The Effects of Linguistic and Non-Linguistic Context on the Deictic Interpretation of Noun Phrases.

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The effects of linguistic and non-linguistic context on the deictic interpretation of noun phrases

Foster, Daniel George, Ph.D.
The Louisiana State University and Agricultural and Mechanical Col., 1988

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The Effects of Linguistic and Non-linguistic Context on the Deictic Interpretation of Noun Phrases

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in

The Interdepartmental Program in Linguistics

by

Daniel G. Foster
B.A., The University of British Columbia, 1980
M.A., The University of British Columbia, 1983
May 1988
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Abstract

Definite noun phrases (NP's), proper names, and third person pronouns are not consistently interpreted deictically. Furthermore, these three types and first and second person pronouns, or potentially deictic NP's (PDNP's), allow various deictic interpretations. PDNP's, whether deictic or not, may be interpreted as pertaining to the universe of discourse that each text creates, the situation of writing in which the text is created, or the attitudes of the writer towards the referent of a particular NP. Universe of discourse NP's include generic and descriptive NP's and those deictic in the most basic sense (i.e. those that point within the spatio-temporal field of the world external to the text). Situation of writing NP's include cases of anaphora, textual deixis, impure textual deixis, and what I term "editorial NP's." Attitudinal NP's subsume cases of social deixis and emotional deixis as well as "group identity deixis." A few definite NP's, in particular, idioms and quantificational expressions, fall outside these categories. Variations in interpretation of (PDNP's) apparently are due to variations in context, since an NP may be deictic in one place and non-deictic in another, or deictic to the universe of discourse in one location and deictic to the situation of writing elsewhere.
Linguistic and extra-linguistic factors come into play. Sentence level linguistic factors include the expression of time and the predication of definite actions. So, for instance, I is more likely to be interpreted as deictic to the universe of discourse if it occurs in a sentence expressing definite time, either through tense and aspect or adverbial modification. Discourse level factors include the antecedents of anaphoric NP's. A third person pronoun will be deictic to the universe of discourse if its antecedent introduces an element into the universe of discourse or refers to one already there. Extra-linguistic factors include readers' knowledge of the world and their attitude toward the writer and the subject matter. For instance, you seems more likely to interpreted as referring indefinitely to an ill-defined group if the reader does not believe the subject matter being discussed is personally relevant.
1.1. Overview of the problem

In the past twenty years, a great deal of work has been done on the notion of deixis, the pointing function of language, though the concept is much older than that. Deixis has been found to operate in languages' treatments of space and time and in person systems as well. A few investigators have looked at the operation of deixis in texts to direct readers' attention within the text. Ways of expressing social distance, or "social deixis," have been considered at some length. At least one investigator has considered "emotional deixis" or the expression of emotional distance. The deictic inventories of numerous languages have been chronicled, and theoretical systems have been proposed to account for regularities in deictic systems across languages and across types of deixis within particular languages.

However, no one has addressed a problem that I consider particularly interesting. Terms that function deictically in one instance of their use may not function deictically in
all instances of their use. Or, alternately, terms may function deictically all the time, but their deictic function may differ in different instances of their use. Since the terms themselves, their physical realization as marks on a page or as acoustic signals, remain constant across these different uses, we must look at the contexts in which the varying uses occur to explain the differences in interpretation. The purpose of this dissertation is to consider the various uses of potentially deictic terms, in particular noun phrases (NP's), in context to attempt to develop generalizations about the interrelation of context and deictic and non-deictic interpretation.

1.2. Methodology and data

The research design is very simple. To perform this task, I analyzed the potentially deictic NP's (PDNP's; these consisted of all pronouns, proper names, and definite NP's) in 75 student essays. First, they were analyzed to determine whether or not they were deictic and, if they were, what sort of deictic function they performed. Second, aspects of sentence-level context, such as tense or adverbial expression of time, syntactic function, semantic content of the expression itself or the main verb of the sentence were charted to determine whether there were interrelations between these aspects of context and the
deictic or non-deictic interpretation.

The simplicity of this research design was indicated because of the lack of previous work on this question. That is, I could find no one who had approached the question of contextual effects on deictic and non-deictic interpretation in any way. Consequently, the task here was to investigate the question in such a way as to provide preliminary results and useful categories for further research. This lack of previous work also accounts for the amount of space dedicated to the development and explanation of categories. For instance, the distinction between editorial and non-editorial first and second person pronouns has not been explicated elsewhere. When I began this project, I had a vague notion that such a distinction could be drawn, but I did not expect that some of the most interesting results of the project would revolve around that distinction. Before the effect of context on our interpretation of first and second person pronouns could be considered as editorial or non-editorial, it was necessary to develop the category distinctions in some detail.

The use of written data departs somewhat from what has been normal in accounts of deixis. Much of the theoretical work on deixis has depended on examples thought up by the author. Even some of the cross-linguistic work has depended to a great extent on what the author knows about the
languages in question and not on data gathered from informants. I do not wish to argue against the use of such data in principle. However, to have attempted to make up examples equivalent in number and diversity to what I was able to find in the 75 student papers would have been, simply, impossible.

Studies using non-contrived data, further, have generally not depended on written data, but rather on spoken data. My use of written data reflects two interests of mine. First, much of my previous research has applied linguistic concepts to the study of student writing with the intention of furthering understanding of the student writing. This project, then, continues this tendency, but treats the student writing simply as an instance of language use. Second, I am interested in the function of deixis in running prose, particularly in the apparent dependence of perceived coherence on higher proportions of deictic NP's when the topic is remote from both the writer and the reader. Given such interests, the use of spoken data would have been of no particular advantage. Furthermore, the difficulties involved in collecting and transcribing 75 samples of 200 to 600 words of spoken data, given that there is no advantage to the spoken data, would have been pointless.

This is not to say that there are generally no
differences between written and spoken language with regard to deixis. However, the differences would seem to be largely connected to the fact that spoken language is most often spontaneous rather than prepared and more often occurs in the Canonical Situation of Utterance\(^1\) than does written language. In order to get running spoken prose of the sort contained in the essays, informants would have to be given preparation time. That fact and the desire for the prose to be on a relatively remote topic would make the actual situation of utterance far different than the Canonical Situation of Utterance. The spoken data, in such a case, would have more in common with written language than with spontaneous conversation.

The results of this study are colored by the data used. However, losses in one place are gains in another. Because the situation of writing is quite different from the Canonical Situation of Utterance, a useful and informative distinction can be drawn between editorial and non-editorial first and second person pronouns. On the other hand, the same factors mean that third person pronouns are never deictic in the spatio-temporal field without also being anaphoric. There is no end of work to be done on deixis in both written and spoken language. This project is a beginning on one aspect of that work.

The use of student writing, which can be expected to
contain more errors and oddities than more mature writing, is also crucial to the project. Determining interrelations between context and deictic and non-deictic interpretation depends on having a large number of both deictic and non-deictic uses of NP's. If previous research (Foster 1984, 1987) is correct in its claim that better, more coherent writing contains greater proportions of deictic NP's, then the exclusive use of better, more coherent prose would leave us without the contrasts in interpretation necessary for this project.

1.3. Deixis and problems in its definition

Put most simply, deixis refers to the mechanisms that bind language to the external world. Deictic terms force receivers of messages to interpret those messages in relation to some point of orientation. For instance, in a speaking situation, I can only be fully interpreted if one knows who the speaker is. Here can only be interpreted if one knows where the speaker is located. And now can only be interpreted if one knows when the utterance occurred. Put in such terms, deixis might seem to be a lexical phenomenon. That is, it might seem that certain terms in a language must always be interpreted in light of the situation of utterance while other terms never need such reference. While no one has, apparently, asserted that position, no one has argued
against it either, and it seems implicit in many of the treatments of deictic inventories in other languages.

In fact, the situation is not quite so simple. That is, terms are not invariantly deictic or non-deictic. Consider the following paragraphs, taken from two of the essays used in this study:

(1) One such invention is nuclear weaponry. The consequences of a nuclear war become more frightening as further results of the bombing of Hiroshima are brought to the public attention. Not only did this bomb destroy human life, but also much of the environment. The radioactive remains are still causing such problems as mutations in babies and serious medical problems in other people who lived in a radius of several mile around Hiroshima. However, compared to the nuclear weaponry now in production all over the world, the bomb dropped on Hiroshima was little more than a cap pistol. Studies have been done which show that there are enough nuclear weapons on earth to destroy everything and everyone on the planet approximately seven times, leaving a barren wasteland unable to support life again for centuries. [3]

(2) Nuclear weapons are the inventions that are feared and hated the most. These inventions represent
the destruction of mankind. Nuclear weapons seem to have brought out the worst in man. All the countries have them and probably will have them in the future. These weapons do nothing to help anyone. If man is to continue to invent things to help further the well-being of the human race, nuclear weapons should be "disinvented". This invention has only brought the threat of death and destruction to the world. It is said that these weapons will not be used unless another country uses them first. What is the point of using a weapon that will destroy man? These weapons will always have people wondering when the next war will be. For if one country disagrees with another, they will not hesitate to have a war, a nuclear war. [24]

What is important to notice in (1-2) is that the underlined NP's in (1) are without exception interpreted deictically, as pointing to things and events in time and space, requiring reference to a point of orientation for interpretation, while the underlined NP's in (2), even though they contain so-called deictic words, are all interpreted non-deictically.

Consider the NP this bomb found in (1). This is generally considered a deictic term since it provides information about relative proximity to the speaker (in
perhaps a metaphorical sense) and since it indicates that the receiver is expected to know which (in this case) bomb is meant. In other words, this points to something in the world external to the text and consequently requires reference to some aspect of the context in which the utterance was made. In [3], this bomb is used to point to the bomb that was dropped on Hiroshima, a bomb existing in time and space. Since the NP points to something in time and space, full interpretation requires that the receiver of the message use information about the world as a point of orientation. Prior to the dropping of the atomic bomb, the NP would not have been fully interpretable. There would have been no point of orientation. If another bomb were to be dropped on Hiroshima, this bomb and the bomb dropped on Hiroshima would change in interpretation to mean the more recent bomb; there would be a new point of orientation.

Now consider the NP this invention in (2). If deixis were purely a lexical phenomenon, then this invention should point to some particular invention existing in time and space and requiring reference to contextual information for full interpretation just as this bomb does. However, such is not the case. In [24], this invention cannot be interpreted as pointing to any particular entity (or event) existing in time and space. Rather, it must be interpreted as meaning the general class of nuclear weapons. This in
this invention, then, does not point outside of the text, but rather points within the text, anaphorically, to other mentions of inventions. The NP does not require a point of orientation in the external world for full interpretation, but rather may be resolved using only its antecedent and our knowledge of the meanings of the words. Although this has been widely considered a "deictic word," the NP's in which it occurs are not invariably interpreted as deictic. Other so-called deictic words also show variation of this sort in interpretation.

In the most basic cases of deixis, the sender, the receiver, and that which is being talked about are all present. For instance, if Ralph and Biff are standing in a room with several chairs, and Ralph tells Biff to sit in "this chair," then Biff interprets the utterance making use of information from the immediate situation, the actual physical surroundings. In written discourse, the situation from which information is taken to resolve deictic terms is normally less immediate. Written discourse can be used when the writer, reader, and that which is talked about are all present; the surreptitious passing of notes in classrooms often involves this most basic sort of deixis. However, in most writing situations, the reader decodes the message in a different place than the writer encodes it. Furthermore, the subject matter is very often remote from both.
How then does deixis operate in written communication? In any situation of writing there must be a writer and a text being written. Generally, there is also an intended audience. Consequently, the writer can assume that the reader can make use of information from the situation of writing in interpreting the message. There must, however, be another element to written discourse. This other element is the universe of discourse that is created as the written message proceeds through the writer forcing the reader to access information he or she already has access to and through the writer providing new information. Let us consider again (1). The situation of writing includes the writer, the intended reader, the text being written, and the instructions the writer was following in writing the essay. Essays written for exams tend to have minimal factors in the situation of writing. Compare, for example, a note that says:

(3) There is yogurt in the refrigerator

Notice here that the note forces the reader to take into account the area surrounding where the note was found. If there is no refrigerator nearby, then the note fails as communication. However, in the essays dealt with here, there is little of that situational information required.

However, while (1) does not force us to use situational information, it does create its own world. In non-fictional
writing we normally expect this created world to be composed of information taken from the real world. When the author introduces the bomb dropped on Hiroshima, readers are forced to access information they have about Hiroshima, atomic bombs, and so on. All of this information, then, becomes part of the universe of discourse and can be pointed to later in the discourse by expressions such as this bomb. Other information is added by the writer throughout the paragraph. Compare (2). Nothing comparable to the bomb dropped on Hiroshima is introduced in that paragraph. Instead, we get the non-deictic nuclear weapons. No universe of discourse is created by that NP since readers are not forced to access any information about anything beyond the fact that nuclear weapons exist. Furthermore, very little new information is presented. Potentially deictic expressions such as these inventions and these weapons have no world to be interpreted in light of. Consequently they are anaphoric but not deictic (this bomb in (1) is both anaphoric and deictic). Thus, there will be at least two possible points of orientation (especially with regard to first and second person pronouns): one within the actual situation of writing, and one within the created universe of discourse.
1.4. Reference

As noted, deixis has to do with the binding of language to the external world. However, both linguistics and philosophy of language have also considered this language/world relationship in terms of "reference," and it is necessary to distinguish what I am doing from questions of reference.

1.4.1. Sense and reference

One of the problems that has occupied linguists of this century has been that of the relationship between language and the world. While it is clear that language can be used to talk about the world, it is not clear exactly how it can be so used. Common sense suggests that words have a very direct relationship to the world--words stand for things. However, linguistic and philosophic investigations indicate that there is more to word meaning than simply a relationship to something in the world. In an early account of such matters, Frege (1892) discussed the notions of Sinn and Bedeutung (often translated as "sense" and "reference"). Bedeutung was the entity in the world that an expression talked about, while Sinn was the entity's cognitive value. That is, NP's like the morning star and the evening star both refer to the same entity, Venus. However, they have a different sense; they describe the object to which they
refer differently. Frege argued that sense was an essential part of meaning. Consider (4-5):

(4) The morning star is the same as the evening star
(5) The morning star is the same as the morning star

In terms of the notion of reference, both of these sentences are tautologies. The referent of the morning star is the same as that of the evening star; both refer to the planet Venus. So, in terms of reference, both sentences are tautologies of the sort $a=a$. However, that is not the way (4) is understood in real language use. What is actually being said is that the "star" one sees by itself as morning breaks is the same entity as the "star" one first sees in the evening. The statement is understood as the non-tautologous $a=b$. In terms of sense, (4) is not a tautology since it is equating two different meanings. While (5) is clearly tautologous, to many lay people, (4) is a piece of new information.

Frege's argument can be taken to show that the relationship between language and the world is not a direct one. That is, words do not have meaning by simply standing for objects and events in the world. However, his argument has frequently been ignored or taken quite differently. In spite of Frege's efforts, Kempson notes that "there is a long tradition of equating the problem of meaning with the problem of reference" (1977:13). In other words, there is a
long tradition of ignoring the importance of sense in
meaning. On the other hand, Black translates Frege’s Uber
Sinn und Bedeutung as "On sense and meaning" (Frege 1980)
rather than as the more common "On sense and reference,"
changing radically any possible reading of the article and
presenting Frege’s argument rather differently than Frege
himself did.⁴ Strawson argues that Russell, too,
identified meaning with reference:

The source of Russell’s mistake was that he thought
that referring or mentioning, if it occurred at all,
must be meaning (1950:328).

Strawson himself rejected that position, claiming that
reference is a matter of language use—we use an NP to refer
to something in the world—while meaning is a set of rules
or conventions for language use. Against Strawson, and
continuing this equation of meaning and reference, Quine
argues that not just singular terms, such as a child’s use
of mama, have reference, but also general terms such as
apple (1960:91). In this tradition, meaning is the
conventional relationship between a word and something
external, something in the real world. Nouns, such as apple
or car, in this view have meaning by virtue of the fact that
they refer to the class of apples or cars, respectively.
Singular referring expressions pick out a single member of
the class. If the singular referring expression is
definite, then the expression picks out a particular member of the class. If it is indefinite, then it picks out any member of the class. This use of reference as a conventional relationship continues into current investigations into language. It has been called "semantic reference" (Kripke 1977).

1.4.2. Different approaches to reference

Certain difficulties emerge from approaching meaning from the point of view of semantic reference. Notice that if we identify meaning with reference, we have a great deal of difficulty handling words that correspond to nothing in the real world. For instance, we do not want to claim that abstract terms such as love or hate do not have meaning, yet it would be difficult to point to anything in the world that we could call the referent of either of those terms. Furthermore, fictional words such as unicorn or triffid correspond to nothing in the real world, yet the words certainly have meaning. Finally, it is not clear what and would correspond to in the real world, yet, again, the word clearly has meaning. There have been three main reactions to this problem.

1.4.2.1 First reaction

One reaction is that of Lyons (1968). He argues that
many words simply do not have reference. Taking this course, we cannot then claim that reference is the basis of meaning since we would then be forced to claim that many words do not have meaning. Rather, in this view, word meaning resides elsewhere than in reference. Reference itself becomes quite unimportant, being useful only to observe that certain words happen to have meanings that correspond to things in the world. In this approach, meaning would apparently have to be identified with sense.

1.4.2.2. Second reaction

A second reaction is to maintain the notion that reference is the basis of meaning, but that the conventional relationship between a word and something external is not between that word and the world, but rather between the word and an idea (e.g. Chafe 1976). We could make the notion of "idea" more precise as does Bowers (1979, 1981) and consider reference a relationship between a word and a mental grid or feature matrix. This second reaction retains the universal and conventional nature of reference. One potential problem is that reference in this approach overlaps considerably with the notion of sense. However, Palmer (1976) notes that there is an overlap between sense and reference even in less unabashedly mentalist theories (see, e.g. Burling 1970). So, in this view then, sense relations such as synonymy and
antonymy are talked about (i.e. the systematic relationships among words), but a word's sense as such is subsumed by its reference. A second apparent problem is that by construing reference as a relationship between words and mental grids, we lose the mechanism to talk about the way language does appear to relate to the real world. However, this real world relationship may then be talked about as a non-conventional one. That is, the relationship between an utterance and the world depends to a great extent on the context in which the utterance was made. To handle this context-dependence, philosophers have introduced the notion of indexicality and linguists have introduced the notion of deixis.

1.4.2.3. Third reaction

The third reaction is to abandon the notion of semantic reference and to talk instead about the use of expressions. Strawson notes the importance of distinguishing between the meaning of an expression and its use:

People use expressions to refer to particular things. But the meaning of an expression is not the set of things or the single thing that it may correctly be used to refer to: the meaning is the set of rules, habits, conventions for its use in referring (1950:328).
Likewise, Bar Hillel has noted the impossibility of determining the reference of a sentence-token (a sentence on the particular occasion of its utterance) containing an indexical in abstraction from its context (1954:393). As noted, Kripke (1977) has called the notion of reference as a conventional relationship between word and world "semantic reference." He goes on to distinguish this from the use of an expression on a particular occasion to refer to a particular thing. This second notion he calls "speaker reference."

Speaker reference is not a conventional notion, but rather has to do with language in use. Thus, it is more closely related to deixis than is semantic reference. In discussions of speaker reference, what is at issue is what the speaker intends to refer to using a particular expression. In (6), the speaker is referring to a particular cat, so the underlined NP is being used to refer. In (7), the speaker is not intending to refer to any particular cat, so the underlined NP is not a case of speaker reference (though in some views it is a case of semantic reference):

(6) John kicked the cat
(7) The cat is a furry animal

So, while semantic reference is a public, conventional relationship between a word and something external to
language (traditionally something in the real world, but possibly a mental representation of some kind), speaker reference is an act or event that is private and context dependent, having to do with a speaker's intention to refer (Searle 1969). The cat in (6) will refer differently on different occasions of the sentence's utterance. This view of reference requires a notion of sense to account for the conventional, more permanent aspect of meaning.

1.4.3. Deixis vs. speaker reference

While this latter use of the term "reference" is similar to what I have in mind when I talk about the deictic value of an NP (or that to which the NP points), there are important differences between the two notions. In some ways, deixis approaches the language-world relationship from a broader perspective, and in other ways, its approach is narrower.

While deixis and reference are related concepts (see Lyons 1975, 1977 for discussion of this relationship), they are not identical. In particular, the roots of reference, in logic and set theory, militate against its adaptability for a hearer-based approach to language, one which stresses the interactional nature of the speech situation. The notion of deixis, on the other hand, takes as its starting point the context-sensitivity (in the non-technical sense)
of language in use. Consequently, deixis seems to me to be a better tool for getting at the relationship of language to the world since it is in its essence a pragmatic notion.

1.4.3.1. Restriction of reference to nominals

In the first place, deixis is a more general term, referring to the general notion of the essential context-dependence of language, while speaker-reference is normally talked about with regard to nouns or nominals. Terms like now and then are not normally talked about as having reference, but are universally considered deictic. While reference is normally considered a relationship between a word and an entity, a deictic term like now or then points not to an entity, but rather to a moment in time. In the context of a discussion of deixis, then, the pointing qualities of certain NP's and the fact that NP's are used to denote entities in the world are considered a special case in a more general theory. While speaker reference could be construed this way, its theoretical roots in set theory and logic bias people to think in terms of using language to pick out individuals from classes of objects, an activity more suited to a discussion of nominals than of prepositions or adverbs.
1.4.3.2. Inclusion of indefinite NP's in reference

Deixis differs from speaker reference in a second way. When people discuss speaker reference, they are most often concerned with whether the speaker is using language to pick out an individual from a class of objects. Thus, speaker reference is a speaker-based notion. I suspect this a carry-over from the logical/set theory roots of reference in which the notion of picking out an individual from a set was considered in abstract from the speech situation. Although context has been admitted into consideration, the speech situation is still not seen as a dynamic event between two or more participants. Speaker reference is seen as an exercise in using NP's to pick out an object, but little time has been spent on the question of how the hearer of the NP manages to determine which object has been picked out. Discussions of deixis, on the other hand, are intimately concerned with how the hearer of an utterance anchors the utterance to aspects of the external world.

In practical terms, then, speaker reference is concerned not only with definite reference, but also with indefinite reference (and possibly even with non-specific indefinite reference). In (8), a motorcycle may or may not be used to refer:

(8) John wants to buy a motorcycle

In one interpretation, a motorcycle picks out an individual
from the class of all motorcycles. That is, there is a particular motorcycle that John wants to buy. In the other interpretation, a motorcycle does not pick out a particular motorcycle. In this interpretation, John wants to buy something that fits the description of motorcycle, but he has no particular motorcycle in mind. Lyons (1977) further suggests that certain non-specific indefinite expressions may be cases of reference. Consider (9):

(9) Every morning at six o'clock a heron flies over the church.

In one interpretation, a heron is taken to be the same one every morning. In this case, as with a motorcycle, the expressions refers. In the other interpretation, where some heron or other, but not necessarily the same one every morning, flies over the church every morning, the expression is considered a non-specific indefinite expression. Lyons notes that there is some question as to whether non-specific expressions should be considered cases of reference (1977:188). That is, it is not at all clear that the expression actually picks anything out.

Neither of these NP's, however, is deictic. Whether it picks out a particular motorcycle or not, a motorcycle is not a deictic NP since the hearer of the utterance has no way of determining which of all motorcycles is being pointed to. Likewise, whether or not a heron in (9) is a referring
expression, it is not a deictic expression, again because it does not point to a particular heron even if it does pick one out of the set of herons. In this way then, deixis is a narrower concept.

1.4.3.3. Description as integral to reference

The third difference between deixis and speaker reference is that speaker reference is greatly concerned with description (or symbolic value) in a way that deixis is not. Much of the work on reference, both semantic and speaker, has been concerned with description. Expressions or speakers are assumed to pick out individuals from classes of objects largely through description, and hearers are thought to determine the appropriate individuals by matching them to the description (though definite descriptions have an "attributive" function as well as their referential one; see Donnellan 1966, 1968). For instance, Lyons talks about "referring by definite description" (1977:180). However, description is not the only means of identifying a particular object. Lyons notes,

Broadly speaking, there are two ways in which we can identify an object by means of a referring expression: first by informing the addressee where it is (i.e. by locating it for him); second, by telling him what it is like, what properties it has or what class of objects
it belongs to (i.e. by describing it for him)

While both sorts of information are encoded in many linguistic expressions, it is the former, locational information that is of primary interest to those interested in deixis, while the latter, descriptive information is concentrated on most in discussions of reference. From the viewpoint of deixis, the descriptive element of an expression can be thought of as a "presorting" of potential referents while the deictic aspect of language has to do with choosing among those that fit the description (Rauh 1983b). Alternately, we could claim that deixis presorts potential referents by pointing to where they are located and that description allows us to choose among those in the area pointed to.

1.5. Summary

I will delineate terms in the following way: The "symbolic value" of a word will subsume what was traditionally called sense, i.e. the conventional value of the word with respect to other words in the language. As noted, some linguists have considered reference to be a conventional relationship between language and some sort of mental entity. This use of "reference" with its similarity to "sense" will also be subsumed under symbolic value. The
reason for using terms in this way is that the notion of symbol may be regarded as neutral with respect to the question of whether word meanings are in fact mental entities.

