagmemic textlinguistics and informal logic. One of the contributions of this dissertation is to suggest to tagmemic textlinguistics that its category system for dealing with nonnarrative text could benefit greatly from incorporation of insights from informal logic. Similarly, this dissertation demonstrates that informal logic needs to pay more attention than it has to the actual linguistic structures in argument analysis. The implications of the findings of this dissertation, however, go beyond these issues and the theoretical issues discussed in chapter two. If argument variations can be traced to sex-based social factors, textlinguistics and informal logic, both in their theory and practice must begin to develop means of accounting for these factors.

6.2.1 A Challenge to Textlinguistics

First of all, on the level of approach, since social factors in an argument's production context influence the choice and shape of structures in the argument as product, any study of isolated textual structures is incomplete. For example, in this work only a socio-linguistic approach to text analysis could have discovered that use

of the passive voice, the personal pronoun I, and coordination in sentences and paragraphs are not isolated phenomena; rather, they are connected by way of a common origin. Textlinguistics needs to become more sociolinguistic. It needs to begin to consider text as product, text as process, and the interrelation between the two.

Secondly, on the level of methodology, the results of this study serve as a caution to the field linguist. Different social groups (including the two sexes) may well employ different text structures. If the linguist keeps inadequate records about the author and social production context of a text, that linguist may well find him/herself confronted with far more cases of "free variation" than need be.

6.2.2 A Challenge to Informal Logic and Critical Thinking

The challenge of this dissertation to informal logic and critical thinking lies mainly in two areas. These areas are 1) argument assessment, and 2) the humanization of critical thinking.

6.2.2.1 The Challenge to Traditional Means of Argument Assessment

One of the practices that the above-stated conclusions challenge within traditional argument assessment is that of categorizing arguments as either deductive or inductive and assessing them as either valid or invalid, strong or weak. Granted, not all schools of informal logic still use this kind of categorization and assessment, but since it is firmly entrenched in the history or logic, since it has proved its value many times over, and since it is

still used by a large number of informal logicians, we ought to look
at it in light of our findings.

This dissertation presents evidence that conduction is a
viable argument type in itself, not a subcategory of either induction
or deduction. In sections 2.2.3.2 and 2.2.3.3 we saw that the
categories "induction" and "deduction" are not without problem. In
section 5.3 we saw that a conductive argument is another way of argu-
ing, a way of arguing with crucial reference to a social context.
The characteristics of a conductive argument—its text structure, its
purpose, its use of sentence types, and its lower-level grammatical
and lexical choices—are different from those of deduction (and
presumably from those of induction). In fact, conduction may not be
primarily a structural argument type at all. We have seen evidence
that it is a type of argumentation distinguishable from deduction and
induction by its goals and values. If this is so, conduction is
first and foremost a distinct kind of argumentation, and,
secondarily, a distinct kind of argument.

What does this preliminary attempt to discern the nature and
social origins of conduction say for argument assessment? It says
that present informal logic theory and practice, in so far as it
focuses on the traditional notions of induction and deduction, in so
far as it concentrates on structure to the detriment of context, is
weighed in the balances and found wanting. We find conductive argu-
ments in real-life, but in the academic world we lack the tools for
assessing their success. If informal logic is, as it claims,
interested in the analysis of real-life arguments, then it must begin

to develop new tools to deal with context-bound argumentation such as conduction. So long as we persist in focusing mainly on the structure of inductive and deductive arguments, we will continue to lack both the approach and methodology to deal with an argument type whose success is inseparably interwoven with argumentative context.

For a discipline to ignore such a lack is generally, at worst, only poor scholarship. In this case, however, more may be at stake. Ignoring context-bound argumentation, its social implications, and its potential impact upon scholarship may be construed as discriminating unfairly against a segment of our population. If it is indeed true that traditional logic (with its focus on deduction and induction) is a product of a male approach to moral reasoning, perhaps we are guilty of overestimating the value of traditional logic within argumentation as a whole. It is no secret that until relatively recently the academic world was a male bastion. There would have been no reason for typically female values, thought and behavior patterns to have had any impact upon it at all. That, however, is not the point. The point is that if the male majority in academe was anything like most (all?) other social majorities, they would have institutionalized their way of thinking and behaving, thinking it the best and most logical way of doing things (as it may well have been--for them). It would follow that if deduction is a typically male way of arguing, arguing in academe would take place according to the finest traditions of deduction. And what of other modes of argumentation? As minority viewpoints, they would have been considered less desirable. Perhaps the high value placed by the

academic world (to this day) upon good deductive argumentation and argument is yet another case of the characteristics of a socially favored group being valued at the expense of a less favored group. But what of contemporary women academics? Milroy (1982:209) has noted that

> under the impact of ... sociolinguistic stratification persons who speak socially disfavored varieties frequently appear to become alienated from their own variety of language and to judge it as, for example, inferior, sloppy, ugly, illogical, or incomprehensible.

It is possible that the value placed on rigorous deductive logic by the academic community stems from men's perceiving such logic as (relatively) natural and women's perceiving it as a part of a favored variety of text.

Could it be that conduction has been ignored by academe and labelled derogatorily as "women's logic" not because of any inherent flaws but because it is most typically used by a social minority variation (minority in the sense of a group out of power)? Typically, minority groups have been seen as being less desirable than the majority. Characteristics of their speech and mannerisms have been seen to be incomprehensible, unattractive or illogical. Yet more objective study shows that often the characteristics labelled as marking inferiority are relatively insignificant parts of the overall system of communication (Milroy, 1982:209). Could it be that the characteristics that distinguish conduction from deduction are relatively minor within the broader scope of real-life argumentation? Could it be that deduction is highly over-rated? Could it be that "women's logic" is highly underrated? The work of this

dissertation cannot answer these questions. That would be in the province of a more sociologically oriented study. It can, however, state that they appear to be valid questions in light of its findings.

At this point a word in favor of balance needs to be said. If some time in the future we do manage to demonstrate that the perceived value of traditional logic is a grossly overplayed social construct, this would not negate its formal claims—claims about truth of premises and conclusions, certainty, the epistemological consequences of structuring text in a given way. To call into question the social value of deduction would only say that truth, certainty, structure, and other such conclusions are only a facet of argumentation. Attention to context, audience, and the relationship between the author and the argument are also facets of argumentation. Though in traditional logic they have been, for most practical purposes, ignored in favor of more formal facets, we must be prepared to see value to the study of argumentation.

We can say, therefore, that for both academic and social reasons, informal logical and critical thinking need to broaden their investigation of what makes a successful argument. Similarly, they need to ward off the temptation to define success of real-life arguments only in structural terms. Work in speech communication seems to indicate that arguments in real life are successful not so much because of their deductive structure or their inductive strength, but because they sound logical (Bettinghaus, 1968:157-9, 165; McCrosky, 1969). In real-life argumentation social factors (at times

"illogical" factors) affect to a great degree the acceptance of an argument. Study of the social and informal facets of argumentation should begin to inform the study of the transcontextual and formal aspects much more than it has in the past.

6.2.2.2 The Humanization of Critical Thinking

Sally Miller Gearhart (1979) has written an article entitled "The Womanization of Rhetoric." It is a temptation to entitle this section "The womanization of critical thinking." To do so, however, would be to fall prey to the very same kind of problems that I wish to speak against. If it is true that critical thinking has been acting from an inadvertently sexist position in focusing upon and teaching induction and deduction to the relative exclusion of conduction, it would be no less sexist to ask it to drop the notions of deduction and induction in favor of the more context-bound conduction. I do not propose a womanization of critical thinking if that means condemnation of the insights of the past (as Gearhart tends to do in her article). Rather, I propose a humanization of critical thinking, a melding of insights from both deduction and conduction. From a purely pragmatic standpoint, in a world where men and women are increasingly meeting as peers and colleagues, men will increasingly have to argue with women and women with men. To be familiar with the way that the opposite sex tends to argue could be even more useful than being bilingual. But from a perhaps more feminine point of view, an understanding of both men's and women's modes of argumentation could do much to promote understanding between

people, both male and female. A teacher's showing critical thinking

students that the person across the aisle may think somewhat

differently than they do, helping them bridge that small gap, may be

the first step in helping them as future leaders bridge even larger

gaps (like, perhaps, even the Gulf of Mexico or the Bering Sea).

To prepare students for cross-sex argument in various

contexts is the challenge facing the critical thinking teacher. What

do we critical thinking teachers teach? It is a definite problem

that we do not know at this point what fully developed conductive

argument/argumentation might look like. This dissertation has only

looked at the arguments of freshman university students. It would be

as unfair to judge mature conduction on the basis of freshman women's

essays as it would be to judge deduction on the basis of freshman

men's. We need to find a place where mature conduction can be found.

Now if it is true that deduction is the prestigious style of

argumentation, today's freshman women would probably begin to adopt a

more deductive style rather than a more mature conductive style as

they progress in their studies. Labov (1972) has shown that people

seeking upward mobility are likely to adopt prestigious com-

munication styles. The three places where nonprestigious styles can

be found are: 1) in the incurably nonprestigious groups, 2) in the

prestigious groups that have no fear of regression, and 3) in groups

who for various nonconformist reasons want to maintain their

distinctiveness from the prestigious group. In seeking models of

mature conduction, the second group may be the best possibility.

Perhaps we ought to be investigating arguments produced by female

senior professors who are secure and respected in their positions, or perhaps powerful female business executives. This may be the next descriptive study in the search for the nature of conduction.

Assuming that such a style exists, the question then becomes, what do we teach? Do we teach women deduction even if it is shown to be a foreign mode of reasoning to them? The answer to that question must be "yes." Deduction is crucial to many enterprises and will continue to be even if we can isolate and describe (or construct from theoretical postulates) what a mature conductive style may look like. That is to say that we must continue to teach the things that we have always taught, but we must not teach them alone. We must also begin to teach conduction, context-based reasoning, reasoning that manifests, as a crucial component part, responsibility to particular individuals in the argumentative context. And we must teach it not only to women, enabling them to develop consciously what may still be only intuitive, but we must teach it to men as well. Only by investigating and teaching both male and female styles of reasoning to both men and women can the humanization of critical thinking be accomplished.

6.3 Directions for Future Research

Where do we go from here? Several directions are possible. In the area of tagmemic textlinguistics, further descriptive work must be done. We need to look at argument types and their discourse and lower level characteristics. We need to systematize further the connection between the characteristics of text as product and the

sociolinguistic production context.

In the area of informal logic, the possibility for development of a sociolinguistic means of argument assessment is wide open. Further work must be done to describe conductive argumentation. We must also begin to consider what implications the findings of this study have on teaching. What argument structures do we teach? How do we teach a mixed group of men and women?

In the area of description of sex-based differences, this study only scratched the surface. The findings of the study have barely opened the door to the study of sex-based differences in text. We must begin to narrow the scope of our studies, to study few variables with larger groups, different ages, different educational backgrounds. We must begin to consider whether the findings of this study are genre-specific or common to all kinds of texts. We must begin to consider sex-based textual differences in other languages and cultures.

