

ON THE INTERACTION OF LINGUISTIC TEXTS
AND HUMAN KNOWLEDGE

by

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To Eleni,
with love

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ABSTRACT

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This study examines some aspects of the interaction of linguistic texts and human knowledge. The quest for greater context in linguistics suggests the focus of this study, viz., the effect of a text on the knowledge of its receiver. A practical problem arises in a study of this sort, however, viz., how should knowledge be represented so that the effects a text has on it can be identified and analyzed? One of the notions employed in the field of artificial intelligence, i.e., the notion of frames, is applied to the problem. In essence, then, this study shows the possible relationships between texts and knowledge as represented in frames.

This study makes contributions to two related fields: textlinguistics and

ESL/EFL reading methodology. For the field of textlinguistics this study offers a feasible approach to text analysis that takes interaction with human knowledge into account. The approach presented here is one that seeks to identify sections of a text which participate in one of six text-frame relationships proposed. Further, the instances of text-knowledge interaction are shown to support the linguistic structure of a text. A detailed analysis of an English short story and less detailed analyses of shorter texts are presented and the claims of this study are demonstrated.

This study also offers an ESL/EFL methodology for teaching the reading of texts that contain difficult background knowledge. The reasons for the difficulty are explored and suggested solutions current in the field are reviewed and evaluated. The methodology presented is built upon the types of text-knowledge interaction discussed in this study. The reading teacher is advised to look for text-knowledge relationships in the text to be presented and to determine their relevancy to reading comprehension. Important knowledge structures, as well as less important ones occurring in the structurally significant places in the text, should be pre-taught. Examples are provided to help clarify the suggested method.

This study ends with some philosophical considerations on a few points raised in the preceding chapters. Specifically, questions concerning authorial intention and concerning language and the mind are considered.

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CHAPTER ONE

THE LINGUISTIC DOMAIN

1.0 Introduction

Consider the following short and incomplete text:

I went to my favorite restaurant last night. While paying the bill, . . .

I believe that most readers will agree that this text segment is coherent and lacks only a completion. What is presented consists of one complete and one incomplete sentence, and the whole sentence and the fraction are analyzable, to an extent, independently of each other, yet there is obviously something holding them together. It is not, however, syntax, even syntax at a text level, that provides the bond between them. In a vague sense, it may be "lexical cohesion" between "the bill" and "restaurant" that binds the two (cf. Halliday and Hasan 1976). This is no doubt very close to what most readers intuitively feel about the relationship between the two and very close to the truth of the matter. But "bill" and "restaurant" are by no means synonymous, nor do most people consider "bill" a necessary component in the meaning of "restaurant" or vice versa. We would agree, however, that bills and restaurants go together, that there is a link somehow in our system of knowledge between these two. Thus, the coherence of this text segment depends upon our knowledge rather than upon what resides in the text independent of our knowledge (e.g., syntax).

This text, though brief, points to a type of coherence that relies solely on the interaction between a text and a text receiver's knowledge. Upon closer examination of all texts, we find that this type of coherence exists to some extent in them all. This

study focuses on this type of coherence, which I will call "text-knowledge interaction." My examination of this matter involves, of course, texts and knowledge, that is, a linguistic entity and what many consider an entity not purely linguistic. As would be expected, the collocation of these two topics is not without some problems; therefore, the first two chapters deal with each independently in the hope that a link between the two can be successfully and profitably forged. In this first chapter I will delineate the domain of linguistics for the purposes of this study. The section immediately following this one will take up an issue of importance to the scientist in general, but particularly to the linguist: science as a descriptive tool versus science as an explanatory tool. Then in section 1.2 I will go on to discuss some of the knottier problems of delineating the domain of linguistics so as to provide a basis for this study.

1.1 Description versus Explanation

Linguistics has focused on human language, either as an outward human behavior or as an inner mental system, as its domain from its inception. In seeking to record outward behavior, the field can be said to be a descriptive one; in seeking to comprehend inner system, it can be called an explanatory one. Noam Chomsky is often singled out for making a descriptive/explanatory distinction with regard to syntactical theories (1964), but the distinction had been employed long before Chomsky in other areas of linguistics. As early as 1875, William Dwight Whitney, in a volume that soon served as a sort of prolegomenon to the new science of linguistics, made the distinction between a descriptive approach to language study and an explanatory one:

Comparative philology and linguistic science, we may say, are two sides of the same study: the former deals primarily with the individual facts of a certain body of languages, classifying them, tracing out their relations, and arriving at the conclusions they suggest; the latter makes

the laws and general principles of speech its main subject, and uses particular facts rather as illustrations. (Whitney 1875:315)

As Whitney points out, linguistics can, on the one hand, seek to describe the phenomena found in specimens of language, and on the other hand, can attempt to explain those phenomena based upon "rules and general principles."¹ These notions have been in linguistics almost from its start as a modern science. But it was Chomsky (1964) who made explanation a necessary requirement of modern linguistic theories. Since then a return to seeing linguistics as mere description of the data has been virtually impossible and attempts to do so may be viewed as regressions in the progress of the science.

But explanation must have its basis. The "rules and general principles," the items of what we can call "explanatory linguistics," must depend upon a mass of descriptive facts. And obviously the greater the mass of descriptive facts, the more certain the explanation. So then, we derive two pressing requirements for linguistics: that explanation be its goal and that adequate description be the basis of that explanation.

In view of these developments, this study will attempt to provide an explanatory theory of certain text phenomena. The phenomena under scrutiny here are ones that may be considered non-linguistic by those who delimit linguistics narrowly. In the past the text, as the largest unit of language, has been examined primarily from the point of view of its internal structure (e.g., Longacre 1983), though some researchers have given recent attention to its relation to other non-linguistic allied fields such as pragmatics (van Dijk 1977), psychology (e.g., Kintsch 1984), psychoanalysis, sociology, and medicine.² Worthy of particular notice, however, is the concern for the text in the field of artificial intelligence. This concern is proving to be a bridge between the fields of linguistics and artificial intelligence (AI) which provides

benefit to both. The domain of common interest is that of knowledge structures. For the AI researcher, the issue of knowledge structure is central to any task attempted in his work: vision, problem-solving, natural language comprehension, and so on. For the linguist, knowledge structure has usually been relegated to the fields beyond linguistics. Normally, it has not been viewed as being a central concern to the correct operation of linguistic science. But with the text, that is, with the largest unit of language, linguistics comes to the boundary of its domain. And it being the boundary, we shall certainly find, in the text, phenomena that point toward what lies beyond. I contend that unless we understand these phenomena as well, we do not fully understand the text as a linguistic unit. This study is directed at these phenomena.

1.2 Linguistics: A Quest for Greater Context

The history of linguistics can be viewed as an attempt to explain constantly enlarging linguistic units via recourse to constantly expanding contexts. The early work of Jakob Grimm (1822), considered to be the beginning of modern linguistics, and its later extensions, focused on sound changes in Indo-European languages and offered considerable explanatory power. It did have exceptions however, and these exceptions were not resolved until Karl Verner (1875) appealed to the larger context of the word with its syllable accent. From that time to around 1925, linguistics was primarily a science concerned with the description of sounds within the context of words.³ With the work of Ferdinand de Saussure (1922), Edward Sapir (1921, 1925), and especially Leonard Bloomfield (1933), a turn toward the explanation of data was made and structural linguistics as was current up until around the early 1960's came into being. This new turn can be characterized as a new view of language, a new emphasis in focus. Where formerly linguistics had been word-centered, with the structuralists it became structure-centered, that is, it adopted the construction of words, the

construction of phrases, and the construction of clauses as its new objects of study (Fries 1962:64).

This turn also facilitated the drive for larger contexts. Language being hierarchically structured, words were part of phrases and recourse to phrases would help to explain the structure of words; phrases were constituents of clauses and an examination of the clause would shed light upon the phrase; and so on upward to the sentence. With the work of Chomsky (1957, 1965), the sentence became the central unit of linguistics, and it was thought by many that the boundary of the field had been reached.

Throughout the years of this development, it was clear that progress always fell within the domain of linguistics. Each appeal to a larger context was an appeal to consideration of yet another linguistic unit, though a previously unexplored one. The study of sounds was not endangered by an examination of the word, nor was the study of words by the examination of the phrase unit, and so on. Chomsky's work was not viewed as a wild expansion of the boundaries of linguistics, but as a necessary progression within the domain of the field.

But soon after Chomsky's notions became current, again the urge for greater context pressed upon linguistics. Language beyond the sentence was called upon as an explanation for what occurred within the sentence.⁴ But such appeals to super-sentential language raise doubts about the proper domain of linguistics. Should concern for language beyond the sentence be a concern of the linguist? Is it not better the object of, e.g., the rhetorician's study? As would be expected, dissension in the linguistic ranks set in and not only were there now various "political parties" of grammatical theorists, but also various "nations" of linguistic concerns.⁵ The situation grew bleaker for the unity of linguistics when the text was hailed as the final unit of

language, "the final frontier." Various fields sprang up that made the text their concern, discourse analysis, or textlinguistics, being the most notable.

The sources of tension in linguistics mentioned above stem from varying notions about the extent of data to be accounted for by linguists. Obviously, there is language beyond the sentence, there are paragraphs, and discourses, both monolog and repartee, and texts in the real world that surrounds us. The issue is not whether texts exist merely, but rather whether they exist as linguistic units in the system of language and thus require the theoretical linguist's attention. The issue resides within the confines of what any common sense observer would say is human language. But once one accepts that the text is a genuine linguistic unit worthy of a linguist's scrutiny and after one advances somewhat down the road of research supported by this notion, the same urge for greater context begins to emerge again. Yet, now it does have language to appeal to for explanations as the phonemicists had the word, and the lexemicists had the phrase, and so on. The text includes all that language can do; it is no constituent of some larger language unit. Beyond it there is no recourse to be had in language. So, the urge for greater context drives us eventually outside of language and to some, by definition, outside of linguistics.

Charles Fillmore has very ably described the conflict in his paper "Boundaries and Components of Linguistics" (Fillmore 1984:86-88). In it he shows that sentences like "Jimmy's stories amused the doorknob" have had various explanations to account first, for their oddity and then, for their interpretability. He points out that first the early generativists claimed that the oddity was accounted for by the syntactic component of language via syntactic marking on the verb "amuse" which called for animate objects, and that a possible interpretation of it in spite of its oddity came from an auxiliary theory, not linguistic per se, that assigned meaning to aberrant

sentences.⁶ A second solution recorded by Fillmore finds the sentence impeccable syntactically, but aberrant semantically by virtue of a co-restrictional rule that disallows non-animate object arguments with the predicate "amuse." The interpretability could derive from either a semantic component that assigns meaning to aberrant sentences or to a non-linguistic theory that does so. In the former case both the oddity and the interpretability are handled by linguistic systems, i.e., semantic ones; in the latter, only the oddity is handled by the semantics, while the interpretability becomes a non-linguistic concern. A third and final solution views the sentence as being impeccable both syntactically and semantically, "and that its oddity consists entirely in our belief that anybody who could say this sentence in good faith must have a picture of the world that differs from our own in certain fairly interesting ways" (1984:87). This solution puts the problem outside the domain of linguistics. Fillmore summarizes the progression in this way:

First we thought the bizarreness judgement was to be explained by the syntax. Then we turned it over to the semantics. In the end we took it away from the semantics too. Are we now ready to decide that it doesn't belong to linguistics at all? (1984:86)

Eventually, regardless of its correctness or not, the third solution forces the linguist to consider the possibility that some of the explanation for language behavior surpasses the boundaries of linguistics. If the linguist is unwilling to explore these influences upon language, he/she must be willing to leave some of his phenomena unexplained.

This study accepts the things as they most probably are: that the text ties into other entities of cognition which are not purely linguistic and is influenced by them. Specifically, it examines the interaction between text and knowledge in the belief that the end of all things in language is knowledge. This study, then, is right in line with

the urge that has pervaded linguistics all along; it is a push toward greater context. It is an attempt to bridge the linguistic macro-unit, the text, to a very basic human component, knowledge. And in this attempt the linguisticity of the text shall not be deserted, but rather subordinated to its higher realm. It seems to me that this should be the next most logical step in the progress of linguistics.

1.3 The Linguistic Module under Examination

The theory of text being presented here is by no means all-inclusive. It deals with only a limited portion of the total inventory of phenomena in a text. But I count this as one of its strong points since the limited domain lends itself more easily to verification than does a fully extensive theory. Kintsch has argued

that theories of complex phenomena are often so loosely stated that no clear-cut experimental predictions are possible. That brings us back to the modularity issue. It may not be possible to test a whole theory, but its semi-independent components may prove much more tractable in this respect . . . To test the whole theory at once may not be productive, because some element of it will always be wrong, and if we have to redesign the whole system every time, we shall very likely get nowhere. In a nearly decomposable system, the chances for evaluation are much better. (1984:138)

The same notion of modularity should operate in linguistics and, even more narrowly, in textlinguistics. Perhaps the most expedient way of arriving at a understanding of the text as a whole is the slowest way--by attempting to understand the text slice by slice. For example, Longacre (1983) has given his attention to the grammar of texts, van Dijk (1977) to the semantics and pragmatics of texts, and Halliday and Hasan (1976) to cohesion in texts. And these researchers have done apparently quite well within these confines. The module that is being examined in this study is the interaction of texts with knowledge. This, of course, assumes that texts and knowledge are independent of each other, an assumption that will be examined in Chapter 6.

But in the complete communication situation of text producer, text, and text receiver, knowledge interacts with the text at two points: in text production and in text reception (comprehension). The former point characterizes the work done by linguists concerned with the pragmatics of texts, such as van Dijk (1977). In their work the text is viewed as serving some purpose for the text producer. In this study attention will be given to the other point of text-knowledge interaction--text reception. Here we want to see how a text affects the knowledge state of the text receiver. Of course, a text comes into existence via the text producer's assumption about the text receiver's knowledge state, so the text is molded, shall we say, into a shape that conforms to the text producer's assumptions. Because of this, we will necessarily be interested in the text producer's assumptions, but for the most part the final effects on the text receiver's knowledge state is at issue here. The notion that the text producer's intentions are preserved in the text will also be discussed in Chapter 6.

NOTES TO CHAPTER ONE

¹ By the phrase "rules and general principles," I am not advocating one linguistic theory over another. I employ the term as Whitney did in 1875, innocently and without regard for linguistic controversy.

² See the excellent collection of papers in the volume Linguistics and the Professions (di Pietro, 1983), which includes work on texts that relate to medicine, law, business, employment, and public services.

³ Some may argue that the work done in historical linguistics prior to the emergence of structuralism had an element of explanation in its theories, but it should be noted that these explanations were not concerning internal mental systems, but rather concerning external language change. The point being stressed here is that with the structuralists, particularly with Sapir's article "La realite psychologique des phonemes" (1933), explanation for external linguistic behavior based upon an internal linguistic system began to emerge.

⁴ See de Beaugrande's discussion (1980:xi-xv) on the evolution of textlinguistics from its predecessor, sentence grammar.

⁵ Again see de Beaugrande cited above.

⁶ Fillmore cites J. Katz (1964) as one of the early generativists who proposed explanations of this sort for ill-formed sentences.

CHAPTER TWO

EPISTEMOLOGICAL CONCERNS

2.0 Introduction

In the preceding chapter, we saw that sooner or later linguistics reaches the point in its quest to understand language where appeal to human knowledge becomes necessary.¹ Attempts to show with some precision how texts interact with knowledge require us to understand how knowledge exists in the mind—at least to some extent. Such consideration falls squarely within the domain of epistemology and therefore the linguist seeking to explore the bridge between linguistic texts and broader human knowledge must face some of the questions that have been examined by epistemologists. In this chapter we will consider some of the questions that have a direct bearing on this linguistic task.

2.1 "Experimental Epistemology"

It is fortunate for the linguist that much consideration about how knowledge exists in the mind has already been conducted in at least one allied field. Researchers in the field of artificial intelligence (AI) have trod some of this theoretical ground in their attempts to program computers to perform some of the cognitive activities of which humans are capable. Initially, their attention was focused on problem-solving as encountered in a game of chess (Shannon 1950).² While problem-solving in itself is no small task and in fact continues to motivate much current research, the challenge of newer cognitive horizons soon occupied AI researchers. Computers were being

"taught" to see and recognize objects in space in the multitude of their aspects generated by varying points of view (cf. Winston 1975). Joseph Weizenbaum's program ELIZA offered an uncanny illusion of being able to understand the types of natural language encountered in a visit to a doctor.³ In many tasks that computers were being programmed to do, a considerable amount of knowledge about the tasks had to be represented, stored, and made easily available for the tasks to be performed. Even in dealing with these limited fields of knowledge, AI researchers had to grapple with epistemological issues. As we shall see, at least some of their labors have produced results that are germane to the field of textlinguistics.

But even a cursory examination of the epistemological work done in AI will reveal a marked difference between its finds and those of philosophical epistemology. This difference issues from a different basis for conducting epistemology in the two disciplines in the first place. A major problem with the ruminations of philosophical epistemology, and perhaps with much of the rumination in philosophy in general as well, is that the level of abstraction attained often makes practical application of the ideas impossible. This does not discount the actual value of these ruminations, but rather calls to our attention a need that philosophical epistemology cannot meet because of its being abstract by nature. AI researchers are primarily concerned with what a machine must know in order to perform a given task and the way in which that knowledge must be represented in order to facilitate the performance. Epistemologists, however, are primarily concerned with the nature of knowledge. They seek to understand what it is that we can call knowledge. Theirs is not a search that is dependent upon particular knowledge for particular tasks, nor one that has as its goal an efficient representational scheme. With all due respect to both fields, we can say that AI requires a pragmatic epistemology unlike the philosophical offerings of the

traditional field. Of course, the two fields are not at all at separate poles, but finding a practical extension to philosophical epistemology is still wanting and the finds of the pragmatic epistemologies in AI have not yet reached a level of sophistication equal to that attained in their philosophical counterpart. While each serves its own purpose well enough, perhaps some benefit for each can be found in the other.

Because of the abstract nature of philosophical epistemology and the pragmatic nature of AI research, the problem of knowledge representation had to be attacked virtually from scratch by AI researchers. What resulted can be called "experimental epistemology." By the term, I mean epistemology that survives based upon its success in machine tasks. If a posited epistemology fails to provide the knowledge base for the task it was designed to support, it ceases to be of any practical value and hence it ceases to be worthy of further consideration. Because this single criterion is so demanding, quite an array of knowledge representations have come and gone in the short history of AI. One of these has survived the rigor of the field and more importantly, as far as this study is concerned, has shown particular compatibility with text analysis. Thus, it provides an experimental epistemology for this linguistic application. I shall examine its characteristics below.