The traditional notion of semantic reference, where reference is a conventional relation between a word and the world, will be dropped since it is not clear that all words have such a relation. The notion of speaker reference, with the differences noted above, will be covered under the notion of deictic value. That is, the deictic value of an NP will be approximately the same as its speaker reference. To the extent that I use "refer" or its derivatives, I will be using them non-technically. The conventional, constant aspect of meaning, then, is considered symbolic, while the shifting meaning of terms in use is deictic.

Chapter 2 will consider previous work on deixis. Chapter 3 will provide an overview of the data used in this study. Chapter 4 will deal with all third person NP's, proper names, definite NP's, and pronouns. Chapter 5 will discuss the deictic uses of first and second person pronouns. It will be largely concerned with the editorial and non-editorial uses of pronouns. Chapter 6 will summarize what I have found regarding contextual factors in deictic interpretation of NP's and will suggest future avenues of research.
The study is intended to be significant in three ways. Firstly, and this is the main thrust of the dissertation substantively, we can expect the study to make the operation of deixis in real language use clearer. Although it is widely recognized that potentially deictic terms often have various functions, some deictic and some not, no one has considered in detail the contextual factors which affect our interpretation of these terms. Secondly, the study will provide a more detailed analysis of types of potentially deictic NP’s in discourses than has been available. Thirdly, even though student writing is not the topic of the dissertation, since student writing comprises the data for the study and since student writing has only been approached in a preliminary way from this direction, we can expect to learn something about the linguistic fiber of student essays, allowing us to build on previous studies of deixis and student writing.
Notes

1. The Canonical Situation of Utterance is what is thought to be the most basic situation for the use of spoken language; when the speaker, addressee, and that talked about are all present.

2. Essays 1–48 have been used in previous studies, Foster (1983, 1984, and 1987).

3. Numbers in square brackets refer to the number of the essay in the sample.

4. Davidson and Harman translate this article as "On sense and reference" (Frege 1975), and Jackendoff (1983) cites it in that way. Lyons (1977) cites an earlier edition of Black's translation under that same title.
Chapter 2
Research on Deixis

2.1. Introduction

One purpose of this section is to demonstrate the breadth of work that has been done on the topic of deixis. The key word here is breadth. As will be seen, deixis has been approached from a variety of different ways, but rarely in great depth. A second purpose is to show that, in spite of the many differing attacks on deixis, the topic I am working on has not been approached. Finally, I hope this survey will help to make readers more familiar with deixis.

2.2. Origin and current state of deictic theory

Although the concept of deixis has been under investigation since the related philosophical concept of index was introduced by Charles Sanders Peirce in the mid 1800’s (Peirce 1867, 1932:1.558) and Karl Bühler introduced the term currently used in linguistics in the early 1930’s (Bühler 1934, 1982), our theoretical understanding of this linguistic phenomenon is still incomplete. In the words of Levinson (1983):
. . . we have on the one hand, only the rather simple philosophical approaches to indexicals (covering just some aspects of person, time and place deixis), and, on the other hand, a mass of complicated linguistic facts, to which some preliminary order has been brought by the work of Fillmore and Lyons in particular (94).

broad survey of theoretical work up to that time and an introduction to many of the theoretical issues. While Levinson has perhaps understated the amount of work that has been done on deixis, it is true that many basic theoretical issues remain unresolved and that a tremendous amount of work remains to be done before we can really say we have a theory of deixis, though Rauh (1983b) has taken a large step in that direction.

2.2.1. The concept of deixis

Put most simply, deixis refers to the mechanisms that bind language to particulars of the external world. Levinson discusses how deixis "anchors" utterances to aspects of context (1983:55). Lyons notes that deictics are what "relate utterances to the spatio-temporal co-ordinates of the act of utterance" (1977:636). Anderson and Keenan define deictics as "those linguistic elements whose interpretation in simple sentences makes essential reference to properties of the extra linguistic context of the utterance in which they occur" (1985:259). Generally, the anchoring point of deictic terms has been considered to be egocentric time/space, or the position of the speaker in time and space. That is, the hearer of an utterance must reconstruct the position of the speaker in time and space in order to fully interpret the utterance. Hanks (1984) has
challenged that notion more recently, claiming from Yucatec Maya evidence that the anchoring point is actually what is given for both the speaker and hearer. That point of view is not widely shared.

Let us consider briefly the earliest systematic discussions of deixis. Karl Bühler (1934, 1982) distinguished between naming words, which "are symbols, and receive their specific complete and precise meaning within the synsemantic field" and deictic words, which "receive their fullness and precision of meaning not in the symbolic field of language, but in the deictic field" (Bühler 1982:12). The synsemantic field may be thought of as an unchanging system within which symbols have meaning. The deictic field is a system of coordinates for locating points with respect to a point of orientation. A naming word, in this framework, has a single meaning always, in any situation, while the meaning of a deictic word changes with the situation (15). Likewise, Peirce (1932) makes a similar distinction between indexicals, which correspond to deictics, and symbols, which correspond to Bühler's naming words. Peirce adds a third category, icons, which is not relevant here.1

2.2.2. Symbol and deixis

In general, the division of meaning into symbolic and
deictic, approximately what both Bühler and Peirce had in mind, is accepted within studies of deixis. Furthermore, Miller (1982) has adopted a similar distinction from a logical point of view, in which the content of a sentence is taken to be the proposition the sentence expresses when all deictic terms are replaced by their demonstrata, and the character of the sentence is its constant meaning. In this approach, the content corresponds to the deictic force of the sentence, while the character corresponds to the symbolic value. This deictic/symbolic line of distinction is quite compatible with the second construal of reference noted above (section 1.4.2.2), in which reference is taken to be a conventional relationship between a word and a mental grid or set of features which subsumes much of what was considered "sense." The notion of deixis is accepted as a non-conventional, context-dependent aspect of meaning. The notion of conventional meaning as mental feature set is entirely compatible with the notion of conventional meaning as symbol. The only point of difference is that symbols need not be taken as mental entities, but rather can be thought of simply as abstract, non-real, theoretical constructs. Since nothing in this dissertation hinges on the question of whether conventional meaning can be thought of in terms of sets of mental features, I will adopt the more neutral, non-mentalist term "symbol" instead of "mental
feature set" or the somewhat ambiguous "reference."

2.2.3. Separation of deixis and symbol

A problem arises with this distinction between the symbolic and deictic functions. It is a matter of dispute whether Bühler and Peirce intended to separate these two functions strictly. That is, it is not certain whether they intended to claim that symbols or naming words had only the symbolic function while indexicals or deictics had only the deictic function, or whether they believed that words could function in both fields simultaneously. According to Burks (1949), Peirce did not make that separation strictly, instead recognizing that a particular sign might have more than one sort of meaning. Fitzgerald's (1966) commentary on Peirce is consistent with Burks' interpretation as is Greenlee's (1973). Furthermore, in Peirce's theory of signs, pure indexes are singular, ad hoc events. The conventional nature of a linguistic sign, even clearly indexical ones such as now or here, suggests that there is a symbolic aspect in all words. Thus, the indexicality of an expression would seem to be a matter of degree rather than something absolute. Rauh, however, argues that Peirce did not recognize this dual nature of linguistic signs, though Bühler did recognize it as does Rauh herself (1983b:10).

Confusion in this matter is not surprising. Greenlee
states, "Peirce's treatment of the index is not only unfinished . . . but exploratory and so tentative as to abound in inconsistencies" (1973:84). Likewise, it is not entirely clear whether Bühler did, in fact, believe the two functions could co-occur in a single term. Innis notes that Bühler contended that I and here "have in themselves no primary conceptual content" (1982:20). Yet later, Innis appears to say they do have semantic content (1982:22 fn.5). Finally, Innis withdraws gracefully:

"whether or not there are specifically separate and pure index words does not matter, so long as the function of pointing, as opposed to characterizing and naming, is fulfilled" (1982:24)

Whatever Peirce and Bühler may have intended, this strict separation, leading to the treatment of deixis as a small set of words in a language, seems to be fairly general, showing up in textbooks such as Leech (1974), Palmer (1976) and Hurford and Heasley (1983), and in Halliday and Hasan's (1976) treatment of cohesion and E. Clark's (1977) treatment of the acquisition of deixis. Fillmore (1971) and Lyons (1977) also talk about deictic words, even though their discussions of deixis indicate that they do not limit the concept of deixis to a small set of words.
2.2.4. Reunification of deixis and symbol

This limited view of deixis, however, cannot be correct. Consider (1):

(1) I will meet you here tomorrow

For the moment, suppose this sentence comprised a note in a bottle found on the beach (see Fillmore 1975 for discussion of a similar episode). In particular, consider I, here, and tomorrow. These words are traditionally considered deictic. In the prototypical case (Fillmore 1982) or the Canonical Situation of Utterance (Lyons 1977), I points to the sender of the message; here points to the place the message is encoded; tomorrow points to the day following the encoding. However, that context-dependent information is not recoverable from this note in the bottle. In this case, there is no way to determine who I might refer to or when and where tomorrow and here are.

If deictic words were strictly deictic, with no symbolic aspect, then we should not be able to make any sense out of (1) at all. Without the needed contextual information, the sentence should be uninterpretable mush. However, that is not what we find. In fact, we know perfectly well what the sentence says: what I, here, and tomorrow ought to be pointing to. Furthermore, we could make up contextual information that would allow a full interpretation of the sentence. In short, we know perfectly
well what the sentence says and what it would mean (in pragmatic terms) in a given context, but as it stands, we have no way of attaching it to the world. This indicates that some aspect of the so-called deictic words must be intact, presumably the non-context dependent, conventional, symbolic aspect. Rauh (1983b) and Schmid (1972/1983) propose a description of this symbolic aspect of deictic terms. Hullen (1985) also argues that deictic terms have symbolic content.

2.3. Accounts of deixis

The great majority of the work on deixis has been done from what we might call the paradigmatic perspective in which deixis is viewed as the "system of devices for relating the speech-situation to the reality spoken about" (Sternberg 1983:227). Sternberg opposes this perspective to the syntagmatic perspective in which the serial order of deictic elements is considered. He notes for instance that the serial order of deictics is generally dependent on their relative distance from the point of orientation. So, for instance, we get here and there, now and then, and you and he. On the other hand, you and I violates this principle in order to conform to a politeness principle dissuading us from putting the egocentric I before our addressee. Sternberg also notes that the normal sequencing may be
violated as a literary device.

Returning to the more widely studied paradigmatic aspect of deixis, Sternberg notes that there are two ways in which it is studied: (1) as a system of linguistic categories, and (2) as a system of extra-linguistic coordinates. That is, we might study the pronoun systems of a group of languages, coming to conclusions about what sorts of information are commonly grammatically represented in pronoun systems. On the other hand, we might consider the way that a language or group of languages categorizes space and time, looking for generalities in the categorization systems. In reality, the two approaches often co-occur with the distinction being largely a matter of emphasis. It is impossible to study the extra-linguistic system except with reference to the regularities in the linguistic categorizations, whether within a single language or across several languages. And very often, descriptive grammars, even those which say nothing overt about deixis, also contain theoretically important information on that subject. Almost any description of a language will comment on the system of personal pronouns and thus be relevant to the study of person deixis. For instance, Nekes (no date) is a study of the pronoun system of Nyol-Nyol, an Australian language. The research was performed by a German clergyman in addition to his missionary work sometime after January
1936. Although his work does not mention the notion of deixis at all, it still contains information relevant to the study of deixis. Likewise, any study of demonstratives or spatial adverbs will be relevant to the study of spatial deixis, and so on. By contrast, Faerch (1975, 1977) makes use of deictic data to make a primarily theoretical point about "generative pragmatics" and "notional grammar" respectively. However, even though the papers are primarily theoretical, they still contain descriptive information.

2.3.1. Spatial deixis

Perhaps spatial deixis is the most widely studied aspect of deixis. Along with Anderson and Keenan's (1985) typological survey of deixis, we have accounts of spatial deixis in Swahili (Opalka 1982), the Papuan languages (Heeschen 1982; Foley 1986), Gadsup (Frantz 1973), Tolai (Mosel 1982), Spanish (Hottenroth 1982), Japanese (Coulmas 1982), Yidin (Dixon 1977), Diyari (Austin 1982), Tobelorese (Taylor 1984), the Bantu languages (Blok 1956), Bella Coola (Davis and Saunders 1975, 1976), Jamaican English Lexicon Creole (Pochard and Devonish 1986), Haida (Enrico 1985), and Nunggubuyu (Heath 1980). Armagost (1985) discusses the Comanche spatially-neutral ma-.

Several studies of spatial deixis have compared English with various languages, including Spanish (Moreno 1985),
Kikuyu (a Bantu language) and Eskimo (Denny 1978), Polish (Kryk 1985), and Hausa (Hill 1974, 1975, 1978, 1982; see also Abubakar 1986 and Angulu 1986). Hill found that while English speakers tend to treat objects without intrinsic front and back as though they were facing the speaker (mirror image), Hausa speakers tended to treat similar objects as though they were facing in the same direction as the speaker (in tandem). Thus, for an English speaker, a dog standing between a ball and the speaker would be regarded as "in front of" the ball, while for a Hausa speaker, the dog would be behind the ball. However, if the dog were hidden from sight, say by a tent, the Hausa speaker would tend to use the mirror image strategy, saying the dog was behind the tent. Interestingly, Hill (1975) found that bilingual speakers tended to choose one or other strategy regardless of which language they were speaking and tended not to be aware of the conflicting systems. Abkarian (1982), however, found inconsistent results when adult speakers of English were instructed to put objects (1) in front of, (2) in back of, (3) ahead of, and (4) behind other objects without intrinsic fronts. These results indicate that the English system may not be as clear cut as suggested by Hill in his earlier work. More recently, Hill (1978, 1982) has noted that both strategies are available in both languages, but that speakers of the two languages tend to
use only one of the strategies most of the time.

Frei (1944), in a more theoretical work, surveys a large number of languages from all over the world. He argues that deictic systems are generally either binary (as in English here/there) or ternary (as in German hier/da/dort), though further divisions are possible. Furthermore, he claims that certain apparently ternary systems, e.g. French, are in fact binary. Thus, ici, la, and la-bas are not strictly speaking a three-way division of space. Rather, the main distinction is between ici and la, with la-bas being a special case of la in the same way that over there in English is a special case of there. This argument that French is a binary system is an important one in view of the later conclusions he draws. He finds that the majority of Indo-European languages are binary, while a few, such as Celtic, Gaelic, and German, are ternary. Furthermore, the North African languages tend to be binary while the central and southern ones tend to be ternary; the Indo-Aryan languages of northern India are binary, while the Dravidian languages of southern India are ternary; in Asia, Chinese, "langue de grande civilisation," is binary while Japanese is ternary; the native languages of North America tend to be ternary as well. Finally, while languages have apparently developed binary systems from ternary ones, there are no known cases of ternary systems developing out of
binary ones. All this is taken by Frei to argue that binary systems in languages indicate a higher level of civilization than do ternary systems. Notice that the article was written during the Second World War, something that may account for Frei's deprecation of the German and Japanese levels of civilization and the effort he expends to show that French has a binary system distinct from the systems of Japanese and German.

Theoretical studies of spatial deixis have mainly covered German and English (Klein 1978; Talmy 1980, cited by Fillmore 1982; Von Stechow 1982; Ehrich 1982), though Fillmore (1982) also discusses Japanese, and Mazzoleni (1985) covers Italian data. Herskovits (1981) approaches spatial deixis in English from the perspective of prototype semantics. Cuyckens (1984) discusses deictic and non deictic interpretation of spatial prepositions. Rauh (1983b) follows Schmid (1972/1983) in describing spatial deixis according to a system thought to underlie all deictic systems. That is, rather than claiming there is a separate field for each deictic system, as does Bühler (1934, 1982), Schmid and Rauh argue that there is a single, finite inventory of major deictic categories. This basic system distinguishes among places which are (1) identical to the point of orientation, (2) places related to that point but not identical to it, (3) places not related to it. Other
distinctions are taken to be subcategorizations of one of these primary distinctions. Ultimately, there are seven possible distinctions (though only six are contrastive). English here and German hier fit category (1). English there subsumes categories (2-3), while German has da for category (2) and dort for category (3). We must note, however, along with Rauh (1983c), that the extensions of spatial terms are only vaguely specified. Thus here could be referring to this room in which I am typing or this galaxy (235).

Lexical items that have received a great deal of attention are come and go in English (Fillmore 1966, 1973) and their equivalents in Hungarian (Batori 1982) and French (Berthoud 1983). Because of their meaning, these verbs presuppose certain things about the positioning of speaker and hearer at either coding time or reference time. Macrae (1976) studies come and go in the speech of two year-olds. E. Clark (1974) has studied the use of come and go in their figurative senses. She claims that go indicates a departure from normal state, while come indicates a movement towards that state. Gandour (1978) finds a similar tendency in Thai. However, Malsch and Lant (1977) find that Clark's formulation fails to account for some examples: came unglued, came unraveled, etc. Notice also that we come to Jesus but we go to the devil, though there may be some
question as to which is the normal state of mankind. Rauh (1981) discusses these verbs in English and German, both in the literal change of place sense and the figurative change of state sense.

Finally, various people have studied spatial deixis in applied settings. Klein (1979, 1982) discusses it in route directions. Ulmer-Ehrich (1982) considers uses of spatial deixis in descriptions of living-space. Reule (1984) has performed a statistical study supporting the contention that hier refers to a place more accessible than da when used in giving instructions.

2.3.2. Temporal deixis

Considerably less work has been done on temporal deixis. Anderson and Keenan (1985) rely to a great extent on the work of Fillmore (1975). Huddleston (1969) has considered tense and deixis in English. Lakoff (1970) discusses the context-dependence of tense interpretation. Partee (1973) attempts a logical treatment of tense, pointing out similarities with the logical treatment of pronouns. Rauh's (1983b) study of deixis applies the framework developed by her and Schmid (1972/1983) to time as well as space, and Rauh (1983c) argues that in German and English, time and space distinctions are very similar. She claims that time is treated metaphorically in language as
temporal space, though like spatial expressions temporal ones are vague about their extension: now can be this very second (Fillmore's gestural usage) or it could mean in current times, however extensive we take that notion to be. Likewise, here could mean "in this room" or "in this galaxy." Similar claims about the relation between temporal and spatial deixis have been made by Traugott (1975, 1978), H. Clark (1973), and Steedman (1982). Hill (1978) shows that, as with spatial deixis, Hausa and English speakers tend to use the in tandem and mirror image strategies respectively in temporal deixis. For instance, in English we say "the day after tomorrow," while the Hausa equivalent would be "the day before tomorrow."

Temporal deixis has been studied in German by Rauh (1983c) and Grewendorf (1982), in English by Rauh (1983c) and Hullen (1985), in French by Larochette (1981), in Diyari by Austin (1982), and in Bella Coola by Davis and Saunders (1975, 1976). Burdach et al. (1985) studies time deixis in Spanish and English comparatively. Burdach et al. (1984) discusses the teaching of temporal deixis to learners of a second language. In an applied study, Harris and Brewer (1973) found that adults made fewer tense shift errors when the sentences they were asked to recall contained time adverbials.
2.3.3. Person deixis

The third traditional area of deixis is person deixis. Once again, Anderson and Keenan (1985) present an extensive survey of work on this topic. Typological information on systems of person deixis is widely available since almost any description of a language will include an account of the personal pronoun system. In specifically deictic studies, Cooke (1968) has investigated the pronoun systems of Thai, Burmese, and Vietnamese in great detail. Luong (1987) has also discussed the pronoun system of Vietnamese. Diyari has been investigated by Austin (1981, 1982), Hopi by Malotki (1982), and aspects of Chinese by Chao (1956) and Zhao (1987). Foley (1986) has looked at pronouns in the Papuan languages of New Guinea. Dixon (1980) discusses tendencies in pronoun systems across Australian languages. Pasierbsky (1982) has looked at the historical development of the Chinese pronoun system from classical times until today. Hockett (1966) has discussed the person system of Algonquian. Akmajian and Anderson (1970) have noted the existence of a fourth person in Navajo. Pronouns are also dealt with as part of Social Deixis (section 2.3.4).

Greenberg (1966) in an early typological work on language universals claimed on the basis of a thirty language sample that all pronoun systems have at least two numbers (plural and singular) and at least three persons.
Furthermore, the presence of a separate trial number implies the presence of a separate dual. Ingram (1978), using data from a large number of languages, notes that the six pronoun system, consisting of first, second, and third person, singular and plural, is the most common type. Next most common is the eleven pronoun system which includes duals and an inclusive/exclusive distinction in first person dual and plural. The seven pronoun system includes the inclusive/exclusive distinction, but has no duals. The nine pronoun system has duals but no inclusive/exclusive distinction. English is a five pronoun system, missing the plural/singular distinction in the second person, though Early Modern English, using the singular thou, was a six pronoun system (regarding English, see also Ingram 1971).

Theoretical studies of pronoun systems have been undertaken mainly in English and German. Bühler (1934, 1982) was most interested in the function of I in referring to the speaker as the point of orientation. Likewise, Fillmore (1975) considers the context dependency of pronouns, especially first and second person pronouns. Partee (1973) has claimed that pronouns and tenses may be treated similarly in logical treatments of semantics. Brener (1983) has tested children’s (2;8 – 5;7) abilities to identify referents of 3rd person pronouns. She found that gender was the initial criterion children used, with
person becoming important only later.

As in spatial deixis, perhaps the most complete theoretical treatment of person deixis is that by Rauh (1983b). I, like here, is identical to the point of orientation. You is related to the point of orientation, though not identical to it by virtue of its role as addressee. Third person pronouns are not connected to the point of orientation. Again, Rauh is following Schmid (1972/1983) in claiming that there is a single inventory of deictic categories which operate on the various deictic dimensions: place, time, and person.

2.3.4. Social deixis

A great deal of work has been done on the notion of social deixis. Social deixis concerns the social distance between the speaker and addressee or audience. Speakers of European languages are likely to be most familiar with the polite/intimate distinction found in most European languages. The distinction has dropped out of English except in a few specialized uses. In a widely cited work, Brown and Gilman (1960) determined that the polite form (V) tended to be used non-reciprocally in cases where there is a difference in power between the speaker and addressee. Thus, a child might tend to use V to his or her parents while receiving T (the intimate form) in return. Use of
reciprocal V, on the other hand, indicates a lack of solidarity between speaker and addressee, while reciprocal T indicates solidarity. So, close friends would use reciprocal T while casual acquaintances would be likely to use reciprocal V. Brown and Gilman further claim that the solidarity criterion has historically become more important than the power criterion.

Comrie (1975) has likewise noted the tendency in European languages to use plural forms and also masculine forms for politeness. With regard to the use of these plural forms, Comrie finds that there are distinct tendencies regarding agreement. In particular, using the French vous, the following verb will agree with regard to plurality. However, participles, adjectives and nouns will not. Thus we find:

(2) Vous *es/etes venu/*venus
(3) Vous etes loyal/*loyaux
(4) Vous etes professeur/*professeurs

More generally in languages using a polite plural, the tendency for agreement in the predicate decreases according to the following hierarchy: verb, participle, short adjective, long adjective, noun.

Lambert and Tucker (1976) is a study of T/V usage among children in five French- and Spanish-speaking areas: French Canada, rural France, St. Pierre-et-Miquelon, Puerto Rico,
and Colombia. What is significant about this study is that Lambert and Tucker found that although there were some gross regularities (e.g. children never called their parents T while receiving V in return), there was a great deal of variation in usage norms across the five areas.

More broadly, Head (1978) shows that non-European languages have similar tendencies in pronominal address. The use of the second person plural to show respect is widespread in the world's languages. He also notes the use of third person pronouns to refer to the addressee. Cooke (1968) notes of Thai, Burmese, and Vietnamese that "all three languages are strongly oriented toward distinctions of status" (based on age, kin rank, and social rank) even though they are not closely related genetically (149). Thai examples of deferential first person pronouns often literally denote the head or hair, while deferential second person pronouns often denote the sole of the foot or that which is under the sole of the foot. Etymologically, then, the inferior speaker places the sole of the superior addressee's foot at the same level as his or her own head. Zhao (1987) studies zan, a Chinese pronoun which marks intimacy, resentment, and informality. Chao (1956) approaches the pronoun system of Chinese more generally as well as Chinese terms of address in general and other associated politeness phenomena. Hong (1985) also comments
on pronouns and terms of address in Chinese. Zwicky (1974) has considered a variety of terms of address in English.

Other work on social deixis includes Fillmore's (1975) general theoretical introduction to deixis and Anderson and Keenan's (1985) typological survey of deictic phenomena in general. Burling (1970) surveys a wide variety of social factors in speech. Craig (1979) notes the use of "noun classifiers" (determiners) assigned on the basis of sex, relative age, and kinship. Inoue (1979) and Harada (1976) describe the rich social deixis system of Japanese. Martin (1964) treats Japanese and Korean, and Comrie (1976) discusses social deixis in Japanese, Javanese, Dyirabal, and Indo-European languages. Comrie distinguishes three axes along which social deictic phenomena occur: speaker-addressee, wherein aspects of speech change depending on whom one is talking to; speaker-referent, wherein aspects of speech change depending on what or whom one is talking about; and speaker-bystander, wherein aspects of speech change depending on who is nearby. The use of a special code by Walbiri men in the presence of other initiated Walbiri men (Hale 1971; see below) is an instance of speaker-addressee social deixis. The T/V distinction noted above is a speaker-referent phenomenon since it can occur only when the addressee is the referent of the pronoun. That is, it is the referent of the pronoun that the speaker
is showing deference to. If the distinction were speaker-addressee social deixis, then we would expect other aspects of speech to be deferential, but in European languages generally, the T/V distinction stands on its own. Speaker-bystander politeness is exemplified by the Dyirbal "mother-in-law language" (Dixon 1971, 1972; see below). In Dyirbal, a special vocabulary must be used whenever certain taboo relatives are within earshot. Levinson (1979) adds a further category of absolutes: the reservation of certain forms for certain speakers. Thai, for example, has separate polite particles for use by men and women.