The work that remains to be done is vast. This study has raised more questions that it has answered. It has challenged those factions of textlinguistics, argument analysis, and critical thinking that previously have never taken into consideration the sociolinguistic category of male/female. It has asked us to reassess what we have always known about deduction and induction, "women's logic," variations in text. We have indeed accumulated far more questions than we can answer, and that probably to our good.

> Socrates: ... At first he did not know ...; even now he does not know, but then he thought he knew, and answered confidently as if he did know, and he did not think himself at a loss, but now he

does think himself at a loss, and as he does not know, neither does he think he knows.

Meno: That is true....

Socrates: Indeed, we have probably achieved something relevant to finding out how matters stand, for now, as he does not know, he would be glad to find out, whereas before he thought he could easily make many fine speeches to large audiences.... (Plato, Meno, 84a-b)

Notes

[1]A word ought to be said about the focus of this dissertation on Pikean tagmemics. The choice to focus on the methodology of Pikean tagmemeics to the relative neglect of some other branches of tagmemics, and the choice to focus on tagmemics to the relative exclusion of other forms of textlinguistics was mainly a pragmatic one. I have done more work in tagmemics (particularly Pikean tagmemics) than I have in other schools. Particularly, I have used it on previous work on this topic. I do not claim that it is the last word on the subject of text analysis. But in my opinion, it is a good word.

[2]The referential hierarchy is one of the three principle hierarchies in Pikean tagmemics. In a sign-signified set, the grammatical and phonological hierarchies deal with the real-life conveyance of the sign while the referential hierarchy deals with the signified.

[3]Cf. Enkvist (1981) on experiential iconism.

[4]This scheme is an inseparable amalgam taken from tagmemics, Kuhn (1970), Kant (1929), Hirsch (1976), and I am sure others. The way the parts are put together, however, is my own.

[5]Pike (1982:xii) defines "etic" as follows: "[it] labels the point of view of the outsider as he trys to penetrate a system alien to him". The reader is encouraged to compare this definition with the ones implicit in figures two and three in this work.

[6]"Phonology" is the study of the sound system of a language. A "phone" is the lowest level etic unit within this study.

[7]Granted there are other logical structures than the syllogism (cf. Walrod, 1983). Some of these structures may be more dependent on temporal relations than is the syllogism. The syllogism, however, shows us one way that westerners reason, and that way appears to be without reference to temporal relations. To account for the structure of arguments in English, we must, therefore, go beyond temporal sequencing to other kinds of sequencing.

[8]Walrod (1983) has demonstrated that validity structures (or at least the criteria for soundness) vary with cultural milieu.

[9]See Longacre (1979, 1980, and 1983), Pike and Pike (1982),

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Jones and Jones (1979).

[10]Reification is defined in section 2.2.3.1.

[11]"Noema": in this case the strictly mental component of the act of speaking.

[12]In addition to the immediate context (such as the syntactic context) another thing that is treated in the slot cell is temporal context, i.e. how a particular unit fits within a temporal wave.

[13]Linda Flowers (1979) speaks of a kind of writing that (during the process of writing) takes into account the questions, objections, etc. that may come into the mind of the reader upon reading. She calls this kind of writing "reader-based prose" and contrasts it with the more egocentric monologues that she calls "writer-based" prose.

[14]Theoretical or methodological statements typical of the informal logic movement (or of a large part of the informal logic movement) will hereafter be called simply "informal logic". It is recognized, however, that the movement is very heterogeneous and that not all informal logicians would own the ideas ascribed here to the movement as a whole.

[15]This problem will be particularly important in the next section as we try to categorize the different types of arguments being analyzed.

[16]This statement is made, of course, with the realization that ultimately structure and content can never be teased apart. We are looking here at predominantly structural features.

[17]Though the Toulmin model offers ample categories to deal with the role structure of this argument, we ought not to assume that its range of categories is exhaustive enough to deal with all kinds of arguments.

[18]In this case the attempt of modern writers to "emancipate" themselves from character (cf. Genette, 1972:246) is the exception that proves the rule.

Appendix 1

Data Base

Men's texts:

1M

        English is the basic communication in America that everyone
should known. Many business in good fields of jobs communicate by
the English language. Also, the professor teach in the English
language. So, a better understanding of the English speaking
context, as in writing, should be learned by everyone.

2M

        The legal drinking age should not be raised to 21. Since I
have lived in Germany for the past 9 years of my life, I have become
aware of how wise the Europeans are. The drinking age in Europe is
really non-existent. I feel this is a good idea because that way the
younger people will learn how to handle their alcohol before driving.
This is why the driving age in Europe is 18. When it comes to
drinking and driving in Europe, it doesn't happen because the drivers
know the effects and consequences which could occur from driving
while intoxicated. This is the reason why I feel the drinking age
should not be raised and the driving age raised to a responsible age.

3M

        The legal age should not be raised because it's not going to
make any difference. Kids will be able to get any kind of beverage
that they want any time they want. If a person is a legal adult at
18 and can be old enough to go to war, his certainly old enough to
drink. Besides if the kid doesn't drink his going to get drugs even
easier. Instead of drinking a beer after worked he'll just smoke a
joint or pop a couple.

5M

        Last year a friend of mine was given a ticket for minors in
possession. The arresting officer took over a case of "cold ones"
from him, (and me) to keep "for evidence." He was eighteen. This
situation never would have happened if the drinking age hadn't been
raised to nineteen. Now they want to raise it to 21. What a great

welcome a young man would have on his return from a war-- risking his life for his country, only to be denied a beer at the local bar. If a man can carry a gun for his country, he can carry a bottle, too. I've been buying not just drinking, since I was fifteen, so the laws really have little effect anyway, except in bars. I sort of know why the government wants to raise the age. If a war comes about, they don't want a bunch of drunks on the front line....

6M

English composition should be a required course for all undergraduates at UTA. Everybody is going to have to write something at one time or another, but if they are not properly schooled in writing they probably will not do a good job. Most high school students do not have a good background in composition writing, and these will have trouble writing a good essay unless they are forced to mature in writing by having to take composition classes. These are just a couple of ideas as to why English composition should be required at UTA.

7M

It would be to everyone's benefit for the drinking age to be raised to 21. It has been a proven fact that when the drinking age was raised the death toll was lowered. In doing so fewer teens will be able to get alcohol as easy. It has also been proven that the majority of drunk drivers and accidents were caused by people in their teens. So I encourage you to change the drinking age to 21.

8M

The legal drinking age should not be raised. There should not even be a so called drinking age established. After all, how many countries even have a drinking age? However, there should be very strict law that would enforce excessive drinking and driving a inopprtune times, such as before school. If a young person does drink too much or/and too often, he/she be mantitenly placed in an institute and treated as if he/she were an alcoholic.

10M

Raising the drinking age to 21 is a bad idea. Raising the legal age isn't going to help the problem of drunk driving very much. Minor's can get just about anyone to by them alcoholic beverages. Raising the drinking age to 21 will raise the number of minors caught with alcoholic beverages. One other strong opposition to raising the

drinking age is the draft. Our country considers an 18 yr old
male/female old enough to give his/her life for his/her country, but
not old enough to drink alcohol. If our state raises the drinking
problem one can surely bet that more kids will turn to other
stimulants.

11M

English composition should be required for all undergraduates
at UTA. Thoughout the entire career of the student the need to be
able to write and communicate in an effective manner is mandatory.
Upper level courses require writing papers on many different subjects
to many different audiences. Interpretations of books and/or
observations make up the bulk of these papers. In English classes
students may learn how to write in order to communicate properly. If
not required to take the course students would have to learn as they
wrote the important papers for the upper level courses adding to
their burden. As a requirement for undergrads at UTA English comp is
needed.

12M

The legal drinking age should not be raised to 21. If the
age is raised it will just make the younger want to drink even more
and there will be more arrests of people who are underage drinking.
No matter what age they set it at, kids are still going to drink.
Being under the legal age now, I know how much stronger the will to
drink is. Just because they raise the age doesn't mean people are
going to stop wanting to drink. If anything the desire will just be
that much stronger.

13M

As a minor, 18, I have been to many parties to replace the
clubing activities in my social life. At these parties, everyone was
under 19 years of age. The only reason they came to the party in the
first place was to socialize and drink. As I get older, drinking
seems to become more and more important in my social life. I see
absolutely nothing wrong with drinking as long as it is kept in
moderation. However, if the drinking age was raised to 21, the
minors would find some way of getting the alcohol anyway. If a
person is driven to drink, he will do it at any age. No one can stop
them.

14M

In this day and age of Air travel, fast cars and high
Interest Rates, one cannot always find the time to do the things he
or she enjoys. In this particular instance, I'm talking about having
a drink. When a student is Between the ages of 18 and 19, he is
faced with many responsibilities that he has never been faced with
Before. The student, or worker, depending, has already registered
for the Legal draft. Everyone knows certainly what that entails.
Also he finds himself taking on higher obstacles, and setting higher
Goals. However after a long day at school, he can't set down for a
drink. That's not Right. We should at least try to look at our
young People again, at least give them one more try.

15M

The legal drinking age should not be raised to twenty-one for
several reasons. If the government officals are going to take away
our drinking priveledges they should do the same for the 40-50 age
group because statisitics show that that age group is just as
"irresponsible" with alcohol as the under 21 age group. Also, kids
have mananged to get alcohol one way or another for quite sometime
and the raising of the drinking age will have a minimal impact on
that, at best. We have the right to vote and to serve in our
nation's armed forces and to be killed while protecting those rights.
I do not feel that we who are responsible and inteligent when it
comes to drinking and knowing the safe limits of alcohol should have
to give up something that we enjoy having on occasion.

16M

The legal drinking age should not be raise to 21. The legal
drinking age of 19 is appropriate for those persons who are mature
enough to handle it. Although there are some people who overdue it a
little on the weekends or when ever, there are those who can control
their drinking. Many people also believe that raising the drinking
age to 21 will get the alcohol out of high schools. This is not
necessarily true. Most people are not 19 in high school for long
anyway and as long as their not drinking in school it is not a burden
to anyone. If the legal drinking age is raised to 21 the high school
people can still get the liquor. Most high school kids always know
of some little "hole in the wall place" that sells alcohol and
doesn't need an Id. The age does not really matter because if
someone wants to drink-- they will.

17M

       English Composition should be a required course for all
undergraduates at UTA. This course not only teaches the student to
write grammatically correct but also teaches him to express himself
and to communicate with others through writing. The only way to
survive in the business world today is to be able to communicate with
others by means of letters or memos. If you are unable to do this it
is hard for others to understand what you want from them. If you are
unable to communicate through writing it slows the process down
because you have to take time out to go explain what you just wrote
and told him to do. This is a waste of time and money, so the better
you can express yourself through writing the more quicker things can
be done.

18M

       The legal drinking age should be raised to 21. One reason to
raise the age is to prevent a high percentage of DWI's while the
drivers are the ages between 19 and 21. Raising the age will
probably cause the number of accidents which kill innocent people by
people who drive drunk. People favor this because those people who
are the ages 19-21 do not have a very good judgement on driving,
their reflexes are fine but the judgement, whether they should run a
yellow light or not. So by all means raise the drinking age, it's a
sacrifice of drinking while driving over someone's life.