2.2 Knowledge Representation in Frames

Marvin Minsky is credited with applying the notion of frames to AI research, though, as we shall see below in section 2.4, the notion itself precedes Minsky. Since, however, Minsky's formulation provided a practical application of the notion, especially in AI, and since his notions shall be applied extensively in this study, we should consider his ideas first. His definition of frames is embodied in a now classic paper entitled "A Framework for Representing Knowledge." What follows are excerpts from and discussion of the concepts contained in that article.

Minsky defines frames in the following way:

Here is the essence of the theory: When one encounters a new situation (or makes a substantial change in one's view of the present problem) one selects from memory a substantial structure called a frame. This is a remembered framework to be adapted to fit reality by changing details as necessary.

A frame is a data-structure for representing a stereotyped situation, like being in a certain kind of living room, or going to a child's birthday party. Attached to each frame are several kinds of information. Some of this information is about how to use the frame. Some is about what one can expect to happen next. Some is about what to do if these expectations are not confirmed. (1974:212)

In Minsky's general definition of frames, two points are important to notice. The first is the "substantial framework" that is ". . . to be adapted to fit reality by changing details as necessary." This implies that frames are not simple units, but complex structures having at least two levels of information: constants and variables, the latter being "details" that conform to the particular elements of the real-world situation. Minsky further elucidates this notion of a division in the types of knowledge contained in a frame:

We can think of a frame as a network of nodes and relations. The "top levels" of a frame are fixed, and represent things that are always true about the supposed situation. The lower levels have many terminals--"slots" that must be filled by specific instances or data. Each terminal can specify conditions its assignments must meet. (The assignments themselves are usually smaller "subframes.") Simple conditions are specified by markers that might require a terminal assignment to be a person, an object of sufficient value, or a pointer to a sub-frame of a certain type. More complex conditions can specify relations among the things assigned to several terminals. (1974:212)

It is quite interesting that in Minsky's discussion above he mentions the possibility for a terminal assignment to be "a person, an object of sufficient value, or a pointer to a sub-frame of a certain type." The first two of these correspond directly to the notions of participant and prop in a narrative. The third possible assignment, "a

pointer to a sub-frame of a certain type," very frequently works out to be a pointer to a particular event, itself complex enough to be represented as a frame, in the series of events that compose the total procedure represented by the frame (cf. Minsky 1974:243). Thus, the applicability to textlinguistics begins to become apparent. In the notion of frames we find a way of representing knowledge that corresponds to the accepted divisions of knowledge in at least some texts: participants, props, and events.⁴

A second point to notice in the general definition given by Minsky is that "[a]ttached to each frame are several kinds of information." What I wish to focus on are not the kinds of knowledge, but that which is implied by the various kinds of knowledge, that is, the vast quantity of knowledge. This vast quantity is also alluded to in his earlier statement that a frame is a "substantial structure." For the AI researcher the vastness of knowledge required for the practical performance of a certain machine task has been the source of much concern; the more knowledge required, the more computer memory required to store it, and the more unfeasible the task becomes. In fact, a major issue in AI theory revolves around this question of knowledge quantity. Eventually, researchers in the field of AI drew up sides on the issue of knowledge quantity. A major historical demarcation in the field can be observed by the resolution of the declarative/procedural issue (resolved at least in the opinion of some researchers). At the risk of oversimplifying the points at issue in the controversy, we can say that the two positions represent varying concepts of the latency of knowledge in a representation scheme. The declarativists view knowledge as a mass of independent facts stored separate from the procedures that require them. This means that at any point in the performance of the machine task much of the knowledge represented in a declarativist's model of knowledge is inapplicable and

therefore latent. The proceduralists, however, hold that knowledge should be stored in relation to the tasks that require them. Thus, at any point in the performance of the machine task the knowledge that is salient to the task, and that knowledge only, is available to the machine "mind." This makes much less of the total knowledge required latent at that point. Of course, because of the lack of total predictability of the real world by a mind—human or electronic—even in the proceduralists' model of knowledge representation there must be more knowledge represented than is actually required, and hence some portion of the knowledge salient to a particular task is latent. Degree of latency, then, is a prime distinguishing characteristic between the declarativist position and that of the proceduralist. Minsky's frame theory is a proceduralist model of knowledge representation since it segments knowledge and apports it to the particular tasks that require it.

For the linguist seeking to define the ways that a text can interact with knowledge, this notion of latency in a representation of knowledge is important. The text is the means that a text producer uses to communicate his or her intentions to alter the knowledge state existing in the text receiver's mind. The text also embodies those alterations. But the text does not "assault" the entire collection of knowledge possessed by the text receiver. Rather, the text first selects the particular system (or frame) of knowledge required for the comprehension of the text. All else is irrelevant to the task at hand and so is not employed. But not all that is selected will be used in the task of comprehending the text. As in the AI task, where more knowledge was represented of necessity so that the unpredictability of the actual course of the task could be met, much more knowledge will be available for the text than will actually be used. What is employed, what is selected by the text as being necessary for comprehension, is a "chunk" of knowledge which possesses elements that will indeed be

employed as well as others that will not actually be called upon by the particular contents of the text. These latter elements are latent in the sense that we have been discussing latency, but their latency is obviously of more relevance than knowledge that has not been selected by the text in the first place. In fact, we can say that these latent elements of a selected frame are constructively latent in that, though explicit mention of them may not occur in the text at all, their presence in the knowledge underlying the text allows the text to rely on them implicitly. We shall see more of the value of latent knowledge in a frame in the next chapter.

While the degree of latency in the frame representation of knowledge found in AI fits the needs that a knowledge-based approach to text analysis seems to have, the exact kinds of knowledge in a frame that can be latent or that can be employed differ in the two fields. Minsky, in his elaboration of the two-tiered arrangement of knowledge, points out that

[t]he "top levels" of a frame are fixed, and represent things that are always true about the situation. The lower levels have many terminals--"slots" that must be filled by specific instances or data.

In at least the task of computer vision (i.e., the programming of computers to see and recognize objects) these "top levels" are not only fixed and representative of what is always true of a situation, but also they must be explicitly present in the situation in order for computer recognition to take place. Thus, in order for a machine to recognize that a particular object is a cube, it must, in conformity to the CUBE frame, be able to "see" three regions or faces on the object simultaneously and the faces must all be parallelograms. The knowledge that a cube will exhibit three parallelographic faces disambiguates a potential cube from a parallelogram of one surface, from a trihedron of triangular surfaces, and so on. It is "top level" knowledge; it is necessary knowledge; and it cannot be latent if the recognition is to be made. Anything else known about

cubes need not appear in the situation for the recognition to be made, and indeed not all of what is known can appear simultaneously because of physical limitations. Examples of this "lower level" knowledge would be the facts that cubes have a total of six faces, that there are twelve edges, and that there are a total of eight points of intersection.

In the analysis of a text, however, defining characteristics of a situation need not be explicitly mentioned in order for the text to make use of the knowledge in the frame that describes that situation. In fact, rarely do texts make explicit mention of necessary characteristics of the entities and phenomena that they relate. In this sense, what is "top level" knowledge in a frame can be latent in a text unlike in the AI application. Consider the following text that assumes a knowledge of cubes for its successful comprehension:

As an exercise in agility, the violin instructor required his students to pick up a four inch cube by placing one finger on each of its eight points of intersection without the aid of the thumbs. The student to first perform this feat of finger acrobatics got to accompany the teacher to one of the rehearsals of the great city orchestra, of which he was the conductor.

This text relies on the cube frame but makes defining characteristics of a cube latent. What is employed here is "lower level" knowledge. The text adequately survives the comprehension process without explicit mention of "top level" knowledge. Thus, in the text what can be latent and what must be employed is very free. Depending on the task to be performed, then, the restraints on latent and active knowledge differ.

Minsky's notion of frames contains some additional concepts as well, but these will not affect the way that textlinguistics, as performed in this study, is conducted. The primary point to be made is that frame theory indeed offers a model of knowledge that is applicable to textlinguistics. Yet the theory as presented by

Minsky and as employed in AI research, especially in computer vision, need not be applied in the same way in the setting of text comprehension. Because of the differing demands of textlinguistics, the ways that knowledge is to be employed in text comprehension differ from the ways found in certain AI tasks, such as computer vision. Minsky's presentation of the theory is quite open-ended, thus allowing for flexible applications to other fields. This flexibility of the theory is, I feel, a point in its favor. But not all have seen the open-endedness of Minsky's notions in a positive light. In the next section I shall examine two major "complaints" against frame theory. The first is highly critical of the open-ended nature of the theory; the second of the rigidity imposed by it.

2.3 Some Objections to the Notion of Frames

Like any new theoretical construct, soon after its emergence frame theory began to face strong opposition from various researchers. Within the field of AI itself frame theory was carefully scrutinized and, for some researchers, was found to be an inadequate representation of knowledge. New models⁵ have been advanced by these dissatisfied researchers, but still frame theory has continued to be a powerful theory and has enjoyed considerable development within the field.⁶ Of interest to us here is the opposition the theory faced from the linguistic ranks, since even from its inception frame theory was applied to linguistic problems (Minsky 1974:230-247). Strong opposition was presented by two linguists, B. Elan Dresher and Norbert Hornstein, in a paper that criticized the "supposed contributions of artificial intelligence to the scientific study of language" (1976:title). The paper "takes on" several developments in AI that have been applied to natural language problems, one of which is Minsky's notion of frames. They present their criticism of frame theory in this way:

Minsky never elaborates or gives the slightest hint of what the substantive universals of his system are, i.e., what a possible node is. He never deals with what are or are not possible frame configurations or what can and cannot be changed in a frame. He never even tells us where the top or lower part of a frame is. Not only does he not say any of this explicitly, but the specific examples that he deals with leave one with no idea of how they can be elaborated into a general theory of human thinking. One can only conclude that the whole theory of frames, as he presents it, is quite vacuous. The nodes permitted are the ones needed for any specific problem. The structures permitted are those that one needs to solve any particular problem. The transformations permitted are those needed in any particular situation. In short, frame theory becomes little more than a rather cumbersome convention for the listing of facts. There is no theory of anything at all and especially not a theory of human thinking. Minsky presents a totally unconstrained system capable of doing anything at all. Within such a scheme explanation is totally impossible. (1976:357-358)

There are two arguments presented here: (1) Minsky never details what the "substantive universals," i.e., the nodes, are and what the "possible frame configurations" are. Thus, the theory is basically "a rather cumbersome convention for listing facts." And (2) the theory is "a totally unconstrained system capable of doing anything at all." Below I shall examine each argument and offer a possible defense.

Dresher and Hornstein find fault in the theory of frames because Minsky never gives elaborate explanation of his primitives, of nodes and frame configurations, and because of this what has been presented, they say, is simply an alternate way of listing knowledge facts, and a very cumbersome one at that. They fail to see the force of the theory in the context of what preceded it, however. The authors have apparently missed the issue that surrounded the theory's conception—declarative versus procedural models of knowledge. The notion of frames is an attempt to depart radically from a declarativist epistemology in which knowledge is represented as simply "the listing of facts." It appears that Minsky was not trying to detail a theory of knowledge as much as he was attempting to show the way that knowledge should

be represented so that it could be applied to a task more efficiently. Minsky viewed his work as the unification of previous "feelings" by intelligence theorists whom he perceived to be "moving away from the traditional attempts both by behavioristic psychologists and by logic-oriented students of artificial intelligence in attempts to represent knowledge as collections of separate, simple fragments" (1974:211). Minsky's theory is primarily a departure from "the listing of facts" to an arrangement of facts according to their relevance to particular tasks. That Dresher and Hornstein label the theory a "listing of facts" indicates that they have not paid careful enough attention to the issue surrounding the theory. Further, that they have described it as "a rather cumbersome convention" indicates that they have missed Minsky's whole purpose for positing nodes, relations, and system in the theory. If the model is to successfully group or "chunk" knowledge according to the specific tasks that will employ it, there will necessarily be some "framework" (Minsky 1974:title) that effects that grouping. To this end Minsky has posited frames, composed of nodes and relations, existing within a larger frame system. The value of the theory is not in its detail but in its view of knowledge as being more than the "listing of facts" and as having certain properties that are related to its use: relation to other applicable pieces of knowledge, obligatory and accidental defining characteristics (top and lower level knowledge, respectively), and the power of creating expectations.

Dresher and Hornstein also object to frame theory because it is "a totally unconstrained system capable of doing anything at all." This objection assumes that we accept some sort of criterion that validates a theory based upon its domain of operation. In an earlier place they state this condition explicitly:

It is a commonplace of research into language that unconstrained transformational power enables one to do anything. If one can do anything explanation vanishes. (1976:357)

But does Minsky's notion of frames do just anything, is it indeed so completely unconstrained? I believe that it is no less constrained than the notion of selectional restrictions on individual lexical items, which they offer as satisfactory explanation for the examples that Minsky gives to illustrate frame theory as applied to natural language (Dresher and Hornstein 1976:359). In the same sense this notion from transformational generative syntax allows one to do anything and is unconstrained: certain lexical items do not occur together with others because each bears a handy restriction, a "tag" of sorts, that disallows their collocation. At least by positing an arrangement of knowledge into frames there is a device for selectional restrictions of more substance than "tags" attached to the elements within a giant list of lexical items. Lexical items that are members of the same frame will most certainly occur together well; those that are in closely related frames will occur together less well but still better than those that are in distantly related frames. Thus, the very "chunking" of knowledge into frames creates restrictions on collocations.

A final rebuttal to the arguments of Dresher and Hornstein is drawn not from reference to their comments, but from the integrity of the notion of frames as a theoretical construct. Frame theory is not a new concept in epistemological circles, but has a history that precedes the development of it by Minsky, as was mentioned at the beginning of this section. We will examine some of the early history in the next section on frame types, but suffice it to say here that the notion of frames has already been shown to be a fruitful approach to the problem of representing knowledge (cf., for example, Goffman 1974). Minsky's work is not a barren innovation as Dresher and Hornstein seem to suggest; rather, it is a further working of previous notions into at least a guideline for the practical use of frame theory. Certainly, his work was not complete in the form it first appeared, nor did he claim that it was. In fact, in that

initial publication on the notion Minsky asserts that he was "pretending to have a unified, coherent theory" and that his "paper raises more questions than it answers" (1974:212). Drescher and Hornstein were too narrow in their observations on the scope of frame theory in that they missed the full context that Minsky's work operated in and were too quick to attempt a lethal blow to it, as further research, especially in their own field of linguistics (cf. van Dijk 1977a), has proven.

Opposition to frame theory was also voiced by a noted psychologist, Walter Kintsch, who at one time was a major proponent of its development. Kintsch (1985) concedes that the concept of knowledge represented in frames must most certainly be correct. People do seem to behave according to expectations that are stored in knowledge "chunks." The concept of the frame provides a viable structure for such "chunks." But Kintsch also feels that frames are much too rigid to be the ideal knowledge structure. The real world only rarely corresponds to the contents of a frame since the real world is full of the unexpected, the unpredicted. Kintsch's comments are directed to the problem of knowledge structuring for comprehension within the overall context of human behavior, but in the limited domain of linguistic behavior, in the domain of the text even more narrowly, the unexpected can and often does exceed that of the real world. Consider texts that feature unicorns, the fourth dimension, science-fiction, and so on. Thus, if Kintsch's arguments are valid for comprehension in the real world, how much more valid they would be in the world allowed by the text, a world that often exceeds the limitations of the real world. Knowledge stored in rigid frames would seem to be even less beneficial to the process of comprehension when texts of other-worldly nature are encountered.

Kintsch has moved away from the notion of frames and we should too, that is, if we felt that a system of knowledge should command even the "impossible"

possibilities, the unpredictables of other-worldliness and even real-worldliness. But this is not the only possible solution to the problems of unpredictability. Abnormalities need not be embodied in the system of knowledge at all. This we saw in the preceding chapter in the discussion on the interpretation of aberrant sentences. There we were presented three possibilities for interpretation, each removing the processes for linking the known with the aberrant unknown one step further from a rigid knowledge base (there, a syntactic one). The same possibility exists in the matter at hand here: our knowledge can be quite rigid if we posit processes that link the unpredictable real or other world with it satisfactorily. In essence, this is what this study attempts to do. I assume a fairly rigid knowledge structure with a finite content and offer possibilities for divergence from that knowledge via the text-frame relationships proposed in this study (Chapter 3). Knowledge can be represented in a theory of frames and can encounter the unpredictability of the world because it is not knowledge itself which provides the sole basis for interpretation. In those cases where a text signals departure from a knowledge norm, the text receiver must depend more on the text for knowledge input than his or her own system of frames.⁷ In more general terms, we can say that the system of frames permits learning from the experience of the unpredictable outside world.

2.4 Frame Types

Minsky in his classic paper also suggested some possible frame types for a linguistic application of the theory. We should consider these in order to determine their relevance to this particular study. But Minsky was not the only researcher, inside or outside of AI proper, who adopted a frame notion of knowledge structure for a particular task. Other researchers in other fields, both before and after Minsky's paper was first published, employed the notion of framed knowledge and posited frame

types. In this section I wish to examine the major theoretical constructs for frames with a special emphasis on the types of frames each posits and the motivations underlying their views. It will probably be best to consider the various "presentations" on frames in chronological sequence.

2.4.1 Bartlett's "Schemes"

Probably the first approach to a notion of frames in the structuring of knowledge was the sketchy concept of "schemes" presented by F.C. Bartlett in his book Remembering (1932). Since, however, his presentation was not made in relation to text comprehension and since he posited no frame types, I will not review his ideas other than to say that they were in all probability the first theoretical construct that employed what later researchers have called frames.