Horne (1961, 1974) and Geertz (1972) have described the importance of social deixis in Javanese. Horne notes that "a thousand or so of the most commonly used words in the language are restricted to particular situations defined by the relationship between speakers and the people they are talking about" (1974:xxxii). Geertz finds up to six levels of speech in Javanese. "House," for instance, has three forms, omah, grija, and dalem, progressively indicating a higher relative status of listener with respect to speaker (1972:248). Geertz reports, "In Javanese it is nearly impossible to say anything without indicating the social relationship between the speaker and the listener in terms of status and familiarity" (1972:248).

Bean (1978) has studied terms of address in Kannada (a
Dravidian language of South India). Britto (1986) has studied person names among the Tamil. Carter (1984), in a study of the acquisition of social deixis by children in Maharashta, India, found that children were able to use the address system to refer to people long before they had mastered the social intricacies of the complete adult system of kinship reference. Garvin and Riesenber (1952) discuss respect phenomena including honorific usage on Ponape, an island in the eastern Carolines. Brown and Levinson (1978) attempt to account for the similarity of "linguistic minutiae" across unrelated languages, principally British and American English, Tzeltal (a Mayan language of Mexico), and South Indian Tamil. In particular, they find that speech often departs from the maximally efficient mode of communication as suggested, for instance, by Grice (1975). They argue that these departures are made in the interests of politeness. Levinson (1979) argues that the significance of social deixis is best captured in terms of conventional implicature. Philipsen and Huspek (1985) provide a bibliography of studies of personal address.

The use of separate codes for particular audiences or in particular situations has also been investigated. Ferguson (1964) investigated the tendencies of speakers of Arabic (in Baghdad), Modern Greek, Swiss German, and Haitian Creole to switch from a high-prestige code to a low-prestige
code when addressing certain social inferiors. Bakir (1986) has considered differences in the degree to which Iraqi men and women approximate the standard Arabic dialect. Yat-shing (1985) has looked at code-switching among Hong Kong Chinese. Haas (1964) studied differences between men’s and women’s speech in Koasati (a Muskogean language of southwest Louisiana). She notes that women’s speech is the basic, older code, though many younger women use the men’s speech which differs from the women’s in vocabulary and pronunciation. More generally, Haas notes that sex differences exist widely in the world’s languages, and may be (1) speaker-based, in which the code used depends on the sex of the speaker only, (2) hearer-based, in which the code used depends on the sex of the hearer only, and (3) speaker and hearer-based, in which the code used depends on the sex of both speaker and hearer. The first two types result in two distinct codes each, while the third type results in four distinct codes.

Hale (1971) describes the earlier noted Walbiri (Central Australian) secret language spoken by initiated males only in the presence of other initiated males. This secret language is based on antonymy, or saying the opposite of what one means. Dixon (1971, 1972) describes the Dyirbal mother-in-law language which is used by men within hearing distance of certain taboo relatives, in particular his
wife's relatives and especially her mother. He also
describes a similar system now out of use in Yidin (Dixon
1977). These mother-in-law languages and secret languages
are very widespread in Australian languages (Dixon 1980).
In general, the mother-in-law language consists of nuclear
terms. That is, the mother-in-law terms correspond most
closely to the superordinate terms in the normal dialect.
So, for instance, many Australian languages have no term
Corresponding to kangaroo in their normal dialect, having
instead words for each individual breed of kangaroo. The
mother-in-law languages, on the other hand, frequently have
only the term kangaroo and no individual terms for the
breeds. Likewise, Haviland (1979a, b) discusses the Guugu
Yimidhirr "brother-in-law" language. This language works on
similar principles to the Dyirbal code, but in this culture,
men do not talk at all to their mothers-in-law.

2.3.5. Discourse deixis and anaphora

Fillmore (1975) introduces the notion of discourse
dexis as the use of linguistic elements in a discourse to
refer to some portion or aspect of the ongoing discourse.
Paradigm examples are expressions such as the former or the
latter. Likewise, I can refer to this chapter or this
dissertation, meaning the current work. Kurzon (1985)
presents a corpus-based study of this type of deixis. Lyons
(1977) calls the same phenomenon textual deixis. For example, in (5):

(5) **This sentence is false**

**this sentence** can be taken to refer to the sentence in which it occurs. Lyons also discusses "impure textual deixis":

(6) A: I've never seen him.

B: **That's a lie.**

**That** in (6) refers not to the sentence that A utters, but rather to the proposition underlying that sentence. So, it refers not to the linguistic artifact, the sentence, but to the meaning underlying that artifact. Anaphora is distinct from both in that the anaphoric item co-refers to the referent of a previous expression:

(7) Ralph bought a dog. **It** bit his mother.

While the three concepts are related, they can also be distinguished.

In his presentation of deixis, Bühler considered anaphora to be one of the three types, along with **demonstratio ad oculos**, or pointing within the visual field, and **demonstratio am Phantasma**, or pointing within a non-real or imagined field. However, Rauh (1983b) distinguishes between both discourse deixis and anaphora, on the one hand, and other types of deixis, on the other, on the grounds that discourse deixis and anaphora both refer to linguistic entities rather than to extra-linguistic entities. That is,
discourse deixis and anaphora point to something within the text, while other types of deixis point outside the text. Foster (1984) likewise argues that a factor relevant to the explanation of readers' perceptions of coherence is the percentage of noun phrases that point to the world external to the text.

Rauh furthermore distinguishes between anaphora and discourse deixis on the grounds that anaphora does not determine relations in an egocentric-localistic manner. That is, while discourse deixis takes some point in the discourse as the point of orientation (this chapter takes as its point of orientation the part of the discourse now being read), anaphora does not require a point of orientation. Ehlich (1982, 1983) also notes the affinity between anaphora and deixis, but claims the two are functionally different. Deixis focuses the hearer's attention to a specific item in the deictic space while anaphora acts to continue the focus established by the hearer. Lyons (1979) argues that deixis is acquired before anaphora and is also logically prior to anaphora. That is, anaphora must be explained in terms of deixis. Hauenschild (1982) argues from Russian and Czech evidence that while normal deixis is pragmatic, anaphora may be considered semantic deixis. It seems widely agreed that deixis and anaphora are related but distinct processes, though Hartmann (1982) notes that in the Mönchengladbach
dialect of German, the deictic and anaphoric functions are expressed by a single definite article, while the generic and specific functions are expressed by a separate definite article.

2.3.6. Acquisition of deixis

An early attempt to account for the acquisition of spatial deictic terms was that of H. Clark (1973). He argued that the physical characteristics of the world and ourselves (e.g. gravity, the position of our sense organs) lead children to divide their perceptual space (P-space) according to three axes. The first takes the ground as the reference plane, accounting for our notion of upwardness. The second takes a vertical left to right plane as the reference, accounting for the notion of front and back. The third takes the vertical front to back plane as reference, accounting for our distinction between left and right. Clark argues that to a large extent, L-space (the way language divides up space) should correspond to P-space. Furthermore, spatial distinctions which do not correspond to these basic P-space distinctions should be harder to acquire than the ones which do correspond to basic P-space distinctions, and should also be most in danger of being lost from a language. Heeschen (1982) notes that certain languages of the highlands of New Guinea have words for "up
there" and "down there," dividing the distal equivalent in English into two. These terms would be considered less basic since they combine a P-space distinction (up/down) with a proximity distinction. In English, a word which meant "45 degrees either side of dead ahead" would be less likely to remain in the language than basic terms like ahead or behind and should be harder for children to acquire than the basic terms.9

E. Clark (1977), and Tanz (1980) survey early work on acquisition of deictic terms. Clark notes that children begin to use gestures at about 10 months old and follow this with words accompanied by gestures (see also Lempers 1979). A deictic word "based on there or that" is often one of the first ten words in a child's vocabulary in English, Bulgarian, Dutch, German, and Japanese. Stages of acquisition of a particular pair of terms are (1) a period of no contrast, in which only a single term is used (e.g. here used for all spatial pointing); (2) a period of partial contrast, in which both terms are present, but one may be used differently than in the adult system; (3) the final stage when the full adult contrast is achieved. In English, deictic term distinctions are acquired in the following order: I/you, here/there, this/that, come/go, bring/take. The first of these is acquired around age 2;6-3;0 and the last at about age 8;0 (see also Clark and Sengul 1978, Tanz
1980, and Tracy 1983). Tfouni and Klatzky (1983) found that 3 1/2 year olds found here and this more difficult to interpret than there and that, though Tanz (1980) presents findings which indicate the proximate terms were acquired first. Wales (1979) surveys earlier studies of the acquisition of spatial terms.

Other work on acquisition includes Macrae (1976) who studied come and go in the language of two year olds. Atkinson (1979) discusses how children refer prior to their acquisition of definite articles and demonstratives. Brener (1983) tested children's abilities to determine the referents of pronouns. She found that gender distinctions were used before children showed the ability to distinguish person. Kronberger (1984) argues that language delayed children use deixis in place of description. Carter (1984; noted above under Social Deixis) found that children in India acquired the deictic system of address before they were competent at adult kinship system, with all its social implications. Abubakar (1986) discusses the acquisition of front and back by Hausa children.

2.3.7. Other work on deixis

Other aspects of deixis that have been studied include the relation between gesture and deixis. Sherzer (1973) has discussed the correspondence between a pointed lip gesture
and occasions of verbal deixis among the Cuna of San Blas. Bellugi and Klima (1982) discuss the operation of deictic reference through gesture in American Sign Language. Lempers (1979) has studied the use and comprehension of gesture in young children. Nine month old children did not perform well on the pointing and comprehension tasks. Twelve- and fourteen-month olds used pointing gestures, though their comprehension of pointing gestures was affected by their distance from the object. Coupier (1986) has studied gesture among second language learners. Levelt et al. (1985) show evidence which suggests that gesture and linguistic deixis are co-ordinated during the planning stage of communication, but are independent during motor execution. Thus, gesture and verbal deixis appear to be related in intentional terms but not in processing. Gibbon (1983) explores the deictic function of intonation, claiming that "the meanings of intonation patterns are indexical, or context-dependent" (195).

Deixis has been studied historically by Galton (1977), Hazelkorn (1983), and Markely (1979). Their findings suggest that case forms, person markers and other paradigm endings in Indo-European languages may have originally been deictic particles which have been regularized.

The operation of deixis in discourse has been studied by Reichman-Adar (1984). She observed the use of deixis in
technical and more informal exchanges, concluding that that represents discourse distance: the crossing of a topic boundary. Fillmore (1981) discusses the "contextualization" of discourse. Armagost (1985) discusses the change of Comanche ma- from a demonstrative without spatial force in ordinary conversation to an obviative, in opposition to -i- (close at hand), in extended discourse. Foster (1984) presents evidence which suggests that the use of greater proportions of deictically referring noun phrases by student writers makes their writing more coherent. Brecht (1974) is a discussion of the difficulties involved in determining a point of orientation for deictic elements in embedded structures. Faerch (1975) has attempted to account for deixis within the "generative pragmatics" framework, and Faerch (1977) presents a contrastive account of Danish and English proximal and distal terms within the framework of "notional grammar." Partee (1973) has attempted to account for certain aspects of deixis within a logical framework. Sternberg (1983) has discussed the customary sequential order of deictic terms. Lakoff (1974) considers the use of "emotional deixis," used to express solidarity or to make indefinite references more vivid. Kuno (1976) relates speaker's attitudes to constraints on relativization, claiming that functional constraints such as these are more reliable than the purely syntactic constraints proposed by
various transformational grammarians. Finally, Maitland and Wilson (1987) consider the interrelation of ideology and the selection of pronouns in prepared speeches by British political leaders.

2.4. Summary

Levinson (1983) perhaps understated the amount of work that has been done on deixis. However, it is true that attacks on deixis have been largely piecemeal. Only a few areas of deixis, especially spatial deixis and social deixis, have been studied in great depth. Furthermore, the question I am considering here, one which I feel is important to our understanding of the operation of deixis in language, has not been dealt with at all.
Notes

1. Icons are signs that represent their referent by their likeness to the referent. Put concretely, a map is largely, though not completely, iconic since it represents its subject pictorially. Icons are not common in language, being restricted largely to representations of animal sounds (to the extent that those representations actually sound like the animal sound).

2. Notice, however, that children commonly put themselves before their addressee (i.e. me and you) until they eventually get tired of being corrected.

3. My thanks to William Evans for this interesting example.

4. In Navajo, pronominalization is accomplished through the deletion of the identical NP rather than by its replacement by a pronoun. Some of the information lost by not having an overt pronoun is carried by a prefix on the verb indicating the person of the antecedent. The fourth person is an alternative third person prefix on the verb which may be used to disambiguate complex sentence constructions when it is not clear which of the human NP's available as antecedents is the intended one.

5. Inclusive first person pronouns include the addressee while exclusive ones exclude the addressee. In English, we is used both inclusively and exclusively. If I am standing outside your door with a friend, and I ask you, "May we come in?", I cannot be including you as part of we since I could not be asking your permission on your own behalf (see Fillmore 1975). Such a use is exclusive. If, on the other hand, I say, "We had fun last night" the morning after you and I have gone to a party, then we is inclusive since it includes you, the addressee.

6. The first number refers to years of age and the second to months, so 2;8 may be translated as 2 years, eight months old.

7. Conventional implicature is introduced by Grice (1975) to handle non-cancellable, non-calculable implicatures. These are opposed to conversational implicatures, which are both cancellable and calculable.
8. This hypothesis might account for Frei's (1944) observation that, historically, languages with ternary spatial systems have become binary but not vice versa. That is, it may be that in some sense a ternary system is less basic, or less directly reflective of perceptual systems, than a binary system. In English, for instance, there were formerly three basic spatial deictic terms, here, there, and yonder. Although most speakers of English would still recognize yonder, it is not in general use.

9. Notice, for instance, that mariners, for whom such a term is important, can speak of the wind coming from the quarter. Likewise, fliers use clock positions to refer to the relative height and distance of other flying objects. However, neither of these ways of talking about non-basic P-spaces are widely used outside of the specialized vocabulary.
Chapter 3
Overview of the Data

3.1. Source of data

The 75 essays comprising the data for this project were taken from two sources. Essays 1-48 were written for the English Composition Test at the University of British Columbia in December, 1980.\(^1\) I have used these essays previously in my Master's thesis at UBC (Foster 1983) and in two papers exploring the relationship between coherence and deixis (Foster 1984, 1987). The students were required to precis a short passage (approximately 800 words) concerning man's warlike nature and the inevitability of nuclear war now that nuclear weapons have been invented. They were also required to write a three hundred word essay on one of two topics. The time allowed for this exam was two hours.

The 48 papers were selected using a random number table from those written on the topic, "If it were possible to stem the tide of scientific discovery, what modern inventions would you like to see 'disinvented'? Limit your discussion to two or three examples, and give clear reasons for your choices." Essays showing serious second language
errors were eliminated and replaced by the next numbers in line. I intended the papers to be graded holistically for coherence by four freshman English teachers working independently, using their own non-technical, everyday definitions of coherence. Since I did not want mechanical and grammatical factors to affect the readers' judgments, during typing I normalized spelling and punctuation as well as subject-verb agreement and other non-standard usages that English teachers would have found difficult to ignore but which I did not want to affect their coherence judgments. The same essays were later graded by another group of four freshman English teachers, this time working to a rubric defining the levels of coherence. The results of these gradings are irrelevant to the present project, but are discussed in Foster (1983) and Foster (1984) respectively.

The remaining 27 essays were written in class in my own section of English 1001 at Louisiana State University. These essays were written on the same topic with approximately the same time limitations as the UBC papers. The LSU students had only 75 minutes for their essays, but they were not required to precis a passage. In order to provide an orientation for the LSU students, I added a three sentence introduction to the same question the UBC essays addressed: "Once something has been invented, it is here to stay. However, it is not clear that all inventions have
been positive. That is, there are some things we would be better off without. If it were possible to stem the tide of scientific discovery, what modern inventions would you like to see 'disinvented'? Limit your discussion to two or three examples, and give clear reasons for your choices."

Although these essays were not going to be graded, I normalized spelling and punctuation where the oddities made the writing difficult to interpret, but left alone non-standard subject-verb agreement and other "errors" which did not obscure meaning. None of these changes, including those made to the UBC essays, affect the object of study, i.e. the deictic or non-deictic interpretation of NP’s.

In both cases, the essay topic asked the students to discuss two or three inventions that they would like to "disinvent." They were further instructed to use detail in their discussions. I have found essays written on this topic useful for the project at hand. When a topic is intimately concerned with students’ lives, they seem to use more deictic NP’s. For instance, when students are asked to write about a personal experience, the NP’s they use point to things and events in their world. They could hardly do otherwise since the topic forces the students to write about events that have actually happened to them. However, when students are asked to write about more remote topics, such as the disinvention of something, they often take refuge in
abstraction, discussing classes of things rather than the things themselves. So, for instance, when these students wrote about things they wanted to disinvent, they frequently talked at length about "the car" in the abstract rather than turning the discussion to particular cars or particular incidents involving cars. Likewise, they often talked about nuclear weapons in the abstract, but only a few talked about specific instances of nuclear weapons use (most frequently the bombing of Hiroshima).

Foster (1984, 1987) discusses the effect that a greater proportion of deictic NP’s in an essay has on readers’ perceptions of coherence. Foster (1984) presents a study which indicates that readers find essays containing greater proportions of deictic NP’s functioning as sentence topics more coherent. Foster (1987) suggests why that might be the case and suggests an approach to teaching students to use more deictic NP’s. For these earlier studies, it was crucial to have data which varied a great deal with regard to proportion of deictic NP’s. The current project is not at all concerned with the quality of essays under consideration or the relationship between the deictic NP’s and coherence. However, the variation in the deictic value of NP’s in the data is still important. For this project we need essays in which the same class of NP is used deictically in some cases and non-deictically in others, or
in which the type of deixis, editorial or non-editorial, and so on, varies across cases. Personal experience essays, for instance, which seem to have very high numbers of deictic NP's, would be unlikely to provide many contrasts of this sort. Instead, essays written on topics such as the one under discussion here, which invite students to use non-deictic NP's, are much more likely to provide cases of the relevant variation.

3.2. Method of analysis of NP's

At least some words from most parts of speech exhibit deictic qualities. Verbs like come and go presuppose certain things about the position of speaker and/or hearer. Most prepositions have a deictic use. Demonstrative adjectives this and that and adverbs here and there are paradigm examples of deictic terms. This and that in their pronominal uses as well as most other pronouns are also generally deictic. Proper names are instances of nominals that are normally deictic. Thus, deixis is a phenomenon apparently not restricted to any grammatical category.

In this paper, however, I will be restricting myself to the study of deixis in noun phrases. In particular, there are three sorts of NP's that we may consider potentially deictic: definite NP's, pronouns, and proper names. I will be treating NP's containing possessive pronouns with the
associated personal pronouns. So, my opinion will be treated with other first person pronouns. Likewise, NP’s containing possessive proper names or titles, e.g. Grandma’s chicken soup, will be treated with other proper names. Certain potentially deictic NP’s will be ignored. For instance, today’s society requires information about the time of utterance for full interpretation, as it would have denoted something quite different uttered in 500 BC than it does now in a student essay. However, the NP is not definite in the sense that definite NP’s are normally discussed, it contains no demonstrative adjective or definite article. Furthermore, there is no contrast among uses of today’s society; all uses are deictic. The purpose here is not the exhaustive description or types of deictic NP’s but rather to look at the contextual factors that enter into deictic interpretation. Consequently, it is most useful to deal only with those potentially deictic NP’s which occur frequently and in varying contexts and which vary with regard to deictic interpretation. We can ignore those that occur only rarely or are always interpreted deictically.

Table 1 shows length, total number of NP’s, and number of potentially deictic NP’s (PDNP’s) in each essay. The average length of the essays was 344 words, ranging from 187 to 585, though only seven essays were under 250 words.
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Table 3.1
Total Words, NP's, and PDNP's
and only five were over 450. Essays averaged one NP for every 4.7 words, ranging from a high of one every 3.5 words to a low of one every 6.8 words. Sixty-four percent of the total NP's were PDNP's, with a low of 29 percent and a high of 78 percent.

Since NP's may be embedded in other NP's, it was necessary to determine which level of NP I would be dealing with. For instance, an NP like (1):

(1) the man with the golden gun

may be bracketed as in (2) (omitting details):

(2) [NP the man [PP with [NP the golden gun]]]

where with the golden gun is a prepositional phrase (PP) dominated by NP, or entirely contained within the brackets labelled NP. That is, the NP the golden gun is part of the PP with the golden gun, which, in turn, is part of the NP the man with the golden gun. Such a bracketing would be appropriate in (3):

(3) The man with the golden gun shot my dog

Notice that in this case we have two NP's: the man with the golden gun and the golden gun. The terminology used here results from the tendency to use tree diagrams as a notational variant of bracketing. Embedded NP's show up in such diagrams lower on the tree than do the dominating NP's (the outside set of brackets). Consequently, dominating NP's are considered "higher" NP's. In cases where the
higher NP and the embedded one are both definite, I have chosen to consider only the higher NP, in this case, the man with the golden gun.

However, now consider (4):

(4) John shot the man with the golden gun

(4) allows two interpretations, (5) and (6):

(5) John shot the man who had the golden gun

(6) John used the golden gun to shoot the man

When we interpret (4) as (5), the man with the golden gun has the same structure as in (2). The entire phrase constitutes the direct object; the prepositional phrase is part of the same NP as the man:

(7) John shot \[ \text{NP the man } [\text{PP with } \text{NP the golden gun}] \]

Notice that the PP falls entirely within the outside set of brackets labelled NP. If we interpret (4) as (6), on the other hand, the direct object is the man alone, and with the golden gun is not part of the higher NP:

(8) John shot \[ \text{NP the man } [\text{PP with } \text{NP the golden gun}] \]

Notice that the PP is not enclosed by any set of brackets labelled NP. We can confirm this bracketing by making the sentence passive, i.e. by moving the direct object to the front of the sentence. If (4) is interpreted as (5) (i.e. bracketed as in (7)), the passive is (9) since the man with the golden gun as a whole constitutes the direct object in the active sentence. If it is interpreted as (6) (i.e.
bracketed as in (8)), the passive is (10) since the man is the direct object on its own in the active sentence:

(9) The man with the golden gun was shot by John
(10) The man was shot with the golden gun by John

What is important here is that prepositional phrases may or may not be embedded in a higher NP. So in the man with the golden gun, with the golden gun may or may not be embedded, depending on the particular interpretation. If the prepositional phrase is so embedded, then I will be treating the man with the golden gun as a single potentially deictic NP. However, if the prepositional phrase is not so embedded then the NP in the prepositional phrase must be treated separately, meaning that the man with the golden gun in such a case contains two potentially deictic NP's: the man and the golden gun. The procedure I followed, then, was to consider the only NP's not dominated by other NP's potentially deictic. That is, I considered only the highest NP.

In some cases, however, the dominating NP may be indefinite while one of the embedded NP's is definite. In such cases, I considered the embedded definite NP a potentially deictic NP (PDNP). For instance, in (11):

(11) John saw a man with the stolen briefcase
the PP is embedded in the NP headed by man. However, the higher NP, a man with the stolen briefcase, is indefinite
and so not potentially deictic. The stolen briefcase, on the other hand, is potentially deictic. Since the higher NP is not potentially deictic, the stolen briefcase is the highest potentially deictic NP. The same principles apply with embedded pronouns and proper names. If the proper name or pronoun is embedded in a definite NP, then only the higher NP is considered a PDNP. If it is embedded in an indefinite NP, then it is itself counted as a PDNP.

The essays were first analyzed to isolate PDNP's. The PDNP's were then sorted into types (see Table 3.2). The deictic value of each NP was determined, and each type was then examined in all contexts in which it occurred to determine any regular effects of context on interpretation of comparable NP's.

3.3. General characteristics of NP's in essays

The purpose of this section is to provide a general overview of the composition of the essays comprising the data. I will not be using inferential statistics in this project since I am not trying to make claims about the shape of student writing in general. Nor am I concerned at this point with possible differences between the UBC and the LSU essays. Rather, the conclusions of the study will be theoretical. However, even though the study will not be a statistical one, it is important to have some notion of how
frequently particular NP types occurred in the data. For instance, there were 75 proper names among the 75 essays, or an average of one per essay. No essay contained more than eight, and 46 of the essays, or about 60 percent, contained none. Consequently, it appears likely that there are numerous possible uses of proper names not exemplified in the data. By contrast, only two essays contained less than ten definite NP's, and, overall, the essays contained an average of slightly less than 20. We can assume, then, that the essays contain examples of a broad range of uses of definite NP's.