19M

       The legal drinking age should be raised to 21 for several
reasons. First of all there is the constitutional right to do
anything we wish as long as it doesn't infringe on the rights of
others. As legal adults capable of electing a president, deciding
the future of this courty and dieing in its defense, those 18 or
older deserve the choice of whether to drink or not. A law
restriciting the consumption of alcohol by persons under the age of
21 promotes the fallacy that persons of this age group are
incompetent. Legislatures have no right to impose their beliefs
about the responsibilities of the youth of this nation and yet expect
them to pay taxes, vote etc. as a legal adult citizens. Another
problem with a law of this type in the unenforceability of it. One
must be very naive to believe that prohibit the sale of alcohol to
persons below the age of 21 will stop drinking. If anything it will
promote a romantic air about drinking to rebellious youth. Alchol is
prevelant and cheap enough that minors will find illegal sourses
despite legislation. In all the legal drinking age of 21 should not
be promoted because it is unconstitutional and unenforceable.

20M

English composition should be a required course for all undergraduate students at UTA. Learning how to write clearly and effectively should be a priority for everyone. During college and later in the business world, effective writing is a tool that can be very effective for ones own advencement.

21M

I admit I have no great love for alcohol or drunkenness, but I am a firm believer in personal responsibility. I think a person should have a say in what he wants and will do. So, if young adults were given such a choice freely, they might learn, in time, some restraint in this area. As it is, I don't see that we (the public) give young people much freedom, so they must go get it for themselves. In Europe, however, these circumstances are very different and so are the teenagers there.

22M

I believe that the legal drinking age should not be raised to 21 because of the mootness of the point. Today, there are just as many teenage alcoholics in the world as adult and being under 21 may restrict a person from buying alcohol but it in no ways restricts a person from drinking it. That is to say a teenage can get is, and a teenager can drink it. Raising the drinking age to 21, I believe, would not hinder the amount of drinking going on.

23M

I believe the legal drinking age should be raised to twenty-one— if that is as high as it can be raised. Too many people are being killed in accidents due to excessive drinking. Most young people don't realize or don't care how much they drink until it is too late. The whole country should have a standard on the drinking age which should be as high as possible.

24M

The legal drinking age should not be raised to 21. I feel this rise in drinking may cut down on death's, however this will not cause a total drop. If one is old enough to participate in politics or sent off to protect his mother land, in a responsible fashion, than why is he not responsible to consume alcoholic beverages. Todays generation would than turnto the easy access of drugs, if they

could not have alcohol to consume.

25M

The legal drinking age should be raised to 21. Alcohol is the #1 drug used by teenagers today. By raising the drinking age to 21 it would make it harder to buy booze. I know that it would stop everybody from drinking that is under 21 but it can't hurt. What is 2 years more? Teenagers should be able to wait two more years.

26M

The legal drinking age should not be raised to 21 because it really wouldn't solve the problem at hand and would cause more drinking on the streets. If the age is raised, people 19 and 20 years old will still drink. The only difference is they won't have a place to do it. Their drinking will take place at a lake or a park or some other obscure place and they would have no opportunity to sober up before driving home. Another thing is that is society is successful in cutting off younger people, then these people will probably turn to using drugs or some sort of stimulus. Then, society will complain about teen-age death due to over-dose or driving under the influence of narcotics.

27M

English composition should be a required course at UTA. The class helps as person's thinking and writing ability. Many entering freshmen don't even know how to begin writing a composition or construct an argument. This is my 2nd semester at UTA and I am enrolled in Engl. 1302 argumentative writing. I think English will help me considerably because it helps you think about more than one angle to approach a subject or argument. I think a person needs to know how to communicate with others on various subjects especially when they complete college and go into the real world.

28M

English composition should definitely be a required course for all undergraduates at UTA. Because a student has entered university level, he should be able to compose written assignments beyond what he has learned in high school English classes. If a student is required to take a university English composition, he will be at least adequately ready for the many compositions that he will be required to write throughout his university education.

29M

       The legal drinking age should not be raised to 21. When a
person turns 18 he or she gains alot of right. He or she has gained
the right to vote in state and national elections and to sign legally
binding contracts. At age 18 males must also register for the draft
which means a possible going to war and fighting for one's country.
As it is evident that people who turn 18 take on alot of
responsibility at this age the right to buy and consume alcohol
should not be held away from them for another three years. They are
now legally adults and they should be allowed to drink as an adult.

30M

       The legal drinking age should not be raised to 21. Drinking
is a responsibility such as voting, or registering for the draft.
There seems to be no issue or complaints of the possibility of being
drafted if need be before 21 so why should there be any for drinking.
The same goes for the ability to vote. Voting is very important on
issues and the way our government is run. I think a person
responsible enough to make voting decisions is responsible enough for
drinking.

31M

       The legal drinking age should not be raised to 21. There are
enough drinking laws on the books now. Adding one more will not
reduce drinking/driving accidents. The laws that currently apply are
not being enforced to the proper extent. There are 16 year-olds in
the bars now, and fourteen year-olds getting drunk whenever they
want. When the authorities enforce the current age restriction,
then, and only then can they expect the new age restriction to do
it's intended purpose.

32M

       Drunk driving is a problem among most teenagers between the
ages of 16-19. People on an average basis never think about the
affects their child or teen might have on another driver. With this
being the case, the public is ignorant to the fact the state is
trying to prove; the drinking age must be raised. By raising the
drinking age to twenty one, people are in less danger of encountering
a child under the influence of alcohol. These children behind the
wheel of cars have in the past caused many deaths, and the staggering
statistic is that most of the murders were teenagers. The state of

Texas is at a threat of losing thousands maybe millions of dollars in highway funds because of the issue of drinking age. It would simply be beneficial to everyone, physically as well as economically.

Women's texts:

1F

     The legal drinking age should stay at 21 because you are considered an adult in many ways when you are 18 or 19. When you are 18 you are allowed to vote in major elections and that's having a say in our gov't. At the age of 18 you are also allowed to go fight for the U.S.A. in war. If we aren't responsible young adults at the age of 19 then we never will be. Most people know their limits, but if you don't in the end you will be severely punished either by man or God.

2F

     In my opinion, the legal drinking age should not be raised to 21 because when you reach age 18, you are considered an adult. It is said that you can be punished for any crime as an adult when you reach 18, yet keeping people from drinking until age 21 is depriving them of adult advantages. If people are going to go out and drink and get stopped for a DWI at age 18 then as an adult, they get tried or spend time in jail as an adult, and that's the way it should be.

3F

     There is a large disagreement if the legal age for drinking should be raised. I think that the age of, 19, is a splendid age. To me, when a person turns 18, they have recieved the right to vote, enlist into the army, and become a legal adult. If we as teens are given so many responsibilities at that age, drinking, if done, should and could be handled on the same level of responsibility. No, I don't think the drinking age should be raised to 21. It will do more harm then good!!

4F

     The legal drinking age should not be raised to twenty-one. Every male is required, not asked, to register within ten to thirty days of his eighteenth birthday. If there were a war, they would probably be forced to go to battle. You are allowed, in the state of Texas, anyway, to get married without your parent's consent at eighteen. Most have at least finished high school and have made some kind of decision about their future by the time they are eighteen. If all these responsibilities are dumped on you at eighteen, why shouldn't you be allowed to choose how you spend your time or treat your body?

6F

      The legal drinking age should not be raised to 21. There are many differene reasons why the government should not pass a mandatory drinking age. First and most important, the Federal Government does not have the power to over ride the State Government. The states have certain rights and their rights are slowly being taken away by the Federal Government. Second, the age factor is not a matter. If a thirteen year old wants beer he can get it. The Federal Government could enforce the age limit there is now by cracking down on stores that sell alcoholic beverages to any one who isn't of age. The   . Government could enforce sricter laws and open container laws. Thirdly, if a person is old enough to vote for a president, to kill or be killed in a war, and if they are already responsible for their own actions they should have the choice to drink or not.

7F

      The legal drinking age should not be raised to 21 for several reasons. First of all, I really don't think it would do much good. Granted, it would stop some minors from drinking, but not all. Most minors have ways of obtaining alcohol and getting into clubs no matter what the legal age is. Secondly, drunk driving should be controlled by laws and penalties, not by a higher drinking age. Lastly, I really don't think it would be worth the legislation and the trouble.

8F

      The legal drinking age should not be raised to 21 for many reasons. First of all, if this became law, the people under 21 would drink if they wanted to anyway. They could have fake ID's made or have their friends get it for them. Secondly, if a person is old enough to be able to fight for his/her country, they should be mature enough to handle their drinking. It is not fair to treat them as adults on one hand and as children on another. I think that the drinking age should be left at 19. This legally keeps it out of the high schools and is only available to adults.

9F

      The legal drinking age should be raised to 21 because if would help eliminate some of the needless killings of young people. I have three brothers all under the age of 21 who like to go out every now and then to party with their friends. It's really a scary feeling to have them go out at night not knowing if they will ever make it home or not. If the drinking age were raised to the age of 21, it wouldn't be easy for my brothers to obtain alcohol.

10F

       The legal drinking age should not be raised to 21 because of the reasons they are doing it. The reason is to curb highway accidents. Raising the age the 21 will not solve this problem. Legislators seem to think that all the accidents are caused by adults between the ages of 19 to 21. They seem to forget that people over 21 drink too. Are we not going to do anything about the older generation?

11F

       I believe that English composition should be a required course for all undergraduates at UTA. I have found that even as far as high school level there are students who cannot read or write properly, yet these students are passed on to the next grade level. In college you have to earn your grades to move up to the next level and students who do not have the ability to read and write are sent to the labs for help. I also think this course should be required because you learn things that will benefit you in your future years. It is a good course for undergraduates to start getting the feel of college classes. I personally like English composition classes and have learned a great deal from them.

12F

       The legal drinking age should not be raised to 21. There are many reasons why it should not be raised. First, no matter how high the drinking age is, there is always a way to get alcohol. One can have a fake ID or ask someone who is 21 or older to buy the liquor. Second, it may cut down on alcohol trafic related deaths but if the government really wants to stop DWI and the likes, the drinking age will be raised to 75 or start prohibition once again. Last, if one is able to fight for the country, why can't one be able to drink? In addition, once one has had something and they like it, then take it away and tell them they can not have it is immoral. Therefore, the drinking age should not be raised to 21.

13F

       I feel the legal drinking age should be raised to twenty one, simply because it might decrease the statisitics of casualties caused or linked with alcohol. Not that this law will prevent teens under the age of twenty one from drinking illegally, but perhaps it will place a continued threat of punishment, jail or arrestation, on each individual whom choses to violate the law. Before a law such as this is to be effective, the community must do away with such avisaries such as fake I.D.'s and happy hours. I personally don't drink even

though I am of age, therefore it draws my opinion towards an older drinking age. I feel strongly for my life and I do not wish for any under aged drunkin teen ager endangering it.