2.4.2 Goffman's Event Frames

A very substantial presentation of the notion of frames was put forth by Erving Goffman in his book Frame Analysis: An Essay on the Organization of Experience (1974). Goffman's treatment of frames covers a much larger array of human behavior than the limited domain I am interested in in this study; in fact, as the title of his book suggests, his is an examination of frames in the ultimate context of human experience as a whole. He does offer some particular comments on "the frame analysis of talk" (1974:496-559), but we shall not consider them here. For the present discussion what is of interest to us is his distinction between "natural frameworks" and "social frameworks," thus his frame types. The former type he defines as follows:

Natural frameworks identify occurrences seen as undirected, unoriented, unanimated, unguided, "purely physical." Such unguided events are ones understood to be due totally, from start to finish, to "natural"

determinants. It is seen that no willful agency causally and intentionally interferes, that no actor continuously guides the outcome. Success or failure in regard to these events is not imaginable; no negative or positive sanctions are involved. Full determinism and determinateness prevail. . . . Elegant versions of these natural frameworks are found, of course, in the physical and biological sciences. An ordinary example would be the state of the weather as given in a report. (1974:22)

Goffman's natural frameworks contain knowledge about the physical world over which we humans have no control. His example of the weather is doubtless the best example. But even in this "framework"⁸ there are certainly many sub-frames, frames on particular weather features, for example, the AUTUMN frame proposed by Larry Jones (1980:42). Another possibility is the THUNDERSTORM frame: thick, dark clouds moving in from the horizon, darkness of the immediate locality, flashes of lightning, delayed thunder, deluvian rains, and so on. Notice that even in this sub-frame of the larger WEATHER natural framework there are further sub-frames, e.g., the LIGHTNING and THUNDER frame, which contains knowledge that the duration of the delay between the lightning flash and the thunder clap is directly proportional to the distance of the observer from the occurrence of the lightning bolt. Other natural frameworks alluded to in Goffman's discussion are "the notion of the conservation of energy" and "a single, irreversible time" (1974:22). Still other frames of this type can be suggested: the effects of gravity on objects; the movement of the sun, moon, and stars across the sky; the growth cycle of plants; etc. Notice that these natural frames frequently have time sequence in them, but this need not be a necessary feature.

Goffman identifies the type, "social framework," as well:

Social frameworks, on the other hand, provide background understanding for events that incorporate the will, aim, and controlling effort of an intelligence, a live agency, the chief one being the human being. Such an agency is anything but implacable; it can be coaxed, flattered, affronted, and threatened. What it does can be described as

"guided doings." These doings subject the doer to "standards," to social appraisal of his action based on its honesty, efficiency, economy, safety, elegance, tactfulness, good taste, and so forth. A serial management of consequentiality is sustained, that is, continuous corrective control, becoming most apparent when action is unexpectedly blocked or deflected and special compensatory effort is required. . . . An example of a guided doing would be the newscast reporting of the weather. So one deals here with deeds, not mere events. (1974:22-23)

The distinguishing characteristic of these two frame types for Goffman is reasoned volition, as in social frameworks, or the lack of it, as in natural frameworks.⁹ The social framework is best described as that which helps us understand "guided doings," doings that result from the imposition of intelligent agency. Notice the example that Goffman gives of a social framework, a weather newscast. The thing reported, the weather, is comprehended with the help of a natural frame, but the reporting itself follows the contents of a social framework and therefore the framework aids us in comprehension.

It should be noted that Goffman's basis for distinguishing frame types is neither absolute nor final. But that is not to say that his distinction is invalid. For Goffman the distinction he has chosen is quite fitting for the task he is applying framed knowledge to, that is, "the organization of experience." This uncovers a principle that we should be aware of when we examine various applications of a theory of frames. The characteristics of any system of frames posited depend on the the task that the system will be applied to. An analogy may help to elucidate what is meant here. Consider the possibility of a psychology department in a university that has at its disposal a large group of human subjects. Let us imagine that the group as a whole contains a wide array of different persons—old and young, male and female, rich and poor (and all points between), and so on. For any particular experiment requiring human subjects, the department can make abstractions in the group according to

certain criteria. For example, one experiment may compare performance by all subjects under the age of 25 with that of those over that age. Another experiment may dichotomize the entire group into four smaller sub-groups based upon the tax brackets of the subjects. Many more examples of "slicing" the group up can be offered, but I believe the point is made. Depending on the needs of the experimenter, the group takes on certain abstract categories that are valid, but nonetheless neither absolute nor final. Once the experimental task is performed the need to view the group as constituted of those particular slices loses its appeal.

That the categorization of frames is not absolute is a principle which will help us to sort through the various groupings and hierarchies of frames that we are considering in this section. For Goffman, and for the task he has set out to do, frames, at least those that deal with events in our experience,¹⁰ fall into one of two categories: natural and social, reasoned volition or the lack of it being the basis for the distinction. For other researchers, as we shall see as we proceed through this section, the basis for making distinctions among frames and the resultant frame types differ necessarily from Goffman's basis.

2.4.3 Minsky's Linguistic Frames

The majority of Minsky's paper on frame theory is concerned with the use of frames for computer vision, but he did not fail to see the value his notions could have in linguistics, and particularly in textlinguistics. He offers for the linguistic application of frame theory what we can call linguistic frames, i.e., frames that serve linguistic ends solely. These frames are arranged into a hierarchy of sorts without any elaboration beyond the following:

Surface syntactic frames: Mainly verb cases. Prepositional and word-order indicator conventions.

Surface semantic frames: Deep syntactic frames perhaps. Action-centered meanings of words. Qualifiers and relations concerning participants, instruments, trajectories and strategies, goals, consequences and side-effects.

Thematic frames: Topics, activities, portraits, setting. Outstanding problems and strategies commonly connected with topic.

Narrative frames: Stories, explanations, and arguments. Conventions about foci, protagonists, plots, development, etc., with the purpose of causing the listener to construct a new Thematic Frame in his own mind.

One striking feature of this hierarchy of frames is that all the frames proposed have structural components in them; they are not just frames containing knowledge about the world around us as Goffman's natural and social frameworks were. In Minsky's presentation above, the knowledge listed last for each frame type is that which deals with structures rather than concepts.

What this means for the text analyst, if he were to adopt this particular notion of frame types, is that text structure is generated by the system of frames as well, rather than by a separate linguistic capability. I question whether a theory of frames should be expected to operate over so vast a realm. In this study I will assume that framed knowledge has a more limited domain. I will consider knowledge that is stored in frames and that interacts with a text to be knowledge about the real world (or other worlds, as the case may be depending on the text). Knowledge about how the text is structured, the immediate concern in this study, as well as subsumed structural knowledge of paragraphs, sentences, clauses, phrases, words, and morphemes will be considered to be part of language in the mind—a distinct, though not separated, cognitive system.

But Minsky's approach to a linguistic "framework" is not inordinately overpowerful. Again it has much to do with the task he sends his theory of knowledge out to do, as we have seen with Goffman's frame types. Minsky is coming from a

background of machine cognition where everything necessary for the successful performance of a particular task must be at the fingertips, so to speak, of the machine. Thus, his model of natural language processing bears this feature as well, though it really need not. He posits a hierarchy of frames that includes not only the knowledge required to comprehend a text ideationally, but also the knowledge required to perceive a structure in the text. But we can easily conceive of (at least) two cognitive systems working in coordination in order to successfully perform language processing. One perceives structure and derives meaning from that structure in accordance with structural knowledge stored in the mind; the other matches text elements with a system of framed knowledge about entities and events in the world.

2.4.4 Van Dijk's Pragmatic Frames

Probably the most developed application of frame theory in textlinguistics was put forth by Teun van Dijk. His approach is a pragmatic approach to text analysis, which has as a basic component the theory of frames. By "pragmatic" van Dijk means an approach to text analysis that is sensitive to a theory of speech acts. "Pragmatic comprehension is the series of processes during which language users assign particular conventional acts, i.e., illocutionary forces, to each other's utterances" (1977a:213). He attempts to outline these processes by which a hearer is able to comprehend that an utterance is meant to have illocutionary force. At the hearer's disposal is the context, the comprehension of which relies on an system of frames. He explains:

The actual comprehension of utterances as certain speech acts is based on a complex process involving the use of the various kinds of information mentioned above [i.e., knowledge about the structure of the utterance and the physical context]. The comprehension of particular observable indices, however, should be given in terms of more general knowledge: understanding involves general concepts, categories, rules and strategies.

This general 'knowledge' is not amorphous but organized in conceptual systems. One of the ways to account for this organization is in terms of frames. Frames are not arbitrary 'chunks' of knowledge. First of all they are knowledge units organized 'around' a certain concept. But, unlike a set of associations such units contain the essential, the typical and the possible information associated with such a concept. Finally, frames seem to have a more or less conventional nature, and thus should specify what in a certain culture is 'characteristic' or 'typical'. This criterion seems to single out especially certain 'episodes' of social interaction, such as going to the movies, travelling by train, or eating in a restaurant. Although we might also call a frame the set of epistemic units we have about books, balls and bananas, such units do not—as such—organize our understanding of the world in a way a conceptual frame—as we define it—does, viz. by also organizing our behaviour with respect to the world, and the ways we interpret other's [sic] behaviour, as in the frames we have about cashing a check or shopping. Although the distinction between mere concepts and frame-like organization of conceptual knowledge is still vague—there may be fuzzy boundaries in the theory—we provisionally keep ourselves to the more restricted interpretation of the notion of frame. (1977a:214–215).

Again we find a distinction being made in knowledge based upon the particular needs of the task being performed. Van Dijk is interested in a pragmatic theory of text comprehension and so the notion of frames is subservient to that larger theory. Framed knowledge is of no value in such an approach unless it helps to organize behavior and not just understanding. Therefore, van Dijk rightly eliminates knowledge about entities and adopts the more limited definition of a frame, that is, knowledge that helps us to understand a context and helps us to choose the appropriate actions in response to an utterance. His use of the term "frame" corresponds closely with what Goffman has called "social frameworks," and this is not surprising since Goffman also was attempting to show the relationship between knowledge and human action.

2.4.5 Frames as Used in this Study

Van Dijk's particular use of the notion of frames ultimately depends upon his

view of what a text is. For his goal of understanding the pragmatics of a text, his restricted use of frames is warranted. But the pragmatic dimension of text structure is only one of the many dimensions involved. In this study I am interested in written texts and it is quite easy to see that such texts do not depend on knowledge merely for organizing behavior. I do not doubt that large written texts, for example, a novel, or a service manual, or the Bible, have some sort of illocutionary force to them, for example, to tell a story, or to direct service, or to change people's lives or behavior. But this is illocutionary force of a very global nature. And it is questionable whether we can single out or define the various illocutionary forces that the text has when viewed as a single speech act. Van Dijk touches on this aspect of pragmatics and labels these global speech acts as "macro-speech acts" (1977a:227-229). But it should be noted that his examples and the burden of his proof rest upon conversations and not upon written texts. In determining what a frame may be for application to text-frame interaction as investigated in this study, what is ultimately at issue is whether written texts are composed of speech acts or whether they are no more than huge single speech acts. In the former case, van Dijk's restriction on frames would suffice; in the latter case, a broader view of framed knowledge is required. I will assume that there is more to be observed in a text than pragmatic structure and because of this a wider definition of frames needs to be employed.

In the applications of frame theory proposed by both van Dijk and Goffman, only knowledge which relates to human behavior was considered. This kind of knowledge was viewed as having a frame structure. Knowledge about entities, "about books, balls and bananas," was ignored as being irrelevant to the comprehension of language in the wider sphere of a theory of action. But references in a text to books, balls, or bananas may draw upon knowledge of these objects and thus an investigation

into how texts interact with knowledge should make provision for such references. Larry Jones realized the same need in his study of certain aspects of text structure. Because of this he posited an object frame that contained knowledge about entities:

For example, a person who is a specialist in brake repair on automobiles probably has a complex frame which constitutes his knowledge of hydraulic brake systems in cars. His Hydraulic Brake frame would include knowledge of the various components of normal hydraulic brake systems, such as a master cylinder, brake shoes, wheel cylinders, brake fluid, etc., along with the relations between all of these component parts. This type of frame I call an OBJECT FRAME. (1980:41)

In the next chapter I will introduce the relationships between texts and knowledge which I feel are worthy of notice in a full explanation of text structure. These relationships depend on knowledge of both types discussed above, of events and of entities. Two simple texts will illustrate this. The first is the short text that I began this study with in the preceding chapter. It depends on knowledge of certain events. The second text depends on knowledge about entities:

I went to my favorite restaurant last night. While paying the bill . . .

My telephone has been broken for a few days. The "5" makes a sour sound whenever it is pressed.

The first text requires that the text receiver know something about restaurants, namely, that at the end of the conventional set of events that we expect in a restaurant there is a sequence of "paying the bill." This text could be said to organize behavior in the sense that van Dijk and Goffman have noted. But the difference is that it is the behavior of the participant in the text that is being organized, not that of the text receiver. In the model proposed by van Dijk, of interest is knowledge that organizes the behavior of the text receiver, and not of a participant in a text. The second text relies upon knowledge about telephones, especially the push-button

variety. The text is coherent because of that knowledge dependence. It coheres in the same way that the first text coheres. Thus, a text can cohere based upon both types of knowledge. And because of this, this study will take into account reference to knowledge of both events and entities.

In the next two chapters I will attempt to show that there are various ways in which a text interacts with knowledge. Some of the ways differ from one another according to the degree to which a text relies on the system of knowledge in the mind of the text receiver. Others differ according to whether or not the text producer intends to make permanent changes in the text receiver's knowledge. Still others differ according to the ways a text departs from expectations stored in the text receiver's knowledge system. Thus, I am interested in the effects of texts on a text receiver's knowledge system. But the ways that a text can interact with the knowledge system do not depend on the type of frames involved. A text will interact with entity frames in the same ways that it will with event frames. The internal structure of the frame does not affect the types of interaction between a text and knowledge. Thus, the internal structure of a frame is not important to an investigation into the ways that texts and knowledge interact. It is important, however, to recognize the types of knowledge that exist and to demonstrate that a text can and does interact with these types and not just with one type, that is, event-oriented knowledge.

But there is value in knowing, first, that there is a difference in the structuring of the frames referred to in a text and, second, exactly what the structure is, even though it does not contribute to the aims of this study. I believe that knowing these things would be very beneficial to the development of the referential hierarchy in the work of Kenneth and Evelyn Pike (1977:363-410). In their model a complete picture of the referential structure of a text is formed by displaying the information conveyed in

a text according to certain parameters, e.g., chronology, spatiality, logicity. This information is usually not distributed in the text according to these abstract parameters, but it is believed that the text receiver ends up with such referential structures after text processing is complete. For example, in a narrative text literary devices such as flashbacks and predictions may convolute the event line, but after processing of the text is completed, the text receiver should possess a linear representation of the events in their proper order. Likewise, a text may not present a spatial setting in a linear spatial fashion, such as left-to-right, top-to-bottom, etc., but the text receiver should understand the setting in its proper relational structure after reading the text. In the same way a text may contain references to certain frames throughout, but probably the references are not distributed in the way that the knowledge would most logically be stored in the mind. A referential structure of this knowledge could be constructed based upon references in the text and such a structure would have to give attention to whether the frames are of the event or entity type. Obvious differences between the two exist. For example, an event frame should make use of temporal succession, whereas an entity frame would not.

2.5 Summary

In this chapter I have presented a powerful notion current in AI and have attempted to show that it can be utilized to meet the epistemological demands of this study. The theory of frames is not without its opponents, but I believe that their objections have been answered sufficiently so that the notion of framed knowledge can be employed here. I have also reviewed some of the ways that other researchers have used frame theory in their work. An important observation made in this regard is that the definition of what a frame is depends to a large extent upon how a researcher perceives that a frame operates. In this study I wish to show the effects that a text

has on a text receiver's knowledge system. I intend to do this first by defining the various ways that a text can interact with knowledge, which I shall call the text-frame relationships (Chapter 3), and second by identifying these relationships in actual texts (Chapter 4). To this end I have defined frames as knowledge not only about events but also about entities. This less restricted view of framed knowledge will allow us to see a more complete range of text-knowledge interaction in the texts analyzed in Chapter 4. But before going to the texts themselves, I wish to define the ways that a text can interact with knowledge in the next chapter.

NOTES TO CHAPTER TWO

¹ Not only linguistics, but actually any field in the human sciences, eventually reaches this same point. For this reason, it would seem worth the time and effort of any human scientist to explore the interrelationships between his or her field of interest and human knowledge. Such a "top-down" approach would no doubt influence perceptions of the field and may help to constrain its operations.

²It is interesting to note that Claude E. Shannon, a pioneer in information science, first published his thoughts on computerized chess in Philosophy Magazine. The use of this forum for breaking the ground in AI suggested the eventual value that the new field would have in the human sciences. To this day, however, philosophy has been at most mildly attentive to the contributions of this field.

³ ELIZA's performance as a doctor, however, falls far below expectations for even an illusion. In all fairness, though, I should point out that ELIZA was never seriously meant to be taken as a "computer-doctor," nor was it even "thought of as a crucial step toward computer understanding of natural language" (Winston 1977:341), even though its appearance revived the hope that computers could mimic at least to some extent this cognitive task as well.

⁴ My "proof" of the applicability of Minsky's frame notion to textlinguistics depends upon the single correspondence of that notion with the structure of narration, since it is in narration that we find the division of information into participants, props, and events. In other genres of texts, however, these divisions do not obtain. For example, in a procedural text the notion of participant is not as important (Longacre 1983:3) and in an expository text events are at most supportive but certainly not primary information "load-bearers." But Minsky's prescription of the nature of the "markers" in a frame need not be limited only to the examples he has provided. In fact, as is shown in section 2.4, the types of markers a frame possesses will determine the type of the frame. For the sake of making his definition clear, Minsky has, I believe, chosen the most easily understood type of knowledge, i.e., that which corresponds to a narrative text. We see the same practice in textlinguistics in that narratives are usually tackled first in the application of new text theories.

⁵ Cf. scripts, plans, and goals (Schank and Abelson, 1977), expectations (Tannen 1978), and schemata (Rumelhart and Ortony, 1977).

⁶ As recently as Spring, 1985, frame theory adherents have contributed further research on this notion. An article in Cognitive Science by Brachman and Schmolze, "An Overview of the KL-ONE Knowledge Representation System," demonstrates this.