The total number of PDNP's was 2880, or 53 percent of all NP's. The fewest in any essay was 20 and the most was 74. Besides the 75 proper names, pronouns accounted for close to half the total of PDNP's: 1339. Of these, 364 were first person and 94 were second person, leaving 881 third person pronouns. The third person pronouns include a number of subdivisions: demonstrative pronouns, 79; impersonal pronouns (i.e. it, etc.) 335; singulars (i.e. he and she, etc.) 125; and plurals (i.e. they, etc.) 342. Just over half of the total PDNP's were definite NP's (1476). Table 3.2 shows the NP types in each essay. It is interesting to notice the varying distributions of NP-types. Notice, for instance, that both proper names and demonstrative pronouns are scattered throughout the essays with only a few
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Table 3.2 continued

NP Types
containing more than three or four. Second person pronouns are more common, but the bulk occur in just seven essays (those with six or more). Third person singulars are spread more evenly throughout the essays, with a couple containing larger numbers of them. Almost all essays contain first person pronouns and third person plurals and impersonals, with most containing more than one. In each case, a few essays contain larger quantities. Finally, all essays contain definite NP's, with all but two having at least ten.

3.4. Categories of NP's

The NP's in these essays may be divided into four categories: universe of discourse, situation of writing, attitudinal, and other. I will be going into these categories in greater detail in chapters 4 and 5, so for now I will describe each type briefly.

3.4.1. Universe of discourse NP's

The universe of discourse is the world that is built for the reader through reading a text. Universe of discourse NP's are those that are concerned with the building of the universe of discourse. These NP's may be deictic, locating some entity or event in the spatio-temporal field of the universe of discourse. Or they may be generic, introducing some class of entities or events into
the universe of discourse or naming ones already there. Finally they may be descriptive, again introducing entities or events into the universe of discourse or mentioning ones already there.

In general, when people talk about deixis, it is this universe of discourse deixis that they are talking about, and my own uses of deixis may be taken this way unless otherwise specified. The distinction between deictic NP's, on the one hand, and generic and descriptive NP's on the other will take up much of the discussion on proper names and definite NP's.

3.4.2. Situation of writing NP's

Situation of writing NP's include intratextual NP's: anaphoric NP's, cases of textual deixis (both pure and impure), and what I call editorial definite NP's. These intratextual NP's refer to some aspect of the text rather than to the world being built by the text (i.e. the universe of discourse). The discussion of definite NP's will deal to some extent with intratextual NP's, and the discussion of third person pronouns will be mainly concerned with them. Situation of writing NP's also includes NP's that refer to participants in the situation of writing: the writer and the intended audience. These may be considered editorial first and second person pronouns. Most first and second person
pronouns will be editorial.

3.4.3. Attitudinal NP's

Attitudinal NP's include cases of emotional deixis (Lakoff 1974), which indicate emotional distance from the referent of an expression. The essays considered here contained some instances of emotional deixis. These, however, do not constitute a separate group of NP's. Rather, an NP having some other function, say, a universe of discourse deictic function, may also be marked for emotional deixis. The cases of emotional deixis are all definite NP's.

Among the plural first and third person pronouns and among the second person pronouns generally, there is another sort of attitudinal deixis. This sort indicates whether or not the writer feels a group identity with whatever or whoever is being discussed. The use of we may indicate group identity, while the use of they may indicate non-identity. These NP's form a separate group; that is, this type of attitudinal deixis is not simply overlaid on other categories of NP.

3.4.4. Other NP's

There are a few NP's that look like PDNP's but are not. That is, in form they are definite NP's, but they have
nothing to do with questions of deixis. These include certain quantificational expressions, some idioms, and a few cases of faulty use of the definite article.
Notes

1. I would like to thank the University of British Columbia, in particular the English department, for permission to use these essays in my research.

2. I would like to thank my students for allowing me to use their essays in my research.

3. Following Fillmore's (1975) usage, behind in Ralph is behind the tree is deictic, while in Ralph is behind the house it is not. This is because in the second case, since houses intrinsically have fronts and backs, behind refers to Ralph's position with regard to the house. In the first case, since trees do not have intrinsic fronts and backs, behind refers to Ralph's position relative to the tree and the speaker, i.e. Ralph is on the opposite side of the tree from the speaker.

4. I have used Standard Theory phrase structure rules for determination of NP's since they are the most widely understood of recent formulations.

5. At another time, investigation into such differences might be quite productive since there appear to be some differences between the two groups. In particular, 84 of the 94 second person pronouns occur in the 27 LSU essays (35 percent of the total number of essays), and 59 percent of the singular first person pronouns were in the LSU essays as well.

6. see Table 1.

7. It, he, she, and they should be taken as category labels. It should be taken to include its and itself as well. Likewise he, she, and they should be taken to include other related pronominal forms.
Chapter 4
Third Person PDNP’s

4.1. Introduction
In this chapter, I will be considering the deictic characteristics of proper names, definite NP’s and third person pronouns. Almost all of the proper names are deictic; however, there are a few non-deictic uses of proper names in the data, and these latter exceptions give insight into certain of the conditions on the more common deictic use of proper names. The definite NP’s constitute the largest single group of PDNP’s, slightly over half of the total. Not all of the definite NP’s are deictic. There are, furthermore, various sorts of deixis represented in these NP’s, including textual deixis and emotional deixis. When dealing with definite NP’s, I will be most concerned with the universe of discourse NP’s: those displaying spatio-temporal deixis within the universe of discourse, those that are generic, and those that I will simply term descriptive. It is these groups that contrast most frequently and will provide the greatest insight into the question at hand—that is, how context affects deictic
interpretation. The other uses of definite NP's will be considered more briefly. There are relatively few examples of most of these types, the largest group being NP's that point or refer within the piece of writing itself, or intratextual NP's. These intratextual NP's include anaphoric NP's, cases of discourse or text deixis, cases of impure textual deixis, and what I have termed editorial NP's.

Also in this chapter, I will consider the effect of context on the interpretation of third person pronouns. Notice that most of these pronouns will be anaphoric. This is a function of using written data. In the Canonical Situation of Utterance, we find third person pronouns that point to entities in the situation of utterance without referring back to a previous NP. So, for instance, if I am talking to a friend on a street corner, and someone I don't like comes by, I can say to my partner in conversation:

(1) He's a real jerk.

He, in this case, is not anaphoric; it does not refer back in the spoken discourse. Rather, it refers directly to the object of my derision, the person who walked by. In this written data, however, the determination of whether or not particular uses of third person pronouns are deictic depends mainly on how their antecedent is to be interpreted. Except for a couple of restricted usages, all pronouns in this study will be anaphoric. However, they may also be deictic.
Since third person pronouns in written discourse cannot normally point directly to the situation of writing, the question of whether a particular pronoun is editorial or not, something so important in considering the first and second person pronouns, is not an issue with third person pronouns. However, some third person pronouns are cases of textual deixis or impure textual deixis, which I previously suggested might be related to editorial deixis. In a couple of cases, third person pronouns appear to be cases of attitudinal deixis.

4.2. Proper names

Among the 75 essays in my sample are 75 proper names. These include names of places, e.g. North America, Hiroshima, the Three Mile Island power plant; names of people, e.g. Einstein, Henry Ford, Miss Jones; names of family members, e.g. mom, Grandma; names of events, e.g. the Vietnam War, the Second World War; names of organizations, e.g. the National Football League, the Saints; and product brand names, e.g. Swanson's, Lysol; and the name of one television show, Ryan's Hope. In addition three students invoke God.

4.2.1. Deictic and non-deictic interpretation

Almost all of the proper names used are clearly
deictic. One of the possible exceptions was the use of God by one student discussing the dangers of handguns:

(1) Many people are going around playing God, deciding who lives or dies. [66]

In this case, God is not referring to a personage but rather to a role. This usage seems similar to that of someone talking about a role in a play:

(2) I am playing Ralph Schmidt.

In such a case, whether Ralph Schmidt is a real person or not, the name seems to still be deictic. That is, it is pointing to a particular role identified by the proper name, whether or not the role is based on a real person. In either case, the interpretation of the name—the decision about which Ralph Schmidt it points to—may vary depending on situational factors. Consequently, I will consider this use of God deictic as well.

Two actual exceptions are names which are not likely to be familiar to most readers. In one case the student is discussing the dire effects of remote-controlled television, noting that people might over-indulge in television, spending too much time "watching 'Ryan's Hope' and finding out who really killed Ken George-Jones" [20]. I have asked numerous soap opera watchers, but none of them remember a character by that name. Thus, Ken George-Jones seems to be just a made-up name intended to sound like it belongs on a
soap opera. If the character really did exist, then the name would be deictic, pointing to the name of a role. If not, then it is like other indefinite proper names such as John Doe, Jane Doe, and Joe Doakes. Notice the features of the name in question. All three components are common everyday names, though George is less common as a last name. The hyphenated last name is commensurate with the tendency on soap operas to use characters out of the ordinary due to privileged birth, sordid past, and so on. But at the same time, the name is incongruous. One does not normally expect a hyphenated name to be made up of two such plain names. Had the writer used "Smith-Jones," this effect would have been more pronounced. The effect of the name, then, is to suggest a common character-type on soap operas.

In the other case, the student is apparently attempting to cite an article:

(3) For example, Miss Jones states in an article that she was . . . [52]

What is interesting here is that in reading the paper, I want to interpret Miss Jones deictically, but I find it difficult to do so. That is, when I read that sentence I feel that Miss Jones should be pointing to some person that really exists, but I am unable to assign Miss Jones an interpretation satisfactorily because I know of no one by that name who has written an article. Furthermore, Jones
(also in Ken George-Jones) is a common name which is sometimes used indefinitely in the same way as John Doe et al. (e.g. keeping up with the Joneses). So Miss Jones, used in this essay, apparently satisfies some of the conditions for pointing, but not all.

One of the factors that makes the deictic interpretation so inviting is that Miss Jones is apparently the author of an article. We are used to John Does, or unknown people getting killed, even if only on detective shows, but we do not normally attribute the writing of an article to an indefinite person. Furthermore, the student goes on to describe the contents of the article in some detail, making it even more difficult to attribute the article to an indefinite person. But at the same time, I have no definite person to attach this name to. Notice that if the student had simply said that "a woman" wrote the article, that would have been a signal to the readers that they were not expected to know who the writer of the article was. Conversely, had the student given more detail, perhaps "Miss Cloroxia Jones, a resident of Tumwater, Washington," that would have told the readers that they were not expected to know who the writer of the article was, but that the information, now provided, is important. However, by simply using the name without any other information, the student is signalling both that the identity of the article writer is
important and also that intended readers of the essay are expected to know who that writer is. Whereas Ken George-Jones is an indefinite proper name, one that is non-deictic, Miss Jones is a case of failed deixis. That is, Miss Jones should be deictic but fails to be.

There are three other uses of proper names interesting in this regard. Consider the following sentences:

(4) Instead of mom cooking a nice pot of meatballs or stew, there are now "Le Menu's", "Swanson's", and/or "Dinner's" food to choose from. [69]

(5) The convenience of these foods could make Thanksgiving turkey, Grandma's chicken soup, or mom's chicken seem too much trouble, and they may be replaced. [69]

The author of the essay from which these were taken is lamenting the invention of frozen dinners, fearing that more traditional fare will disappear. Notice that mom, mom's, and Grandma's are not referring to the writer's own mother or grandmother. Nor are they being used as common nouns (e.g. Instead of the mom . . .). Rather, they are being used in the same way as Ken George-Jones apparently is: as a non-deictic proper name. Now consider (6):

(6) Instead of Mom cooking a nice pot of meatballs or stew, we were served TV dinners.

In this case, Mom must be interpreted deictically. What
seems to be important here is the fact that in (6), the sentence refers to a particular event. Mom is interpreted relative to that event and so is taken to point to a particular mom. In (4) and (5), no particular events are referred to. Rather the sentences deal with relatively general and static states of affairs. Consequently, we try to interpret mom as general and static, as a generic mom rather than a particular one, and, therefore, the term of address is not deictic in this case. Mom's and Grandma's are, likewise, non-deictic.

Generally speaking, proper names are deictic. However, the difficulties in interpreting Miss Jones and the non-deictic interpretations of Ken George-Jones, mom, mom's, and Grandma's suggest some possible conditions on the successful deictic use of proper names. Remember that deixis is the pointing function of language. In order to point successfully, the object pointed at must be accessible to the receiver of the message in some, as yet, not fully understood way. In what are widely agreed to be the most basic cases of deixis (Bühler's demonstratio ad oculus, Lyons' Canonical Situation of Utterance, and Fillmore's Prototypical deixis\(^1\)), the encoder, the receiver, and the object pointed at are all physically present. But even in less basic cases, of which deixis in written discourse is one type, the object which is being pointed at must be, in
some sense, cognitively present. That is, both the encoder and receiver must tacitly agree that the object is present in the universe of discourse, or deictic reference will not be successful.

In the case of Ken George-Jones, we are willing to accept the fact that soap operas have numerous characters to whom bad things happen. So, if we do not know for sure that Ken George-Jones is a character on Ryan’s Hope, we are willing to interpret the name provisionally as a character on Ryan’s Hope, or at least as a character-type on any soap opera. If we do not take Ken George-Jones to be a real character, his murder is taken as an event-type, as the sort of thing that often happens on soap operas. Likewise, mom and Grandma are family member-types that we are all familiar with, and cooking is something traditionally associated with these family roles. So even if the names are not being used to point to particular people, we can interpret them easily as indicating a type. These uses are non-deictic since nothing corresponding to Ken George-Jones, mom, or Grandma is present for either the reader or the writer.

However, the case of Miss Jones is more problematic. We fully expect that the name used that way will point toward someone in the shared universe of discourse, but this expectation is not met. We cannot interpret the name as a type since, even though Jones is a common name, there is no
conventional type we can easily associate with that name. Furthermore, the sentence in which we find Miss Jones talks about her stating something in an article. This is not an event which we can easily take to be a common happening. We are comfortable with the notion that moms and Grandmas cook, and television characters often are killed, but stating something in an article is not a common occurrence for most people. So we must interpret the name as pointing to some definite person, but there is nothing in the shared universe of discourse for us to attach the name to. Therefore, Miss Jones is a case of failed deixis since we want to interpret the name deictically but can't. Apparently the name refers to someone who is present for the writer but not for the reader.

4.2.2. Possible conditions on proper name interpretation

The major condition on the interpretation of proper names is that the named entity must be cognitively present to the receiver of the message. We can point to Einstein and Henry Ford without difficulty since we can expect virtually anyone to have at least heard the names. Likewise, we can introduce an unknown name into the universe of discourse so that we can point to it from the point of the introduction on. Notice that the entity may be a fiction. Superman, for instance, is cognitively present to
most people even though he is fictional. This cognitive presence condition may be violated intentionally as it is with conventional names like John Doe, as it was with mom, mom's, and Grandma's, and as I suspect it was in the case of Ken George-Jones. In such cases the violation serves to signal an indefinite person or character-type. In other cases, of which Miss Jones seems to be one, the condition is violated unintentionally. In unintentional cases we get failed pointing. This major condition is an extra-linguistic one, having to do with our knowledge of the external world (including what has been created in fictional works).

A second possible condition on interpretation of proper names also has to do with our knowledge of the external world. As noted above, it is fairly easy to take events and those involved in them non-deictically when the event and the name used are commonly linked. So Ken George-Jones is a name that sounds like it might be from a soap opera, and characters are routinely dispatched from life on soap operas through disease, accident, and murder. Likewise, moms and Grandmas are common, and they often cook. However, even though there are numerous people who might be referred to as Miss Jones, we cannot easily associate that name with the writing of articles. So, the second condition on interpretation of proper names is that those names may be
taken as indefinite and non-deictic if the name and event are commonly associated with each other.

A third possible condition on the deictic interpretation of proper names is a discourse condition. Notice that Miss Jones writes an article about which we are told a great deal. On the other hand we are told very little about Ken George-Jones' murder, and mom and Grandma simply do the cooking. It seems that the details of the article force us to consider it an actual article having, of course, an actual author. The killing of Ken George-Jones, on the other hand, is only mentioned in passing. The lack of detail seems to allow us to take the killing as a hypothetical case, one that did not happen even in fiction. Notice that the fictionality of a killing is not affected by greater detail—Agatha Christie and Erle Stanley Gardner go into tremendous detail about murders that didn't actually happen. If we are able to take the murder as hypothetical or as a type, however, then we are able to take the victim of the murder as hypothetical or as a type as well. Likewise, we are told little about the cooking done by mom and Grandma. A detailed description of the meal would have made a non-deictic interpretation more difficult.

A fourth possible condition operates at the sentence level. Notice that we can take Ken George-Jones to be deictic if we believe there is or was an actual character by
that name on *Ryan's Hope*. *Miss Jones* must be taken deictically (as failed deixis) even though there is nothing in the universe of discourse to which the name can point. However, it is very difficult to take *mom*, *mom's*, or *Grandma's* deictically. The important sentence level factor here seems to have to do with the type of verb involved. Notice that both *Ken George-Jones* and *Miss Jones* are involved in an action. *Miss Jones* states something, while *Ken George-Jones* is the victim of a killing. On the other hand, the main verb of (4) is *be* and the main verb of (5) is *seem*. In both cases the sentence is relatively static. No actions are predicated, but rather states of affairs. The fourth condition, then, seems to be that it is easier to interpret proper names non-deictically when the main verb of the sentence does not predicate an action.

In considering conditions on the interpretation of proper names, we must remember that these comments are based on a fairly limited number of examples. However, the conditions suggested are supported by findings with other NP types. These suggested conditions might be taken as a starting point for a more narrowly focused study of proper names only.

4.3. Definite NP’s

As noted in the introduction, there are several
interpretations of definite NP's. In this section, I will consider these different interpretations beginning with the less common and less important sorts first, continuing to the universe of deixis NP's last. Table 4.1 lists NP-types and quantities of each.

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<tr>
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<tr>
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<tr>
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</tr>
<tr>
<td>idiom</td>
<td>34</td>
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<tr>
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</tr>
<tr>
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</table>

Table 4.1
Types of Definite NP's
4.3.1. Irrelevant definite NP's

Before going on to the various types of deixis, let me first note that there are a few cases, averaging a little less than two per essay, of uses of definite articles and demonstrative adjectives that are not relevant at all to the issue of deixis. These can be divided into three groups: quantificational expressions, idioms, and errors. Errors are simply cases in which the definite article or demonstrative adjective is inappropriate and no sense can be made of the expression without making allowances for this fact. Consider the following example:

(7) Man must now face such ecological dangers as the acid rain, the carbon dioxide greenhouse effect, and the depletion of the world's oil.

Notice that the final two definite NP's work perfectly well; however, the acid rain should have been simply acid rain. Since the NP should not have been a definite NP, it would be difficult to consider it in terms of deixis.

An example of a quantificational expression is:

(8) The car has got to be the most annoying aspect of everyday society. [4]

Notice that the is part of the superlative expression rather than an indicator of the position of the NP in the universe of discourse or the text. (8) does indicate something about the writer's attitude toward cars, but that indication is
explicitly asserted in the predicate of the sentence; it is not a function of the. Consequently, it cannot be considered a case of attitudinal deixis either.

Idioms include definite NP's like that in (9):

(9) If I was in the position to, I would . . . [1]

Notice, there is no actual position involved. Rather, this is just an idiomatic way to say "If I could." Notice, too, we cannot say "If I was in this position to . . ." or "If I was in some positions to . . ." This inability to substitute indicates that the position is an idiom chunk that is not analyzed into smaller constituents.

4.3.2. Emotional deixis

Lakoff (1974) discusses a group of uses of this and that that she claims indicate varying degrees of emotional distance from a referent. In these student essays, there are several clear cases of this emotional deixis. What is important to note here is that emotional deixis does not exclude other sorts of deictic or non-deictic interpretation. That is, a particular NP might be interpreted as both deictic in the universe of discourse and in the emotional sense. Emotional deixis, then, seems to be an overlay on interpretation—we interpret NP's with regard to whether or not they point to a particular entity in the universe of discourse and separately consider the emotional
distance the speaker or writer is indicating.

Here are a couple of examples:

(10) Atomic bombs are one such discovery that this world could do without. [66]

(11) As it stands, this world has the ability to destroy itself, due to the credit of this single discovery. [66]

Notice that this world is not being contrasted with any other worlds. Rather, the world would have pointed to the intended referent quite adequately. The use of this, however, indicates emotional closeness that the writer feels toward the referent. In the following example, that seems to indicate that the writer feels emotionally distant from the referent. In describing televisions, she says:

(12) Yes, that little box that entertains millions of people every day. [4]

In other words, the writer does not like televisions.

This so-called emotional deixis seems to have a great deal in common with social deixis and with the group identity deixis to be discussed in chapter 5 with regard to second person and plural first person pronouns. All three types deal, not with the position of the referent in time and space, but rather with its "position" in the attitudinal field of the writer. It would seem, then, that we should consider all three types of deixis to be sub-types of
attitudinal deixis.

4.3.3. Intratextual NP's

There are four distinguishable types of NP's among this group: anaphoric NP's, cases of textual deixis, cases of impure textual deixis, and what I have called editorial NP's, those that do not fit into the other three types but have to do with organizing the text. Textual deixis occurs when an expression points to a physically existing part of the ongoing discourse. So, I might talk about "the previous chapter," referring to the actual written product, something I could actually point to and show you within the written text. Anaphora, on the other hand, occurs when an expression "co-refers" with another linguistic element, or points back to the meaning of a previous expression. So, I might talk about my dog, and then later refer to the dog as it. It would then be anaphoric to my dog. Since the meaning of an expression is thought to be something external to the expression (either something in the world, something in the mind, or perhaps something in a Platonic realm of ideas), anaphora is a relationship between two expressions which have the same referent (i.e. physical entity, mental image, Platonic idea, or whatever). Impure textual deixis points back to a proposition expressed in a previous expression, something generally considered internal to the
language. So, if I wanted to comment on my own discussion here, I could say, "This information is extracted from Lyons (1977)." This information would be a case of impure textual deixis since it refers to the propositional content of what I have written rather than its physical manifestation (textual deixis) or its referential significance (anaphora). The final group, editorial NP's, refer to aspects of the text still in the writer's mind. These NP's act to organize the text for the reader.

In general, these intratextual NP's are marked by a greater degree of specificity than are those not pointing within the text. So, for instance, NP's containing demonstrative adjectives were more commonly of this type than were those containing definite articles. Consider the following examples:

(13) This malfunction gives the person a feeling of boundless energy. Again, this drug works in the same way as nicotine and cocaine. [59]

This malfunction and this drug both refer back to specific instances of malfunctions and drugs mentioned previously. Notice that it would be difficult for either one to refer within the universe of discourse since the universe of discourse is remote from the situation of writing. In the Canonical Situation of Utterance, the universe of discourse is the immediate situation (also the situation of
utterance). Consequently, *this* and *that* can refer within the universe of discourse. However, when the universe of discourse is remote from the immediate situation, *this* and *that* often cannot refer within it, but rather must normally refer to the more immediate situation. The most immediate thing to refer to in a writing situation such as what these essays resulted from is the text itself. Consequently, the use of strongly specific determiners such as demonstrative adjectives or modified definite articles (e.g. *the same way as nicotine and cocaine*) tends to force a text-related interpretation. However, notice that emotional deixis, discussed in 4.3.2 above, is marked by the use of a specific determiner when it is not required for spatio-temporal or intratextual identification. So when a writer talks about this world, it is not anaphoric, and it is not picking out the most proximate of a number of available possibilities.

It appears that interpretation of NP's as intratextual can be explained by supposing that readers, when confronted with a fairly specific NP (i.e. a demonstrative adjective or modified definite article), attempt to find some sort of antecedent or referent within the text. If that is not possible, then the more specific NP is interpreted non-intratextually (i.e. as spatio-temporally deictic, generic, or descriptive), and the greater specificity may indicate degrees of emotional distance. Let us consider each of the
four types of intratextual NP's briefly.

4.3.3.1. Anaphoric NP's

The largest group of NP's pointing within the text, averaging about two and a half occurrences per essay, is anaphoric NP's. Furthermore, most cases of third person pronouns, to be considered in the section 4 of this chapter, are anaphoric, so anaphora is a fairly common phenomenon in these essays. In general, we can say that one takes an NP to be anaphoric if it is highly specific, in the sense discussed above, and if there is an available antecedent NP. Whether or not an anaphoric NP is deictic spatio-temporally depends on its antecedent. I will specify the conditions the antecedent must meet for the anaphoric NP to be deictic spatio-temporally when I discuss anaphoric third person pronouns below in section 4.4.1.

4.3.3.2. Impure textual deixis

NP's which are cases of impure textual deixis are much less common, occurring on the average about once every two essays. In general, an NP is interpreted as a case of impure textual deixis if it is highly specific, again in the sense discussed above, and if there is no available antecedent. These NP's generally include some sort of non-concrete noun such as idea, fact, or reason which can be
taken to refer to propositional content. Impure textual deixis will be discussed at greater length below in the consideration of demonstrative pronouns (section 4.4.2.3).

4.3.3.3. Textual deixis

Textual deixis is fairly rare, occurring only 12 times in the 75 essays. NP's of this type share features with other types of intratextually deictic NP's, normally including a highly specific determiner. In some cases, the head noun indicates something having to do with written products. So, examples of textual deixis include this essay and this paper. In other cases, the NP tells the reader to look in a particular direction: the following, the above two inventions.