16F

The legal drinking age should not be raised to 21. I believe their are many young adults in our state that are of age to drink. Many students like to have fun on weekends and meet different people. The most popular places are clubs in the city. I would be very angry if I could not go to a club and meet with my friends. In addition, I believe that adults 19 and over can control themselves properly and enjoy the benefits of a club. All clubs sell mixed drinks and liquor. So if the drinking age was raised, many people between the ages of 19-21 would not be able to get in a club. Basically these are the reasons why I believe the legal drinking age should not be raised to 21.

17F

The legal drinking age should not be raised to 21. The basis for this argument is that no one can actually determine at what age a person acts responsibly with alcohol. The difference in maturity between men and women is obvious early in the teens, but the gap closes when reaching the age of about 21. People are so varied in their tolerance levels to alcohol. The act of changing the age should be transformed to the requirement of body size. A small person on the average can not tolerate much alcohol. On the other hand, a larger person may. Trying to change the drinking age is ignoring the real facts. No one can say at what age someone can handle their liquor. But if the public so decides to alter its laws then they must consider one fact. The nineteen year olds have already been given this priveledge, you can't just take it away. Make the law retroactive to 20 in 1986 and 21 in 1987.

18F

I do not agree with the government raising the drinking age to twenty-one. There are many reasons why I feel this way. Everyone says when an adolescent turns eighteen he becomes a legal adult. He is now able to be tried in a court of law as an adult and serve in prison. Also when an adolescent turns eighteen, he is able to be drafted into any of the armed forces. If all of these things can go inot effect when one turns eighteen, I feel he has the right, if he so desires, to drink. After all we are now considered adults, we should be able to drink.

19F

       I don't believe the legal age should be raised. There are many reasons I believe this. You can get married at any age, you can go to war, so why can't a person drink. You are held responsible for your actions when you are 18, and can be put in jail. These are several reasons I believe the age should not be raised to 21.

20F

       The legal drinking age should be raised to 21 years. More and more people are killed each day due to drunk drivers, most of which are under 21 years old. If the drinking age were to be raised it might at least stop some people under 21 years, from drinking and driving for fear of being caught. By halting some drinkers from driving, you will have prevented many fatal accidents.

21F

       The legal drinking age should not be raised to twenty-one. To raise the age would not serve any more than nineteen being the legal age to consume liqueor. Buying alcohol is common among those under age, so raising the age is not a deterrent. Nor will it stop the consumption by minors.

22F

       I believe English composition should be a required course for all undergraduates at UTA. In order to succeed in other courses and in life one needs to be able to write a coherent paragraph. Also one needs to be able to break down a paragraph and analyze what it's really trying to say. English composition is needed to aid in other courses and in your future.

23F

       English comp. should be a required course for all undergraduates at UTA. The effective use of the English language is a tool we must all grasp in order to be successful in our Society. But, unfortunately, many students have not been adequately introduced to the study of comp. writing early in high school and therefore need it in college if they wish to be successful throughout their college careers. Because a large majority of college courses require written essays of some sort.

24F

Though I am eighteen years and raising the drinking age to twenty-one would affect me I am highly in favor of it. I am certainly not a non-drinker but I think that the age raise would help the attempt to reduce fatalities caused by intoxication. I believe also, however, that if the age is raised and even if it isn't that something should be done to help occupy teenagers who revert to drinking out of boredom. Many teenagers risk their lives and the lives of others because they have nothing better to do. Though teenagers are a large cause of fatalities due to intoxication, many adults contribute to the statistics too. In addition to raising the age I think legislation should harshen the punishment.

25F

English composition should be a required course for all undergraduates at UTA, but only one semester should be required. Many occupations require the ability to write organized and clear paragraphs. Examples of such occupations are reporters who need to be able to describe what they are reporting, police officers who write reports for every case they handle, and consultant engineers also write reports on their jobs. Personnal business many times is handled through the mail so people need to be able to write their thoughts and ideas clearly. It is an important part of life to be able to convey thoughts and feelings on paper, so English composition is a necessary class.

26F

The legal drinking age should not be raised to 21. People who can be drafted into the army or people who can vote on the leaders of our country ought to be able to drink a beer. Instead, the rules we now have governing drinking should be more strictly enforced. Several states have adopted seat belt laws that were just as, if not more so, effective in reducing traffic fatalities as raising the drinking age. If the laws were more strictly enforced, people under age could not buy alcohol as easily as they do. There is no desperate need to change the drinking age since enforcing what we have at the present time will help immensely.

27F

The legal drinking age should be raised to 21. Because it has been proven that more than 1/2 the drinking drivers who have hit someone are teenagers. Up to (at least) 20 yrs old a person who drinks, go out with their friends driving or wants to drive home to be cool. They think they can handle it on their own and they do not

want to look stupid in front of their friends. I also think it could discourage the kids more from drinking.

28F

English Comp. should be a required course for all undergraduates at UTA because English is used in our everday life and it is a major part of our lives. It is a good source for jobs and careers. One may argue that they may never have to write a paper for their particular career, though writing is creative and imaginative. It stimulates the mind and forces one to use their imagination. Taking English Comp. will only enable the individual to improve their writing skills and techniques. It is also good for the business world.

29F

I believe that the legal drinking age should not be raised to 21. My reason is that most teenagers and young people will find a way to get liqour no matter what the drinking age is. By raising the drinking age it would just have more people breaking the law. Even before I entered high school I new several people my own age that had gotten drunk before. These type of people will get something to drink know matter how they have to do it. They will just find an older person who will buy it for them.

Appendix 2

Text Analysis

In figures 16, 17, 18, and 19 we see an analysis of some fairly typical arguments from the data base. Paragraphs 6M (figure 16) and 11M (figure 17) were written by men, 6F (figure 18) and 7F (figure 19) by women. The symbols and format used are described in section 2.2.3.3. (The symbol X is not Toulmin's but stands for 'example'.)

Notice in 6M and 11M the arguements center on one particular premise, the grounds of the argument. In 6M that premise is "Everybody is going to have to write something at one time or another." In 11M it is "Throughout the entire career of the student, the need to be able to write and communicate in an effective manner is mandatory." In both cases a warrant also plays a central role in the argument, the warrant being a statement of general principle. Concrete examples are marshaled to buttress the grounds and warrants.

Contrast this argument structure with that of 6F and 7F. We see in these arguments not one central ground but several. We also see premises that look something like warrants but that are not true warrants. One (in 6F) has the form of an if/then sentence, but it does not function as a hypothetical warrant. Another (in 7F) is a relatively general principle, but neither does it function like a

warrant. In fact, the grounds do not look very much like grounds either: they are not specific, and there are too many of them for the number of warrants (judging by typical sketches of the Toulmin model). In short, we see that these two arguments seem to defy analysis using the Toulmin model.

What the four figures show is that the men's arguments tend to be more focused (by Toulmin standards): they concentrate on a single ground and couple it with general principle to prove their point. By contrast, the women tend to amass several reasons why a claim is true. When they feel the need, they then buttress their reasons with relatively concrete examples rather than general principle.

C (C1) English composition should be a required course for all undergraduates at UTA. **G**

(P1) Everybody is going to have to write something at one time or another, **W**

(P2) but if they are not properly schooled in writing they probably will not do a good job.

B (P3) Most high school students do not have a good background in composition writing, and these will have trouble writing a good essay unless they are forced to mature in writing by having to take composition classes.

(C2) These are just a couple of ideas as to **C** why English composition should be required at UTA.

Fig. 16. Analysis of Paragraph 6M

C (C) English composition should be required for all undergraduates at UTA.

X (P2) Upper level courses require writing papers on many different subjects to many different audiences.

X (P3) Interpretations of books and/ or observations make up the bulk of these papers.

(P1) Throughout the entire career of the student the need to be able to write and communicate in an effective manner is mandatory. **G**

W (P4) In English classes students may learn how to write in order to communicate properly.

(P5) If not required to take the course students would have to learn as they wrote the important papers for the upper level course adding to their burden. **W**

C (C2) As a requirement for undergrads at UTA English comp is needed.

Fig. 17. Analysis of Paragraph 11M
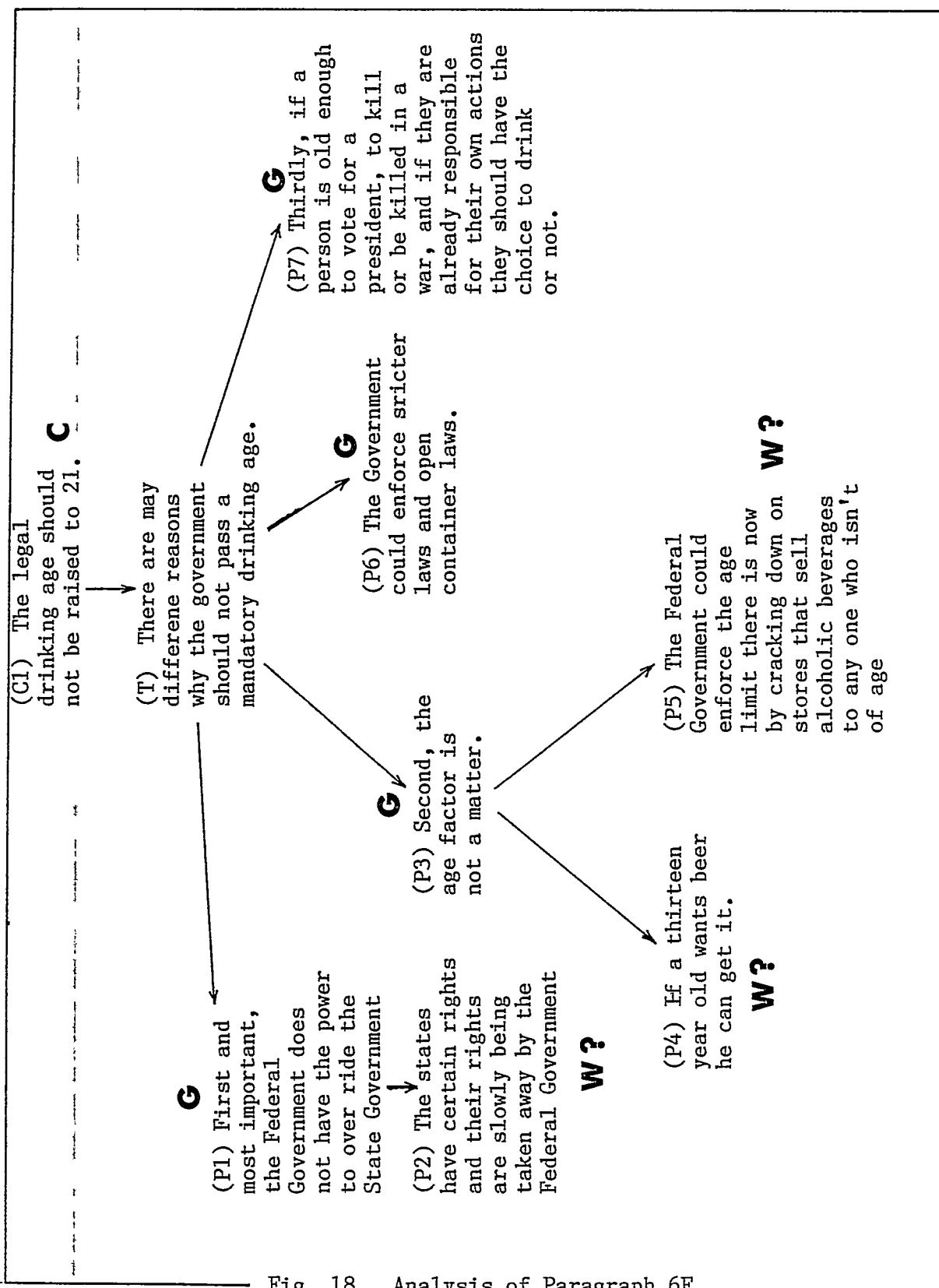
Fig. 18. Analysis of Paragraph 6F

(C1) The legal drinking age should not be raised to 21. **C**

(T) There are may differene reasons why the government should not pass a mandatory drinking age.