⁷ An analogy may help those who know something about personal computers to understand what I mean here. Many applications for small computers (word

processing, spreadsheet, database, etc.) load only a portion of the total application program into the internal memory of the machine when the application is started. This portion usually contains the "knowledge" necessary to interpret a limited number of commands, perhaps those that are most common to the application or that bring up subsets of secondary commands. If the user inputs commands or data that fall within the "comprehension" of what is in the internal memory of the machine, the machine "interprets" them based solely on that "knowledge" and "behaves" according to it. If, however, the user inputs something that the internal memory has no "knowledge" of, the machine (= text receiver) must go to some other source of knowledge to find the adequate "knowledge" for "interpretation" and eventual "behavior." In this case, the other source is the disk that contains the unloaded portion of the application program. Thus, the "text receiver" (= machine) is forced to seek other sources of knowledge since the "knowledge system," being too rigid and finite in itself, provides no basis for the "interpretation" of the "text" (= input). In what I am proposing for text comprehension, the analogy between a personal computer (PC) and a text receiver breaks down, however. The PC goes to a third party, that is, the disk, for more knowledge, but in the model I am advancing the text receiver goes to the text itself (the keyboarded input in the PC analogy). What is germane to this discussion in this analogy is the fact that the machine goes to some source other than the rigid and finite knowledge in the internal memory for the necessary knowledge. Thus, the machine is not limited by a rigid and even very limited knowledge system and neither should the text receiver be, though he or she most certainly will possess such a system.

⁸ Goffman's use of the term "framework" is not intended, as I understand it, to be distinct from "frame," also used throughout his book. I replicate his indiscriminate use of the two terms in my discussion when referring to his notions. Thus, the reader shall more easily be able to locate the references in Goffman upon which I am commenting.

⁹ Of course, if one believes in God, or a Prime Mover, or some other such Being, there can be no purely "natural" frameworks as Goffman defines them. Though we humans may not be able to exercise our control over certain entities and phenomena, and thus these are "seen as undirected, unoriented, unanimated, unguided" from our point of view, God, or whatever others believe in that occupies His place in their own system of belief, may and does exercise control and thus alters the whole distinction from His point of view.

¹⁰ The reader should pay special attention to this aside. Goffman is only interested in "events," and not entities. In textlinguistics, however, knowledge of any kind, of events or of entities, is important.

CHAPTER THREE

TEXT-FRAME RELATIONSHIPS

3.0 Introduction

The problem addressed in this study concerns how texts interact with knowledge. I take as a given the fact of this interaction. But knowing the fact that such interaction takes place is only one dimension of the problem. Perhaps such a realization will suffice for the researcher in fields outside of linguistics, such as in artificial intelligence and psychology. But in linguistics, the field whose primary attention focuses on the text, another dimension of the problem must be faced. If he/she accepts this interaction of text with knowledge, the linguist must attempt to discover exactly how texts effect this interaction. More specifically, the problem for the linguist is the ways in which this interaction appears in and influences the form of texts. This, then, is the essence of this particular study. Here I attempt to answer what seems to be the next logical question once one accepts that text-knowledge interaction takes place. The question addressed is simply: How do texts interact with knowledge and how do texts signal that interaction?

This question has two possible answers. Either the interaction between text and knowledge manifests itself in the same way each time it occurs or there are multiple ways that it takes place. If we are able to prove the latter, we automatically disprove the former since the two propositions are mutually exclusive. I believe a few simple illustrations will help to prove that there is the possibility for multiple ways of text-knowledge interaction. Consider the following texts, which interact with the

"official ticket-inspector" frame of van Dijk (1977:221-222):

The trees had raced past my window and the constant blur of sights had sent me into a deep trance of remembering. My dream world was shattered into forgetting by the mechanical voice that now spoke to me, "May I see your ticket, please?" [3.1]

He had begun at the front of the train and had moved slowly, slowly back. At each passenger he had stopped and had seemingly only asked to see a ticket. But I knew better. He had entered each one's life and changed it— granted, perhaps, only minutely, but still he had changed it. And then he continued on to the next, and to the next, and then to me. I didn't hear him coming for I was very busy remembering. But his dull, thoughtless voice shattered all memories away and I forgot that which only could save me now. "May I see your ticket, please?" [3.2]

Let us suppose that both texts were produced by the same individual, that the event being related is the same event: a spell of nostalgia interrupted by a ticket inspector. Thus, both texts interact with the same bit of knowledge: the knowledge about ticket inspectors. But it should be clear that the texts differ with respect to the degree of explicit interaction with that bit of knowledge. The first text has only minimal interaction, while the second makes the interaction the focus of the events being related. Thus, the degree to which a text interacts with knowledge may vary. This alone establishes the possibility for multiple ways that text-knowledge interaction occurs, but there are other criteria for this multiplicity. In the sections of this chapter, I will present some significant criteria and the relationships that issue from employing them.

The text-knowledge relationships follow from the few simple possibilities that serve as the answer to the question: In what ways can a text affect a text receiver's inventory of knowledge? We can conceive of at least four possibilities: (1) a text can simply employ knowledge without effecting change on the system; (2) a text can add knowledge to the knowledge system; or (3) a text can subtract knowledge from the

knowledge system. The third possibility is hardly a possibility at all since it is difficult, if not impossible, to conceive of a text that helps us to forget some amount of knowledge. Therefore, we should remove it from our consideration. A fourth possibility is that a text change some amount of knowledge in the text receiver's knowledge system. But in order to accept this possibility, we must decide on the nature of such change. I can conceive of at least two ways by which a text can effect a change in knowledge. A text could reference the knowledge that will be changed, and then new knowledge could be added. The knowledge that was originally there in the frame and that is "changed" by this process of reference and addition does not go away, as we have already noted in deciding that a text cannot delete knowledge; instead, it is remembered—at least for a time—but it does not participate in creating expectations when that frame of which it is a constituent is employed by a text. Now the new, added knowledge has this power of creating expectations. In this sense, the frame has been changed, but it has been changed by virtue of its being employed and added to by a text. For this type of change there is no need to posit an additional possibility for the ways that a text can affect a text receiver's inventory of knowledge; we can account for this type of change in knowledge via text interaction that both employs and adds knowledge, the two possibilities already posited above. Another type of change is that which is characterized by Kuhn's (1970:111-135) "paradigm shift." This type of change occurs when a text presents knowledge that does not merely reference and add to existing knowledge in the text receiver's mind, but also, by the introduction of that new knowledge, causes the knowledge possessed by the text receiver to be restructured, to settle into different relationships among its constituents. Using a house made of match sticks as an analogy, we can conceive of such change as the introduction of a new stick at the bottom of the "structure" which

pushes up on the other sticks and causes their connections to the other sticks to shift to yet other sticks and finally to settle into a house of a different structure.

Another way to view the ways that a text can affect a text receiver's inventory of knowledge has to do with the concept of degree of interaction as illustrated above by texts 3.1 and 3.2. Assuming that knowledge is stored in frames, we can profitably observe whether a text makes a portion of framed knowledge its focus or whether it simply references that knowledge occasionally and minimally. This would be a major consideration for a text that employs knowledge, the first logical possibility above. Does the text employ a frame to the extent that the frame becomes its organizing principle or does it employ that frame simply to help convey a topic being related? Text 3.1 is an example of the former case; text 3.2, of the latter.

For a text that increases the text receiver's inventory of knowledge, this matter of degree is also salient. Does the text increase the knowledge system by entering a new frame or does it simply augment an old one? Minsky offered one possible answer to this question when he was discussing his frame types. For "Narrative Frames" he included the following type of knowledge: "Conventions about foci, protagonists, plots, development, etc., with the purpose of causing the listener to construct a new Thematic Frame in his own mind" (1974:245). This indicates that a text can encode a text producer's purpose to enter a frame into the text receiver's knowledge system. But a text need not enter an entirely new frame into the text receiver's knowledge inventory. It can enter additional knowledge to a frame already possessed by the receiver.

Finally, we must admit the possibility that a text refuses to correspond to the expectations created by framed knowledge. This is a special case of a text employing knowledge. In a sense, the text employs a certain frame—but only up to a point. It is

conceivable that after some point in such a text, the text simply departs from the knowledge further contained in the frame. This is more than conceivable; in fact, a great number of texts does this. This is the unpredictability of texts that I spoke of in reviewing Kintsch's objections to frame theory in the last chapter. There I said that we could accept a rigid structure for knowledge if we had other devices that allowed for deviations from that knowledge. This possibility is the motivation for a text-knowledge relationship proposed below which embodies such a device.

In answer to these possibilities, I propose six text-knowledge relationships. In positing these relationships, I do not wish to suggest that these are the full range of relationships possible for text-knowledge interaction. In the sections to follow, I will give definitions and employ illustrations. My illustrations will be simple texts that I have constructed, all of which interact with the same frame. My purpose is to define the relationships in as clear a manner as possible. To this end, I feel that the illustrations should interact with the same frame. Unfortunately, it is difficult to find a text that interacts with a single frame in all six possible ways. Therefore, I have constructed the texts myself. I beg the reader to lay aside all suspicions about my method until the next chapter. There I will present published texts, literary and otherwise, which will sufficiently, I believe, support the notions presented in this chapter. The frame I will utilize for my presentation is the AIRPLANE TRIP frame. I have given labels to these relationships as follows: tracing, manifestation, augmentation, entry, jumping, and juxtaposition.

3.1 Tracing

In the first relationship between text and frames, a primary condition must be present, viz. the text producer assumes that the text receiver has the knowledge that the text will reference. Thus, we can say that the frame with which a particular

segment of text interacts is shared by both text producer and text receiver. This assumption is common to this first relationship and the one to be presented in the next section. Another criterion for this first relationship concerns the degree of interaction between text and frames. It appears that most instances of text-frame interaction occur when a text references only a very few elements of a frame. Much of the total content of the frame is not explicitly mentioned in the text. In this sense, the text can be said to "trace" the frame, that is, to make only occasional reference to it. In instances of tracing, the text uses frame references primarily to contextualize its other elements. Seen as a whole, the text makes reference to the frame here and there at most and employs these references as subservient to other text elements. In the text below, only occasional reference is made to the Airplane-Trip frame and these serve to give coherence to the other elements of the text:

Bill George Kratz waited patiently, like everyone else, for his seat assignment. He reckoned that his sinuses could only withstand a no-smoking seat today. As he waited he turned to see, who might be standing nearby for conversation. A tall slender fellow, a collegiate it seemed, was closest. [3.3]

In writing this short text, I assume that my reader knows two things about airplane trips: (1) there is a step in the procedure in which passengers are assigned to seats and (2) one of at least two groups of seats is designated as no-smoking. I also assume that my reader possesses knowledge about another frame, which we can call the Sinus frame. I assume that the reader knows that smoke irritates sinuses and causes discomfort that at times cannot be withstood by some people. But beyond these references no more of either frame need nor does occur. The interaction between text and knowledge serves to provide the background for something else.

Notice also that the text moves on beyond the references to these two frames and begins to develop apart from them. The references are secondary to other

elements that we would expect to find if the text were extended to include, most probably, succeeding events in a narrative.

Tracing, then, can be characterized by three conditions. First, the text is produced under the assumption that the knowledge referenced is shared by both text producer and text receiver. Second, the text makes reference to only parts of a frame and more probably to only a single bit of knowledge contained in the frame. The full contents of the frame is in no wise reflected in the text. And third, the text has its own course, which is apart from the frame. References to the frame may blend into a section of the text's development, but the text has its own development and this cannot be predicted by the frame.

3.2 Manifestation

The next relationship between text and knowledge shares a characteristic with the preceding one. With frame manifestation the same assumption of shared knowledge obtains. The text producer produces the text expecting that the text receiver will recognize and be able to interpret references to the frames involved. The primary distinction that separates manifestation from tracing, however, is that of quantity. While in tracing a text makes only occasional and limited references to a frame, in manifestation a text more or less relates a segment of a frame as a whole. Thus, much of the text's content is that of the frame section. In addition, when a text manifests a frame, the frame becomes the orienting principle of the text. Unlike a text that traces a frame, a text that manifests one does so by developing along the same lines that the frame does. It does not depart from the contents of the frame and go on to its own line of development as does the text that traces. In essence, the text manifests the frame with more or less the same content and development as the frame itself.

I should point out that the relationship identified here need not involve either an entire text or an entire frame. It is very possible that a text in its entirety would manifest a frame in its entirety. But more frequently sections of a text manifest segments of frames. It is as if the text is momentarily "possessed" by the frame; in fact, a certain segment of the frame becomes a certain section of the text. Text 3.4 below illustrates this relationship:

When I got to the end of the jetway, there was the usual bottleneck of people trying to get into the plane. The line crawled along. I studied the panel of knobs and lights that controlled the movement of the jetway and entertained the same thought that came to me at times like this--What's it like to drive a "hallway"? Finally, I inched into the plane. My hanging bag was starting to work its way through to the bones in my fingers. Travelling "light" was not without its disadvantages. On my left were the cockpit and crew. Again a panel of enigmatic knobs and lights. Some things were familiar though. An impatient push from behind propelled me on to a flight attendant who took my boarding pass. He also pointed me to an opening on the left side of the aisle that would swallow my hanging bag. I checked my ticket for my seat assignment and then found my seat. Another aisle seat. [3.4]

Notice that many of the nouns have definite articles indicating shared knowledge as Jones (1980:83-86) has pointed out. Further, in this text there is very little that we would not expect to find in this portion of the Airplane Trip frame. The text makes frequent reference to the frame and these many references serve to manifest the frame. The text is basically a segment of the AIRPLANE TRIP frame verbalized.

When the two relationships described thus far are compared, we find one common characteristic and two dissimilar ones. Both relationships assume shared knowledge between text producer and text receiver. What distinguishes the two relationships is the degree or quantity of interaction between text and knowledge. Tracing is characterized by only sporadic references to the frame, while manifestation occurs when the text or text section consists of little more than frame references. In

addition, in frame manifestation the text develops according to the structure of the frame; its development can be accounted for, i.e., predicted by, the frame. When a text traces a frame, there is little influence on the text from what we possess as framed knowledge.

3.3 Augmentation

The two preceding relationships obtain when the text producer assumes that the text receiver shares the same knowledge that the text references. But such an assumption need not always exist. In fact, the opposite assumption is frequently reflected in texts. Many times the text producer assumes that the text receiver does not possess the same knowledge that he/she does. This assumption can relate to a frame in one of two ways. Either the text producer assumes that the text receiver does not possess the same amount of knowledge about a particular matter or he/she assumes that the text receiver does not possess knowledge about the matter at all. The former assumption motivates instances of frame augmentation; the latter instances of frame entry. Again the point of distinction between these two is quantity.

Frame augmentation occurs when three conditions exist. First, the text producer assumes that the text receiver possesses generally the same frame that the text references. Thus, for example, the text producer assumes that the text receiver knows something about airplane trips. It should be stressed that the frame shared is only "generally" the same. What is common in knowledge between text producer and text receiver serves as the basis for the text reference, but what is different supports the second condition: the text producer assumes that the text receiver does not know everything that he/she knows about the frame. Perhaps, using the AIRPLANE TRIP frame, the text producer believes that the text receiver does not know about a particular service offered to fliers on an airplane trip. The final condition is that the

text producer intends to add to the contents of the text receiver's frame via the text, i.e., he/she intends to augment the text receiver's knowledge. Since the first condition must exist in order for augmentation to take place, frame augmentation will in many cases occur when the text traces or manifests the frame first, thus establishing the "sharedness" of the first condition. Text 3.5 is an example of a text that augments the AIRPLANE TRIP frame:

Next time you fly . . .

Don't waste valuable business time sitting in an airplane seat! Take advantage of Theta Airlines' Corporate Edge Service and make the most of your business day. Here's how:

Theta Airlines is offering its Executive Class fliers FREE phone service--in flight--to anywhere in the continental U.S. Now you can make those big calls that make those big bucks while you're own your way. Call a client. Call an associate . . . or two . . . or three. That's right, with Theta's Corporate Edge Service you can even conference call--to New York--to LA--anywhere--even to another Theta jet. So, when you book your next flight, ask your travel agent or friendly Theta agent to book you on Theta's Corporate Edge Service.

At Theta Airlines

We want your business . . .

. . . to be our business. [3.5]

This text meets the three conditions mentioned above. In producing the text, I have assumed that my reader knows generally about airplane trips. "Sitting in an airplane seat", "its Executive Class fliers", and "when you book your next flight" are references to the AIRPLANE TRIP frame that I assume the text receiver will already know. Notice that the text traces the AIRPLANE TRIP frame since these references are only occasional and the text develops more or less apart from what we would expect from our knowledge of the frame. I also assume that the reader will know that flying is an integral part of many American business people's routine and that flying can be "dead time" to a business person. This knowledge gives the implied reason why anyone

would want to participate in such an service. But I also assume that the reader does not know about the service being offered. I write the text in order to add to the AIRPLANE TRIP frame of my readers. The text, then, is meant to augment the frame.

In summary, augmentation occurs when a frame is shared generally, but when there also is an assumed difference between the text producer's frame and that of the text receiver. Additionally, the text producer must intend to decrease the differences by adding to the text receiver's inventory of knowledge via the text.

3.4 Entry

It is easily seen that a text can be produced based upon the assumption that the text producer possesses a frame that the text receiver does not. The text, then, may be produced primarily to add the frame to the collection of the text receiver's knowledge. This relationship between text and knowledge I call frame entry. As mentioned above frame entry differs from augmentation only in the matter of quantity. This means that while augmentation is characterized by some amount of shared knowledge between text producer and text receiver, entry is characterized by the complete lack of shared knowledge of a particular frame. The text producer assumes that the text receiver does not possess any of the frame that the text will reference. Augmentation also relies on the condition that the text producer assumes a difference in the contents of a frame possessed by the text receiver. This is a moot issue with frame entry, but obviously the same condition exists; the text producer assumes this difference in frame entry as well. And as with augmentation the text producer, in producing a text that exhibits frame entry, intends to implement a change in the text receiver's inventory of knowledge. Thus, frame entry differs from frame augmentation only in regard to shared knowledge: entry assumes the lack of it; augmentation

assumes the presence of it.

Knowledge entry also resembles manifestation in some aspects. Because the text that enters a frame into the text receiver's inventory of knowledge must do so by relating most of the text producer's contents of the frame and by more or less developing according to the text producer's knowledge of the frame, the text manifests the frame, at least relative to the text producer. Of course, since the text receiver does not share the frame with the text producer, the text enters the frame relative to text receiver. Here again, one thing that distinguishes these two relationships, entry and manifestation, is that the former is characterized by the assumed lack of shared knowledge between text producer and text receiver, while the latter is characterized by the presence of it. Additionally, entry assumes the intention to effect a change on the text receiver's inventory of knowledge; manifestation does not.

The following text is a short example of frame entry. It attempts to enter the Name-Day frame. (I am not able to employ the AIRPLANE TRIP frame for this example since obviously the frame is too extended for the space allowances here and since I cannot assume that my readers do not share this frame with me.)