4.3.3.4. Editorial NP's

Now consider some examples of what I have called editorial NPs:

(14) The second invention I want disinvented is cigarettes. [60]

(15) The second invention that I want to disinvent is automobiles. [28]

These NP's act to help the reader organize the text as he or she reads. Their purpose is to refer to something as an entity in the text rather than as an entity in the universe
of discourse. That is, the second invention doesn’t refer to, say, Thomas Edison’s second invention or the second invention ever, whatever that might have been, but rather to the order in which the inventions talked about in the essay are being discussed. Consequently, they must be considered intratextual. However, they are not anaphoric since they don’t refer back to the first invention, but instead explicitly introduce a new one. They are not cases of impure textual deixis since they don’t refer back to propositional information. And they are not cases of textual deixis either. Contrast (16), which is a case of textual deixis, with (14-15):

(16) The first invention I stated . . . [60]

Notice here that the notion of stating forces us to refer back to that first invention as an NP, that is, as a piece of the written product. By contrast, the second invention I want disinvented refers to something going on in the mind of the writer— to his or her mental organization of the paper. It is through divining the writer’s intention that the reader is able to organize the text in his or her own mind.

4.3.3.5. Summary

Let me summarize what I have said about intratextual NP’s. First, what cues us that an NP may be intratextual is the fact that it is strongly specific— more specific than
NP's deictic to the universe of discourse would normally be in a piece of writing in which the universe of discourse is quite remote from the situation of writing. If an antecedent is available, the NP is interpreted intratextually. Second, whether or not an anaphoric NP is also deictic spatio-temporally depends on its antecedent. Third, determining what sort of intratextual NP one has encountered depends on what sort of antecedent the NP has. If an antecedent NP is readily available, the intratextual NP is anaphoric. If an antecedent NP is not readily available but there is propositional information available fitting the description provided by the head noun (e.g. idea), then the NP is a case of impure textual deixis. If there is no antecedent NP, but the intratextual NP contains a head noun indicating something plausibly part of a piece of writing (chapter, sentence, etc.), or if directions (the following, the above, etc.) are provided, then it is a case of textual deixis. If the NP has no antecedent NP and cannot be taken to refer to propositional information or to a part of the piece of writing itself, but directs the reader's organization of the text by referring to aspects of the text in the writer's mind, then it is an editorial NP. It is important to keep in mind here that the decision as to which type of intratextual NP a particular instance is is not always completely clear cut. Notice also that the
question of the specificity of the determiner in a particular case is not strictly speaking a matter of context. However, the availability and type of an intratextual NP's antecedent is a matter of context, at the discourse level.

4.3.4. Universe of discourse NP's

This is the largest group of definite NP's, consisting of 537 deictic NP's, 388 generic NP's and 142 descriptive NP's. These three types of NP's have in common that they are completely concerned with building the universe of discourse. That is, our understanding of the exposition we are reading is built on descriptions of and comments about some group of entities or events. If someone is writing about cars, he or she may write about particular cars at particular times in particular places by using deictic NP's, or he or she may write about cars in the abstract by using generic NP's, or finally he or she may write about cars in general by using descriptive NP's. All three of these NP-types work to provide information about the subject at hand, or, in other words, to build the universe of discourse. Let us begin by determining how each of these categories functions. Then we can go on to consider the contextual factors that help us to determine which type a particular definite NP is.
4.3.4.1. Deictic NP's

Deictic NP’s act semantically to point to a location within the spatio-temporal field of the universe of discourse. Notice, this is not quite the same as saying these NP’s point somewhere within time and space. The latter formulation implies that deictic NP’s only point to such locations within the real world. However, it is equally possible for them to point within a fictional spatio-temporal field. In order to point in this way, writers in this study generally use one of two sorts of deictic NP’s.

A large number of deictic NP’s refer to a known entity or event (e.g. the bomb dropped on Hiroshima [3], the accident at Three Mile Island [45]) using a definite article. In these cases, the tells the reader to look in a particular location but does not fully specify what location to look in. The writer assumes that the reader already has a good idea about where the entity is or was or when the event took place. These definite NP’s work similarly to proper names such as Einstein. If the reader does not have the necessary information to locate the referent, then the NP is a case of failed deixis like Miss Jones (section 4.2.1). Another definite NP that acted like a well-known proper name was the world, used very frequently. Clearly it referred to Earth since there is currently only one world
relevant to us, though if we were living on Mars the same NP would presumably refer to Mars.

Another large group of deictic NP's contained a definite article and some sort of adverbial phrase (e.g. the nuclear weaponry now in production all over the world [3]). In these cases, the definite article tells the reader to look in a particular location, and the adverbial phrase gives him or her some clues as to that location. In spoken discourse, this and that are widely used to provide locational information, but in these essays, this and that generally signal some kind of intratextual deixis (see section 4.3.3). There are a few cases in which this or that is used spatio-temporally. For instance, this planet referring to Earth has no antecedent. With an antecedent, say Mars, this planet would not have referred to Earth, but rather to the planet referred to by the antecedent. Without an antecedent, the reader must look for the closest planet, i.e. Earth. Other uses of this or that in NP's not having antecedents do not necessarily provide spatio-temporal information. For instance, this world and this earth are frequently used even though there is no necessity for locational information (see section 4.3.2). The world refers equally well to Earth. These NP's are all deictic in the spatio-temporal sense, but the use of this overlays emotional deixis on top of the spatio-temporal
interpretation (see section 4.3.2).

4.3.4.2. Generic NP’s

Generic NP’s always contain a definite article and are always singular. They may or may not contain an adjective or a prepositional phrase. Examples include the automobile [1], the hand gun [2], and the cost of building and running a nuclear reactor [14]. Semantically, generic NP’s act to indicate an entire class of objects by referring to them in the abstract. When a writer uses the automobile generically, he or she is not talking about any physical automobile. Rather, he or she is referring to whatever abstract characteristics underly our ability to identify automobiles. It is this abstract aspect of generics that sets them apart from other definite NP’s. While generic NP’s are limited in form, always being singular and always containing a definite article, we cannot rely on these characteristics to identify generics since deictic NP’s may also have these characteristics. What is intriguing here is how it is that we know when a particular singular NP containing a definite article is or is not generic. That information is apparently found in the context.

4.3.4.3. Descriptive NP’s

Descriptive NP’s are those which are neither generic
nor deictic. Frequently, they contain a restrictive relative clause or some other modification. Examples include the pollution emitted from such a plant [45], the bad side effects of doing drugs [53], those inventions which have allowed medicine to be produced to aid the growth of the human population [1], and the great inventions [55]. What these have in common is that, as they are used in these essays, they neither point to anything in a spatio-temporal field nor refer abstractly to an entire class. The bad side effects of doing drugs, for instance, refers to the class of bad side effects of doing drugs rather than to particular occurrences of bad side effects. However, it achieves its generality by being concrete and plural rather than being abstract. The pollution emitted from such a plant is a mass NP, but again is concrete rather than abstract.

It is important to note that these NP's are definite referring expressions although they are not deictic. As noted above (section 1.4.3.3), definite NP's may have both a descriptive component, which, according to Rauh (1983b), presorts possible referents, and a deictic component, which indicates where to find the referent. These NP's have no deictic component at all and are, rather, entirely descriptive.
4.3.4.4 Contextual factors in interpretation

In looking for contextual factors associated consistently with deictic and non-deictic interpretation, I looked at sentence level factors such as position and function in the sentence (subject/object, topic/comment). I also considered the tense of the sentence and the related but not identical question of whether or not time was expressed. Furthermore, I considered whether there was any relation between the expression of a particular action and the deictic or non-deictic interpretation of definite NP's. None of these sentence level features have any bearing on whether or not a particular definite NP is deictic or non-deictic, though expression of time is important in interpretation of first and second person pronouns (see chapter 5), and the expression of a definite action is a factor in the deictic interpretation of proper names (see section 4.2).

The following examples illustrate these facts:

(17) The devastation of our natural resources will cause the slow destruction of mankind. [14]

(18) The nuclear bomb will wipe out the human race by the quick explosion or the slow destruction of our environment. [14]

(19) This malfunction gives the person a feeling of boundless energy. [59]
Notice that in (17), the subject NP is deictic, referring to a particular event (albeit one that might occur over a long time period). In (18), the subject NP is generic, referring abstractly to nuclear bombs. In both cases, the sentences predict definite future actions—that is, time is expressed and so is a definite action. Notice also, the object NP in (17) is deictic, again referring to a particular event, while the object NP in (19) is generic, referring to an abstract person. In these sentences, furthermore, the subject NP is functioning as the sentence topic while the object NP is part of the comment (though subject/topic and object/comment don’t always correlate). So it is apparent that generic and deictic NP’s may be either topics or part of comments. Descriptive NP’s likewise operate in all these contexts.

I also considered certain discourse level factors. In particular, the position of the NP in the essay, that is, in the introduction, conclusion, or body of the essay, had no effect. Another factor that I considered was whether or not the status of surrounding NP’s had an effect on deictic or non-deictic interpretation. However, (17) and (18) are adjacent sentences in an essay, yet there are various generic and deictic NP’s in the two sentences. It may be that there is some tendency for NP’s of one type to cluster, that is, for several deictic NP’s to occur together or for a
number of generic NP's to occur together, but it seems equally possible for the two types (and descriptive NP's as well) to be mixed.

The factor that seems to be the most important is an extra-linguistic one. In considering proper names (section 4.2), I introduced the cognitive presence condition, a condition that says that the reader must have a mental location for the PDP if it is to be successfully deictic. So consider these examples:

(20) The nuclear bomb has without a doubt revolutionized man's ability to make war. [14]
(21) The nuclear reactor is an off-shoot of the nuclear bomb. [14]
(22) The nuclear wastes are impossible to store safely as they remain radioactive for upwards of fifty thousand years. [14]

The key here is that in (20) and (21) we cannot identify any particular bomb or reactor, even with access to context. Consequently, we are forced to take the NP's as abstract references to bombs and reactors: as generic. In (22), on the other hand, we are able to identify the nuclear wastes as those from nuclear reactors generally. Even though there is some degree of generality in the NP, it still points to particular nuclear wastes, i.e. those now in existence which we have to attempted to store. We have a mental slot set up
for nuclear wastes since part of our world knowledge is that nuclear bombs and reactors produce wastes and that there are such wastes currently being stored.

Here are some related examples:

(23) The unfortunate invention of the nuclear weapon has unnecessarily put mankind in this precarious position. [21]

(24) The world has grown because of the great inventions of genius people. [55]

(25) The production of computers requires skill and technology which are provided by man. [24]

(26) The production of automobiles has been a big step in scientific discovery, but I think that it has gone too far. [10]

In (23), the invention of the nuclear weapon is referred to as an event while in (24) the great inventions are products. In fact, in the sentence which follows (24) in the essay, the writer refers to these inventions as products. Treated as an event, then, an invention is something fixed in time. Consequently, invention in (23) is part of a deictic NP. Treated as products, inventions (in this case cigarettes and alcohol) are not fixed either in time or in space. Cigarettes and alcohol are all around us all of the time, so there is no pointing within the spatio-temporal field, and inventions is not part of a deictic NP. Likewise, in (25)
the production of computers refers to the act of producing them, something that must be treated as a continuing event requiring skill and technology, so it is a deictic NP. In (26), the production of automobiles is a big step, i.e. no longer an ongoing process, but rather a single encapsulated thing, it, having no relation to the actual event of producing automobiles, so it is not a deictic NP.

The main contextual factor, then, in the interpretation of definite NP's as deictic or non-deictic is whether or not the reader is able to locate the entity or event in time and space, i.e. whether it is cognitively present for him or her. To a great extent, satisfying this condition is a matter of world knowledge. Although deictic, generic, and descriptive NP's tend to differ in form to a certain extent, and these formal differences are enough by themselves to allow us to distinguish generic from descriptive NP's, the differences are not enough to cue readers as to whether or not the NP they are dealing with is deictic or generic/descriptive. Furthermore, linguistic context, either at the sentence or discourse level, is apparently insufficient to distinguish deictic from non-deictic.

4.3.5. Summary of definite NP's

There are three distinct, identifiable types of NP in these essays: (1) those concerned with the building of the
universe of discourse (deictic, generic, and descriptive NP's); (2) intratextual NP's, or those concerned with referring to aspects of the text or its production (anaphoric, textually deictic, impurely textually deictic, and editorial NP's); and (3) others (quantitative phrases, idioms, and errors). These type (3) NP's are irrelevant to the present project. A fourth group is emotionally deictic NP's; however, these are not a distinct group. Instead, emotional deixis appears to be overlaid on other types of NP's. So we find frequently-occurring NP's like this world being deictic both spatio-temporally and emotionally.

Type (2), intratextual NP's are distinguished from other types both formally and contextually. The formal distinction is that intratextual NP's are often more specific than type (1), universe of discourse NP's, containing either a demonstrative adjective or an adverbial phrase directing the reader's attention within the essay. The contextual distinction is that intratextual NP's always have some sort of antecedent, though the antecedent might not be simply a previous NP. Normally, both the formal and the contextual conditions must be satisfied, although a few cases of impure textual deixis (e.g. the fact that . . . ) contain only a definite NP. The various subgroups of intratextual NP's are distinguished from each other by the type of antecedent they have. Anaphoric NP's refer to the
referents of other NP's. Cases of impure textual deixis refer to propositional information. Cases of textual deixis refer to chunks of the written product. Editorial NP's refer to aspects of the text in the writer's mind.

Type (1), universe of discourse NP's are distinguished from intratextual NP's chiefly by not both being more specific and having an antecedent. That is, some universe of discourse NP's are repeats of previous NP's. However, they do not appear to be anaphoric. Occasionally, an NP is very specific but has no antecedent and so is not anaphoric. The subgroups of universe of discourse NP's are distinguished in two ways. Generic and descriptive NP's are distinguished from each other formally. Generic NP's are always singular and always contain a definite article in first position. Descriptive NP's are never of that type. More frequently, they contain some sort of descriptive (though not locational) component, often a relative clause. Semantically, these two types differ in that generics are abstract and descriptives are concrete. Distinguishing between generic and descriptive NP's on the one hand and deictic NP's on the other depends on the reader's real world knowledge, an extralinguistic contextual factor. To interpret an NP deictically, a reader must have a location for it in his or her perception of the spatio-temporal field of the universe of discourse. This requirement may be
termed the cognitive presence condition. Such a location may be provided by adverbial phrases in the NP, or the NP may refer to something for which the reader already has such a location. Without such locational information, an NP must be interpreted either generically or descriptively.

4.4. Third person pronouns

Third person pronouns are divided into the following groups: singular (i.e. he, she, etc.), plural (i.e. they, etc.), impersonal (i.e. it, etc.) and demonstrative (i.e. this, that, etc.). Some uses of all of these pronouns are anaphoric, having a clearly identifiable antecedent NP. All examples of he, she, etc. and all except two cases of they, etc. are of this type. 210 cases of the 336 cases of it, etc. and 22 of 79 demonstrative pronouns have clearly identifiable antecedent NP's. In addition, 5 cases of it had no clear antecedent of any kind, but apparently should have had since I found myself looking for an antecedent and unable to satisfactorily interpret the sentence without one. Table 4.2 summarizes the information regarding pronoun type and presence or absence of an antecedent. All of the pronoun/antecedent ties operate in similar fashion with regard to deictic interpretation, the interpretation of the pronoun depending on the interpretation of the antecedent, so they will be dealt with together. Those without clear
antecedent NP's will be dealt with separately.

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Table 4.2
Pronoun types with and without antecedent NP's

4.4.1. Pronouns with clear antecedent NP's

The essays contain a total of 125 singular, human third person pronouns, including 93 masculine (he, him, etc.) and 32 feminine (she, her, etc.). The major factor, in fact, almost the only factor, in determining whether a particular instance of these pronouns is deictic is the interpretation of the pronoun's antecedent. The most common pronoun/antecedent tie is between man or mankind and one of the masculine pronouns, accounting for 50 of the 93 cases. Examples of these cases include:

(27) These inventions have produced two major problems man must deal with today. It is he who has created these problems for himself; it is he who must find the
solutions before his species is driven into extinction.

[1]

All of the masculine pronouns refer back to man. Man is not deictic in any way—it does not point to anything in time and space, it does not point back within the text or the situation of writing, and it does not express social or emotional distance. Furthermore, man is not a referring expression—it does not pick an object (or a number of objects) out of a class of objects; rather, it names the class of objects, a species. Consequently, none of the associated pronouns is deictic.

We find similar instances among the plural, impersonal, and demonstrative pronouns:

(28) It is the attitude that people have towards machines in general that prompts them to buy such useless items. People would rather have a machine do the work than do it themselves no matter how small the job may be. [5]

(29) The car is available to most any person alive and working, and when it becomes that abundant it becomes not an asset but a hindrance to mankind. [4]

(30) Its incredible power is only now being used for electricity production and this should be its only use. [46]

In (28), them and themselves refer back to people, a non-
deictic term referring to a class. In (29), both cases of it refer back to the car, a generic term not pointing to a particular car but to cars in general. In (30), this refers back to electrical production, again in general. That is, electrical production is not pointing to the production of a particular plant or the production of a group of plants over a given period of time, but rather to the idea of electrical production. None of these underlined uses of third person pronouns, then, is deictic.

Deictic cases include the following:
(31) Einstein himself was dismayed at the uses his ideas were put to at Hiroshima. [18]
(32) One such incident occurred in Richmond this year where a twenty-three year old constable was shot and killed for no apparent reason while on duty. He had a wife and a young child and was expecting another young child before his death. [2]

In (31), himself and his refer back to Einstein, a deictic proper name. In (32), he and his refer back to a twenty-three year old constable. While the antecedent is not deictic, it is an indefinite referring expression, picking out a particular member of the class of twenty-three year old constables. Furthermore, the sentence contains temporal (last year) and locational (in Richmond) information. It is clear that the constable is not a general type, but rather a
particular person existing in time and space. Once he is introduced into the universe of discourse, using the indefinite referring expression and the attendant temporal and locational information, he has a position in the spatio-temporal dimensions of the created universe of discourse.

One way to describe this condition would be to say that a third person pronoun will be deictic if its antecedent is an indefinite or definite referring expression or a deictic term (though, as noted in the introduction, the latter two overlap considerably). However, that is not a particularly general statement as it combines three different (though related) types of expressions. A better, more general way to describe the condition would be to consider it part of the cognitive presence condition discussed in relation to proper names. We might say, then, that a third person pronoun is deictic if its antecedent refers to or introduces something locatable in the created universe of discourse.\textsuperscript{10}

Examples of deictic plurals, impersonals, and demonstratives follow:

(33) Billions of dollars are spent by the United States and the Soviet Union on nuclear arms. Although both these countries have purchased enough arms to destroy the world several times over, still they spend large sums of money towards invention of more efficient and destructive weapons. \textsuperscript{[13]}
(34) I grew up in a household that had only one T.V. Although we were allowed to watch it . . . [57]
(35) . . . however, it posed a new problem: that in which many countries both weak and strong are now creating bigger and more powerful nuclear bombs. [41]

In (33), they refers back to the United States and the Soviet Union, deictic proper names. In (34), it refers back to the indefinite referring expression one T.V. In (35), that refers back to a new problem, again an indefinite referring expression. Again, in each case, the antecedent refers to or introduces something locatable in the universe of discourse.

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
<th>impersonal</th>
<th>demonstrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>deictic</td>
<td>33</td>
<td>20</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>non-deictic</td>
<td>92</td>
<td>320</td>
<td>192</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 4.3
Deictic and non-deictic pronouns by type

The question of whether a particular use of a third person pronoun is deictic or not is answered by reference to its antecedent NP. No other factors (e.g. verb type,
expression of time, etc.) appear to be relevant. Table 4.3 presents the number of deictic and non-deictic pronouns by type among those having clear antecedent NP's. As Table 4.3 shows, the majority of the third person pronouns are non-deictic, a total of 622 out of 697 having a clear antecedent NP.

4.4.2. Pronouns without clear antecedent NP's

As noted, there are no cases of singular, human pronouns without clear antecedent NP's. Among the other three groups there are instances without such antecedents. In a sense, interpretation of these pronouns not having clear antecedent NP's continues the trend of deictic interpretation depending on the antecedent. In each group, pronouns lacking an antecedent NP are interpreted differently than those with an antecedent NP, but they are interpreted the same as other pronouns of the same type lacking an antecedent NP.

4.4.2.1. Plurals

There are only two cases of plural pronouns lacking a clear antecedent NP:

(36) As we all know, watches are made to tell time, why didn't they just keep it that way. [62]

(37) They got along fine without all of these
inventions before, so I think that surely we can do it now. [72]

In neither case are we told who they is. But the implication is clear that they is some group distinct in some way from us (see section 5.3.3). Thus, this use of they seems to indicate a distance that the writer feels between him- or herself and the group referred to. They contrasts with we (see chapter 5). In (36), they seems to indicate whoever invented computerized watches, while in (37) they indicates those who lived before "all these inventions."

Notice that, for instance in the pronoun/antecedent tie between many people and they, etc., the same expression of distance does not exist:

(38) Many people drink and drive, which is absolutely selfish and irresponsible. They are endangering their life and other who may be harmed by their incapability of driving. [55]

In this case, they and their simply refer back to many people. If there is any expression of attitudinal distance here, it is due to the fact that the writer is condemning a particular activity, and it is unusual (though of course not unheard of) for people to condemn something while admitting that they do it. So we would not expect the writer to be including herself among those who drink and drive. Notice,
though that it would not be impossible to do so. The writer of (38) could have gone on to say:

(39) As an example, I recently killed two young children while I was drunk behind the wheel of my mom's station wagon.

In (36) or (37), however, it does not seem possible for the writer to include him- or herself with they.

In other cases, where the pronoun/antecedent tie is between the plural pronoun and some inanimate object, such as ink pens, cigarettes, or nuclear bombs, there does not seem to be any question of they, etc. reflecting an attitude toward the group referred to since there is no possibility of including the writer as a member of the group in question because the antecedent is inanimate. Writers would not normally identify with ink pens, cigarettes, or nuclear bombs, so they does not contrast with we.

On the basis of the two examples available in the data, we can tentatively suggest that third person plural pronouns without antecedents are cases of what I am suggesting be called attitudinal deixis, subsuming emotional and social deixis. These could not very well be cases of deixis to the spatio-temporal field of the universe of discourse since the cognitive presence condition is not fulfilled. That is, there is no antecedent to refer to or introduce anything locatable in the universe of discourse. In fact, the
attitudinal component seems to result from the lack of anything in the universe of discourse: they is something alien, something outside our immediate experience and control.

4.4.2.2. Impersonals

Among the impersonal third person pronouns, there are 125 that have no clear antecedent NP, or a little over a third of the total. Of these, five are simply errors. That is, they don't have a clear antecedent but they ought to have. These will not be dealt with here. Of the remaining 120, many, though not all, show up in syntactic configurations such as the following:

(40) It is those inventions that have caused the population to grow at increasing rates each year. [1]
(41) It is only a matter of attitude of each individual that can change this preposterous situation with which society is faced. [1]

Schematically, these two sentences have the form S V O comp: subject (it), verb (be), object (e.g. those inventions), complement (e.g. that have caused . . .). In these cases, at least in Standard Theory Transformational Grammar, the it is regarded as a dummy placeholder inserted into the subject position of the sentence following the movement of the complement from the subject position.11
However, not all cases of this dummy *it* are the result of the supposed movement of a complement out of subject position since we also find cases of dummy *it* without a complement anywhere in the sentence:

(42) The gasoline engine is a biological menace, and *if it* were possible, I would like to disinvent it. [17]

Furthermore, in speech we commonly find cases like:

(43) *It's* raining

where there can be no antecedent for *it*. There seems to be no syntactic environment that is overwhelmingly associated with dummy *it*. As with the two cases of attitudinal *they*, the cue that one is dealing with dummy *it* seems to simply be the lack of an antecedent of any kind.

Semantically, as the term "dummy *it*" implies, the function of these *it*'s is apparently nil. That is, they do not have anything to do with the meaning of the sentence. Instead, they simply serve to fill a subject slot that would otherwise be empty, a function that is necessary in English but not in other languages such as Spanish which apparently does allow sentences without overt subjects.

4.4.2.3. Demonstratives

The majority of demonstrative pronouns (57 of 79) have no clear antecedent NP. However, they do refer back to propositional information. In fact, *this* is dedicated
almost exclusively to this function, with 51 of the 54 cases of this having propositional information as an antecedent. Six cases of that have that type of antecedent, while no plural demonstrative pronouns do. Again, there does not appear to be any correlation between demonstratives without antecedents and any syntactic structure. Nor are there any other discourse or extra-linguistic factors that are normally associated with these demonstratives. The only cue for the reader that the demonstrative is being used for the particular function is the lack of an antecedent NP and the presence of propositional information which could operate as an antecedent.

The function for which these demonstratives are used is impure textual deixis. This type of deixis is related to both textual or discourse deixis and anaphora. As noted in section 4.3.3.2 of this chapter, impure textual deixis points back to propositional information expressed in previous portions of the ongoing discourse. Consider the following example:

(44) Without any explosives the chance for world warfare is zero. I would find this very comforting to know. [9]

This does not point back to any part of the written product per se, that is, a sentence or phrase as it is written on the page. Nor does it co-refer with a previous linguistic
element: this does not mean the same as chance or warfare, nor even the chance for world warfare. Instead, this refers back to the specific proposition expressed: that the chance for world warfare would be zero without any explosives. All demonstratives without antecedent NP's perform this same function.