(P7) Thirdly, if a person is old enough to vote for a president, to kill or be killed in a war, and if they are already responsible for their own actions they should have the choice to drink or not. **G**

(P6) The Government could enforce sricter laws and open container laws. **G**

(P1) First and most important, the Federal Government does not have the power to over ride the State Government **G**

(P2) The states have certain rights and their rights are slowly being taken away by the Federal Government **W?**

(P3) Second, the age factor is not a matter. **G**

(P4) If a thirteen year old wants beer he can get it. **W?**

(P5) The Federal Government could enforce the age limit there is now by cracking down on stores that sell alcoholic beverages to any one who isn't of age **W?**

(C) The legal drinking age should not be raised to 21 for several reasons.

C

G

(P1) First of all, I really don't think it would do much good.

W

(P2) Granted, it would stop some minors from drinking, but not all.

B

(P3) Most minors have ways of obtaining alcohol and getting into clubs no matter what the legal age is.

G

(P4) Secondly, drunk driving should be controlled by laws and penalties, not by a higher drinking age.

G

(P5) Lastly, I really don't think it would be worth the legislation and the trouble.

Fig. 19. Analysis of Paragraph 7F

REFERENCES

AGHEYISI, R. and J.A. Fishman. Language attitude studies: A brief survey of methodological approaches. Anthropological Linguistics. 12.131-57.

ANASTASI, Anne. 1958. Differential psychology: Individual and group differences. New York: Macmillan.

ANDERSON, R.C., S.R. Goldberg, and J.C. Hidde. 1972. Meaningful processing of sentences. Journal of Educational Psychology. 9.301-6.

ANTHONY, Edward M. 1963. Approach, method and technique. English Language Teaching. 17.63-7.

APOSTEL, Leo. 1971. Assertion logic and the theory of argumentation. Philosophy and Rhetoric. 4.92-100.

APPERSON, G.L. 1929. English proverbs and proverbial phrases. London: J.M. Dent and Sons.

ARIES, Elizabeth. 1977. Male-female interpersonal styles in all male, all female and mixed groups. Beyond sex roles, ed. by Alice Sargent, 292-98. St. Paul: West.

AUBLE, P.M. and J.J. Franks. 1978. The effects of effort toward comprehension on recall. Memory and Cognition. 6.20-5.

AYRES, Joe. 1980. Relationship stages and sex as factors in topic dwell time. Western Journal of Speech Communication. 44.253-60.

BAKAN, David. 1966. The duality of human existence. Chicago: Rand McNally.

————. 1972. Psychology can now kick the science habit. Psychology Today. 5.26,28.86-8.

BAKER, Sheridan Warner. 1980. The complete stylist and handbook. New York: Harper and Row.

BARDWICK, Judith M. 1971. Psychology of women: A study of bio-cultural conflicts. New York: Harper and Row.

257

BARRON, N.. 1971. Sex-typed language: The production of grammatical cases. Acta Sociologica. 14.24–72.

BECK, Kay. 1978. Sex differentiated speech codes. International Journal of Women's Studies. 1.6.556–72.

BEEKMAN, John and John Callow. 1974. Translating the Word of God. Grand Rapids: Zondervan.

BERNARD, Jessie. 1973. My four revolutions: An autobiographical history of the ASA. Changing women in a changing society, ed. by Joan Huber. Chicago: University of Chicago Press.

BERRYMAN, C. and J.R. Wilcox. 1980. Attitudes toward male and female speech: Experiments on the effects of sex-typical language. Western Journal of Speech Communication. 44.50–9.

BETTINGHAUS, E.P. 1968. Persuasive communication. New York: Holt Rinehart and Winston

BLAIR, J. Anthony and Ralph H. Johnson, eds. 1980. Informal logic. Inverness, California: Edgepress.

BLOOMFIELD, Leonard. 1933. Language. New York: Henry Holt.

BOSMAJIAN, Haig A. 1972. The language of sexism. ETC. 29.305–13.

BOSTROM, Robert and Alan Kemp. 1969. Type of speech, sex of speaker and sex of subject as factors influencing persuasion. Central States Speech Journal. 20.245–51.

BRADLEY, Patricia Hayes. 1981. The folk linguistics of women's speech: An empirical examination. Communication Monographs. 48.1.73–90.

BRANDT, Anthony. 1985. The moral superiority of (a) men (b) women. Playboy. September. 92, 190–2, 194, 196.

BROCKREIDE, Wayne. 1972. Arguers as lovers. Philosophy and Rhetoric. 5.1–11.

BROOKS-GUNN, Jeanne and Wendy Matthews. 1979. He and she: How children develop their sex-role identity. Englewood Cliffs: Prentice-Hall.

BROVERMAN, Inge K. 1970. Stereotypes and clinical judgements of mental health. Journal of Consulting and Clinical Psychology. 34.1–7.

————. 1972. Sex-role stereotypes and clinical judgements of mental health. Journal of Consulting Psychology. 34.1–7.

BROWER, Dede, Marinel Gerritsen, and Doriande Haan. 1979. Speech differences between women and men: On the wrong track? Language in Society. 8.1.33–50.

BROWN, Delindus R. and Wanda F. Anderson. 1978. A survey of the black woman and the persuasion process. Journal of Black Studies. 9.233.

BROWN, Penelope and Stephen Levinson. 1978. Universals in language use: Politeness phenomena. Questions and politeness: Strategies in social interaction, 56–289. Cambridge: Cambridge University Press.

BRUNER, Edward M. and Jane Paige Kelso. 1980. Gender differences in graffiti: A semiotic perspective. Women's Studies International Quarterly. 3.239–252.

BUFFERY, A.W.H. and J.A. Gray. 1972. Sex differences in the development of perceptual and linguistic skills. Gender differences: Their ontology and significance. ed. by C. Ounsted and D.C. Taylor. London: Churchill Livingstone.

BURGOON, M.; S.B. Jones and D. Stewart. 1975. Toward a message-centered theory of persuasion. Human Communication Research. 1.240–56.

BURLESON, Brent R. 1982. The development of comforting communication skills in childhood and adolescence. Child Development. 53.6.1578–88.

BURNSTEIN, E. and A. Vinokur. 1977. Persuasive argumentation and social comparison as determinants of attitude polarization. Journal of Experimental Social Psychology. 13.315–32.

BUTTURFF, Douglas and Edmund L. Epstein, eds. 1978. Women's language and style. Akron: L&S Books.

CACIOPPO, J.T. and R.E. Petty. 1979. Sex differences in influenceability: Toward specifying the underlying process. Personality and Social Psychology Bulletin. 6.651–6

CALLARY, Richard E. 1974. Status perception through syntax. Language and Speech. 17.187–92

CAMERON, Deborah. 1985. Feminism and linguistic theory. New York: St. Martin's Press.

CARLSON, Rae. 1971. Sex differences in ego functioning: Exploratory studies of agency and communion. Journal of Consulting and Clinical Psychology. 37.267–77.

CARPENTER, C. Jean. 1984. Activity structure and play: Implications for socialization. Children's play: Sex differences and the acquisition of cognitive and social skills, ed. by M. Liss. New York: Academic Press.

CARROLL, J.B. 1960. Vectors in prose style. Style in language, ed. by T.A. Sebeok. New York: Wiley.

CASSIRER, Ernst. 1960. The logic of the humanities, tran. by Clarence Smith Howe. New Haven: Yale University Press.

CEDERBLOM, Jerry, and David W. Paulsen. 1982. Critical reasoning: Understanding and criticizing arguments and theories. Belmont, California: Wadsworth Publishing Company.

CENTINEO, Giulia. 1980. Survey on children's attitudes toward women's and men's language. University of California, Berkeley: Unpublished paper.

CHESLER, Phyllis. 1972. Women and madness. New York: Doubleday.

CHODOROW, Nancy. 1974. Family structure and feminine personality. Women, Culture and Society, ed. by M.Z. Rosaldo and L. Lamphere. Stanford: Stanford University Press.

_____. 1978. The reproduction of mothering. Berkeley: University of California Press.

COATES, Jennifer. 1983. The semantics of modal auxiliaries. London: Croom Helm.

COLE, Peter and Jerry L. Morgan, eds. 1975. Syntax and semantics, 3: Speech acts. New York: Academic Press.

CONKLIN, Nancy Faires. 1978. The language of the majority: Women and American English. A pluralistic nation: The language issue in the United States, ed. by Margaret A. Lourie and Nancy Faires Conklin, 222-37. Rowley: Newbury House.

COPI, Irving M. 1978. Introduction to logic. New York: Macmillan Publishing Co., Inc.

CORBETT, Edward P.J. 1971. Classical rhetoric for the modern student. New York: Oxford University Press.

COZBY, Paul C. 1973. Self-disclosure: A literature review. Psychological Bulletin. 79.73-91.

CREIGHTON, James Edwin. 1922. In introductory logic. New York and London: Macmillan.

CROSBY, Faye and Linda Nyquist. 1977. The female register: An empirical study of Lakoff's hypothesis. Language in Society. 6.313-22.

CROSSLEY, David J., and Peter A Wilson. 1979. How to argue: An introduction to logical thinking. New York: Random House.

DAVIS, Liane V. 1985. Female and male voices in social work. Social Work. 30.2.106-13.

DEAUX, Kay. 1976. The behavior of women and men. Monterey: Brooks/Cole Publishing Company.

DOHERTY, Edmund G. 1974. Therapeutic community meetings: A study of communication patterns, sex, status, and staff attendance. Small Group Behavior. 5.244-56.

DOMELSMITH, David E. and James T. Dietch. 1978. Sex differences in the relationship between Machiavellianism and self-disclosure. Psychological Reports. 42.715-21.

DUBOIS, Betty Lou and Isabel Crouch. 1975. The question of tag questions in women's speech: They don't really use more of them, do they? Language in Society. 4.289-94.

————, eds. 1976. The sociology of the languages of American women. San Antonio, TX: Trinity University.

EAKINS, Barbara and Gene Eakins. 1978. Sex differences in human communication. New York: Houghton-Mifflin.