The Greeks are not as keen on celebrating birthdays as we are. Instead, they celebrate their name-days. Every Greek, or I should say every proper Greek, is named after a saint of the Orthodox church. And every saint is honored on one day of the year. When that day comes when a Greek's saint is honored--when his or her name-day comes--the best of best clothes are pulled on and a trip is made to the nearest zacharoplasteion (pastry shop). There the celebrating Greek buys a box or two of sweets to distribute to friends throughout the day. When you encounter one of these gift-bearing Greeks and have the privilege of eating one of these delights, you wish the happy Hellene many years--chronia polla--and enjoy what comes to you. [3.6]

This text is written in such a way so as to reflect my assumption that the reader does not possess this frame. Several signals indicate this assumption. Primarily, the use of the indefinite marker stands out as an indicator of the presumed lack of shared

knowledge: "a saint of the Orthodox church", "a trip is made to the nearest zacharoplasteion", "a box or two of sweets". Other devices employed are: declarative explanatory sentences ("Every Greek . . . is named after a saint of the Orthodox church", "every saint is honored on one day of the year"), appositions ("pastry shop", "--chronia polla--"), modification of indefinite entities ("to distribute to friends throughout the day"), and imperatives or directions ("you wish", "and enjoy"). The text is also written so as to change the reader's inventory of knowledge: by it I hope the reader will henceforth know about Greek name-days. The text is intended to enter the frame into the reader's knowledge.

Though I did not use the AIRPLANE TRIP frame for the illustration of frame entry, an excellent example of a text that is written as an entry of the frame is the children's book We're Taking An AIRPLANE TRIP by Dinah L. Moche. This short book assumes that the text receivers (here listeners) do not possess the AIRPLANE TRIP frame and attempts to enter it from the standpoint of a child's experience. The book follows our expectations of airplane trips precisely, so for the adult reader we would tend to view it as an example of frame manifestation, though this is obviously not what the author had in mind when writing it. It seems that many pieces of children's literature are engaged in this particular text-knowledge relationship. In fact, it may also be that the proverbial incessant questions of children are actually cues for adults and older peers to produce texts that effect frame entry.

3.5 Jumping

Just as frequently texts trace and manifest frames by making reference to the contents of frames in line with our expectations, so also texts frequently contain references that do not meet our expectations based upon our knowledge of frames. In fact, very often a text producer leads a text receiver along the normal expectations

only to present the unexpected. Such texts can be said to jump the frame. We all know how common this device is in literature and humor.

Jumping requires firstly that the text producer assume shared knowledge. The form that this assumption may take in a text can be as an instance of either tracing or manifestation. Thus, either the references to that shared knowledge, to that frame, may be sporadic or they may be the essence of a particular segment of a frame, and the text may develop independently of the frame or it may assume the frame as its orientation for development. Obviously, in effecting the jump, the text will contain some things quite different from the contents of the text receiver's knowledge, but these are the creative additions of the text producer and are not to be construed as the actual contents of the text producer's frame. So, in frame jumping we find shared knowledge with no assumed differences in what text producer and text receiver possess. Most importantly, it should be noted that unlike the preceding two relationships, augmentation and entry, which are characterized by the text producer's intention to effect a change in the text receiver's inventory of knowledge, frame jumping is not characterized by the intention to effect change. The additions to the frame in the text are not differences in the text producer's frame which he intends to add to the text receiver's frame. They are appendages to the frame, creatively produced by the text producer, and are meant to exist in relation to the frame in the particular text that contains them. No doubt, such frame jumping becomes part of the text receiver's memory (and the text producer's as well), but they do not become a further basis for interpreting later texts that reference the same frame. Other texts that reference the same frame may "bring to mind" a particular previous instance of jumping, but that instance will not create an expectation solely on the merit of its one occasion. Text 3.7 below is an example of jumping:

As the plane taxied to the take-off runway, the flight attendants demonstrated the use of the safety equipment. The laminated card was held up so that we all could see what we should read in order to be perfectly well-briefed about crash landing. No one seemed bothered by such talk. A seat belt made to fit around a pigmy was held up and the fascinating buckling and unbuckling sequence was rehearsed. Then, the big yellow cup with the straps on the side was produced. The flight attendant in our section of the aircraft suspended it from the overhead panel to show how it would magically appear and hang above our heads if we happened to fly through a place that had no air. Her rubber smile was soon covered by the cup and her head was entwined by the straps. She pulled the straps to demonstrate the cup's ability to stay put over our mouths and noses should we find ourselves in such a predicament. The voice that filled the plane spoke on of masking ourselves first and then helping our children to mask themselves. Our flight attendant's eyes filled with an unusual glitter, then peacefully closed. She began to swoon, but not with the motion of the taxiing plane. She slammed against the seat next to her and began to make her descent to the aisle floor. As she went down, I noticed a thick green smoke exuding out from the mask about where it hugged her nose. She hit the floor and I wondered about the smoke, about how it could exude when the mask was not hooked up to anything, about whether the same thing would happen to us if we had to put the masks on. [3.7]

This text manifests the AIRPLANE TRIP frame by close reference to the frame and by development oriented by the frame. With the sentence "She began to swoon . . ." the text begins to jump from the frame. From this point on we can no longer rely on our knowledge of airplane trips for confirmation of the events that follow; we must henceforth consult solely with the text for the description of the situation being related. But we do not understand the events that follow the jump as events to be added to our AIRPLANE TRIP frame. We will perhaps remember this fiction the next time we encounter this segment of the frame either in another text or in our experience, but we will not utilize the memory as something that helps to confirm expectations as the frame does. Thus, the events here are an aberration of the frame confined in existence to this particular instance.

3.6 Juxtaposition

The last text-knowledge relationship is similar to the preceding one and yet differs fundamentally from the five relationships discussed thus far. This relationship occurs when a single reference in a text creatively references two (or, rarely, more) frames to effect what will turn out to be metaphor, humorous or not. We can call this relationship juxtaposition. It differs from the preceding relationships in that it involves the interaction of a single text reference with more than one frame. An example of this will help us to see the conditions which must exist when juxtaposition occurs:

The plane surged up and my stomach surged down. I felt like I was in
an express elevator downtown. [3.8]

In this text I match the sensation of take-off in the AIRPLANE TRIP frame with the sensation one experiences in an express elevator. This is knowledge assumed to be shared. As with jumping I am adding a detail that goes beyond the normal contents of the frame. Here it is likening the take-off to another familiar frame. And, as with jumping, I am not attempting to effect a change in the text receiver's inventory of knowledge. The juxtaposition of the two frames is only a momentary phenomenon, though it also may be remembered later. It does not, however, become a permanent part of the frame.

It would seem that most instances of juxtaposition are like tracing in principle of quantity; that is, juxtaposition will usually unite only a single reference to one frame with a single reference to another. Once the juxtaposition takes place, the text develops apart from the combined form of the two frames that were momentarily melded. This is not to say, however, that juxtaposition does not occur in texts that extensively or even partially manifest a frame. A text may manifest a frame and in

so doing may make frequent and varied matches between the frame in focus and other frames that have common contents. But the matching between the frame in focus and another frame is usually not sustained very long. The exception to this is, of course, the extended metaphor or the parable. Here a frame is manifested and yet each reference to the frame is at the same time a reference to another frame. The text develops in accordance with both frames. The essence of this type of text is prolonged juxtaposition.

3.7 Conclusion

In the preceding sections I have posited six relationships that attempt to account for at least some of the interaction between text and knowledge. In defining these relationships I have tried to limit the number of defining characteristics to a minimum. The definitions of some of the relationships depend more heavily on certain characteristics, while others depend on other characteristics. For the sake of summation and clarity, I include all the relationships and their defining characteristics in Table 3.1.

A few comments about the table are in order. The relationships are defined by the presence or absence of six characteristics: sharedness, difference, sporadic reference, independent development, intention to effect change, and single-frame reference. These characteristics have been expounded in the preceding sections, but a short expansion of the terms may help here. "Sharedness" refers to the text producer's assumption that the knowledge a particular section of text references is shared by the text receiver generally. As mentioned in section 3.3, by "generally" I mean that the text receiver is assumed to know something about the frame, but not necessarily all or even the same things the text producer knows. "Difference" is the text producer's assumption that his/her frame is different in content from the text

TABLE 3.1
 FEATURES OF THE TEXT-FRAME RELATIONSHIPS

	Tracing	Manifestation	Augmentation	Entry	Jumping	Juxtaposition
Sharedness	+	+	+	-	+	+
Difference	-	-	+	+	-	-
Sporadic Reference	+	-	+/-	-	+/-	+/-
Independent Development	+	-	+/-	-	+/-	+
Intention to Effect Change	-	-	+	+	-	-
Single-Frame Reference	+	+	+	+	+	-

receiver's. While this characteristic may seem to be the flip-flop of "sharedness," the situation occasionally arises when a text producer utilizes a frame that he/she assumes is both shared by the text receiver and yet is partially different from his/her own. This is the situation when augmentation occurs. "Sporadic reference" describes the text that makes only occasional reference to the frame amid other bits of information that are not part of that same frame. "Independent development" refers to the text that develops apart from expectations supplied by the frame. "Intention to effect change" is the text producer's purpose for producing the segment of text under examination; it refers to his/her intention to change the text receiver's inventory of knowledge. "Single-frame reference" denotes a text segment that refers to only one frame. It should be noted that in some relationships the +/- symbol is used to indicate that either state is possible when the relationship occurs, as was discussed in the sections above.

By positing these six relationships, I do not claim to have exhausted the possibilities for text-knowledge interaction. In fact, it could very well be that I have only begun to scratch the surface of the matter. In the system devised here, there is some asymmetry that invites the symmetrical mind to dabble, and such dabbling surely has its potential. Perhaps, the asymmetries will help to hint at other possibilities. The most obvious asymmetry is with jumping, which sort of hangs waiting for a partner, correlative to the way in which tracing corresponds to manifestation and augmentation corresponds to entry. But what binds these pairs, the matter of the quantity of interaction, does not seem to suggest a logically possible mate for jumping. It is hard to conceive of a text that is a complete jump from a frame, for then there would be no expectations to jump off from in the first place. Perhaps something like parody or antithesis may come to mind, but still it seems that the text would have to manifest the frame parodied—if only, negatively.

Another very likely possibility is frame failure, in which references to a frame fail to obtain, because of either poor production techniques or too great of a divergence in the frames possessed by text producer and text receiver. The following text illustrates the latter possibility:

CRC had done it again! I would have to stay overnight in the airport and wait for the next flight in the morning. Imagine it: 120 for a 727-90 on a leg that has a 2% no-show rate. Being a stand-by was bad enough, but knowing the causes for my misery doubled the torture. [3.9]

This text will have varied success with the general public since the references to the AIRPLANE TRIP frame are to elements of the frame that are not commonly held by the general public. But to an airline employee, the text would be crystal clear, if not stingingly reminiscent. The text fails because the text producer's assumptions are wrong about the inventory of knowledge possessed by the text receiver. The frame

may be shared generally (and there could be texts where even this assumption is wrong), but the text producer's assumption that no differences exist is mistaken. This type of relationship is not, I assume, intended, so a separate relationship need not be posited. Perhaps texts that are written to exclude some receivers, such as secret codes, secret society oaths, etc., do exhibit this type of frame failure, but at least for a small group the texts succeed in their references to knowledge. To assume that every text is intelligible to somebody is a proper Gricean (Grice 1967) thing to do.

In the defining the relationships I have laid heavy stress on assumption for what I hope are obvious reasons. But assumptions are bound to be wrong in some instances, as the previous text illustrates. Yet, that an assumption fails does not necessarily entail that the text fail. For example, I may assume that my reader possesses a certain frame and may construct a text that manifests it. But if my reader does not possess the frame, he may encounter the text as an example of frame entry, i.e., after reading the text the frame will become part of his inventory of knowledge. Miscalculations are bound to occur and obviously do, but very frequently without serious consequence. Somehow the text receiver can often comprehend the text while missing the relationships to knowledge.

CHAPTER FOUR

APPLICATION TO TEXT ANALYSIS

4.0 Introduction

The text, the largest unit of human language, has enjoyed considerable attention from linguists, literary scholars, psychologists, computer scientists, and many other researchers during recent years. Much of this attention has had as its goal a better understanding of the internal structure of texts and how that perceived structure has its bearing on the larger aims of the researcher's field. Some computer scientists, for example, have sought to understand text structure for the sake of constructing computer models of text comprehension (cf. Winograd 1985). Some psychologists have become interested in text structure as a means of verifying theoretical notions about human language processing (cf. Bower and Cirilo 1985). And, as we have seen in the first chapter, linguists have for some time now attended to text structure as a means of providing greater context, and thus better explanations, for subordinate structures, such as the clause and the sentence.

For most fields, positing text structure is subordinate to some grander cause, to the greater aim of the particular field. For the computer scientist, for example, understanding text structure is not an end in itself, but rather is subordinate to the greater task of developing a computer model of text comprehension, this in turn being subordinate to an even greater task—developing a model of artificial intelligence. But for the linguist, positing text structure is for the most part an end in itself.¹ Rather

than being subordinate to some greater goal as in other fields, the positing of text structure in linguistics acts as a final context for many previous endeavors in the field, such as the formulation of sentence grammars, the search for intersentential cohesion, and so on.

As we have seen in chapter 2, attention to text structure is a final boundary for the search for linguistic structure; beyond text structure we do not encounter other types of structure that we are able to call purely linguistic. (I will discuss the view that knowledge is not purely linguistic in chapter 6.) Because of this, when positing text structure, the linguist is not constrained by the demands of some greater linguistic context, as, for example, a phonemicist is constrained by morphology. Instead, the linguist is constrained by his/her notions of language structure in general when positing text structure. A generativist, with the view that language is rule governed, will posit a rule-governed model of text structure (cf. Kuno 1977); a tagmemicist, with the view that language structure consists of slots and its fillers, will posit a slot-filler model of text structure (cf. Pike & Pike 1977); a stratificationalist, with the view that language structure is a set of relationships on and across various levels, or strata, will posit a relational model of text structure (cf. Davis and Copeland 1980). It is the case, I believe, that the great number of text structure models has been produced because there has been no larger linguistic context into which a theory of text structure could feed and by which such a theory could thus be constrained.²

It should be apparent by now that this study, at least to some extent, attempts to bring the text under the constraints of a knowledge system, albeit an experimental one. By so doing, we will hopefully be able to view text structure as being subservient to the knowledge system employed here. From this perspective, then, text structure

can be viewed as linguistic structure that activates and utilizes previously stored knowledge and/or effects changes in the inventory of knowledge possessed by the text receiver.

This study, however, is not an attempt to negate what previous researchers have discovered. On the contrary, it seeks to confirm what seems to be an emerging "truth" about the text, viz. that it is a multi-dimensional structure produced by a mind of varied modalities. Thus, we should expect the various dimensions of text structure to integrate with each other, rather than to compete. This study focuses on one facet of this integration. Specifically, I am interested in how text-knowledge interaction relates to text grammar. By focusing on the integration between these two types of structure in the text, I am hopefully giving credence to the very notion of text-knowledge interaction inasmuch as the correlation between it and text grammar will hopefully verify its claims.³

But before going any deeper into this matter, I should specify what I mean by the term "text grammar." I believe that my use of the term corresponds to a small portion of the rather full and rich approach that Robert Longacre offers for doing textlinguistics:

By textlinguistics I mean: the confrontation of the morphosyntax of a language with its discourse structure. Discourse structure is more than dissection into structural parts; it is also degrees of foregrounding and (degrees of) background; peak-marking; coherence and cohesion. (personal communication)

While Longacre's more impressive work lies in those areas stated above that surpass the mere "dissection into structural parts" of a text, for this study I will focus my application of his notions of textlinguistics to that dissection and will employ the other areas in only a limited way. I limit my application of these more attractive notions not because I doubt their usefulness, but because to do full justice to them

would require more time and space than I have and may distract the reader from the main focus of this study. I believe that once the concepts proposed in this study are fully established, the most logical progression would be to fit them into the framework proposed by Longacre. That, however, is another endeavor in itself.

My limited application of Longacre's notions concentrates primarily on the two types of constituent text structure he proposes: surface structure and notional structure. The surface structure of a text is a constituent structure into which a text can be "sliced up." Longacre points out that broadly a text can be found to have an introduction, a peak, and some sort of closing (1983:xvii). Other grammatical units can be discerned in various texts that bracket both the peak and the text as a whole. In particular types of texts these units have better defined designations: in narration the introduction is called "stage" by Longacre; the pre-peak, peak, and post-peak units are called "episodes," etc.⁴ Thus, text grammar includes the broad divisions that can be made in a text.

Longacre's system of text analysis also includes a notional structure, which relates to "the overall purpose of the discourse" (1983:3). It too has a constituent structure. While the surface structure contains primarily formal distinctions, the notional structure contains primarily semantic ones. For example, the first episode in a narration may encode an inciting event from the point of view of the notional structure. Or the introduction in an exposition may encode a notional problem that seeks a solution. The distinction between a notional structure and a surface structure is necessary because the constituents of the underlying purpose of a text may not exist in a one-to-one correspondence with the constituents of the surface structure. For example, a surface episode may encode both an inciting event and further developing conflict. These notional units are necessary but the surface structure does

not by itself encode them.

We should expect notional structure to correlate with text-knowledge interaction, since the two refer to text meaning more than text form. And because the notional structure of a text is encoded by the surface structure, we should also expect some correlation between text-knowledge interaction and surface structure. This study attempts to show these correlations. In the sections that follow, I will seek to identify text-knowledge interaction in a rather large text according to the relationships defined in Chapter 3. Further, I will offer a broad analysis of the text in terms of its notional and surface structures and attempt to show the integration between text-knowledge interaction and notional and surface structure.

The text that I have selected will, I hope, not only illustrate the value of analyzing texts from the perspective presented here, but also should prove to be interesting to the reader. It is a narrative text⁵ by the renowned essayist, E. B. White. It is entitled "Death of a Pig." White submitted this text to the editor of "This is My Best," an anthology of pieces that various writers considered to be their best work.⁶ It is an account of a man's struggle with death, though not his own. Rather he struggles with the death of his pig. But in that struggle he struggles in emotion with his own death, the looming enemy that finally swallows us all. In the end he loses in both arenas.