4.4.2.4. Summary of third person pronouns

As noted, most third person pronouns in these essays are anaphoric. The anaphoric pronouns are either deictic or non-deictic, depending on whether or not their antecedents refer to or introduce an element locatable in the universe of discourse. The remaining third person pronouns, those without antecedent NP’s, fulfill specific functions depending on type. Plural pronouns without antecedents appear to indicate some sort of attitudinal distance on the part of the writer from the group referred to (though we must remember there were only two such examples). Impersonal pronouns without antecedents simply act as dummy placeholders, apparently without semantic content. Demonstrative pronouns referring back to propositional information are cases of impure textual deixis. In all cases, our interpretation of third person pronouns depends on the antecedent or the lack thereof.
4.5. Conclusion

Third person PDNP's may be divided into proper names, definite NP's, and pronouns. Almost all of the proper names in this study are deictic. Exceptions include names or titles that are both common and commonly linked to the activity predicated of them. There is one case of failed deixis, in which the reader lacks the information necessary to locate the intended referent in time and space. There are a variety of types of definite NP's. Those that are deictic satisfy the cognitive presence condition. Generic and descriptive NP's do not satisfy that condition. Intratextual NP's are generally more specific than other NP's and have an antecedent of some type, whether an NP, a chunk of the written text, some propositional information in the text, or information in the mind of the writer. Anaphoric NP's, like anaphoric pronouns, are deictic if their antecedent NP establishes a cognitive presence.

The majority of the third person pronouns in this study are anaphoric, referring back to a previous NP. Whether or not these anaphoric pronouns are deictic depends on whether or not their antecedent NP introduces (or points to) an entity or event in the spatio-temporal field, or, in other words, establishes a cognitive presence. Those pronouns lacking a clear antecedent NP fulfill one of three functions depending on whether they are plural, impersonal, or
demonstrative. The plurals are cases of attitudinal deixis, the impersonals act as dummy fillers for syntactic slots, and the demonstratives are cases of impure textual deixis.

Overall, the most important contextual factor in the deictic or non-deictic interpretation of third person PDNP's is the cognitive presence condition. This condition is entirely an extralinguistic one, depending on the reader's knowledge of the world, though that knowledge may be augmented by information presented in the text. While the predication of a definite action is apparently associated with the deictic interpretation of proper names, it is apparently not a factor in the deictic interpretation of definite NP's.
Notes

1. These three terms refer to approximately the same situation: that in which speaker, addressee, and that being talked about are all present. Differences among the conceptions have to do with differences in the general theory into which the conception has been integrated.

2. An interesting question would be how a reader knows when a definite article or demonstrative pronoun is inappropriate; however, that question leads into the problem of conditions on the use of definite articles, something beyond the scope of this dissertation.

3. Charles Fillmore called this phenomenon "discourse deixis" while John Lyons uses the term "textual deixis." I am using "textual deixis" to avoid confusion with deixis operating within the universe of discourse, something quite different.

4. Textual deixis is also possible in spoken discourse, normally in prepared speech. It is possible, though apparently less common, in spontaneous speech.

5. Notice that I am using "antecedent" fairly broadly here and throughout the dissertation.

6. In this section, deictic should be taken to mean deictic to the universe of discourse.

7. Tense is a grammatical phenomenon. Every English sentence is either present or preterite. The expression of time is a semantic phenomenon. Even though every sentence in English is marked for tense, sentences may or may not express time. Furthermore, there is no one-to-one correspondence between present tense and present time or between the preterite (also called past tense) and past time. For instance, I have been to the store twice today is in the present tense, but it refers to past time. Conversely, I would go if I could is preterite but refers to future time.

8. In essay 14, for instance, the nuclear bomb and the nuclear reactor are repeated frequently (see (20-21)); however, these are not anaphoric uses but rather generic
9. It should be noted that in talking about instances where there is no clear antecedent, I am not counting cases in which a plural pronoun refers back to a singular antecedent (e.g. someone/they) or a singular pronoun refers back to a plural antecedent (e.g. drugs/it). In these cases, there is a clear antecedent even though the connection between the two violates standard usage rules.

10. Again, it is important to remember that the entity locatable in the universe of discourse may perfectly well be a fiction.

11. The claim is that a sentence like "It is certain that John kicked the cat" is derived from the underlying structure, ignoring Affix Hopping, "That John kicked the cat is certain." The complement is said to be postposed, leaving an empty subject slot. The empty subject slot is then filled by the dummy marker it.
Chapter 5
First and Second Person Pronouns

5.1. Introduction

In this chapter, I will be considering the effects of context on the deictic interpretation of first and second person pronouns. All cases of first and second person pronouns are deictic; however, among them, there are various deictic uses. In the first place, there are editorial and non-editorial uses, the former pointing to some aspect of the actual situation of writing and the latter pointing to some aspect of a created universe of discourse. In the second place, among the non-editorial uses, there are definite uses and indefinite uses, both of which are deictic. The non-editorial, definite uses are examples of the most widely-acknowledged type of deixis, which I am terming universe of discourse deixis. The non-editorial, indefinite uses of second person pronouns and plural first person pronouns appear to be closely related to so-called emotional deixis. I am considering these, along with social deixis, to be sub-categories of attitudinal deixis. Editorial uses appear to related to the intratextual NP's...
considered in section 4.3.3. These editorial and intratextual NP's may be considered sub-groups of situation of writing NP's.

The seventy-five essays contain a total of 231 first person singular pronouns, 133 plural ones, and 94 second person pronouns. As noted earlier, I will be treating possessive pronouns followed by nouns in the category of pronoun since it is the semantic qualities of the possessive that are at issue rather than the syntactic configuration of the NP.

5.2. First person singular

Singular first person pronouns include I, me, and my. The major use to which the singular pronouns are put is editorial. Typical of these editorial uses are:

(1) In this essay I would like to discuss . . . [6]
(2) I would like to see the nuclear bomb disinvented because . . . [6]
(3) In my opinion the scientists have gone overboard and by doing so . . . [23]

Over three quarters of the singular first person pronouns are of this editorial type, and typically they are in the introduction or conclusion, or if they are in the body of the paper, they normally are in the first sentence of a paragraph, one which acts as a topic sentence. However,
there are several instances in which an editorial pronoun is not in the introduction, the conclusion, or a topic sentence. Furthermore, there is no tendency in this regard among either first person plurals or second person pronouns. So it does not appear that we can make any claim regarding an association between editorial interpretation and position in the text.

In these editorial cases, the writers are referring to themselves only as writers and not as entities in the universe of discourse they are building with their essay. That is, the center of orientation is not the universe of discourse but rather the situation of writing. In these usages the writer is stepping outside of the story or exposition for a moment and talking to the reader from outside of the text. The editorial first person singular requires that the reader make use of the information that he or she has about the situation of writing, minimally that there is a writer, a text, and an intended audience.

The remaining singulars are non-editorial and definite, many occurring in narratives or descriptions of some aspect of or event in the student's life. In these cases, the essays (at least in part) are about the writer. The writers are talking about themselves as entities within the story or exposition, as actual participants in what is being talked about: members of the universe of discourse. The editorial,
situation of writing I is more common, accounting for 158 of 188 I's, while the non-editorial, universe of discourse I accounts for the remaining 30 I's. There are 10 editorial me's and 5 non-editorial me's. The NP's containing the possessive my are about evenly split between the editorial (13) and the non-editorial (15).

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>me</th>
<th>my</th>
</tr>
</thead>
<tbody>
<tr>
<td>editorial</td>
<td>158</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>non-editorial</td>
<td>30</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>188</td>
<td>15</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 5.1
Editorial and Non-editorial First Person Pronouns

With regard to first person singular pronouns, the cognitive presence condition, introduced in chapter 4, may be assumed to be fulfilled. That is, any time we have a written discourse we can assume the existence of a writer as part of the situation of writing. Furthermore, there seems to be no difficulty in introducing the first person singular into the universe of discourse. Perhaps it is assumed to be there already. That is, it may be that readers are willing
to assume that writers have the right to be part of their own expositions without the need for a special introduction. What we must do now, however, is show how it is that we may distinguish between the editorial, situation of writing uses and the non-editorial, universe of discourse uses. I will deal with I first, taking up me second and NP's containing a possessive first person pronoun third.

5.2.1. I

In the great majority of papers, only the editorial I is used. Of the 45 papers that contain at least one I, only 10 contain the universe of discourse I. On the other hand, all of those 45 papers include at least one editorial I. Let us consider some of the characteristics of the sentences in which editorial and non-editorial I's occur.

<table>
<thead>
<tr>
<th></th>
<th>editorial</th>
<th>non-editorial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>100</td>
<td>10</td>
</tr>
<tr>
<td>Preterite</td>
<td>58</td>
<td>20</td>
</tr>
</tbody>
</table>

Table 5.2

Deictic Type and Tense
5.2.1.1. Preterite clauses

Of the 158 editorial I's, 58 occur in preterite clauses. Of the 30 non-editorial I's, 20 occur in preterite clauses (see table 5.2). However, there are major differences between the two sorts of preterite clauses. Most of the sentences containing editorial I are about the inventions that the writer would disinvent if he or she could, e.g.:

(4) If I was in the position to, I would remove the automobile from the world market. [1]

52 of the 58 clauses contain the modal would, while three of the remaining 6 clauses are if-clauses. None of the editorial I's occur in main clauses containing no modal, or "bare preterite clauses." By contrast, 12 of the 20 non-editorial I's occur in bare preterite clauses. The remaining three preterite clauses having editorial I as subject are similar in that they all reflect back on the situation of writing rather than on the external world. One writer discusses "why I chose" particular inventions [60], another begins a conclusion with "Therefore, I must say" [16], and the third writer repeats a point by saying "as I said before" [73]. Choosing inventions is something we can expect these writers to have done as part of their situation of writing. Noting that one is under compulsion to say something refers to an aspect of the situation of writing.
Likewise, repeating what one said before refers back to the discourse being written, a necessary part of the situation of writing.\(^1\) Table 5.3 displays the types of preterite clauses, including if-clauses, when-clauses, those containing modal would, bare preterites, and others.

<table>
<thead>
<tr>
<th></th>
<th>editorial</th>
<th>non-editorial</th>
</tr>
</thead>
<tbody>
<tr>
<td>would</td>
<td>52</td>
<td>3</td>
</tr>
<tr>
<td>If</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>when</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>bare</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>other</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 5.3
Types of Preterite Clauses

The verbs in the 20 clauses containing non-editorial I's cannot be taken to refer to the situation of writing. Consider this passage from the essay which contains the greatest number of universe of discourse I's:

(5) Once I was taking a physics test and forgot my calculator. So very used to using it, I made careless errors on addition and multiplication problems and made
In this essay, the writer talks about taking a test, making careless errors, and the fact that he "should of" made an A and "would of" if he had had his calculator. He cannot be talking here about the in-class essay, which constitutes part of the situation of writing, since to do that, he would have to put the clauses in the present. Furthermore, though perhaps it is a redundant cue, this writer is talking about using a calculator and adding and multiplying, things not normally done during the writing of an English essay.

As noted, 12 of the 20 non-editorial I's occur in main clauses without any modal. Now let us consider the remaining preterite clauses containing non-editorial I's. One writer wishes to be rid of electricity because without it:

(6) I could get more precious hours of sleep. [9]

Another writer noticed the faster pace of life:

(7) when I moved from the country to the city. [10]

A third writer, discussing smoking, says:

(8) I could never understand this (i.e. why people continue to smoke in spite of the dangers). [64]

A fourth student would like to abolish make-up so that

(9) I wouldn't have to worry about going somewhere with my girlfriend's lipstick on my face. [67]
In each of these cases, what the writer is talking about has no bearing on the situation of writing. Getting more hours of sleep and moving from the country to the city are clearly not something the writer is doing as part of the situation of writing. It may be that the third writer continues to be mystified by people continuing to smoke and was so at the time of writing. However, by saying that she could never understand it, she limits herself to a discussion of her past feelings. Notice that if she had said:

(10) I don't understand this. 

I would have had to have been interpreted editorially.

The writer of (9) presents a little more of a problem since he uses the modal would normally associated with the editorial I's. In that case, however, would seems to indicate future rather than simply conditionality. The final paragraph in the essay is as follows:

(11) If it were possible, I would have make-up "disinvented". Therefore, a woman would look only as good as her true identity. A woman would no longer "have to" wear make-up, and I wouldn't have to worry about going somewhere with my girlfriend's lipstick on my face. [67]

The final sentence describes conditions following the disinvention of make-up. The future time is indicated by no longer. Although the sentence remains conditional, it also
points quite clearly to a future time. In the first sentence of paragraph (11), there is no indication of the time involved; the clause is only conditional, and I is interpreted editorially. The sentence is timeless, as are the other 51 examples of clauses containing would and editorial I.

There are only two other cases where we find would with a non-editorial I, both in another essay. The writer of that essay is discussing the effects of television. He notes that when his friends came over to ask him to play:

(12) I would say no and watch T.V. instead. Not to mention, I would eat salty chips and drink soda while doing so. [61]

These two cases occur in the middle of a narrative about what this writer's life was like as a child. Because they occur in the midst of a narrative, we interpret both would's as indicating a habitual past action rather than as conditionals.

These results indicate that the representation of time (as distinct from grammatical tense) affects the deictic interpretation of I. Although the 52 clauses containing editorial I and the modal would are grammatically preterite, semantically they are timeless—they do not point to an event at a point in time, but rather they indicate an event whose occurrence is dependent on particular conditions. By
contrast, the three clauses containing non-editorial I's and the modal would are in the context of a narrative or an adverbial phrase, both of which force us to interpret would not as a conditional (or not only as a conditional) but also as either a future or past indicator. The three cases of editorial I in if-clauses also have a timeless quality. If-clauses, in standard English, contain the remnants of a separate subjunctive mood, a construction concerned not with time, but with conditionality. By contrast, the two non-editorial I's which occur in a subordinate clause without a modal are in when-clauses, clauses intimately concerned with time. Finally, the three remaining editorial I's do seem to be in time-oriented clauses. We get "I chose" and "as I said before," which clearly refer to past time. However, equally clearly, they refer to the past time within the situation of writing, the latter referring to an earlier assertion in the essay, and the former referring to the decision-making that shapes the essay. "Therefore, I must say" refers to the present time, the time when the writer is actually writing the conclusion of the essay.

Interpretation of I as editorial or non-editorial, then, seems to depend generally on whether or not time is represented in the clause in which it occurs. On some occasions, a clearly time-oriented clause may point to the situation of writing if the verb can be taken to refer to
some part of the act of writing or preparation for writing.

5.2.1.2. Present clauses

Now let us consider the present tense clauses. A major factor in determining whether the I's in these clauses are editorial or not seems to be the semantic field of the verb. There are 100 present tense clauses containing an editorial I. Of these, 59 contain verbs of belief (believe, think, feel, see, know, understand, and agree). Believe, think, and feel, themselves, account for 48 of these verbs. Furthermore, there are two cases of be sure, which also fits into this category, bringing the total of this type up to 61. A further 16 clauses contain verbs of desiring (wish, want, hope, etc.) and evaluation (despise, evaluate, consider, etc.). Furthermore, we find be against twice, be concerned (i.e. as far as I'm concerned [55]) once, and have a problem (i.e. I have a problem with [67]) once, bringing the total of these types of predicates to 20. We may consider these 81 verbs, including the be- and have- predicates "verbs of psychological state."

The other major group of clauses containing editorial I's contain verbs of stating and explaining (state, say, ramble, refer, point out, explain, and mean). These fourteen clauses, however, refer back to the actual situation of writing, as do similar verbs (say) when used in
preterite clauses. Of the remaining 5 editorial I's, 4 are in clauses concerned with the situation of writing. As in the preterite clauses, we find choose and disinvent. We also find derive, as in:

(13) I have derived my opinion . . . [61] explaining the source of evidence for the writer's argument. Finally, we find a writer making an editorial comment on herself:

(14) Perhaps I am being too idealistic. [46] Again, this predicate (be idealistic) refers to the situation of writing, to the desire the writer is expressing.

The remaining verb (or pair of verbs) is a little more complicated. The writer notes,

(15) It is disturbing to me to think that a political leader has control of whether I live or die. [13] Notice here that neither live nor die is a verb of belief, desiring, evaluation, or stating, and neither one is easy to construe as pointing to the situation of writing. However, the fact that they occur in a whether-clause seems to force us to interpret the I editorially. Just as I noted above that if-clauses tend to be timeless, this clause, introduced by whether also seems timeless. Whether I live or die does not give any clue as to when such a decision might be made. Instead, the possibility of death is something that hangs
over the writer constantly and is what prompted her to write this paper. In that sense, the clause does seem to relate to the situation of writing. Table 5.4 summarizes these results.

<table>
<thead>
<tr>
<th>verbs of</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>belief</td>
<td>61</td>
</tr>
<tr>
<td>desiring</td>
<td>20</td>
</tr>
<tr>
<td>stating</td>
<td>14</td>
</tr>
<tr>
<td>other</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 5.4
Types of Present Tense Verbs Associated with Editorial I

Notice that we once again have evidence of a connection between timelessness and an editorial interpretation. That connection seems to have been a major factor in the interpretation of the I's in preterite clauses. This connection becomes stronger when we look more closely at the verbs of belief, desire, and evaluation. All three types of verbs seem to be relatively stative verbs. That is, they indicate a state rather than a change of state or an action.
If I say that I believe something, I am talking about a state of mind that I am in. Likewise, wanting, hoping, and regretting are all states of mind. While these states of mind can and do change—we cease to believe certain things, or we rationalize some act to the point where we no longer regret it—the verbs in the present tense represent the states of mind as continuing states. While we can say:

(16) I am jumping rope right now

progressive uses of these stative verbs are much more restricted. It is somewhat odd to say:

(17) I am believing you right now.

Although we might be able to think of contexts in which (17) would be quite acceptable, it is not acceptable with the same generality as (16). In that sense, the clauses containing these verbs of psychological state seem timeless as well. In the cases where time is represented in some way, the clauses must refer to some aspect of the situation of writing if I is interpreted editorially. Clauses containing verbs of stating normally do represent time, but they can also be plausibly taken to refer to the situation of writing in most cases.

Among the 10 present tense clauses containing non-editorial I we find verbs having to do with activity or change of state rather than continuing state, and verbs which do not refer to some aspect of the situation of
writing. Verbs of action include use, wake, do, leave, and eat. Become is a change of state verb. These account for six of the cases. The verbs from the remaining four clauses require some explanation. Consider tell occurring in:

(18) I can always tell a person who uses a tanning booth. [75]

Tell is a verb of perception, closely related to the verbs of belief noted earlier. However, in this clause there is an adverb of time, always, which forces us to interpret the writer’s perception not as a timeless state but as a repeated action. (19):

(19) I can tell people who use tanning booths says something about the state of the writer’s ability to perceive something. But (18) indicates that every time the writer is faced with a person with a fake tan, she is able to recognize that the tan is fake. Rather than a timeless state, we have a repeated action.

In the same essay we also find:

(20) I’ve also noticed that people get "sun" spots easier in a tanning booth than from the sun’s natural rays. [75]

Although this sentence is grammatically present, its perfect aspect makes it refer to past time. As with tell, notice would seem to be similar to the timeless verbs of belief, etc. However, since the sentence refers to past time, we
interpret it as a state, i.e. the ability to notice, which existed at some time prior to now, the time of writing. Consequently, the clause cannot be referring to the situation of writing. Again, there seems to be a connection between the representation of time and the interpretation of *I*.

Now consider the remaining two cases of non-editorial *I*:

(21) *I* have a problem with make-up because if *I* am involved with a woman, *I* want to be able to touch her face without part of it coming off. [67]

The first of the two non-editorial *I*’s is in an *if*-clause, a clause-type I earlier suggested was connected with timelessness and, consequently, was connected with an editorial interpretation of *I*. In this case, however, the *if*-clause does not seem to be timeless. Rather, *if* could be replaced by *when* without loss of meaning. Thus, we may have to conclude that there is more than one type of *if*-clause.

Likewise, the second non-editorial *I* is the subject of *want*, a verb that was earlier associated with editorial *I*. In this case, however, what is wanted is the ability to perform some action, i.e. touch someone’s face. We might also suppose that the time-oriented *if*-clause also affects interpretation of this second *I*. These explanations do not seem entirely satisfactory to me; however, it is to be
expected that we will run into some recalcitrant data from time to time. Presumably explanations will emerge as these phenomena are studied at greater length.

5.2.2. me

Of the fifteen me’s in these essays, 10 are editorial and 5 are non-editorial. The lines of distinction between the two types are similar to those between editorial and non-editorial I. However, the situation here is much simpler. Eight of the editorial me’s are in present tense clauses containing verbs having to do with the writer’s reaction to something. So we find:

(22) This frightens me. [12]
(23) Another invention which scares me is exams. [12]
(24) It is disturbing to me to think that a political leader has control of whether I live or die. [13]
(25) It seems reasonable for me to assume . . . [48]
(26) This event leads me to think . . . [52]
(27) The killing of animals lead me to believe that guns are . . . [52]
(28) Electric bug killers really annoy me. [56]
(29) Yet, why more men prefer electric over manual is beyond me. [72]

The remaining editorial me’s are in phrases:

(30) To me, that is a scary thought. [66]
(31) To me, smoking marijuana is a waste of time and money . . . [71]

As with the other editorial me's, these last two are in sentences expressing the writer's reaction to something.

Four of the five non-editorial me's are in what I termed above bare preterite clauses. These are:

(32) This particular incident informed me of the dangers of nuclear energy. [12]
(33) My mother and father allowed me to . . . [61]
(34) This is quite evident as something not healthy to a young person, and wasn't for me. [61]
(35) But, my father always told me that work never hurt anybody. [72]

As with the I's in such clauses, these me's must be taken non-editorially.

The remaining non-editorial me is in a tenseless for-to complement. In discussing why he is unwilling to use sock garters, the writer complains about the difficulty of putting them on:

(36) It's too early in the morning for me to get involved in something that intense. [73]

Notice, however, that time is represented by the adverb phrase. Furthermore, this usage occurs in the midst of a discussion of the writer's habitual morning activities. And finally, get involved does not refer easily to the situation
of writing. These factors account for the non-editorial interpretation we get for this me. This result and those above support the results of the last section.

5.2.3. my-NP's

There are 13 my NP's that must be interpreted editorially and 15 non-editorial ones. The major factor in determining whether the NP is editorial or non-editorial seems to be the noun. One group of nouns in editorial NP's includes list (of things to disinvent) used three times, reasons (for wanting to disinvent something), and essay. The five NP's containing these nouns point to or introduce elements of the situation of writing: the essay itself or the writer's organization of the material. Since the center of orientation is not within the text, but rather is the writer within the situation of writing, these do not appear to be cases of textual deixis, strictly speaking, though these types are related (see fn. 1). The list referred to is not a list on paper in the essay, but rather is in the writer's head at the time of writing and, thus, part of the situation of writing. The reason is not something explicated on paper (yet), but rather is, likewise, something in the writer's head. There is nothing to suggest that the list, the reason, and the essay are entities in the universe of discourse.
A second group of five nouns in these NP's, consisting of opinion four times and suspicion once, could be termed nouns of psychological state, just as the verbs associated with editorial I's were argued to be verbs of psychological state. Opinion is closely related to believe, etc., and suspicion is related to despise, evaluate, etc. Notice once again that these NP's do not take the universe of discourse as their center of orientation, but rather the writing situation. The opinions belong to the writer as writer rather than to the writer as an actor in his own story.

A single editorial NP is my least favorite inventions. Inventions is not a noun of psychological state and has nothing to do with organization of or motivation for the essay (as do reason and list). However, it is a noun we would relate to the situation of writing in this instance because the topic of the discourse is inventions. The concept of inventions, then, may be part of the situation of writing. Another factor which helps to make this NP editorial is the fact that the adjective favorite has to do with psychological state in the same way that want, hope, and other verbs do.

The remaining two editorial NP's require additional discussion. Consider (37):

(37) This sight hurts my eyes. [45]

My eyes contains a concrete noun rather than a psychological
one. However, it seems nevertheless to be a case of editorial deixis. Consider the context in which it occurs. The student is discussing the environmental damage caused by coal burning thermal plants, noting that the surroundings of the plants are "desolate and barren". (37) concludes the paragraph. Notice that the verb in this sentence is in the simple present, indicating a state of affairs rather than a single event. The sentence then, is not talking about an event in the universe of discourse, but rather part of the continuing state of affairs that the student is introducing as part of the situation of writing. Had this writer said:

(38) This sight hurt my eyes (the last time I visited such a place).

then the event of visiting a coal-burning plant and the student's reaction to it would both have become part of the universe of discourse. My eyes would then have had that universe of discourse as its center of orientation. As with I and me above (section 5.2.1, 5.2.2), deictic interpretation of my seems to be affected by the representation of time in the sentence or clause. The concreteness of the noun is overridden by the non-concreteness of the situation referred to in the sentence.