EDWARDS, Carolyn P. 1975. Societal complexity and moral development: A Kenyan study. Ethos. 3.505-27.

ELSHTAIN, Jean Bethke. 1982. Feminist discourse and its discontents: Language, power and meaning. Signs. 7.3.603-21.

ENKVIST, Nils Erik. 1981. Experiential iconism in text strategy. Text. 1.1.77-111.

ENNIS, Robert H. 1981. Logic and critical thinking. Philosophy of education, 1981, ed. by Daniel R. DeNicola. Normal, Illinois: The Philosophy of Education Society.

ENOS, Richard. 1984. Lecture to the Gorgias Society of the University of Texas at Arlington. 12 April.

FAIRWEATHER, H. 1976. Sex differences in cognition. Cognition. 4.231-80.

FARRELL, Thomas J. 1979. The female and male modes of rhetoric. College English. 40.909-21.

FEATHER, N.T. 1964. Acceptance and rejection of arguments in relation to attitude strength, critical ability, and intolerance of inconsistency. Journal of Abnormal and Social Psychology. 69.127-36.

FEYERABEND, Paul. 1975. Against method: Outline of an anarchistic theory of knowledge. n.p.: Verso.

FISHMAN, P.M. 1977. Interactional shitwork. Heresies. 2.99-101.

_____. 1978. Interaction: The work women do. Social problems. 25.397-406.

_____. 1980. Conversational insecurity. Language: Social psychological perspectives, ed. by P.M. Smith, 127-32. Oxford: Pergamon Press.

FLOWERS, Linda. 1979. Writer-based prose: A cognitive basis for problems in writing. College English. 41.19-37.

FRANK, Francine Wattman. 1978. Women's language in America: Myth and reality. Women's language and Style, ed. by Douglas Butturff and Edmund L. Epstein. Akron: Department of English, University of Akron.

FREUD, Sigmund. 1925. Some psychical consequences of the anatomical distinction between the sexes. The standard edition of the complete psychological works of Sigmund Freud, vol. 19, tran. and ed. by James Strachey. London: The Hogarth Press.

FOHR, Samuel D. 1980. The deductive-inductive distinction. Informal Logic Newsletter. 2.2.5-8.

_____. 1980b. Deductive-inductive: Reply to criticisms. Informal Logic Newsletter. 3.1.5-10.

GEACH, P.T. 1979. On teaching logic. Philosophy. 54.5-17.

GEARHART, Sally. 1979. The womanization of rhetoric. Women's Studies International Quarterly. 2.2.195-202.

GILES, H., et. al. 1980. Speech styles and the fluctuating salience of sex. Language Sciences. 2.260-82.

GILES, H. and P. Marsh. 1979. Perceived masculinity and accented speech. Language Sciences. 1.301-15.

GILES, H. and P.F. Powesland. 1975. Speech style and social evaluation. London: Academic Press.

GILES, Howard, W. Peter Robinson, and Philip M. Smith, eds. 1980. Language: Social psychological perspectives. Oxford: Pergamon.

GILLEY, Hoyt M. and Collier S. Summers. 1970. Sex differences in the use of hostile verbs. Journal of Psychology. 76.33-7.

GILLIGAN, Carol. 1977. In a different voice: Women's conception of self and of morality. Harvard Educational Review. 47.481-517.

_____. 1982. In a different voice: Psychological theory and women's development. Cambridge: Harvard University Press.

GLESER, Goldine C., Louis A. Gottschalk, and John Watkins. 1959. The relationship of sex and intelligence in the choice of words: A normative study of verbal behavior. Journal of Clinical Psychology. 15.182-91.

GOVIER, Trudy. 1980. Critical review: Challenge and response by Carl Wellman. Informal Logic Newsletter. 2.2.10-15.

_____. 1980b. More on inductive and deductive arguments. Informal Logic Newsletter. 2.3.7-8.

_____. 1980c. Assessing Arguments: What range of standards? Informal Logic Newsletter. 3.1.2-5.

_____. 1982. Who says there are no fallacies? Informal Logic Newsletter. 5.1.2-10.

_____. 1983. Critical review of McPeck's Critical thinking and education. Dialogue. 22.170-5.

GRANGER, Sylviane. 1983. The BE + past participle construction in English. Amsterdam: North Holland.

GREEN, G.M. 1975. How to get people to do things with words: The whimperative question. Syntax and semantics, 3: Speech acts, ed. by Peter Cole and Jerry L. Morgan. New York: Academic Press.

GRICE, H.P. 1975. Logic and conversation. Syntax and semantics, 3: Speech acts, ed. by P. Cole and J.L. Morgan. New York: Academic Press.

GRIFFIN, Susan. 1976. Transformations. Sinister Wisdom. 1.2.6-10.

GRIMES, Joseph E. 1975. The thread of discourse. The Hague: Mouton.

GUMPERZ, John. 1982. Discourse strategies. Cambridge: Cambridge University Press.

HAAS, A. 1979. Male and female spoken language differences: Stereotypes and evidence. Psychological Bulletin. 86.616-26.

HALL, Edward T. 1959. The silent language. New York: Doubleday.

HALLIDAY, M.A.K. 1968. Notes on transitivity and theme in English—Part 3. Journal of Linguistics. 4.179-215.

HARLOW, H.F. 1965. Sexual behaviour in the Rhesus monkey. Sex and Behaviour, ed. by F.A. Beach. John Wiley.

HARTMANN, G.W. 1936. A field experiment on the comparative effectiveness of 'emotional' and 'rational' political leaflets in determining election results. Journal of Abnormal and Social Psychology. 31.99-114.

HARTMAN, Maryann. 1976. A descriptive study of the language of men and women born in Maine around 1900 as it reflects the Lakoff hypotheses in Language and woman's place. The sociology of the languages of American women, ed. by Betty Lou Dubois and Isabel Crouch, 81-90. San Antonio: Trinity University Press.

HEGEL, George. 1973. Philosophy of right, tran. by T.M. Knox. New York: Oxford University Press.

HENLEY, Nancy. 1978. Power, sex and non-verbal communication. A pluralistic nation, ed. by Margaret A. Lourie and Nancy Faires Conklin, 238-54. Rowley: Newbury House.

HENNESSEE, J. and J. Nicholson. 1972. NOW says: TV commercials insult women. New York Times Magazine. May 28. 12-13, 48-51.

HIATT, Mary P. 1977. The way women write. New York: Teachers College Press.

HIRSCH, E.D., Jr. 1976. The aims of interpretation. Chicago: University of Chicago Press.

HIRSCHMAN, Lynette. 1973. Male-female differences in conversational interaction. Paper presented at a meeting of the Linguistic Society of America. December.

————. 1974. Analysis of supportive and assertive behavior in conversations. Paper presented at a meeting of the Linguistic Society of America, July 1974.

HIRST, Graeme. 1982. An evaluation of evidence for innate sex differences in linguistic ability. Journal of Psycholinguistic Research. 11.2.95-113.

HITCHCOCK, David. 1980. Deductive and inductive: Types of validity, not types of argument. Informal Logic Newsletter. 2.3.9-10.

_____. 1981. Deduction, induction and conduction. Informal Logic Newsletter. 3.2.7-15.

HOENIGSWALD, Henry M. 1966. A proposal for the study of folklinguistics. Sociolinguistics, ed. by William Bright, 16-20. The Hague: Mouton.

HOLSTEIN, Constance. 1976. Development of moral judgment: A longitudinal study of males and females. Child Development. 47.51-61.

HOPPER, Paul J. and Sandara A. Thompson. 1980. Transitivity in grammar and discourse. Language. 56.251-98.

HOWLAND, Lillian G. 1981. Communication integration of reality and fiction. Language and Communication. 1.89-148.

HUBER, Joan, ed. 1973. Changing women in a changing society. Chicago: University of Chicago Press.

HYMES, Del. 1974. Speech and language: On the origins and foundations of inequality among speakers. Language as a human problem, ed. by Einar Haugen and Morton Bloomfield. New York: W.W. Norton.

JAHODA, M. and N. Warren, eds. 1966. Attitudes: Selected readings. Harmondsworth: Penguin Books.

JESPERSON, Otto. 1922. Language: Its nature, development and origin. London: Allen and Unwin.

_____. 1968. Growth and structure of the English language. New York: The Free Press.

JOHNSON, Fern. 1983. Political and pedagogical implications of attitudes toward women's language. Communication Quarterly. 31.2.133-8.

JOHNSON, Paula and Jacqueline B. Goodchilds. 1976. How women get their way. Psychology Today. October.69-70.

JOHNSON, Ralph H. 1981. The new logic course: The state of the art in non-formal methods of argument and analysis. Teaching Philosophy. 4.2.123-42.

_____. 1981b. Toulmin's bold experiment. Informal Logic
Newsletter. 3.2.16–27.

_____. 1981c. Toulmin's bold experiment (Part 2). Informal
Logic Newsletter. 3.3.13–19.

JOHNSON, Ralph H. and J. Anthony Blair. 1977. Logical self-defense.
Toronto: McGraw-Hill Ryerson.

JOHNSON, Ralph H. and J. Anthony Blair. 1980. The recent development
of informal logic. Informal logic, ed. by J. Anthony Blair and
Ralph H. Johnson. Inverness, California: Edgepress.

JONES, Linda K. 1977. Theme in English expository discourse. Lake
Bluff, Illinois: Jupiter Press.

_____. 1980. A synopsis of tagmemics. Syntax and Semantics, ed.
by Edith A. Moravcsik and Jessica R. Wirth. New York: Academic
Press.

JONES, Larry B. and Linda K. 1979. Multiple levels of information in
discourse. Discourse Studies in Meso-American Languages, ed.
by Linda K. Jones. Dallas: The Summer Institute of Linguistics
and The University of Texas at Arlington.

KAHANE, Howard. 1980. The nature and classification of fallacies.
Informal Logic, ed. by J. Anthony Blair and Ralph H. Johnson.
Inverness, California: Edgepress.

KALCIK, Susan. 1975. Like Ann's gynecologist or the time I was almost
raped: Personal narratives in women's rap groups. Journal of
American Folklore. 88.3–11.

KANT, Immanuel. 1929. The critique of pure reason. New York: St.
Martins Press.

KEMPE, Linda J. and Patrick Maloney and Faye H. Dambrot. 1978.
Persuasibility of women: Conventional wisdom re-examined.
Psychology of Women Quarterly. 3.198–202.

KEY, Mary Ritchie. 1975. Male/female language. Methuen, NJ: The
Scarecrow Press.

KINSEY, Alfred C., et al. 1953. Sexual behavior in the human female.
Philadelphia: W.B. Saunders Company.

KOHLBERG, Lawrence. 1958. The development of modes of thinking and
choices in years 10 to 16. Ph.D. dissertation: University of
Chicago.

_____. 1966. A cognitive development analysis of children's sex-role concepts and attitudes. The development of sex differences, ed. by E.E. Maccoby. 82-173. Stanford: Stanford University Press.