The text itself is presented in its entirety in the Appendix. (Sentence numbers have been added to facilitate reference in the sections where the text is discussed.) I strongly recommend that prior to reading each section, the text in the appendix be read first.⁷ My discussion on the text assumes that the reader has read it. I will first present the instances of text-frame interaction that I was able to find. I will also explain, in the less obvious cases, why the instance qualifies as a particular

text-frame relationship. Next, I will present a "coarse" structural analysis of the text, attempting to relate the notional level to the surface level. By "coarse" I mean that I will analyze the text only in terms of its major units (stage, episodes, and closure) and, to a limited extent, the constituents of these units in turn (i.e., events). Finally, I will attempt to show how the text-frame relationships identified interact with the text structure observed.

A word of caution—or rather, a disclaimer—should be inserted here. What is being examined in this study are the text-frame relationships, not the frames themselves. In identifying the text-frame relationships for this text, I will refer to the frame that the text interacts with at that point. (Frame names will be designated by fully capitalized labels; e.g., COUNTRY PHONES, a frame referenced in "Death of a Pig.") I have given names to what I perceive to be frames in a most ad hoc fashion, knowing full well that, if not in most cases at least in many, the frames posited may not be best labelled as I have done so and even that the frames may not be precisely as I have perceived them. Identifying and naming frames is, therefore, still a very open question for me, but the text-frame relationships should, I hope, stand on a more sure, less ad hoc, footing.

In section 4.5 of this chapter, I will make some generalizations about the text-frame relationships encountered in the course of my analysis. I will also offer some hunches I have about text-knowledge interaction as it relates to the text, items that could not be proven by my analysis, but could be "smelled" nevertheless. Finally, some unanswered questions will be presented as well. These questions could easily serve as programs for future research in text-knowledge interaction.

The analysis of the text along the lines outlined above is an in-depth one, at least with regard to the instances of text-frame interaction. I have opted for a

thorough analysis of one text to show the extent to which text-frame analysis can aid in the linguistic analysis of texts. I choose not to tackle a less thorough analysis of several texts for fear that the value of the approach would not be adequately demonstrated. But because the analysis of a lone and single text invites well-warranted suspicions, I will apply my method of analysis to a few short texts in a very "rough and ready" fashion toward the end of the chapter. I hope that by doing so I will be able to indicate the general extensiveness of my claims.

4.1 The Text

E. B. White's "Death of a Pig" is the story of White's struggle with every creature's ultimate enemy--death. But for White the struggle is vicarious since it is not he who finally loses to death, but the pig he is raising for winter nourishment. The pig, then, is bound for death, as we men all are, but that death comes prematurely affects White with a sense of tragedy, as does the premature death of any human we know. "[T]he pig's imbalance becomes the man's, vicariously, and life seems insecure, displaced, transitory" [87]. The tale is bitter-sweet by virtue of a sober content forged in a humorous delivery. We smile at White's futile attempts to save his pig, but within us sounds the sad note that we ourselves are powerless to ward off our end. Though the pig's demise is evident token of our own, we must laugh at White, for he compels us to. Skillfully, he guides us through his pains and brings us to the end. The pig dies and we live on, but not without a marker being erected in our minds commemorating the vicarious experience that we have had, and we, like White and his faithful dachshund, Fred, "shall revisit it, singly and together, in seasons of reflection and despair, on flagless memorial days of our own choosing" [183].

4.2 The Text-Frame Relationships in the Text

In the preceding chapter I introduced the text-frame relationships in an order that was according to similarity of defining characteristics. It is not possible, however, to employ an order of presentation such as this in this chapter dealing with an actual text of some length. Many of the text-knowledge relationships encountered depend on other relationships that occur prior to them in the text. The most natural way of presenting these relationships is in the order that White produced them, i.e., in the order they occur in the story. But this prevents us from grouping the occurrences according to the types of text-frame interaction and thus prevents us from making the generalizations and abstractions that an analysis always seeks to make. Because of this, I have decided to present the instances of text-frame interaction that I have found in groups, but have arranged the groups in an order that seems the best suited to the locations and importance of the occurrences in the text. I have had to group the early instances together under one sub-heading to this end.

The instances of text-frame interaction discussed below are not meant to be exhaustive. I am certain that I have overlooked many instances that do not relate specifically to the maintenance of coherence between sentences. Most of these probably support intra-sentential coherence and are thus too minute in effect to discuss in a study that focuses on coherence in a large text like this one. I believe, however, that the major instances of text-frame interaction have been identified. These, as will be shown below, play a significant role both in maintaining the text's coherence and in supporting the text's structure.

4.2.1 Frame Manifestation and Frame Entry

White's story is agricultural; it deals with a domain of our culture that is familiar to most of us. Yet, the things that he experiences as narrator are not our normal daily experiences; thus, there is a gap between the domain of his tale and what the majority of readers experience from day to day. White, known for his great skill in communicating, ably bridges the gap. Identifying his techniques of doing this can be a first application of the text-frame relationships.

White assumes that his reader knows something about raising pigs in general, but because this knowledge is so central to the story he is about to relate, at the very outset he reviews, so to speak, that knowledge:

The scheme of buying a spring pig in blossomtime, feeding it through summer and fall, and butchering it when the solid cold weather arrives, is a familiar scheme to me and follows an antique pattern. It is a tragedy enacted on most farms with perfect fidelity to the original script. The murder, being premeditated, is in the first degree but is quick and skillful, and the smoked bacon and ham provide a ceremonial ending whose fitness is seldom questioned. [5-7] PIG RAISING

These sentences relate, in a brief fashion, the entire contents of a frame that contains knowledge about raising a pig. For this reason, I have called the frame the PIG RAISING frame. Notice that the reference to the frame is not detailed here, but rather is a broad "sketch" of this "chunk" of knowledge. We could probably supply much more information about raising pigs, or at least some of us could, but for the purpose of his narration White needs only this rough outline of the frame. I believe that what White relates in this sentence is nothing new to most readers; it is probably general, commonplace knowledge and is shared by most readers. Thus, White is not attempting to add new knowledge to the reader's knowledge system. Further, the

sentences take the contents of the frame as their basic orientation. As we saw in section 3.7, these two features, the presence of shared knowledge and the lack of development in the sentence independent of the frame, identify this instance of text-knowledge interaction as frame manifestation. White's tale, then, opens with a "review" of knowledge about raising pigs so as to bring to the fore of the reader's attention the domain in which his story will operate.

But the frame manifestation of the PIG RAISING frame is only a device to set the stage for the events which White intends to relate. There would be little point in developing this frame in a narration.⁸ Instead, White uses this frame as the basis to effect another text-knowledge relationship shortly afterwards:

Once in a while something slips--one of the actors goes up in his lines and the whole performance stumbles and halts. My pig simply failed to show up for a meal. The alarm spread rapidly. The classic outline of the tragedy was lost. [8-10] PIG RAISING

At first glance these sentences juxtapose the contents of two frames (PIG RAISING and THEATER), a point we shall discuss later. More importantly, these sentences relate a departure from the expected norm as established by the PIG RAISING frame. That White's pig failed to show up for a meal breaks with our expectations that during a pig's feeding months it will show up for every meal. Thus, these sentences jump the frame referenced by White a few sentences earlier; i.e., they are an instance of frame jumping.

Yet White's tale is not complete with just jumping from the norm established by the PIG RAISING frame. The departure is an action that sets White's reactions in motion. It is White's reactions that form the real content of his narrative. But in order to guide the reader properly through his reactions, White must supply the necessary knowledge that will make his reactions comprehensible. His pig is sick and obviously

he must care for it. But most readers are probably not equipped with the knowledge of how to care for a sick pig. White apparently was not either at the time his dilemma occurred, for he had to seek the knowledge elsewhere. As he narrates how he came to learn about caring for a sick pig, the reader is also introduced to the same knowledge. The section of text that recounts White's experience in this matter becomes an instance of frame entry for the reader:

Mr. Dameron was back on the line in five minutes. "Henry says roll him over on his back and give him two ounces of castor oil or sweet oil, and if that doesn't do the trick give him an injection of soapy water. He's almost sure the pig's plugged up, and even if he's wrong, it can't do any harm." [37-39] CARE OF A SICK PIG

(The entry of the CARE OF A SICK PIG frame actually occurs in sentences 38-39. Sentence 37 is provided for context.)

This section of text qualifies as a instance of frame entry because first White assumes that the reader does not possess the knowledge being related and because second the section of text, like one that participates in frame manifestation, takes the frame as its basis of organization. The first criterion, the lack of shared knowledge, is evidenced by the very presence of this section of text in the narrative; White's experience prompted him, I believe, to expect that his readers were as unequipped for the events to follow as he had been in the actual events that he encountered, and so he includes this rather detailed account of the phone call that entered the frame for him. Unfortunately, there are no purely linguistic signals for this assumption that might support the identification of this segment here as an instance of frame entry. But I feel that an appeal to pragmatic demands, to the reason for this section of text occurring at all, gives ample proof that White has made this assumption and thus that this section of the text is an instance of frame entry. The second criterion, the organizational dependence of the text section upon the frame, is, I believe, fairly

obvious. The text segment has as its theme the care of a sick pig. There is little other material in these two sentences and the main grammatical elements, such as main verbs, subject (suppressed here because of imperative verbs), and objects (the pig as the indirect object and the oil and the enema as direct objects), reference major events, participants, and props in the frame. (See section 4.2.4 below for an outline of the frame.) The frame is an event type frame which gives the steps of a procedure that White was to follow. I have labelled the frame the CARE OF A SICK PIG frame for lack of a better label.

The narrative is an account of White's double failure—failure in PIG RAISING and failure in the CARE OF A SICK PIG. These two frames dominate the entire narrative, as will be seen a little later when the instances of frame tracing, the most common type of text-frame relationship in this text, are examined. But the few instances mentioned above of text interaction with these two frames give a view of the entire text that encompasses all of its major notions. The manifestation of the PIG RAISING frame gives a background against which the incitement of the string of events to come occurs. The jumping of the PIG RAISING frame provides the starting point for the events in the narrative, the inciting moment, to use Longacre's term (1983:21). The entry of the CARE OF A SICK PIG frame outlines the actions that White later takes in an attempt to rectify the problem. The rest of the narrative recounts how White fared in his frame oriented attempt. Thus, this text, on a very global level, is highly dependent on text-knowledge interaction.

Once the CARE OF A SICK PIG frame has been entered, White is able to reference it frequently throughout the remainder of the text. This he does primarily through frame tracing, as we shall see later. In one place, however, he manifests a portion of the frame:

My son reached down, grabbed both front legs, upset him quickly, and when he opened his mouth to scream I turned the oil into his throat—a pink, corrugated area I had never seen before. I had just time to read the label while the neck of the bottle was in his mouth. It said Puretest. The screams, slightly muffled by oil, were pitched in the hysterically high range of pig-sound, as though torture were being carried out, but they didn't last long: it was all over rather suddenly, and, his legs released, the pig righted himself. [57-61] CARE OF A SICK PIG

Here a portion of the knowledge of the CARE OF A SICK PIG frame, first entered in sentences 38 and 39, becomes the organizing principle of these sentences. Again, the main verbs correspond to a major event of the frame; the subjects correspond to the participants of the frame; and the objects correspond to the props of the frame. Thus, this segment of text can be said to manifest a portion of the frame here. It is important to note that this text segment is an expansion of the knowledge entered in sentence [38]: ". . . roll him over on his back and give him two ounces of castor oil or sweet oil." The two steps given there, where the treatment was prescribed, are presented in their minute actions here, where the actual activity is recorded.

Another instance of frame entry occurs later on in the narrative. Though this particular frame does not play a primary role in the overall narrative, it does serve to heighten the tension in the story by adding yet another complication:

He was full of questions, and when I casually mentioned the dark spots on the pig's back, his voice changed its tone.

"I don't want to scare you," he said, "but when there are spots, erysipelas has to be considered."

Together we considered erysipelas, with frequent interruptions from the telephone operator, who wasn't sure the connection had been established.

"If a pig has erysipelas can he give it to a person?" I asked.

"Yes, he can," replied the vet.

Have they answered?" asked the operator.

"Yes, they have," I said. Then I addressed the vet again. "You

better come over here and examine this pig right away."

"I can't come myself," said the vet, "but McFarland can come this evening if that's all right. Mac knows more about pigs than I do anyway. You needn't worry too much about the spots. To indicate erysipelas they would have to be deep hemorrhagic infarcts."

"Deep hemorrhagic what?" I asked.

"Infarcts," said the vet.

"Have they answered?" asked the operator.

"Well," I said, "I don't know what you'd call these spots, except they're about the size of a housefly. If the pig has erysipelas I guess I have it, too, by this time, because we've been very close lately."

"MacFarland will be over," said the vet. [104-122] ERYSIPELAS

As with the preceding instance of frame entry, White did not possess the knowledge he needed concerning the disease erysipelas and his account of how he came to know about it becomes an instance of frame entry for the reader.

Notice that the frame ERYSIPELAS here is not an event type frame, but an entity frame; it contains knowledge about a disease and has no sequentiality to it, at least not in the form we find it in this text. A comparison of this instance of frame entry with the previous one (CARE OF A SICK PIG frame) shows that, as far as text-knowledge interaction is concerned, a text interacts in about the same fashion with an event frame as with an object or entity frame. As with the event frame in the previous instance of frame entry, this text is organized according to the contents of a new frame. But because the frame is not an event frame, the signals are not the same; there are no events, participants, and props. With the ERYSIPELAS frame, rather, we find defining characteristics of the disease: "dark spots on the pig's back" [104], "If a pig has erysipelas [he can] give it to a person" [107], and there has to be "deep hemorrhagic infarcts" [116]. As discussed in chapter 2, the distinction between the types of frames does not contribute significantly to a better analysis of text-frame interaction; therefore, I have not incorporated the distinction this study.

4.2.2 Frame Jumping

In essence, White's tale is a tragedy of frame jumping. Throughout the narrative, he brings us back again and again to this type of text-knowledge interaction. Besides the instance cited above, there are five other cases of frame jumping. And always his instances of frame jumping are departures from the PIG RAISING frame:

It was about four o'clock in the afternoon when I first noticed that there was something wrong with the pig. He failed to appear at the trough for his supper . . . [28-29] PIG RAISING

Unconsciously I held off, for an hour, the deed by which I would officially recognize the collapse of the performance of raising a pig; I wanted no interruption in the regularity of feeding, the steadiness of growth, the even succession of days. I wanted no interruption, wanted no oil, no deviation. I just wanted to keep on raising a pig, full meal after full meal, spring into summer into fall. [43-46] PIG RAISING

. . . the stuff that goes into the trough and is received with such enthusiasm is an earnest of some later feast of his own, and when this suddenly comes to an end and the food lies stale and untouched, souring in the sun, the pig's imbalance becomes the man's, vicariously, and life seems insecure, displaced, transitory. [87] PIG RAISING

I had assumed that there could be nothing much wrong with a pig during the months it was being groomed for murder; my confidence in the essential health and endurance of pigs had been strong and deep, particularly in the health of pigs that belonged to me and that were part of my proud scheme. The awakening had been violent and I minded it all the more because I knew that what could be true of my pig could be true also of the rest of my tidy world. [126-128] PIG RAISING

I have written this account in penitence and in grief, as a man who failed to raise his pig, and to explain my deviation from the classic course of so many raised pigs. [183] PIG RAISING

In the instances of frame jumping listed above, both the frame being jumped

(PIG RAISING) and the departure from that frame are found. Thus, these instances of frame jumping contain an element of frame tracing in them, as was discussed in section 3.5. The first instance above jumps the PIG RAISING frame in sentence 29: "He failed to appear at the trough for his supper . . ." This sentence departs from the expectations of the frame that were manifested in sentences 5 through 7, specifically, from the expectations created by the phrase "feeding it [the pig] through summer and fall" [5]. The jump is effected by reference to two of the major props in the frame, the pig and the fodder ("his supper"), and one of the minor props, the trough. The second instance also departs from the frame by referring to the "feeding" component. This time, however, the text references the event itself, not the props: "I wanted no interruption in the regularity of feeding, the steadiness of growth, the even succession of days" [44]. This "feeding" component provides the point of departure for the third instance of frame jumping as well: ". . . the stuff that goes into the trough and is received with such enthusiasm is an earnest of some later feast of his own, and when this suddenly comes to an end and the food lies stale and untouched, souring in the sun" [87]. As with the first instance above, this case of frame jumping relies upon a reference to a major prop in the frame, the fodder ("the stuff"), and to a minor one, the trough. The fourth case of the text jumping this frame is somewhat more subtle than the others. The jump occurs with the noun phrase "The awakening" in sentence 128. White uses it to mean something like "the realization that my preceding assumptions were wrong," with the assumptions given in sentences 126 and 127: there can be nothing much wrong with a pig during the months that it is being groomed for murder and pigs are essentially healthy and enduring. This time the jump is realized via references to the "feeding" component and the major prop, the pig. The final instance of the text jumping the PIG RAISING frame occurs in the second to last

sentence in the text. The jump is a departure from the frame as a whole since the entire frame is referenced by a single noun frame: "my deviation from the classic course of so many raised pigs" [183]. The phrase "the classic course of so many raised pigs" refers to the frame as a whole. Later, we shall see the significance of the text jumping only one frame and of the locations in the text for the instances thereof.

4.2.3 Frame Juxtaposition

As mentioned earlier and as the reader will ascertain in his own encounters with the text, White's treatment of this sober subject is quite humorous. White constantly refers his reader to a view of the events that makes us smile. Many times this effect is achieved by frame juxtaposition. This text-frame relationship occurs when a single text segment simultaneously references two (or more, but rarely so) frames by virtue of shared elements in the frames. Normally, one of the frames juxtaposed, I shall call it the primary frame, is related to the topic or sub-topic of the text or text segment, and the other frame is related to the same topic only indirectly through the shared elements of the primary frame. In White's narrative frame juxtaposition is quite frequent; in fact, it is the second most employed text-frame relationship after frame tracing. Some of the instances are quite extended; others span only a small portion of text. The text segments below constitute all the various instances of frame juxtaposition. I have listed the primary frame first; the secondary frame follows the slash (/) in each case.

The scheme of buying a spring pig in blossomtime, feeding it through summer and fall, and butchering it when the solid cold weather arrives, is a familiar scheme to me and follows an antique pattern. It is a tragedy enacted on most farms with perfect fidelity to the original script. The murder, being premeditated, is in the first degree but is quick and skillful, and the smoked bacon and ham provide a ceremonial ending whose fitness is seldom questioned.