The final editorial my NP is my life. The difficulty here is that the same NP shows up in another essay in a non-editorial role. The editorial use of my life shows up in
the following context:

(39) If I had the power to, I would like to "disinvent" a few of man's creations. These things serve absolutely no purpose in my life and I would like to see them wiped right off the face of the earth. [56]

No universe of discourse is set up here at all. The writer is referring to himself as a writer rather than as an actor. Compare this to the context of the non-editorial use.

The student notes his desire to eliminate electricity:

(40) There would be no eternal light. Working days would be shorter. Imagine, there would be no night shift. I could get more precious hours of sleep because of these things. Without electrical current my life would be less strenuous. [9]

The noun here gives us no particular clue to interpretation. The writer's life seems to be equally a part of the situation of writing and a potential part of the universe of discourse, the latter especially when the writer has already introduced him- or herself as an actor into the universe of discourse. Notice that in (40) the writer sets up a hypothetical world without electricity and considers its effect on him. He, then, is an actor in this hypothetical world. The would is both conditional and future, so time is represented in the clause.

The remainder of the non-editorial my NP's contain
concrete nouns: friends, parents, calculator, leg, house.
Generally we can say, then, that concrete nouns tend to bias our interpretation of a first person singular possessive NP toward a non-editorial one, while psychological nouns and those having to do with the essay itself or aspects of the essay bias our interpretation toward an editorial one. A noun like life does not bias us in either direction since life may be relevant both for writers in the writing situation and human actors in the universe of discourse. Finally, my eyes indicates that even a concrete NP may be taken as editorial under the right circumstances.

5.2.4. Contextual factors in interpretation

With regard to singular first person pronouns, we can assume the cognitive presence condition to be met. There seem to be two major factors, both sentence level, that affect the deictic interpretation of these pronouns. The first is the representation of time. Sentences and clauses having no specification of time tend very strongly to be associated with editorially interpreted pronouns. Verbs of psychological state and verbs of stating also tend to be associated with editorially interpreted subject and object pronouns, while nouns of psychological state and those having to do with the organization of material in the discourse itself tend to be associated with editorially
interpreted possessive pronouns. Conversely, sentences and clauses referring to a specific time, verbs referring to actions or changes of state, and concrete nouns tend to be associated with non-editorially interpreted pronouns.

Other factors appear to be less important. A discourse factor is that verbs like disinvent and nouns like invention tend to be associated with editorial pronouns since the topic of the discourses in this study was inventions that the writer wants to see disinvented. In one case, an extralinguistic factor apparently overrides a discourse factor. One writer discusses his bad experience taking a test (see (5)). While test could be taken to be part of the situation of writing (the in-class essay that the LSU students wrote could be thought of as an test), the tool the writer talks about as part of the exam-writing situation, his calculator, and the tasks performed, adding and multiplying, are not what we would normally associate with a composition test. Our knowledge of test-writing, then, makes it difficult for us to interpret the test being discussed as the one the writer was currently writing. Rather we are forced to interpret the test as one from another situation, something the writer has introduced into the universe of discourse. Consequently, the writer of the test, I, must also be interpreted as existing in the universe of discourse.
5.3. First person plurals

Among the plural first person pronouns, we find that the situation is a little different. There are 133 cases of we, us, and our occurring in 46 of the essays. Among this group of pronouns, there are only four cases of the editorial usage and two cases of the non-editorial pronouns of the sort discussed in section 5.2. The remaining 127 plural first person pronouns are also non-editorial, but rather than being definite usages, as the non-editorial singular first person pronouns are and as two cases of the plural first person pronouns are, these are indefinite usages. To call an indefinite pronoun deictic might seem to be a contradiction; however, there are strong reasons for calling the majority of plural first person pronouns both indefinite and deictic. Much of this section will be devoted to an explanation of why this is so. Since there is so little variation in types of deictic interpretation, I have not considered we, us, and our separately. For ease of expression, I will often refer to all plural first person pronouns as cases of we. An interesting by-product of this section is the discovery of a relation between different types of deixis and the distinction between inclusive and exclusive we.
5.3.1. Editorial uses

First let us consider the editorial uses of we. One student asks:

(41) ... but have all our inventions been beneficial? What inventions should not have been made? Here we explore these questions. [14]

In this case, we is the writer and any potential readers. Likewise, we find in one essay:

(42) Let's turn to a more common problem

and

(43) Let's look at VCRs. [51]

In another we find:

(44) Now let's look at some reasons why people don't smoke. [58]

In these cases, the contracted us, like we above, refers to the writer and potential readers.

Notice that in the 3 let's cases, the sentence is a suggestion. However, since the writer is clearly in charge of the writing situation, i.e. since it is the writer who determines what will happen next in the essay, the suggestion, in fact, acts as an imperative; the reader must follow the suggestion (if he or she wishes to continue reading). Below we will find that imperatives containing you also force an editorial interpretation. What suggestions and imperatives have in common is that they must
pertain to an addressee; they must be the inclusive we rather than the exclusive we. For instance, if I am talking to Ralph, I can say:

(45) We had fun at the movies last night meaning by we Ralph and I, Fred and I or Fred, Ralph, and I. But I cannot say to Ralph:

(46) Let's go to the movies tonight unless I mean by us only Ralph and I. Ralph must be included in the suggestion. It is this fact that makes we inclusive. Moreover, Fred cannot be included unless he is present or explicitly included later:

(47) Maybe Fred will go, too.

When we make a statement, then, we may use we either inclusively (including the addressee) or exclusively (excluding the addressee). However, orders, invitations, and the like seem to require that only inclusive we be used, and furthermore that only the addressee(s) be included.4, 5 Certain speech acts, then, force us to include only the addressee(s) with the speaker as referents of first person plural pronouns. These speech acts can only be addressed to other people present in the situation of utterance. Likewise, written orders, invitations, and so on can only be addressed directly to other participants in the situation of writing, i.e. the intended readers. I am going to term these "restricted inclusive" plural first person pronouns to
distinguish them from the unrestricted inclusive ones that may refer not only to the speaker and addressee, but also to others who may or may not be present in the situation of utterance or situation of writing.

The remaining case, Here, we explore..., is similar to my eyes dealt with above in section 5.2.3. One could include exploring as part of the universe of discourse. For instance, one could be talking about the exploration of a cave. However, in such a case, the verb would normally be preterite (or possibly in the present progressive). However, with the verb in the simple present, the statement achieves a timeless quality, preventing us from interpreting it as an event and biasing us toward an editorial interpretation. Also, the location, here, strengthens this bias. Furthermore, notice what it is we are exploring. We are not exploring caves or houses or anything else concrete; we are exploring questions. Again, as with my list and my reasons above, questions frequently are part of the process of writing, part of the situation of writing, and so the fact that it is questions we are exploring biases us toward the editorial interpretation.

5.3.2. Non-editorial, definite uses

In the seventy-five essays there is only one essay in which plural first person pronouns are used non-editorially
to denote a well-defined group:

(48) I grew up in a household that had only one T.V. Although we were allowed to watch it, the programs that we were allowed to watch were screened by our parents.

Notice that in this case, there is no possibility of any potential reader being included; we and our clearly denote members of the household, in particular the children. The usage here is clearly exclusive. It is unlikely that any potential reader would, without knowing the identity of the writer, assume that he or she and the writer shared the same parents or grew up in the same house. Furthermore, since non-editorial I is necessarily definite, and since we and our parents are part of the same incident as the non-editorial I, we are further biased toward a non-editorial, definite interpretation. Finally, time is represented in both relevant clauses, further biasing us toward the non-editorial interpretation.

5.3.3. Non-editorial, indefinite uses

The vast majority of plural first person pronouns are indefinite, used to denote some vaguely defined group. This group includes the writer and is intended to include the reader as well as other people similar in some undefined way and so are cases of unrestricted inclusive plural first
person pronouns. Consider our inventions in (41):

(41) . . . but have all our inventions been beneficial? What inventions should not have been made?

Here we explore these questions. [14]

Our seems to mean the human race’s or mankind’s. It could not likely mean the writer’s and the reader’s personal inventions since the essay was not addressed to anyone in particular, and it was read by people who do not know the identity of the writer. Our inventions could only be taken to mean the reader’s and the writer’s in a case where the writer knew that both he or she and the reader had invented things and that the reader would be aware of that fact. Since the writer could not have had such information, our must cover a broader, more poorly defined group.

However, our inventions is clearly deictic since its interpretation depends on the identity of the writer. The writer must clearly be a member of the group that invented the things to be discussed in order to use our successfully. If he or she were a Martian rather than a human, our would mean not the human race but the Martian one. So, in spite of the indefiniteness of plural first person pronouns used this way, they are still deictic. At the same time there is a weaker assumption that the reader is also a member of the group. If I, a Martian, were to read (41) knowing that it had been written by an Earthling, I would interpret our as
meaning the writer and other Earthlings. However, normally speaking, our, we, and us also include the reader.

In another, slightly less vague use, we and us are used to denote the United States (i.e. its people as a collective group):

(49) If we drop an atomic bomb on a country, they will proceed to do the same to us. [66]

I can be sure that we and us here mean the United States because the student who wrote it is American. Had the same thing been written by a French student, we would have meant France, and so on. In a related case, a student concerned about spy satellites says:

(50) . . . they take our privacy away [19]

In this case, the relevant group is not as well-defined as a national group. The group in question seems to be normal, everyday people, the non-elite, the everyday victims of government. Again, although the group in question is poorly defined, the writer is clearly a member of that group. Had the writer considered himself one of the oppressors rather than one of the oppressed, he could have said:

(51) We can use these satellites to take their privacy away.

One function of we and our in these instances seems to be persuasive, expressing solidarity between the writer and the reader. When the writer talks about "our privacy" being
taken away, readers find it more difficult to consider the problem someone else's. Likewise, the possibility that someone might drop an atomic bomb on "us" is more noteworthy than the possibility that someone might drop an atomic bomb on "them." So there seems to be an assumption on the part of the writer that the reader also fits into the group under discussion unless the assumption is explicitly denied. So for instance, if someone utters (52) to me, they have committed a social gaffe since the we indicates a belief that I am a member of the speaker's group:

(52) I think we should ship all the foreign students home.

If they are aware that I am a foreign student, but they still wish to make the comment, they must say:

(53) I think we should ship all you foreign students home.

It seems clear that this interpretation of we is related to emotional deixis, which indicates degree of emotional distance, and social deixis, which indicates degree of social distance; however, it is not identical with either. All three of these types of deixis are considered here attitudinal deixis. Notice that there is no interpretation of I comparable to the vague group identity interpretation of we. If I is not editorial, it must refer to the writer as a single, specific actor in the universe of discourse.
cannot be used to define a vague group, undoubtedly since it is singular.

5.3.4. Contextual factors in interpretation

As in the case of the non-editorial singular first person pronouns, non-editorial, definite we seems to be associated with those expressing definite time. Both cases of non-editorial, definite we are in non-conditional preterite clauses. All four cases of editorial we are associated with verbs directing the reader's attention within the discourse. These results support those of the section 5.2; however, there are so few cases involved that we must accept these results only provisionally.

The factor that appears to be involved in the interpretation of we as non-editorial and indefinite, i.e. in the great majority of cases, is somewhat less easily pinned down. What seems to be at issue here is an extra-linguistic factor. Widely used NP's containing possessive pronouns typically are social (e.g. our society, our world) or environmental (e.g. our ozone layer, our natural resources). Since social and environmental concerns affect all of us, it is not difficult to interpret our as meaning a fairly broad group, either all of humanity or the western world or something similar. Some other NP's, however, do not refer as clearly to large, vaguely defined groups.
Consider the following examples:

(54) Given a monopoly, the technology surrounding the electric cars would have improved to a point where now even our aircraft would be electrically powered. [14]

Our aircraft is not like our society in that it is much easier to think of aircraft as being the private possessions of a writer and a reader than it is to think of a society that way. However, it will be clear to any reader of the paper that he or she and the writer are not co-owners of any aircraft. Consequently, the NP will be interpreted indefinitely; the aircraft will be taken to belong to some unspecified group, in this case, probably all of humanity. As noted earlier, however, this usage is still deictic.

Now consider the following example:

(55) Not only have we forgotten how to use our bodies and our minds, but we have also allowed our resources to be used up and turned into another problem like pollution. [30]

Again, bodies and minds are things that are fairly easy to imagine having individually. But notice what we are supposed to have done with them: We have forgotten how to use them. Readers are likely to be unwilling to take this we as referring to them specifically, and it is almost certain that the writer of the passage does not consider him-or herself to be one of those who has forgotten how to
use his or her mind. Likewise, both reader and writer would be justified in claiming that they personally did not have control over our resources and so were not responsible, certainly not solely, for pollution. Consequently, these pronouns are likely to be interpreted as indefinite deictics. Other uses of we, us, and our can be explained likewise.

Underlying these explanations are two principles. The first says to interpret plural first person pronouns as referring to a vague, unspecified group of which the writer and the reader are (normally) part (i.e. as non-editorial, indefinite) unless the statement containing the pronoun clearly pertains to something that the writer has in common only with his or her intended readers, in which case it is interpreted as editorial. The second says to interpret plural first person pronouns as referring to a vague, unspecified group of which the reader and the writer are part unless the statement containing the pronoun clearly pertains only to the writer and others but not to the reader, in which case it is interpreted as non-editorial, definite.

5.4. Second person

Among the 75 essays, there are 94 second person pronouns with one or more occurring in 21 essays. As with
first person pronouns, all of them are deictic, and there are both editorial and non-editorial uses of second person pronouns. 15 of the 94 are clearly editorial, 64 are clearly non-editorial, indefinite uses, and 16 others will require some greater discussion. Clear cases of the indefinite usage include:

(56) Smoking cigarettes is harmful to your health [60]

and

(57) ... the tape beneath the gloves hardens as your sweat glands cool off ... [16]

where your can be replaced by one's without changing the meaning. Clear cases of the editorial uses include:

(58) Mind you, I am not totally against these inventions [12]

and

(59) As you can see, these inventions cause more problems ... [51]

where you must refer to the reader. In the clearly editorial cases, the reader is being directly addressed within the situation of writing. In the clearly non-editorial cases, the reader is not being addressed directly. Instead, the you or your seems to refer to a vague, unspecified group as did the indefinite we discussed above.
5.4.1. Editorial you and your

First, let us consider three of the questionable cases since they shed some light on factors in interpretation. Consider the following passage:

(60) There is no need to smoke when you are nervous or worried about something. There are many different things to do to get your mind off something that is bothering you. For example, watch T.V. or listen to the radio. [60]

What is at issue here is whether the writer is addressing the reader directly or continuing her previous course of using the second person pronoun generally. It appears that the way we choose to read the last sentence of the passage determines which of the interpretations we put on the pronouns. If we choose to take "For example, watch T.V. or listen to the radio" as an imperative, then we must interpret the rest of the passage as directly addressing the reader. In such an interpretation, you and your must be taken as editorial, as if the writer had stepped outside of her exposition to address herself directly to the question of what the reader of her paper should do about tension. On the other hand, if we take the final sentence as a sentence fragment rather than an imperative, we get an indefinite reading of the passage as a whole; it does not address the reader directly. Under this reading, you and
your must be taken as non-editorial and indefinite and could be replaced by one or one's. The fact that there are 10 other second person pronouns in this essay that are clearly non-editorial and general might argue that the three in (60) are also non-editorial. However, when I originally read the essay, I gave the student the benefit of the doubt with regard to the sentence fragment. Consequently, I was forced to interpret the second person pronouns as editorial. The interpretation we finally choose to place on these pronouns is really less important than the fact that that interpretation depends on whether or not there is an imperative present.

Including the three questionable cases just discussed, there are 18 editorial uses of you and your. 5 of these are in questions addressed to the reader, and another 5 are in (or, in the case of those in (60), in the environment of) imperatives. Another case, involving two you's, puts words in the mouth of the reader:

(61) 'You don't really believe that' you say [74] where the second you must be the reader and the first you is intended to be the reader referring to the writer. In 5 of the remaining 6 cases, the pronoun occurs in an idiomatic introductory expression involving the reader's perception: "Mind you" [12], "As you can see" [51], "You see" [63], "I think you'll have to agree" [74] and "As you know" [75].
The final case of editorial you is closely related, involving you in an if-clause dealing with perception:

(62) If you know someone who has done this [70]

Remember that conditional clauses tended to be associated with editorial interpretations of I as well, and present tense verbs of perception also biased us toward editorial interpretations. This case, then, fits well with previous results.

As noted, imperatives must be addressed to someone present in the situation of utterance or assumed present in the situation of writing. Questions apparently come in two varieties: those directly addressed to the reader, and those that are not directly addressed to the reader. The former contain editorial pronouns and the latter non-editorial, indefinite ones. For the moment I will simply note that in the non-editorial, indefinite questions, the second person pronouns could be replaced by a third person indefinite, one or one's, while in the editorial questions, they could not be. The governing principle here seems to be quite general, so I will deal with it below, following the discussion of other relevant cases.

Now let us consider the remaining 11 less clear cases. Seven of these occur in the same essay. The relevant part of that essay is reproduced here:

(63) Spy satellites should also be disinvented. Not
only do they result in nuclear contamination, but they take our privacy away. A spy satellite is now capable of "seeing" an object as small as a softball from its seven hundred mile high vantage point. Thus, if the government wanted to know if you had a Television Earth receiving dish in your field or back yard, it would merely have to check its satellite's photographs.

Listening devices should also be disinvented. These instruments are capable of listening to every word you say in your house from the outside. A beam of light is reflected off a window. This reflection is run through a computer and interpreted into words depending upon how the window was vibrating as a result of voices within the house. Thus, if people wanted to, they could now invade the privacy of your house.

Nuclear fusion should be deinvented. It is dangerous both militarily and non-militarily and could result in the destruction of the world. Spy satellites and listening devices can take away what little privacy you have in the world, and people could use them against you. [19]

As with (60), there seem to be two ways to read (63). In one reading, the you's and your's could all be replaced by one and one's. In this reading, the comments made are not taken by the reader as intimately concerning him or her.
The effect is rather like that created by the use of the non-editorial, indefinite we and our; a group identity of a sort is suggested. Thus,

(64) they could now invade the privacy of your house would have the same effect as:

(65) the oppressors could now invade the privacy of the houses of the oppressed

where the writer expects the reader to consider him- or herself a member of the oppressed.

However, there is another way of reading the same passage. The second person pronouns may be taken editorially, interpreted as pointing directly to the reader of the passage. Under this reading,

(66) they could now invade the privacy of your house has the effect of:

(67) the oppressors could now invade the privacy of your house, reader, and that is why you should believe me when I tell you that listening devices should be disinvented.

If the second person pronouns are taken editorially, the paper is much better. It talks directly to the reader, putting him or her into the world of spy satellites and listening devices.

The remaining 6 possibly editorial cases follow:

(68) For example, if you tape an NFL game and intend
to charge people to watch the game, you can be sent to prison. [51]

(69) If you have a satellite disc you are violating federal blackout laws. [51]

(70) These dinners are usually easy to cook, so if you have a good appetite, you could gain hundreds of pounds. [69]

These cases of you and your, then may be taken either as editorial or as non-editorial, indefinite. Contextual factors affecting the reader's interpretation will be considered as part of section 5.4.4 below.

5.4.2. Non-editorial, definite you and your

There are no cases of a non-editorial, definite second person pronoun corresponding to the two cases among the plural first person pronouns. Keep in mind that the use of such you's and your's would require incorporating one's reader into the universe of discourse. That is, one would not simply be talking to the reader in the situation of writing. Rather, one would be telling the reader something about him- or herself.

Let us imagine for a moment what sort of discourse would force us to interpret you and your definitely. Suppose I am telling you about a dream I had last night that involved you. I might say something like:
(71) You were standing at the top of a hill. Then you ran down the hill and came to where I was standing. You stood there for a moment and then turned and left.

The you's in (71) cannot be taken indefinitely. The passage involves specific actions that could not be performed by someone in general, but rather require a specific subject. We could not replace the you's by one. As noted with both singular and plural first person pronouns, specific, concrete actions bias us toward a non-editorial, specific interpretation of deictic pronouns. Normally speaking, however, we lack the authority to make concrete, specific statements about our addressees because we don't have the necessary information about the addressee's activities. Attempting to make such statements would violate Grice's Maxim of Quality. Even if we do have the necessary knowledge about our addressee's activities, we are telling the addressee something that he or she already knows, thus violating Grice's Maxim of Quantity (Grice 1975).

In (71), I am supposedly recounting a dream. Since it was my dream, I have the necessary authority to make the statements I do. I certainly have access to the information. Furthermore, what I tell you is news to you. You were not actually there, so what I tell you is informative. Similar situations would exist if you were sleepwalking or drunk or in some other state where you were
mobile but not fully conscious. Another possibility for me to make statements to you about your own actions would be if we disagreed about precisely what you had done. Following your account of your actions, I could contradict you, arguing from my authority ("I was there; I saw it") that your account is not correct and that my own is. Or possibly, I may want to confirm to you that I am aware that you have done something. There is no reason for these students to have used non-editorial, definite second person pronouns because the LSU students did not have the necessary information to discuss my life, and the UBC students did not know who their readers would be, though in both cases it is fairly simple for them to talk to me as the reader in the situation of writing.

5.4.3. Non-editorial, indefinite you and your

The striking thing about the non-editorial, indefinite second person pronouns is that all of them are in sentences dealing with matters about which the writer knows nothing in regard to the reader. For example, one writer, noting the advance of automation, predicts:

(72) You will press a button and out pops your food.

The writer, of course, has no way of predicting this, but more importantly, even if such things are possible in the
future, he does not know that his reader will cook in this fashion. In another case, the writer is objecting to smokeless ashtrays:

(73) But what happens when you smoke the cigarette? You blow smoke into the air. [56]

Notice that the first sentence of (73) is what I called earlier a non-editorial, indefinite question. The writer cannot be addressing me personally (or any other reader) since he does not know if I smoke. Yet the question presupposes that I do smoke. The reader does not have the authority to make that presupposition about me (or any other potential reader), so he must, then, be using you indefinitely. Likewise, the answer he provides cannot be referring to me personally, again since I don't smoke. Every one of the non-editorial, indefinite you's and your's occurs in a sentence of that sort.

5.4.4. Contextual factors in interpretation

Now let us consider the pronouns in (63) again. Notice that the second person pronouns all occur in sentences dealing with the hypothetical:

(74) if the government wanted to know if you had a Television Earth receiving dish in your field or back yard

(75) These instruments are capable of listening to
every word you say in your house
(76) if people wanted to, they could now invade the privacy of your house
(77) spy satellites and listening devices can take away what little privacy you have in the world, and people could use them against you.

In none of these cases does the writer risk overstepping his authority by telling you what did happen to you. These are not bare preterite clauses. Rather he discusses what could happen to you. Furthermore, he does not violate the Maxim of Quantity since he is not telling you something you can normally be expected to know, i.e. what did happen to you, but rather something that well might be news: what could happen to you. However, at the same time as avoiding any violation of the bounds of his authority and the Maxim of Quantity, the hypothetical nature of the sentences also allows an indefinite interpretation, where we are being told what could happen to anyone. That is, the writer may be talking directly to his reader, but since his reader could be anyone, the pronoun must also allow an indefinite interpretation. (68-70) above are likewise hypothetical sentences, allowing either interpretation.

It is not entirely clear to me that there is any objective way of determining which of the two possible interpretations, the indefinite or the definite, is the
right one. The reader seems to be at liberty to choose either interpretation. One subjective factor might be the reader's attitude about the writer. If the reader expects the writing to be generally good, it is more likely that he or she will adopt the specific reading of the you's. On the other hand, if the reader expects the essay to be boring and mindless, it is likely that he or she will adopt the general and less favorable reading of the you's. A second possible subjective influence on interpretation is the degree to which the reader believes that the problem described in the essay really affects him or her. If someone does feel threatened by the invasion of privacy, then he or she is more likely to read the pronouns specifically, taking these comments as a personal warning. On the other hand, someone who does not take such concerns seriously is less likely to read you as meaning him or her personally, instead taking the pronouns to mean people in general. The same seems to hold for (68-70).

What seems to be at issue in determining whether these unspecified second person pronouns are editorial or non-editorial, indefinite is a question of the degree to which the reader is able to identify with the claim made or the action predicated. If the reader does identify with the claim made in the sentence, then he or she will be more likely to interpret you editorially, as including him- or
herself. The question of the writer's authority, or how much he or she really knows and can say about the reader, seems to be the related factor in determining whether second person pronouns are editorial or non-editorial, indefinite. Perhaps because the writers in this study knew very little about their potential readers, many of them were unable to make claims that their readers were likely to identify closely with. This lack of knowledge about their readers also seems to explain why there are no cases of non-editorial, definite second person pronouns among the 75 essays. Both the question of the reader's attitude toward the piece of writing and that of the writer's knowledge about the reader are extra-linguistic factors.

Another factor has to do with speech acts. Orders and questions bias readers toward editorial interpretations unless the presuppositions of the question are beyond the writer's authority to make about any potential reader, or, alternately, are such that a potential reader could not identify with them. Also, timeless conditional sentences containing you and your act like those containing first person pronouns, biasing us toward editorial interpretations. Finally, verbs of perception also bias readers toward editorial interpretations.
5.5. Summary

Although all first and second person pronouns are deictic, there are variations in the interpretation of individual cases. In general, but especially for first person singular pronouns, the expression of specific time, either through tense or adverbial modification is associated with non-editorial, definite interpretations of first person pronouns. We should not be surprised at this fact if non-editorial, definite pronouns are really cases of universe of discourse deixis while non-editorial, indefinite ones are cases of attitudinal deixis and editorial ones are cases of situation of writing deixis. The specification of time would be expected to help locate the pronoun in the spatio-temporal field of the universe of discourse. Other factors of interest are the association between nouns and verbs of psychological state and editorial interpretation of singular first person pronouns.