_____. 1981. The philosophy of moral development. San Francisco: Harper and Row.

KOHLBERG, Lawrence and R. Kramer. 1969. Continuities and discontinuities in child and adult moral development. Human Development. 12.93-120.

KRAMARAE, Cheris, ed. 1980. The voices and words of women and men. Oxford: Pergamon Press.

_____. 1982. Gender: How she speaks. Attitudes toward language variation: Social and applied contexts, ed. by Howard Giles. 84-98. London: Arnold.

KRAMARAE, Cheris, Barrie Thorne, and Nancy Henley. 1983. Sex similarities and differences in language, speech, and nonverbal communication: An annotated bibliography. Language, Gender, and Society, ed. by Barrie Thorne, Cheris Kramarae, and Nancy Henley, 151-342. Rowley: Newbury House.

KRAMER, C. 1974. Folklinguistics. Psychology Today. June. 82-85.

KRAMER, C. 1974. Women's speech: Separate but unequal? Quarterly Journal of Speech. 60.14-24.

_____. 1977. Perceptions of female and male speech. Language and Speech. 20.151-61.

_____. 1978. Women's and men's ratings of their own ideal speech. Communication Quarterly. 26.2-11.

KRECH, D. and R.S. Crutchfield. 1948. Theory and problems of social psychology. New York: McGraw Hill.

KUHN, Thomas S. 1970. The structure of scientific revolutions. Chicago: University of Chicago Press.

KUYKENDALL, E. 1976. Sexism in language. Unpublished: State University of New York College at New Paltz.

LABOV, William. 1972. Sociolinguistic patterns. Philadelphia: University of Pennsylvania Press.

LAKOFF, Robin Tolmach. 1975. Language and woman's place. New York: Harper Colophon Books.

_____. 1977. Women's styles of speaking: Their psychological significance. New York: Paper presented at the Conference on Women's Language, Graduate School and University Center of the City University of New York.

_____. 1978. Women's language. Women's language and style, ed. by Douglas Buttruff and Edmund L. Epstein. Akron: University of Akron.

_____. 1981. Persuasive discourse and ordinary conversation with examples from advertising. Georgetown University Roundtable on Languages and Linguistics. 25-42.

LAMBERT, W.E. 1967. The social psychology of bilingualism. Journal of Social Issues. 23.91-109.

LAMBERT, W.E., et. al. 1960. Evaluational reactions to spoken language. Journal of Abnormal and Social Psychology. 60.44-51.

LAPADAT, Judy and Maureen Seeahai. 1978. Male and female codes in informal contexts. Sociolinguistics Newsletter. 8.7-8.

LEE, R.R. 1971. Dialect perception: A critical review and re-evaluation. Quarterly Journal of Speech. 57.410-17.

LEET-PELLEGRINI, Helena M. 1980. Conversational dominance as a function of gender and expertise. Language: Social psychological perspective, ed. by Howard Giles, W. Peter Robinson and Philip M. Smith, 97-104. New York: Pergamon Press.

LEVIN, Jack and Arnold Arluke. 1985. An exploratory analysis of sex differences in gossip. Sex Roles. 12.3/4.281-6.

LEVINE, Lewis, and Harry J. Crockett, Jr. 1979. Modal and modish pronunciation: Some sex differences in speech. Language and society: Anthropological issues, ed. by William C. McCormack and Stephen A. Wurm, 207-20. The Hague: Mouton.

LINDEMANN, Erika. 1982. A rhetoric for writing teachers. New York: Oxford University Press.

LONGACRE, Robert E. 1979. The paragraph as a grammatical unit. Syntax and Semantics, Volume 12. New York: Academic Press. 115-134.

_____. 1980. The grammar of discourse: Notional and surface structures. The University of Texas at Arlington: Prepublication.

_____. 1982. Spectrum, profile and constituency structure in text analysis. Proceedings of the XIIIth International Congress of Linguists, August 29 - September 4, 1982, Tokyo. The Hague: CIPL.

LOURIE, Margaret A. and Nancy Faires Conklin, eds. 1978. A Pluralistic nation: The language issue in the United States. Rowley: Newbury House.

LUKACS, Georg. 1971. History and class consciousness, tran. by Rodney Livingstone. Cambridge: The MIT Press.

MACCOBY, Eleanor E. 1966. The development of sex differences. Stanford: Stanford University Press.

MACCOBY, E. and C. Jacklin, eds. 1974. The psychology of sex differences. Stanford: Stanford University Press.

MACLIN, Alice. 1981. Reference guide to English: A handbook of English as a second language. New York: Holt, Rinehart and Winston.

MALTZ, Daniel N. and Ruth A. Borker. 1982. A cultural approach to male-female miscommunication. Language and social identity, ed. by John J. Gumperz, 196-216. Cambridge: Cambridge University Press.

MARLATT, G.A. 1970. A comparison of vicarious and direct reinforcement control of verbal behavior in an interview setting. Journal of Personality and Social Psychology. 16.695-703.

MASSEY, Gerald J. The pedagogy of logic: Humanistic dimensions. Teaching Philosophy. 4.3&4.303-36.

MATHIOT, Madeline. 1979. Sex Roles as revealed through referential gender in American English. Ethnolinguistics: Boas, Sapir, and Whorf revisited, ed. by Madeline Mathiot. The Hague: Mouton Publishers.

MAYERS, Marvin K. 1978. Discourse phonology. Dallas: Summer Institute of Linguistics.

MAYNOR, Natalie. 1981. Males, Females and Language Propriety. Journal of English Linguistics. 15.17-20.

MC BRAYER, Caroline T. 1960. Differences in perception of the opposite sex by males and females. Journal of Social Psychology. 52.309-14.

MC CONNELL-GINET, Sally. 1980. Difference and language: A linguist's perspective. The future of difference, ed. by Hester Eisenstein and Alice Jardine. Boston: Hall.

MC CROSKEY, James C. 1969. A summary of research on the effects of evidence in persuasive communication. Quarterly Journal of Speech. 55.169-176

MC GUIRE, W.J. 1960. A syllogistic analysis of cognitive relationships. Attitude organization and change, ed. by C.I. Hovland and M.J. Rosenberg. New Haven: Yale University Press.

MC KEE, John P. and Alex C. Sherriffs. 1957. The differential evaluation of males and females. Journal of Personality. 25.356-71.

MC MILLAN, Carol. 1982. Women, reason and nature: Some philosophical problems with feminism. Princeton: Princeton University Press.

MC MILLAN, Leslie R. et al. 1977. Women's language: Uncertainty or interpersonal sensitivity and emotionality? Sex Roles. 3.545-59.

MC PECK, John. 1981. Critical thinking without logic: Restoring dignity to information. Philosophy and Education, 1981, ed. by Daniel R. DeNicola. Normal, Illinois: The Philosophy of Education Society.

MEAD, George Herbert. 1934. Mind, self and society. Chicago: University of Chicago Press.

MEYERS, J.L. 1972. Fundamentals of experimental design. Boston: Allyn and Bacon.

MILLER, Casey and Kate Swift. 1976. Words and women: New language in new times. Garden City, New York: Doubleday, Anchor Press.

MILLER, G.R. 1969. Some factors influencing judgements of the logical validity of arguments. Quarterly Journal of Speech. 55.276-86.

MILLER, Gerald R. and Michael Mc Reynolds. 1973. Male chauvinism and source competence: A research note. Speech Monographs. 40.154-5.

MILROY, Lesley. 1982. Language and group identity. Journal of Multilingual and Multicultural Development. 3.3.20-215.

MISCHEL, Harriet N. 1974. Sex Bias in the evaluation of professional achievements. Journal of Educational Psychology. 66.157-66.

MORAVCSIK, Edith A. and Jessica R. Wirth,eds. 1980. Syntax and
semantics: Current approaches to Syntax, 13. New York:
Academic Press.

MULAC, A. and T.L. Lundell. 1980. Differences in perceptions created
by syntactic-semantic production of male and female speakers.
Communications Monographs. 47.111-8.

MULCAHY, G.A. 1973. Sex differences in patterns of self disclosure
among adolescents: A developmental perspective. Journal of
Youth and Adolescence. 4.343-56.

NATALE, Michael, Elliot Entin and Joseph Jaffe. 1979. Vocal
interruptions in dyadic communication as a function of speech
and social anxiety. Journal of Personality and Social
Psychology. 37.865-78.

NEEDLE, Perry. 1979. Inductive, deductive. Informal Logic
Newsletter. 2.1.1-5.

NELSON, Edward A. and Edward Rosenbaum. 1972. Language patterns
within the youth subculture: Development of slang
vocabularies. Merrill-Palmer Quarterly. 18.273-85.

NISBETT, R. and Lee Ross. 1980. Human influence: Strategies and
shortcomings of social judgment. Englewood Cliffs: Prentice
Hall.

OAKLEY, Ann. 1972. Sex, gender and society. New York: Colophon
Books.

O'CONNELL, Walter. 1961. An item analysis of the wit and humor
appreciation test. Journal of Social Psychology. 55-6.271-6.

OSGOOD, Charles O., George Suci, and Percy H. Tannenbaum. 1957. The
measurement of meaning. Urbana: University of Illinois Press.

PALMER, F.R. 1979. Modality and the English modals. London: Longman.

PARSONS, Elsie Clews. 1913. The old-fashioned woman. New York: G.P.
Putnam's Sons.

PAUL, Richard. 1982. Teaching critical thinking in the 'strong'
sense. Informal Logic Newsletter. 4.2.2-7.

PENELOPE, Julia and Susan J. Wolfe. 1983. Consciousness as style;
Style as aesthetic. Language, gender and society, ed. by
Barrie Thorne, Cheris Kramarae, and Nancy Henley, 125-39.
Rowley: Newbury House.

PEPPINGHAUS, B. 1976. Inadmissible arguments. Logique et Analyse. 29.119-39.

PETERSON, Susan Lynn. 1981a. Modality and peak in expository discourse. The University of Texas at Arlington: Unpublished.

_____. 1981b. Transitivity and grounding in English expository discourse. The University of Texas at Arlington: Unpublished.

_____. 1983. Sex differentiation in the production of persuasive text. The University of Texas at Arlington: Unpublished.

_____. 1984. An application of the matched guise technique to sex-based differences in written persuasive text. The University of Texas at Arlington: Unpublished.

PHILIPS, S. 1980. Sex differences and language. Annual Review of Anthropology. 9.523-44.

PIAGET, Jean. 1932. The moral judgment of the child. New York: The Free Press.

PIKE, Kenneth L. 1947. Phonemics: A technique for reducing languages to writing. University of Michigan publications in linguistics, 3. Ann Arbor: University of Michigan Press.

_____. 1959. Language as particle, wave and field. The Texas Quarterly. 2.2.37-54.

_____. 1980. Here we stand: Creative observers of language. Publications de la Sorbonne, Serie "Etudes". 16.9-45.

_____. 1981. Wherein lies "talked-about" reality? A Festschrift for Native Speaker, ed. by Florian Coulmas. The Hague: Mouton. 85-91.