Once in a while something slips—one of the actors goes up in his lines and the whole performance stumbles and halts. My pig simply failed to show up for a meal. The alarm spread rapidly. The classic outline of the tragedy was lost. I found myself cast suddenly in the role of pig's friend and physician—a farcical character with an enema bag for a prop. I had a presentiment, the very first afternoon, that the play would never regain its balance and that my sympathies were now wholly with the pig. This was slapstick—the sort of dramatic treatment that instantly appealed to my old dachshund, Fred, who joined the vigil, held the bag, and, when all was over, presided at the interment. [5-15] PIG RAISING/THEATER

A pig couldn't ask for anything better—or none has, at any rate. [23] PIG RAISING/HUMAN SATISFACTION

One of my neighbors said he thought the pig would have done better on new ground—the same principle that applies in planting potatoes. [26] PIG RAISING/POTATO RAISING

He failed to appear at the trough for his supper, and when a pig (or a child) refuses supper a chill wave of fear runs through any household, or ice-household. [29] PIG RAISING/CHILD RAISING

Kneeling, I felt his ears (as you might put your hand on the forehead of a child) and they seemed cool, and then with the light made a careful examination of the yard and the house for sign that the oil had worked. [74] CARE OF A SICK PIG/CARE OF A SICK CHILD

The frequency of our trips down the footpath through the orchard to the pigyard delighted him, although he suffers greatly from arthritis, moves with difficulty, and would be bedridden if he could find someone willing to serve him meals on a tray. [89] DOGS/CARE OF THE SICK

He never missed a chance to visit the pig with me, and he made many professional calls on his own. You could see him down there at all hours, his white face parting the grass along the fence as he wobbled and stumbled about, his stethoscope dangling—a happy quack, writing his villainous prescriptions and grinning his corrosive grin. [90-91] DOGS/DOCTORS

The pig's lot and mine were inextricably bound now, as though the rubber tube were the silver cord. From then until the time of his death I held the pig steadily in the bowl of my mind; the task of trying to deliver him from his misery became a strong obsession. CARE OF A

SICK PIG/CHILDBEARING [99-101]

I went back up to the house and to bed, and cried internally—deep hemorrhagic intears. [162] CRYING/ERYSIPELAS

Never send to know for whom the grave is dug, I said to myself, it's dug for thee. [165] GRAVE DIGGING/"FOR WHOM THE BELL TOLLS"

Everything about this last scene seemed overwritten—the dismal sky, the shabby woods, the imminence of rain, the worm (legendary bedfellow of the dead), the apple (conventional garnish of a pig). [174] DEATH/THEATER/BANQUETING

The first four instances of frame juxtaposition above employ the PIG RAISING frame as their primary frame. White juxtaposes elements of this frame with various other frames to effect mild humor. In the first instance he matches the PIG RAISING frame with the THEATER frame via the extensive use of lexical items from the THEATER frame: "Tragedy," "enacted," "original script," "ceremonial ending," "the actors," "his lines," "performance," "classic outline," "farcical character," "prop," "the play," "its balance," "slapstick," "dramatic treatment." In the second instance, the pig is assigned traits that we humans are expected to have, particularly relative to pursuing satisfaction. The third instance matches pigs with potatoes as White sees in PIG RAISING some common ground with POTATO RAISING. In the fourth instance he finds similarity between raising pigs and children. The fifth instance of juxtaposition has as its primary frame the CARE OF A SICK PIG frame. Elements of this frame are juxtaposed with elements of the CARE OF A SICK CHILD frame: White compares his action of checking for fever in a pig with the similar action for a child.

The next two cases of frame juxtaposition involve the DOGS frame. White is faithfully accompanied by a dachshund named Fred throughout the narrative and he frequently makes humorous comments about the animal. Two of the humorous

passages are these two instances of frame juxtaposition. The second one, matched to the DOCTORS frame, is extended and skillfully executed.

The eighth instance of frame juxtaposition is a somewhat elusive one. Here White matches his care for the pig with the affairs of childbearing. The term "the silver cord" is a poetic label for the umbilical cord, which causes mother and newborn to be "inextricably bound." I suppose that by the phrase "the bowl of my mind" White refers to a familiar prop in the CHILDBEARING frame, a bowl into which the newborn will be bathed⁹. The major event of the CHILDBEARING frame is referred to by the infinitive in the second sentence: "to deliver."

The ninth instance juxtaposes the CRYING and ERYSIPELAS frames. It will be remembered that the ERYSIPELAS frame had been entered earlier. This section of the text lays the frame to rest in the narrative; it is the last time we see reference to it. White accomplishes the juxtaposition by changing the last syllable of the major symptom of erysipelas from "-farcts" to "-tears" yielding the admirable phrase "deep hemorrhagic intears." The morphological change permits the phrase to refer to the CRYING frame, for with crying there will surely be tears. But the juxtaposition has more flesh to it than this. The whole phrase now serves to indicate how intense White's crying really was. It was "deep"; it was "hemorrhagic," now a metaphor indicating the heartrending; and it was "intears," showing White's state as not being merely with tears, but in tears.

In the end, when the pig finally dies, the narrative offers two more instances of frame juxtaposition, both of which have frames relating to death as their primary frames. The first of these is called, in the classical tradition of rhetoric, a parody. White borrows the famous line from a John Donne sermon that was later employed by Ernest Hemingway as a title for one of his novels. The original line reads:

Never send to know for whom the bell tolls,
it tolls for thee.

The value of this instance of frame juxtaposition lies in its offering a textlinguistic basis for defining parody. In parody the style and, more frequently, the wording of a text is mimicked in a second text, usually with humorous effect. Seen in the light of the notions presented in this study, the second text, in unfolding the meaning that it attempts to unfold, refers to another text that had similar meaning. But the meaning of the text that parodies and the meaning of the text parodied cannot be completely the same; thus, I stress only a similarity between them. (If the meaning in the two are identical, we have quotation, not parody.) The rhetorical effect occurs when the text producer is able to forge a relationship between the meanings in the two texts. This forging can be called frame juxtaposition according to the system presented here. White's use of frame juxtaposition to effect parody is humorous here, but not all instances of parody are humorous; there can be a serious use of this type of text-frame interaction. It would also appear that something similar occurs in metaphors and similes: again, a stretch of text that develops a topic refers to a frame that has a meaning similar to the meaning for the text; thus, the two meanings are juxtaposed.

4.2.4 Frame Tracing

By far the most frequent type of text-frame interaction in this text is frame tracing. Because of the greater number of instances, we should examine them in groups. In the discussion that follows I will treat the instances of frame tracing according to the frame that is traced. Primarily, two frames are traced heavily--the PIG RAISING frame and the CARE OF A SICK PIG frame. Other instances of

frame tracing refer to frames that are less prominent in this narrative. We can begin with a consideration of text segments that trace the PIG RAISING frame. This frame was manifested at the very beginning of the text [5-7]. Before looking at the actual examples of segments that trace this frame, it may be helpful to outline the knowledge that the frame contains, at least to the extent that the text itself has manifested the frame. Here is an abstraction of the knowledge contained in the instance of frame manifestation occurring at sentences 5 through 7 and elsewhere throughout the text:

The PIG RAISING Frame

SETTING:

- A farm in the months of March through November, inclusive.
- A pigpen (=pigyard).
- A pig shelter or suitable substitute (=old icehouse).

PROPS:

- A pig.
- Pig fodder.
- A trough for pig fodder.
- Sawdust for the warmth and comfort of the pig. (optional)
- Water.

PARTICIPANTS:

- A pig farmer (or interested party).

EVENTS:

- Buy a spring pig in springtime.
- Feed the pig meal after meal throughout the spring, summer, and fall.
- Butcher the pig when the solid cold weather arrives.
- Prepare the pig into smoked bacon and ham.

With this outline of the PIG RAISING frame, we can examine the instances of the text tracing this frame below:

He had evidently become precious to me, not that he represented a distant nourishment in a hungry time, but that he had suffered in a suffering world. [18] PIG RAISING

My pigpen is at the bottom of an old orchard below the house.
 PIG RAISING [20]

. . . the stuff that goes into the trough and is received with such enthusiasm is an earnest of some later feast of his own, and when this suddenly comes to an end and the food lies stale and untouched, souring in the sun, the pig's imbalance becomes the man's vicariously, and life seems insecure, displaced, transitory. [87] PIG RAISING

I had assumed that there could be nothing much wrong with a pig during the months it was being groomed for murder; [126] PIG RAISING

my confidence in the essential health and endurance of pigs had been strong and deep, particularly in the health of pigs that belonged to me and that were part of my proud scheme. [127] PIG RAISING

These instances of frame tracing relate to various elements of the PIG RAISING frame: the first relates to the last event of the frame outline above; the second refers to one of the setting; the third and fourth relate to second event; the fifth instance, particularly by virtue of the words "my proud scheme" refers to the entire event sequence of the frame. Notice also that three of the text segments above (the fourth, fifth, and sixth) participated in frame jumping as we saw previously. Thus, White's tracing of this frame is frequently employed in setting the stage for a frame jump. This is expected since White's story is an account of his failure to properly raise his pig. We should expect the text to interact with this frame mainly in reference to that failure. And so it does, as the co-occurrence of frame jumping and frame tracing suggests.

But White's story is more involved with the CARE OF A SICK PIG frame as can be seen in the frequent instances of the text tracing that frame. We should outline the contents of the frame, as we did with the PIG RAISING frame, from the various references to the frame in the text:

The CARE OF A SICK PIG Frame

SETTING:

- A farm.

FRAME ENABLER:

- Suspicion that a pig is "plugged up."

PROPS:

- A pig suspected of being "plugged up."
- A bottle of castor oil or sweet oil.
- A pig restraint (=a length of clothesline, a chain). (optional)
- A syringe. (optional)
- An enema bag.
- A rubber tube.
- A bucket of warm soapy water.

PARTICIPANTS:

- A pig farmer (or suitable substitute).
- One or more helpers. (optional)

EVENTS:

- Administer oil.
 - Grab the pig by its forelegs.
 - Roll the pig onto its back.
 - Hold the pig's mouth open with pig restraint. (optional)
 - Pour oil down pig's throat. (optional: use syringe)
 - Release the pig.
- Check for results.
 - If the pig leaves signs of being unplugged, exit this frame.
 - If the pig leaves no signs of being unplugged, continue.
- Administer enema. [Details omitted for decency's sake.]
- Check for signs that enema has worked. (optional)

In the above outline the middle group of events, "Check for results," comes by implication. In the text segment that enters the frame [38], two major procedures are given, the second being contingent upon the failure of the first. The contingency is encoded in the fronted conditional: "and if that [the first procedure, the dose of oil] doesn't do the trick." In the narrative, White actually performs this check twice, in sentences 74 and 84, before proceeding on to the second major procedure—"Administer enema."

The instances of the text tracing the CARE OF A SICK PIG frame are listed below:

I didn't even know whether there were two ounces of castor oil on the place. [47] CARE OF A SICK PIG

When my son and I arrived at the pigyard, armed with a small bottle of castor oil and a length of clothesline, the pig had emerged from his house and was standing in the middle of his yard, listlessly. [53] CARE OF A SICK PIG

In the upset position the corners of his mouth had been turned down, giving him a frowning expression. [62] CARE OF A SICK PIG

He stood his ground, sucking slightly at the residue of oil; [64] CARE OF A SICK PIG

a few drops leaked out of his lips while his wicked eyes, shaded by their coy little lashes, turned on me in disgust and hatred. [65] CARE OF A SICK PIG and PIGS

I scratched him gently with oily fingers and he remained quiet, as though trying to recall the satisfaction of being scratched when in health, and seeming to rehearse in his mind the indignity to which he had just been subjected. [66] CARE OF A SICK PIG

Kneeling, I felt his ears (as you might put your hand on the forehead of a child) and they seemed cool, and then with the light made a careful examination of the yard and the house for sign that the oil had worked. I found none and went to bed. [74-75] CARE OF A SICK PIG

I found a place under the apple tree where he had vomited in the night. [84] CARE OF A SICK PIG

When the enema bag appeared, and the bucket of warm suds, his happiness was complete, and he managed to squeeze his enormous body between the two lowest rails of the yard and then assumed full charge of the irrigation. [92] CARE OF A SICK PIG

Once, when I lowered the bag to check the flow, he reached in and hurriedly drank a few mouthfuls of the suds to test their potency. [93] CARE OF A SICK PIG

the bitter flavor is to his liking. [95] CARE OF A SICK PIG

When the bag was above reach, he concentrated on the pig and was everywhere at once, a tower of strength and convenience. [96] CARE OF A SICK PIG

I took a short drink of the whiskey and then, although I wanted to go down to the yard and look for fresh signs, I was scared to. [130] CARE OF A SICK PIG

The rear seat of his car contained an astonishing amount of paraphernalia, which he soon overhauled, selecting a chain, a syringe, a bottle of oil, a rubber tube, and some other things I couldn't identify. [140] CARE OF A SICK PIG

The treatment I had been giving the pig for two days was then repeated, somewhat more expertly, by the doctor, Miss Owen and I handing him things as he needed them--holding the chain that he had looped around the pig's upper jaw, holding the syringe, holding the bottle stopper, the end of the tube, all of us working in darkness and in comfort, working with the instinctive teamwork induced by emergency conditions, the pig unprotesting, the house shadowy, protecting, intimate. [148] CARE OF A SICK PIG

It is interesting to note that the listing of these instances of the text tracing the CARE OF A SICK PIG frame provides a general sketch of the the course of events in the narrative, at least from the point in the text where the frame was entered until the pig dies. The first six cases refer to the first major event complex in the frame--"Administer oil." All but one of these instances trace the frame via one of the major props, the oil. The third case [62] refers to the result the second event: "Roll the pig onto its back." The seventh and eighth cases [74-75 and 85] trace the intermediate step of checking for results from administering the oil. The check is repeated before the negative signs are encountered. This leads the narrator to the next group of events in the frame, "Administer the enema," which is traced in the next four instances of frame tracing [92, 93, 95, and 96]. While the sentences involved in the tracing of this portion of the frame are virtually contiguous in the text, they should

each be considered as separate instances of frame tracing. In all cases, except one, the segment of the sentence that actually refers to the CARE OF A SICK PIG frame is subordinate to the main clause, being introduced by "when." The one exception [95] is an aside. Thus, the tracing is fragmented into separate instances, albeit in very close proximity to one another. The next occurrence of frame tracing is found in sentence 130. Here White, having administered the enema, deliberates about going to the pigyard to check for signs that the enema has worked. He decides against it, thus I have made this event an optional one in the frame outline above. The last two instances of tracing for this frame [140 and 148] recount the entire frame each time, first by reference to the props, then second by reference to the duties of one of the participants, i.e., the helper's handling of the props. Because the frame has been so central to the development of the narrative up to this point, White is able to refer simply to the props in order to recount, still in fairly fine detail, the actions of MacFarland. This proves to be an interesting variation of presenting the facts without boring the reader. The fact that the instances of frame tracing on the CARE OF A SICK PIG frame occur in the text in an order that sequentially references the contents of the frame indicates that the text is organized according to this frame, at least from the point the frame is entered in sentences 38 and 39 until the pig dies in sentence 151. We shall see more on this point in the section below on the relationship between the text's structure and the instances of text-frame interaction.

The remaining instances of frame tracing involve less prominent frames employed in the narrative. Since the story has a pig as its central prop, there are traces made on the PIGS frame as the listing below indicates. The traces on the COUNTRY PHONES frame make the interruptions by the telephone operator comprehensible to the reader; the interruptions are consonant with our expectations

that a rural telephone operator would have a difficult time ascertaining whether the connection has been made. In the end White traces the HUMAN BURIAL frame in a rather full way¹⁰, though it is the pig that has died and needs a burial, not a human.

Back on his feet again, he regained the set smile that a pig wears even in sickness. [63] PIGS

His stiff white bristles almost completely hid them and I had to part the bristles with my fingers to get a good look. [71] PIGS

Once, near the last, while I was attending him I saw him try to make a bed for himself but he lacked the strength, and when he set his snout into the dust he was unable to plow even the little furrow he needed to lie down in. [157] PIGS

Together we considered erysipelas, with frequent interruptions from the telephone operator, who wasn't sure the connection had been established. [106] COUNTRY PHONES

"Have they answered?" asked the operator.

"Yes, they have," I said. [109-110] COUNTRY PHONES

"Have they answered?" asked the operator. [119] COUNTRY PHONES

I hung up. [123] COUNTRY PHONES

But even so, there was a directness and dispatch about animal burial, I thought, that made it a more decent affair than human burial: there was no stopover in the undertaker's foul parlor, no wreath nor spray; [175-176] HUMAN BURIAL

and when we hitched a line to the pig's hind legs and dragged him swiftly from his yard, throwing our weight into the harness and leaving a wake of crushed grass and smoothed rubble over the dump, ours was a businesslike procession, with Fred, the dishonorable pallbearer, staggering along in the rear, his perverse bereavement showing in every seam in his face; [177] HUMAN BURIAL

and the post mortem performed handily and swiftly right at the edge of the grave, so that the inwards that had caused the pig's death preceded him into the ground and he lay at last resting squarely on the cause of his own undoing. [178] HUMAN BURIAL

4.2.5 Frame Augmentation

The final type of text-knowledge interaction used by White in this text is frame augmentation. It should be recalled that augmentation occurs when the text producer attempts to add knowledge to a frame that is shared by the text receiver. White has two instances of this, each being the augmentation of a different frame. In the excerpts below I have provided a few preceding sentences from the text so that a context could be established that would aid the identification of the following sentences as frame augmentation. The sentences actually involved in frame augmentation are easily detected in these instances by the shift in the tense of the main verbs from past to present.

... I went to the phone and cranked it four times. Mr. Dameron answered. "What's good for a sick pig?" I asked. (There is never any identification needed on a country phone; the person on the other end knows who is talking by the sound of the voice and by the character of the question.) [30-34] COUNTRY PHONES

I visited the pig before breakfast and tried to tempt him with a little milk in his trough. He just stared at it, while I made a sucking sound through my teeth to remind him of past pleasures of the feast. With very small, timid, pigs, weanlings, this ruse is often quite successful and will encourage them to eat; but with a large, sick pig the ruse is senseless and the sound I made must have made him feel, if anything, more miserable. [79-82] PIGS

In the first instance of frame augmentation above, White assumes that the reader knows something about country phones in that he mentions the cranking without explanation. But he also assumes that the reader is not fully aware of how communication takes place on these phones in that he gives a parenthetical note on the system of etiquette employed. The augmentation fills a gap that is created by the abrupt opening of the phone conversation: normally we would expect, as per a PHONE CALLS frame, an exchange of greetings, which never occurs. With White's explanatory

augmentation of the COUNTRY PHONES frame, we are compelled to relax our expectations from the PHONE CALLS frame and to adopt the conventions contained in the now augmented COUNTRY PHONES frame.