The major factor in the interpretation of first person plural pronouns is the degree to which the reader identifies with the writer. If the identification is very strong, excluding all non-addressees, then the pronoun is interpreted as editorial. If the identification is absent or very weak, where the reader is unlikely to include him-or herself as part of a group including the writer, the pronoun is interpreted as non-editorial, definite.
Otherwise, i.e. if the reader can identify with the writer, but not so strongly as to exclude all others, we is interpreted as non-editorial, indefinite. Also of note with regard to we are the strong correspondences between editorial and restricted inclusive plural first person pronouns; between non-editorial, definite and exclusive ones; and between non-editorial, indefinite and unrestricted inclusive ones.

The major factor in the interpretation of you and your as either editorial or non-editorial, indefinite seems to be the degree to which the reader is able or willing to identify with the claim made or the action predicated. A weak identification biases the interpretation toward the non-editorial, indefinite, while a strong identification biases the interpretation toward the editorial. Looked at from the point of view of the writer, this factor can be stated as a matter of the writer's authority to make statements about the reader. That is, the writer can only use you or your editorially if he or she has the necessary knowledge about his or her reader and has reason to believe that telling the reader something about him- or herself (i.e. the reader) will be informative. This factor overrides sentence-level factors such as the expression of definite time or definite action.
Notes

1. This last point may be taken to argue that these editorial pronouns may be related to textual deixis, anaphora, and so on. Textual deixis uses a point in the text as its center of orientation and points elsewhere within the text. The text itself, like the writer, is a necessary part of the situation of writing. Consequently, textual deixis would seem to be a type of editorial deixis.

2. The loss of the subjunctive and the inadequacy of the past tense to capture conditionality may explain the growing tendency even among otherwise standard speakers to use the conditional in if-clauses: "If I would've seen the car, I wouldn't've stepped in front of it."

3. Notice that this sentence is grammatically in the present tense even though its aspect causes it to refer to past time.

4. This requirement seems to be relaxed somewhat in the case of married or otherwise committed couples. I can, for instance, say to my friend Gene, "Why don't we play bridge tonight?", and he will understand by that that both his wife and mine are included in the invitation since our playing bridge together is not an unusual occurrence. Given the circumstances, it would be odd for him to reply, "Sure, who with?"

5. Likewise, it is useless for me to tell my child to clean up his room if he is not present, i.e. not part of the situation of utterance, and if I tell him to do so in the presence of a sibling, the instruction still applies only to the child I actually addressed.

6. In fact, all first person pronouns may be identified by these two features. They may be inclusive or exclusive and restricted or unrestricted. Inclusive restricted ones refer to the speaker and addressees only and correspond to the editorial sort discussed here. Inclusive unrestricted ones refer to the speaker, addressee and others who may or may not be present in the situation of utterance. These correspond to the non-editorial, indefinite sort to be discussed below. The exclusive unrestricted ones refer to the speaker and others who may or may not be present in the situation of utterance, but do not refer to the addressee. These correspond to the non-editorial, definite pronouns.
discussed below. Finally, if a first person pronoun is exclusive (excluding the addressee) and restricted (excluding others whether present or not), it refers to the speaker alone, and consequently corresponds to I.

7. My thanks to S. Kundu for this insight.
Chapter 6
Conclusions

6.1. Overview

In this conclusion, I will summarize what I have said about contextual effects on the deictic and non-deictic interpretation of NP's and suggest directions for further research.

6.2. General comments on PDNP's

In order to analyze the contextual factors in deictic and non-deictic interpretation, it is necessary to develop a more detailed analysis of PDNP-types than has been available. PDNP's may relate to the universe of discourse, helping to build it or drawing the reader's attention to aspects of it, or they may relate to the situation of writing, helping to guide the reader's attention around the text. These NP's occasionally have another aspect, an attitudinal one, which indicates some aspect of the writer's attitude toward his subject matter. Finally, there are a few PDNP's that do not do any of these things: idiom chunks, quantificational phrases, and errors.
The results of this study indicate that a number of aspects of context may affect the deictic and non-deictic interpretation of NP's. Some contextual factors can be described with reference only to the sentence in which the NP in question occurs. Other factors require reference to the text beyond the sentence. Still other factors require reference to the reader's knowledge of the world beyond the text. Let us consider each type of PDNP briefly.

6.2.1. Proper names

The major factor in the interpretation of proper names as either deictic or non-deictic is an extra-linguistic one, the cognitive presence condition. The condition is satisfied if a referent is available in the spatio-temporal field of the universe of discourse. Proper names are interpreted deictically if this condition is satisfied and interpreted non-deictically if it is not satisfied. Other conditions are less important, but nevertheless can affect interpretation. A second extra-linguistic condition is that a proper name is easier to interpret non-deictically when the activity predicated about it is one that would be commonly associated with the name. Our judgment of how commonly a name and an activity might be associated depends, of course, on our knowledge of the world. A discourse condition is that proper names are easier to interpret
deictically when we are given a great deal of detail about the activities predicated of them. Finally, a sentence-level condition is that it is easier to interpret a proper name deictically when a definite activity is predicated of it.

Almost all of the proper names are interpreted deictically. The most important condition on deictic interpretation is the cognitive presence condition. If it is violated intentionally, and other conditions favor a non-deictic interpretation, we get a non-deictic, indefinite proper name. If, on the other hand, it is violated unintentionally, and the other conditions favor a deictic reading, we get a case of failed deixis. That is, the proper name should be deictic but isn't.

6.2.2. Definite NP's

Definite NP's are more complex in terms of deictic and non-deictic interpretation than proper names because there are a number of different interpretations possible. Definite NP's may be concerned with the situation of writing or the universe of discourse or neither of those. Furthermore, emotional deixis may be overlaid on other interpretations.

Situation of writing NP's, specifically intratextual NP's, are differentiated from universe of discourse NP's by
two factors. The first, a formal factor, is that such NP's tend to be more specific than other definite NP's. The second, a contextual factor, is that such NP's always have available an antecedent of some kind. Both these conditions must be in effect for an NP to be interpreted intratextually. Types of intratextual NP's are differentiated from each other by the type of antecedent they have. Anaphoric NP's have other NP's as antecedents. Cases of textual deixis have chunks of the written text as antecedents. Cases of impure textual deixis have pieces of propositional information as antecedents. Editorial NP's have chunks of the unwritten text as antecedents.

Universe of discourse NP's may be distinguished from intratextual ones by not both being more specific and having an antecedent. Generic and descriptive NP's are distinguished from each other formally. Generic NP's are always singular and always have a definite article in first position, while descriptive NP's apparently never satisfy both conditions. Deictic NP's are distinguished from both generic and descriptive NP's by the operation of the cognitive presence condition. Again, this is an extra-linguistic condition.

Other conditions do not seem to apply. For instance, although there is a tendency for deictic NP's to cluster together in a text, that is, for one text or portion of text
to contain a large number of deictic NP's and another text or portion of text to contain only a few deictic NP's, deictic NP's and generic and descriptive NP's are also frequently quite evenly mixed in texts. Furthermore, although the predication of definite actions and the expression of definite time are both factors associated with universe of discourse deixis among other NP-types, such factors apparently have no effect on the interpretation of these definite NP's.

6.2.3. Third person pronouns

Virtually all third person pronouns are anaphoric in these essays. Those pronouns with clear antecedent NP's are deictic if their antecedent refers to or introduces an element in the universe of discourse. Those pronouns without antecedent NP's have specific functions depending on their type. Plurals without antecedents indicate some type of group identification (or, more accurately, group non-identification), an aspect of attitudinal deixis. Impersonals without antecedents are dummy slot fillers having no semantic content. Demonstrative pronouns without antecedent NP's are cases of impure textual deixis. The presence or absence of an antecedent is a discourse factor.
6.2.4. First person singular pronouns

Sentence-level factors are very important in the interpretation of these pronouns. In particular, non-editorial, definite interpretations of first person singular pronouns (i.e. cases of universe of discourse deixis) are strongly associated with the expression of definite time in the sentence. Bare preterites (i.e. preterite verbs in main clauses with no modal) and verbs (including modals) expressing future time are always associated with such interpretations. Expression of time can also come from adverbial phrases, and adverbs of time are regularly associated with non-editorial, definite interpretations. The editorial interpretations are associated with the non-expression of time. Furthermore, verbs of psychological state and verbs of stating are strongly associated with editorial interpretations.

6.2.5. First person plural pronouns

There are three interpretations of plural first person pronouns: editorial; non-editorial, indefinite; and non-editorial, definite. The major factor in interpretation is the degree to which the reader identifies with the writer. If the identification of the reader with the writer is so strong that it excludes all non-addressees, then the pronoun is interpreted editorially. If the reader does not identify
with the writer at all or identifies very weakly, \textit{we} is interpreted as non-editorial, definite. If the reader identifies with the writer fairly strongly, but not to the exclusion of all non-addressees, then \textit{we} is non-editorial, indefinite.

6.2.6. Second person pronouns

Only the editorial and the non-editorial, indefinite \textit{you} are represented in these essays. The major factor in the interpretation of these pronouns is the degree to which the reader is willing to identify with the claim being made or the action being predicated. If the reader is willing to identify strongly, then \textit{you} is editorial. If the reader is not willing to identify strongly, then \textit{you} is non-editorial, indefinite. Non-editorial, definite \textit{you}'s apparently do not occur because writers in this study do not know enough about their readers to incorporate them into the universe of discourse.

6.2.7. Summary of results

The major factor in interpretation of third person NP's as deictic to the universe of discourse is the cognitive presence condition. If the condition is not satisfied, a particular NP is non-deictic; if it is satisfied, then the NP is deictic. This condition is apparently always
satisfied in the case of first and second person pronouns. Sentence level factors such as the expression of a definite action and the expression of definite time tend to encourage universe of discourse deictic interpretations. At the discourse level, the presence or absence of an antecedent and the type of antecedent determine the function of third person pronouns, and the deictic or non-deictic status of anaphoric pronouns and anaphoric definite NP's is entirely determined by whether or not the the antecedent refers to or introduces an element in the spatio-temporal field of the universe of discourse.

Another particularly interesting result is the degree to which plural first and third person pronouns and all second person pronouns depend for interpretation on the degree to which the reader is willing to identify with the group an action is predicated of or the action being predicated. This sort of information is clearly pragmatic. Yet it is required for what would normally be thought of as semantic interpretation. If the intrusion of pragmatic information into what we normally consider semantic interpretation is widespread, as I believe it is, then we will need to reevaluate distinctions between pragmatics and semantics.
6.3. Future research

The results of this study suggest numerous interesting and profitable avenues for future research. Although the amount of work done on deixis has grown tremendously in the last several years, the theory is still underdeveloped. Specifically, the area I introduce in this dissertation has not been approached at all previously.

6.3.1. Variations in data

Perhaps the most obvious way to proceed in deepening our understanding of contextual effects on the deictic and non-deictic interpretation of NP's is to apply a similar methodology to that presented here to a variety of different types of texts.

The first option that springs to mind is to look at the operation of deixis in spontaneous conversation. As noted, in the data I looked at, the universe of discourse and the situation of writing were quite obviously distinct from each other. However, in the Canonical Situation of Utterance, which is most closely approached by spontaneous conversation, the universe of discourse and the situation of utterance are one and the same. I expect that analysis of spoken conversation would give us greater insight into the effects of context on deictic interpretation of third person pronouns.
A second option is to test the categories and conclusions presented here on other languages. I would expect that the operation of deixis and the effects of context on the interpretation on deictic and non-deictic NP's would be fairly constant across languages since both the categories and the apparent effects of context seem to be functionally based. It may turn out, however, that languages operate quite differently in these regards.

A third option is to apply this methodology to various modes of discourse. The essays I considered were expository and argumentative. It would be instructive to look at differing effects of context on deictic interpretation in these two modes and narratives and descriptions comparatively. In particular, I suspect that narratives and descriptions would contain more references to definite time than expositions and arguments. If that proves to be the case, one could then test to see whether the greater number of definite time references affected the number of deictic references to the universe of discourse.

A fourth option would be to look at the operation of deixis in fictional texts. In particular, the introduction of proper names into short stories seems abrupt by the standards of non-fictional writing. That is, I can begin talking about John in the first sentence of a story without any description of him at all. However, when one of the
students refers to Miss Jones without any previous preparation, the name fails to point. In non-fiction, we appear to expect names to be fully interpretable from the first mention. In fiction, however, we are willing to accept a sort of rain check; we are willing to provisionally interpret a name pending further details.

A fifth option is to broaden the scope of the methodology to determine whether potentially deictic terms in other grammatical categories show the same sort of variation as do PDNP’s and, if so, what sort of contextual factors affect their interpretation. Options one to four would then be available using the broadened methodology.

6.3.2. Specific studies of PDNP-types

In order to approach the question of contextual effects on deictic interpretation in written texts, I have had to develop categories to account for the varying interpretations. These categories, especially in the definite NP’s and the first and second person pronouns, seem to me to be another area for future research.

In particular, the relationship between the various interpretations of we and the inclusive/exclusive and restricted/unrestricted distinctions is one that has not been considered previously. Furthermore, these interpretations and distinctions are likely to have some
relation to speech acts. As noted in section 4.3, orders and suggestions tend to require inclusive, restricted *we* while statements allow greater variation. In the same vein, the interrelation between the use of *you* and Grice's Maxims has only been touched on here and could be explored much more deeply in the future. Further, the dependence of interpretation of *we* and *you* on reader attitude and the further dependence of interpretation of *you* on writer authority need to be explored much more deeply as does the significance of that dependence for semantic theory generally.

6.3.3. Applied studies

This work on deixis would seem to be applicable to various tasks. I am most interested in the application of linguistics to composition theory. I have already applied the theory of deixis to the question of what constitutes coherent writing, and I have suggested a method of encouraging students to use more deictic NP's in their writing. By applying the system of categories developed here and by looking at the contextual effects on deictic and non-deictic interpretation of NP's in various modes of writing, we can further investigate the fiber of student writing as a prelude to improving our teaching of it.

Another area of application is the teaching of English
as a second language. In chapter 2, I noted a couple of applications of this type; however, there appears to be little in the literature on deixis directly applicable to the difficulties with the manipulation and interpretation of potentially deictic terms that may be encountered by second language learners.

6.4. Summary

In this dissertation, I have indicated certain ways context affects our interpretation of potentially deictic NP's. In order to approach the question of contextual effects, it was necessary to develop categories of deictic NP's more rigorously than has been done previously. The use of written, running prose as data has provided particularly interesting results on first and second person pronouns. To balance this advantage, it seems likely that the results regarding third person pronouns would have been more interesting had I used data from spontaneous conversations.

The results indicate that there is an interrelation between the expression of time in clauses and the interpretation of some NP's. Furthermore, semantic class of verb may affect NP interpretation. Reader attitudes toward subject matter apparently also enter into NP interpretation. Finally, world knowledge is crucial for NP interpretation. These results suggest that various factors, including some
pragmatic ones, are involved in semantic interpretation of linguistic output.

This study has provided preliminary results on the question of how readers are able to interpret terms that may or may not be deictic. The results themselves and the categories developed open up a large area for future exploration.
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Our society today is geared around invention, and thousands are constantly waiting for scientists to invent new objects. Most of these objects are very helpful to our society and has been used every day. These helpful objects include televisions, radios, and refrigerators. Many people use these objects in their everyday life and some may think that they can't survive without them. Although the scientists have invented positive objects, it is not clear that all inventions have been positive. An object I would like to see disinvented is guns because it is the most dangerous object that has ever been invented. Many people use guns to protect themselves from murders, and thieves, and for hunting.

First, in today's society people must learn how to protect themselves without using guns. They can use other objects that are not as dangerous. Many innocent lives have been taken by using guns because guns are not used when they are supposed to be used. For example, Miss Jones states in an article that she was watching television late one night and she said she suddenly heard someone turning the door nob
to her front door. She said she didn't know what to do so she ran to her drawer and grabbed her gun. She said when she turned around the door was open with a man with a mask on. She said she just shot him because she thought it was a thief or murderer. Unfortunately, it was her husband trying to scare her because it was Halloween night. This event leads me to think that guns are totally unnecessary because many people do not know when to use them.

Secondly, people use guns for hunting. I think people shouldn't kill animals because they are innocent victims who deserve a fair chance in life. People are constantly killing animals, but animals play an important role in today's society. Many people love dogs and cats, but some even kill dogs and cats then eat the animals for dinner. The killing of innocent animals lead me to believe that guns are totally unnecessary.

It is true that scientists have made great inventions such as televisions, radios, and refrigerators, and these inventions are truly helpful to our society. But the invention of guns is not a very positive invention. It has cost thousands of innocent lives. Guns should be disinvented because it is by far the most dangerous object that has ever been invented.
Since its invention, television has become the center of many lives. Although television does serve a good purpose, it is often abused. There are other ways that people can get the information they need such as the newspaper or by radio. In my opinion, television is one thing that we can do without.

Today more than ever, the T.V. set has become a baby sitter for many of our children. Parents often leave their children home alone to watch T.V. A major problem is that kids are watching programs that are unsuitable for their age level. Parent's failure to screen the programs their children watch can have bad effects on their children later on in life.

Television also tends to make us less creative and unwilling to do other things besides sit all day glued to the television set. When children should be outside playing games and enjoying the outdoors, they are often inside watching their favorite television show. Schoolwork often suffers because kids don't want to study and do their homework because they are scared they will miss something. Television also takes away from the family as a unit. Today most people's idea of a family gathering is sitting around the T.V. without saying two words to each other.

I grew up in a household that only had one T.V.
Although we were allowed to watch it, the programs that we were allowed to watch were screened by our parents. After watching a program, my parents discussed the things that I did not understand. However, since the majority of viewers abuse the T.V. set, it is one invention that I wish could be "disinvented".
Today, in the technologically advancing world, many scientific discoveries are not always positive. In fact, in my opinion, a few inventions should have been "disinvented". I consider television and computers to be the leading inventions that should have never existed.

Television is the worst invention. I have derived my opinion on T.V. from personal experience. As a child, I loved to sit in front of the television. My mother and father allowed me to do so, and I figured it was the best thing I could do. When my friends would come over to ask if I wanted to play basketball or ride bikes, I would say no and watch T.V. instead. Not to mention, I would eat salty chips and drink soda while doing so. Needless to say, I was a very fat and unhealthy child. I lacked the exercise my friends got and now I see I lacked the fun and adventure as well. Television is bad when it comes to violence and sex, too. As a child I was exposed to sex and violence in the movies I watched. Most of the sex scenes were irrelevant to the movie, too, and the violence was way too extreme. Broadcasting channels say that they play these movies at night, and with parental guidance, this shouldn't be any problem. However, "at night" to them is seven or eight o'clock and my bedtime as a child, and many of my friends' as well, was ten o'clock. So I, the T.V. freak, was exposed
to approximately three or four hours of violence and sex at night. This is quite evident as something not very healthy to a young person, and wasn't for me.

Computers are another invention that I wish wouldn't have come around. People, when using computers like adding machines, do not use their basic math skills. Relying on computers is bad because you are not using your brain and are losing sharpness in certain areas. Once I was taking a physics test and forgot my calculator. So very used to using it, I made careless errors on addition and multiplication problems and made a D on a test I should of made an A on (and would of if I'd had my calculator). Another bad experience I had with computers is when my friend lost her job to an answering machine. She worked at a movie theatre as the operator, and they laid her off because they bought an answering machine that could do her job and cost the company a whole lot less, too. Scientists say one day computers may take over the world. I believe them!

Today there are many positive discoveries that can help man. But when a discovery proves to hurt man or jeopardize his intelligence and jobs, I consider it to be a nuisance. Television and computers do just this, and society should have never let them exist.
Our world has advanced from a state of simplicity to one filled with mind-boggling inventions. There are thousands of inventions that have made life more fun and desirable. From the Cabbage Patch doll to major discoveries such as organ transplants, we have all opened our eyes and have seen how lucky we are to be living in a world of advanced technology. But as always, with the good there comes the bad. There are several inventions that people would like to see "disinvented".

One invention that some would like to see "disinvented" is the television. People are watching more and more television each year. This has greatly decreased the amount of physical activity in people's lives. We spend so much time eating and watching T.V. that family Sundays in the park have almost been taken over by football games on Sunday afternoons. The lack of physical activity is also a growing health hazard. People are suffering from heart attacks and strokes every day. If we were more health conscious than "T.V. conscious", many of us would be happier and live longer.

Another reason why people would like to get rid of T.V. is because of the violence and poor choice of material in the shows. Children are doing less school work and watching more T.V. They see the violence and sleazy programs and
this has an effect on their development. Some children see
the guns and killings and are fascinated by it. This causes
them to become curious and accidents could happen. A child
could somehow get hold of a gun or a knife and "play" war
with his brother or sister. This is disastrous and T.V.
abolishment here is a good idea.

Another example of a product that needs to be
"disinvented" is cigarettes. They do nothing except destroy
lives. It has been proven that cigarette smoking causes
lung cancer and people still smoke. Personally, I could
never understand this. Not only are they killing
themselves, but they are hurting others. The smoke from
cigarettes give others headaches, red eyes, and it also
pollutes the air. Only negative products come from smoking,
so naturally it should be disinvented.

We have been blessed with a life of technology and
scientific breakthrough of many problems. Many inventions
have saved lives but some are destroying us everyday. Life
is too precious and short to be thrown away. Next time you
decide not to exercise because of a good T.V. show or buy a
pack of cigarettes, think twice. Is it worth it?
In the eighties, steroids have quickly become the "in" drug with people in America. When I say drug, I don't mean illegal drugs; I mean drugs in general. It's not illegal in most states, and it is not addictive. Many people take steroids nowadays, but this paper will be concentrating on the use in highschools.

When a person thinks of steroids, they think of bodybuilders or all the jokes about East German Olympic teams, mostly the women. But today we have been faced with kids using them and not knowing the drawbacks. Teenagers in athletics (some of) who want to go on to a professional level are faced with talk that they must take them to be competitive. As of now the Collegiate level of football does not allow use of steroids. Therefore many of the athletes who had continued to take them after highschool get caught and are banned from games and sometimes even suspended for a year.

Steroids is a drug which when also accompanied with a followed schedule of proper foods and use of weights can help build muscles quite rapidly. It is taken through pill-form or needle. The needle is more often used because you inject it where you need it.

Steroids put water in the muscles which makes more mass in the area, but only lasts as long as the person works out,
which is not the only drawback to steroids; there are many others. For instance, a few people have died from too much use of them. Steroids shrink the veins in which the blood flows from the heart. Also, after prolonged use of steroids, deformities may arise in the body such as enlarged wrists, humped back, and face (bone structure).

Therefore, evidence arises that use of steroids at early or growing stages in life have been blamed for causing deformities in the body and heart problems in the latter part of that user's life. And after stopping the use of steroids, the person's body turns to flab, so they also look stupid.
One of the newest yet most absurd inventions is that of colored contacts. Many people these days are turning to this new way of having their eyes a color that they have perhaps always dreamed of having and it is ridiculous.

First of all someone born with brown eyes may think that they are just very plain and not very appealing. Therefore they purchase a pair of neon green to fulfill their fantasy of having beautiful eyes. But what they don’t know is that these new green contacts make their eyes look incredibly false and almost plastic. One day your friend has blue eyes as they have been all of her life, and the next day she has green. This is so unnatural and synthetic looking.

There is no reason why people should change the color of the eyes they were born with. Eyes are eyes, and (there) is no reason why people should alter their faces by disguising something that’s perfectly natural with something that’s utterly not.

Another invention that has been around quite a bit longer than colored contacts are products which allow someone to change the color of their hair. This, like colored contacts, also gives a fake appearance to someone.

People sometimes dye their hair from jet black to bleach blond. If you know someone who has ever done this,
they probably don't come off as the most practical person. God gave us each hair that he intended us to have for the rest of our lives not to completely cover up by dying it or changing the color.

Women who are "coming of age" and are beginning to get grey hair often don't like to reveal their age and believe that the grey hair does. Therefore they cover it up by re-coloring it. Grey hair is very natural and in most cases it's attractive. Women who are seen as older are often considered by others to be wiser, but if they are not themselves in appearance then maybe not so wise.

Although most modern inventions have made many great advances in technology, there are those which we could do without. Colored hair and contacts are among the few that bring out the true insecurities in people. Perhaps it gives people something to fall back on when they are not satisfied with themselves, but it will only get them so far. The rest has to come from inside.
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"Private Worlds of Basic Writers." Educational Resources Information Center Document 263 584 (April 1986). 8 pp. (First author, with Paul Hoffman.)


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CONFERENCE PAPERS

"Teaching Coherence." Louisiana Association of Language Arts, October 1986, Baton Rouge.

"Pragmatic Information in many and few." Linguistics Association of the Southwest, October 1985, Houston.

"Coherence, Cohesion, and Deixis." Conference on College Composition and Communication, March 1984, New York.

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