_____. 1982. Linguistic concepts: An introduction to tagmemics. Lincoln: The University of Nebraska Press.

PIKE, Kenneth L. and Evelyn G. Pike. 1982. Grammatical analysis. Dallas: The Summer Institute of Linguistics and the University of Texas at Arlington.

_____. 1983. Text and tagmeme. Norword, New Jersey: Ablex Publishing Company.

PLATO. 1976. Meno, tran. by G.M.A. Grube. Indianapolis: Hackett Publishing Company, Inc.

PRANINSKAS, Jean. 1975. A rapid review of English grammar. Englewood Cliffs: Prentice-Hall, Inc.

QUINE, Willard Van Orman. 1980. Word and Object. Cambridge: M.I.T. Press.

QUIRK, Randolph, et al. 1972. A grammar of contemporary English. London: Longman.

QUIRK, Randolph and Sidney Greenbaum. 1973. A concise grammar of comtemporary English. New York: Harcourt Brace Jovanovich, Inc.

REEDER, Harry P. 1983. A brief course in practical logic. Unpublished: The University of Texas at Arlington.

_____. 1984. The nature of critical thinking. Informal Logic. 6.2.17-21.

RICHARDS, Doris M. 1975. A comparative study of the intonation characteristics of young adult males and females. Dissertation: Case Western Reserve University, Cleveland, Ohio, January 1975.

RICHARDS, Jack C. and Ted Rodgers. 1982. Method: Approach, design, and procedure. TESOL Quarterly. 16.2.153-168.

RICHARDSON, Laurel Walum, et al. 1983. Down the ups staircase: Male and female university professors' classroom management strategies. Feminist frontiers, ed. by Laurel Richardson and Verta Taylor. Reading, Mass.: Addison-Wesley.

RICHMOND-ABBOTT, Marie. 1979. Stereotypes of men and women in the American culture. The American woman, 71-95. New York: Holt, Rinehart and Winston.

RICOEUR, Paul. 1976. Interpretation theory: Discourse and the surplus of meaning. Fort Worth: Texas Christian University Press.

ROBINSON, Dow F. 1978. Manual for analytical procedures in phonology. Dallas: Summer Institute of Linguistics.

ROBINSON, W.P. 1972. Language and social behaviour. London: Penguin.

ROGERS, William T. and Stanley Jones. 1975. Effects of dominance tendencies on floor holding and interruption behavior in dyadic interaction. Human Communication Research. 1.113-22.

ROSENKRANTZ, Paul S., et. al. 1968. Sex-role stereotypes and self-concepts in college students. Journal of Consulting and Clinical Psychology. 32.287-95.

RUBBLE, Diana and E. Tory Higgins. 1976. Effects of group sex composition on self presentation and sex typing. Journal of Social Issues. 32.125-32.

RUTH, Sheila. 1981. Methodology, misogyny and bad faith: The response of philosophy. Men's Studies Modified, ed. by Dale Spender. Oxford: Pergamon.

SANDELL, R. 1977. Linguistic style and persuasion. London: Academic Press.

SATTEL, Jack W. 1976. The inexpressive male: Tragedy or sexual politics? Social Problems. 23.469-77.

SCHAEF, Anne Wilson. 1981. Women's reality: An emerging female system in the white male society. Minneapolis: Winston Press.

SCHEIDELT. 1963. Sex and persuasibility. Speech Monographs. 30.353-8.

SCHULTZ, Katherine, John Briere, and Lorna Sandler. 1984. The use and development of sex-typed language. Psychology of Women Quarterly. 8.4.327-36.

SCOTTON, Carol M. 1971. Toward as sociolinguistic theory of choosing a lingua franca. Studies in African Linguistics, Supplement 2. 109-123.

SCRIVEN, Michael. 1976. Reasoning. New York: McGraw-Hill Book Company.

————. 1980. The philosophical and pragmamtic significance of informal logic. Informal Logic, ed. by J. Anthony Blair and Ralph H. Johnson. Inverness, California: Edgepress.

SEARS, R.E., EE. Maccoby and H. Levin. 1957. Patterns of child rearing. New York: Harper and Row.

SEEBACH, Margaret R. 1903. Shall women preach? Lutheran Quarterly. 33.580-81.

SELNOW, Gary W. 1985. Sex differences in the uses and perceptions of profanity. Sex Roles. 12.3/4.303-12.

SEWARD, J.P. and G.H. Seward. 1980. Sex differences: Mental and temperamental. Lexington.

SHERIF, Carolyn Wood. 1979. What every intelligent person should know about psychology and women. The study of women: Enlarging perspectives of social reality, ed. by Eloise C. Snyder. New York: Harper and Row Publishers.

SIEGLER, D.M. and R. Siegler. 1976. Stereotypes of male's and female's speech. Psychological Reports. 39.169-70.

SIMPSON, Elizabeth L. 1974. Moral development research: A case study of scientific cultural bias. Human Development. 17.81-106.

SMALLEY, William A. 1977. Manual of articulatory phonetics. South Pasadena: William Carey Library.

SPENCE, J.T. and R. Helmreich. 1972. The attitudes toward women scale. JSAS Catalog of Selected Documents in Psychology. 2.66.

SPENDER, Dale. 1980. Man made language. Boston: Routledge and Kegan Paul.

————, ed. 1981. Men's studies modified: The impact of feminism on the academic disciplines. Oxford: Pergamon.

SPENDER, Dale and Elizabeth Sarah, eds. 1980. Learning to lose: Sexism and education. London: The Women's Press.

STACEY, J., S. Bereaud, and J. Daniels, eds. 1974. And Jill came tumbling after: Sexism in American education. New York: Dell Publishing.

STRODTBECK, Fred L., Rita M. James, and Charles Hawkins. 1956. Social status in jury deliberations. American Sociological Review. 22.713-19.

STRODTBECK, Fred L. and Richard D. Mann. 1956. Sex role differentiation in jury deliberations. Sociometry. 19.3-11.

STRUNK, William, Jr. and E.B. White. 1972. The elements of style. New York: MacMillan.

SWACKER, Majorie. 1975. The sex of the speaker as a sociolinguistic variable. Language and sex: Difference and dominance, ed. by Barrie Thorne and Nancy Henley, 76-83. Rowley: Newbury House.

————. 1978. Women's verbal behavior at learned and professional conferences. Papers in southwest English, IV: Proceedings of the conference on the sociology of the languages of American women, ed. by Betty Lou Dubois and Isabel Crouch. San Antonio: Trinity University.

SWEENEY, Louise. 1975. Pretty lawyer sharp as a tack. Middletown (Conn.) Press. April 3.11.

TAJFEL, H. 1959. A note on Lambert's evaluational reactions to spoken language. Canadian Journal of Psychology. 13.86-92.

TATE, Claudia. 1983. Black women writers at work. New York:
Continuum.

TERMAN, Lewis M. and Leona E. Tyler. 1954. Psychological sex
differences. Manual of child psychology, ed. by Leonard
Carmichael. New York: John Wiley and Sons.

THORNE, Barrie and Nancy Henley, eds. 1975. Language and sex:
Difference and dominance. Rowley, Massachusetts: Newbury House
Publishers, Inc.

THORNE, Barrie, Cheris Kramarae, and Nancy Henley. 1983. Language,
Gender and Society. Rowley: Newbury House Publishing Company.

THOMPSON, Eileen, Paula Hatchett, and James L. Phillips. 1981. Sex
differences in the judgement of interpersonal verbs.
Psychology of Women Quarterly. 5.4.523-31.

TOTH, Emily. 1970. How can a woman "man" the barricades? Or
linguistic sexism up against the wall. Women: A Journal of
Liberation. 2.1.57.

TOULMIN, Stephen Edelston. 1958. The uses of argument. Cambridge:
Cambridge University Press.

TOULMIN, Stephen, Richard Rieke and Allan Janik. 1979. An
introduction to reasoning. New York: MacMillan Publishing
Company, Inc.

TREICHLER, Paula and Cheris Kramarae. 1983. Women's talk in the ivory
tower. Communication Quarterly. 31.2.118-132.

TRUDGILL, P. 1974. Sociolinguistics: An introduction. New York:
Penguin Books.

_____. 1975. Sex covert prestige, and linguistic change in the
urban British English of Norwich. Language and sex:
Differences and dominance, ed. by Barrie Thorne and Nancy
Henley. Rowley, Massachusetts: Newbury House Publishers, Inc.

UNGER, R.K. 1975. Status, power and gender: An examination of
parallelisms. Madison: Paper presented at the Conference on
New Directions for Research on Women.

VITANZA, Victor J. 1979. A tagmemic heuristic for the whole
composition. CCC. 30.3.270-4.

WALROD, Michael Ross. 1983. Philosophy of normative discourse: A
study of Ga'dang exhortation and argumentation. Dissertation:
The University of Texas at Arlington.

WARSHAY, Diana W. 1972. Sex differences in language style. Toward a sociology of women, ed. by Constantina Safilios-Rothschild, 3-9. Lexington: Xerox College Publishing.

WEDDLE, Perry. 1979. Inductive, deductive. Informal Logic Newsletter. 2.1.1-5.

_____. 1980. Good grief! More on induction/deduction. Informal Logic Newsletter. 3.1.10-13.

WEITZMAN, Leonore J. and Diane Rizzo. 1977. Images of males and females in elementary school textbooks in five subject areas. Sex role stereotypes in the schools, 57-67. Washington, D.C.: National Education Association.

WESTON, Anthony. 1982. A pattern for argument analysis in informal logic. Teaching Philosophy. 5.2.135-9.

WEST, Candace. 1979. Against our will: Male interruptions of females in cross-sex conversations. Language, sex and gender, ed. by Miriam Slater and Leonore Loeb Adler, 81-97. New York: New York Academy of Sciences.

WESTRUM, Susan. 1976. Chronological mapping as a useful tool in identifying semantic paragraph groupings in Berik, Irian Jaya, Indonesia. From Baudi to Indonesian, ed. by Ignatius Suharno and Kenneth L. Pike, 45-62. Jayapura, Irian Jaya: Cenderawasih University and the Summer Institute of Linguistics.

WHITEHEAD, Jack L. 1968. Factors of source credibility. Quarterly Journal of Speech. 54.59-63.

WILLIAMS, Juanita H. 1977. Psychology of Women: Behavior in a biosocial context. New York: W.W. Norton and Company, Inc.

WISEMAN, Richard L. and William Schenck-Hamlin. 1981. A multidimensional scaling validation. Communication monographs. 48.4.251-70.

WOLMAN, C. and H. Frank. 1975. The solo woman in a professional peer group. American Journal of Orthopsychiatry. 45.164-71.

WOOD, Marion. 1966. The influence of sex and knowledge of communication effectiveness on spontaneous speech. Word. 22.112-37.

WRIGHT, M. 1936. The art of conversation: And how to apply its technique. New York: Mc Graw-Hill.

YOUNG, Richard E., Alton L. Becker, and Kenneth L. Pike. 1970.
Rhetoric: Discovery and Change. New York: Harcourt, Brace and
World, Inc.

ZIMIN, Susan. 1981. Sex and Politeness. International Journal of the
Sociology of Language. 27.35–58.