The second instance augments a PIGS frame. Again, White assumes that his reader shares some knowledge with him about pigs, a safe assumption indeed. But he also assumes that the reader does not possess the particular knowledge about how to encourage pigs to eat. Thus, he explains why he has taken the action he did in the preceding sentences.

4.3 The Structure of the Text

The structure of narrative texts has been extensively explored by various scholars. For this study I will employ the method of structural analysis employed by Longacre (1983). In the framework proposed by him, a narrative is composed of three groups of units on the surface level¹⁴: stage, episodes, and closure. Among the episodes, one should stand out as being a peak episode by virtue of its special surface features (1983:24). The surface peak corresponds to the notional climax or to the denouement. Let us now attempt to apply these concepts to White's "Death of a Pig."

First, it is simplest to identify the various episodes in the story. The first episode usually contains the "inciting moment" (Longacre 1983:22) of the narrative. This is an event that sets the tale in motion. The inciting moment of White's narrative occurs at sentence 28: "It was about four o'clock in the afternoon when I first noticed that there was something wrong with the pig." This sentence sets in motion the series of events that comprises the story. Thus, episode 1 includes this sentence. But prior to this sentence there are a few others that serve to introduce this sentence. They are sentences 20 through 27. These sentences give the background setting for the story:

the pigpen, the pighouse, the sawdust in the pighouse. Notice that the main verbs in the sentences that introduce each of these background items [20, 21, 22, 24] are state verbs and thus do not refer to events within the episode. Because of this, we are safe to call these sentences, and the ones that further explain them [23, 25, 26, 27], background material for the first episode. We can be certain that this background material begins no sooner than sentence 20 because sentence 19 is an explicit comment telling us that the following sentences compose the actual beginning of the story: "But I'm running ahead of my story and shall have to go back."

We have seen that sentence 28 sets the narrative in motion, that it encodes the notional item called "inciting moment." We have also distinguished above between it and the background material of sentences 20 through 27. Thus, we can begin to perceive a basic distinction in text material: some segments will serve to move the narrative along, to further develop the narrative; others will offer no further development but rather will provide supportive information about matters mentioned in the moving narrative. Longacre has termed these two types of text material "main line" and "supportive" material (1983:14).¹²

Usually, the development of a narrative occurs via sentences that relate events that occurred in close contingent temporal succession. In other words, the events occurred in a somewhat short timespan.¹³ There are frequently points, however, when the narrative makes leaps in time and picks up with another span of closely occurring events. In many narratives, these leaps serve to demarcate the narrative into episodes.¹⁴ Thus, the entire development of the narrative, that is, the main line, consists of several episodes in which the text producer focuses on a set of related events. In essence, time is slowed within the episodes and sped up in the linkage from episode to episode.

Because the onset of a new episode frequently involves a jump in time, a well written narrative will have explicit time markers near the beginning of the episodes so that the reader will realize that a text boundary has just been passed. In White's story we find such time markers at or near the beginning of the various episodes. Notice that sentence 28, which begins the main line of development, has such a time marker: "It was about four o'clock in the afternoon when . . ." We can list the various sentences that contain these time markers and indicate new episodes:

- Episode 1: It was about four o'clock in the afternoon when I first noticed that there was something wrong with the pig. [28]
- Episode 2: Shortly after five o'clock I remembered that we had been invited out to dinner that night and realized that if I were to dose a pig there was no time to lose. [48]
- Episode 3: Several hours later, a few minutes before midnight, having dined well and at someone else's expense, I returned to the pighthouse with a flashlight. [72]
- Episode 4: Next day was another hot one. [78]
- Episode 5: Along toward the end of the afternoon, defeated in physicking, I phoned the veterinary twenty miles away and placed the case formally in his hands. [103]
- Episode 6: It was long after dark and the supper dishes had been put away when a car drove in and MacFarland got out. [132]
- Episode 7: He died twenty-four hours later, or it might have been forty-eight--- [151]
- Episode 8: I didn't wake till nearly eight the next morning, and when I looked out the open window the grave was already being dug, down beyond the dump under a wild apple. [163]

In all but two cases, the sentences above occur at the beginning of their respective episodes. We have seen that the first episode has some supportive material at the beginning, before the main line material begins. The same is true of episode 4: prior to

the specific time reference White pauses to tell us something about the weather at the time. I shall attempt to explain the purpose for the presence of supportive material before the main line development a little later.

It appears that episode 5 stands out as the peak episode. Longacre has noted quite admirably that the structure of a peak episode generally differs from the structure of the other episodes. In his discussion on the matter he refers to peak as "a zone of turbulence in regard to the flow of the discourse in the preceding and following parts of the discourse" (1983:25) and provides an impressive battery of possible signals that could mark an episode as being the peak (1983:26-38). Of the many possible signals, White apparently uses a type of heightened vividness to mark episode 5 as the peak. Specifically, he employs "a shift along the narration/drama parameter" (Longacre 1983:28). The bulk of episode 5 is a dialog between White and the veterinary over the telephone concerning erysipelas. On Longacre's continuum of four values (narration > pseudo-dialog > dialog > drama), dialog rates as one of the more heightened shifts. Because the narrative shifts from simple narration to dialog, and to extended dialog in this case, we have a good clue that this episode stands out as the peak of the story. Additionally, I should note that episode 5 is the only episode in which the pig does not appear. Though, of course, the phone call made in this episode concerns the pig, the animal itself does not come into the picture at this time. Longacre has noted that not only is it possible for a peak to be marked by the concentration of major participants in an episode (1983:27-28), but also that peak may be marked by an unusual absence of major story elements in an episode (personal communication). I believe that the pig's absence in in episode 5 is an example of this latter case. The notional support for considering this episode as the peak will be provided below.

So far I have identified most of the sentences in the text as being the parts of eight episodes. But sentences 1 through 19 and 182 through 184 have not been discussed at all. These two blocks of text, at the very beginning and at the very end, are the stage and closure of the text, respectively. Both sections of the text are characterized by present time verbs (= present and present perfect tenses). Thus, White slowly transfers us into the history of his tale and, after completing the tale, returns us back to the present. This then, in a nutshell, is the rough surface structure of the text: stage, eight episodes, the fifth functioning as the peak episode, and closure.

Our next task is to consider the notional structure of the text and to relate this structure to the surface structure. We should begin by first listing the contents of each surface structural unit of the text. This is akin to providing the macrostructure of the text, as van Dijk terms it (1977:130-163). I will not, however, follow as detailed a procedure as he does. I believe an intuitive summation of each unit will suffice for the task at hand:

- Stage: The purpose for the narrative. Explanation of normal course for raising a pig. Preview of narrator's actual experience in raising a pig. [1-19]
- Episode 1: Discovery of sick pig. Call to friend for help on care of a sick pig. Narrator's reflections on the situation. [20-47]
- Episode 2: Administration of oil to pig. Discovery of spots on pig. [48-71]
- Episode 3: Visit to pig to determine if oil had worked. [72-75]
- Episode 4: Unsuccessful attempt to give milk to pig. Narrator's reflections on the situation. Digression about narrator's dog including its behavior during administration of enema to pig. Narrator's reflections on the situation. [76-102]

- Episode 5: Call to veterinary and discussion on erysipelas. Narrator's reflections on the situation. [103-131]
- Episode 6: Visit to pig by local pig expert to re-administer previous treatment. [132-150]
- Episode 7: Death of pig. Crying of narrator. [151-162]
- Episode 8: Burial of pig. [163-181]
- Closure: Closing events in tale. Restatement of purpose for text. Indirect note for the reader. [182-184]

I have noted above (section 4.0) that Longacre's notional structure deals primarily with the overall purpose of a text. In his discussion of notional structure, he has presented a list of probable notional features that relate to the various parts of a narrative (1983:21). These features will help to conduct us through our consideration of the notional structure of White's narrative.

The stage of a text generally presents the necessary background for the story. In White's narrative the stage plays a vital role in the full success of the narrative for it presents the norm from which this particular series of events departs, i.e., the normal progression for raising a pig for food in the wintertime [5-7].

In the stage there is also a "false start" for the main line of development: "My pig simply failed to show up for a meal" [10]. This is the beginning of the departure from the norm, but here in the stage the departure is not developed; rather it is simply initiated. That sentence 10 is a "false start" of the main line material can be seen in its close similarity to the sentence that actually does start the main line: "He failed to appear at the trough for his supper . . ." [29]. Notice that the two sentences communicate the very same information with only slight variation. The subject in sentence 10 ("My pig") is replaced by a subject pronoun ("He") in 29; the main verb is the same in each ("failed"); the verb complement in each are synonyms ("to show up"

and "to appear"); and the adjunct phrase in each are also synonyms ("for a meal" and "for his supper"). The only difference in informational content between the two sentences is the locative phrase "at the trough" in sentence 29. Because sentence 10 is so similar to the first event line sentence [29], it is evident that sentence 10 acts as a "early warning device" for the coming main line material. The full development does not actually begin until after sentence 29 and thus it is there that we should place the beginning of the main line. This "false start" acts as an appetizer, so to speak, before the full meal starts.

But more importantly located in the very first sentence of the text is the purpose of the text. White does not go through the trouble of relating his painful experience because the events themselves will make for mere interesting reading. We know from the first sentence, and even from the title preceding it, that his pig dies, so the writer is not interested in telling a tale of suspense throughout which we, the readers, would hold our breath anxiously waiting to learn the final outcome of things. Instead of this, White, as he makes clear in the stage, intends to run the reader through the same experiences he has passed through so that we may see the same things, on a more metaphysical level, that White has seen. From the outset, White assigns a deeper level of understanding to his text via sentences 16 through 18:

When we slid the body into the grave, we both were shaken to the core. The loss we felt was not the loss of ham but the loss of pig. He had evidently become precious to me, not that he represented a distant nourishment in a hungry time, but that he had suffered in a suffering world.

Throughout the story White returns us to this deeper issue, which I shall call the metaphysical issue.

Episode 1 sets the story in motion as we saw earlier. The discovery of the sick pig presents a problem that the narrator must grapple with for the rest of the story.

This first episode also provides us with the procedure for understanding the actions later taken by White to help the pig. Though only the beginning of the ordeal is related to us in episode 1, we know that the pig will eventually die and so the events of this episode match the expectations set up by the stage. Whether the events of an episode match the stated outcome of the story in the stage will be an important feature of the various episodes. The stated outcome is the eventual death of the pig, which, we can say, has a negative emotional force to it. Some of the episodes in the narrative help the reader toward this final outcome; others create the hope, if only emotionally and for a moment, that the outcome will somehow be avoided. Those episodes that match expectations created by the stated outcome of the stage, that is, which further develop the story toward that outcome, end with this same negative emotional force. And it is in those episodes with this negative emotional force that we find White's thoughts turned to the metaphysical issue that underlies his story. At the end of episode 1 we meet the thoughts he first thought on the matter: "I wanted no interruption, wanted no oil, no deviation" [45].

In episode 2 White begins the treatment prescribed by friends. It is a hopeful process for him, for he did not, at the time the events actually occurred, have the advantage of knowing what the final outcome would be. Thus, the episode has a positive emotional force to it and accordingly there is no digression to the metaphysical issue involved. Episode 2 also introduces us to some troublesome pig spots. While White makes nothing of it at the time, the trained reader will suspect, simply by the very mentioning of them, that here is a complicating factor. White intends for us to merely hold them in memory now for some later use in another episode.

Episode 3 is a very short episode of four sentences [72-75]. It is difficult to

discern what the notional force of this episode might be. It appears that White uses this episode as a device to lengthen the effect of waiting for something to happen in the story. Without the episode, the events of the next episode come upon us too quickly; with it, we are held a little longer in anticipation of the next series of developments. Since White finds no signs that the oil has worked, we are left with the same emotional force of the preceding episode. Thus, episode 3 is in itself neutral in this respect. Again, because the episode has no clear negative force to it, we do not find mention of the metaphysical issue.

Episode 4 differs from the other episodes because of the supportive material that occurs at its beginning, as I noted earlier in the discussion on its surface structure. It seems that this supportive material dealing with the weather at the time of the story helps to lengthen the anticipation created in episode 3 even more. The anticipation is well deserved and well rewarded by the events that are related later in this episode.

This episode provides substantial progress in the development of the story. After an unsuccessful attempt to give the pig some milk, White finds signs that the oil didn't do as it was hoped it would. But White is not yet overcome by the situation: "At this point, although a depression had settled over me, I didn't suppose that I was going to lose my pig" [85]. Yet the episode brings us one step closer to the stated outcome in the stage. Thus, the episode has a negative emotional force to it. Again, White resorts to his metaphysical ruminations, this time in two places within the same episode: after the unfortunate discovery and at the end of the episode. It is at this first instance of contemplation that White includes his explicit statement about the effect which the pig's misfortune had upon him and which should, by association, have upon his reader:

the stuff that goes into the trough and is received with such enthusiasm is an earnest of some later feast of his own, and when this suddenly comes to an end and the food lies stale and untouched, souring in the sun, the pig's imbalance becomes the man's vicariously, and life seems insecure, displaced, transitory. [87]

Later, he concludes the episode with a restatement of the idea expressed in the stage at sentence 18: "His suffering became the embodiment of all earthly wretchedness" [102].

Episode 5 serves as peak in this narrative. I have already discussed the formal signal for designating it so. Now we should examine the notional features that make this episode the notional climax, the deep structure item that corresponds to the surface peak. Longacre has defined climax as that portion of the text "where everything comes to a head. Here is where the author really messes it up, brings in contradictions, and adds all sorts of tangles until confrontation is inevitable" (1983:21). White does not employ all the devices that Longacre mentions, but he does add the final complication that makes the picture as bleak as it can be and carries the story to a point from which there is no return. While discussing the pig's problems with the veterinary, the spots first noticed in episode 3 come up in the conversation. White transfers us to the inside of that conversation and we consider erysipelas together with White, the veterinary, and the telephone operator. A crowning problem is introduced: "deep hemorrhagic infarcts" and though the veterinary assures White that the pig doesn't have the dreaded disease, the damage has already been done—at least from White's point of view: "Deep hemorrhagic infarcts—the phrase began fastening its hooks in my head. . . I was certain I had erysipelas" [125, 131]. From this point on, the story gets no worse; no other complications occur. The rest of the story is devoted to letting things go "downhill." Of course, there is strong negative emotional

force in this episode and the underlying metaphysical issue recurs in equal strength: "The awakening had been violent and I minded it all the more because I knew that what could be true of my pig could be true also of the rest of my tidy world" [128].

In episode 6 the local pig expert applies his skill to the case. Because the treatment is handled by a professional, a new gleam of hope springs up. The emotional force is positive in this episode as we find the pig under the expert's care and learn from him that the pig is not in danger of erysipelas. Accordingly, White does not address the deeper issue in this episode.

Episode 7, however, opens abruptly with the realization of the stated outcome mentioned in the stage: "He died twenty-four hours later, or it might have been forty-eight—" [151]. From here to the closure of the text, since the pig has died and thus the stated outcome has been realized, the notion of emotional force no longer operates, or at least no longer determines White's return to the metaphysical issue. In all of episode 7 he does not address the issue.

Although the pig did not die of the deep hemorrhagic infarcts indicative of erysipelas, White was correct, at least metaphorically, about having contracted the disease himself. After discovering that the pig had finally died, he "went back to the house and to bed, and cried internally—deep hemorrhagic intears" [162]. This morphological play loosens the tension created by the first mention of erysipelas in episode 5.

On two counts, then, we can see episode 7 serving as a kind of denouement. First, by mentioning that the pig finally died, all the complications built up by the various attempts at treating the pig are resolved, albeit negatively. Second, the crowning complication, that of erysipelas, is defused via White's humor.

The last episode brings things to their logical end—burial. White uses this

episode to drive the final nails into the metaphysical issue that he has been constructing. His sentence 165 strongly identifies the pig's demise with his own: "Never send to know for whom the grave is dug, I said to myself, it's dug for thee." Further, White's comparison of an animal burial with that of a human gives us a hint of the point that he intends to make: the story of this pig's demise is meant to remind the reader that his own life is transitory and his own demise is imminent.

In the closure we find out how affected White intends us to be by his narrative. In the final sentence of the text "the mourner" must include the reader, since the reader now knows of the events that have transpired and should so be affected. White expects that we too have gotten the message (not that indeed we would mourn a pig).

4.4 The Relationship between Text-Frame Interaction and Text Structure in the Text

I believe that the last task in the analysis of White's "Death of a Pig" is an easy one. I have identified the major instances of text-frame interaction in the text (4.2) and have given a broad analysis of the text both on the surface and notional levels (4.3). All that remains is to relate these two types of structure to each other.

From the global view of the entire discourse, we can say that the text is primarily a story built on frame jumping. Evidence of this can be seen in the distribution of this text-frame relationship throughout the text. We find jumping, always from the same PIG RAISING frame, in the stage [8-10], at the start of the main line material [28], at the end of episode 1 [43- 46], within episode 4 [87], at the end of episode 5 [126-128], and in the closure [183]. In the preceding section I pointed out the varying emotional force of each of the episodes; it is the proper place here to

point out that in most of the cases where negative emotional force is found and thus where White digresses on the metaphysical issue underlying the story, he digresses via frame jumping. We can call this digression a regression since by it White withdraws from the progress being made toward that which he has stated as the final outcome of the story. In other words, when an episode progresses toward the stated outcome found in the stage, White relapses to a state of depression in which he considers the deeper truth to be found in his situation. Such consideration is mostly couched in terms of what should have been, in terms of the norm from which things departed, in terms of frame jumping. Thus, frame jumping is the primary device used to bring the metaphysical issue to the fore. The only exception to this occurs at the end of episode 4 at sentence 102: "His suffering became the embodiment of all earthly wretchedness." This is not an example of frame jumping.

The text interacts with two major frames: PIG RAISING and CARE OF A SICK PIG. The former frame is manifested in the stage so that the reader has an orientation for the deviation that White's story recounts. A "preview" of that deviation also occurs in the stage in sentence 10, where we find the first instance of frame jumping. Then, in episode 1 this frame is jumped again when the main line is set in motion [29]. The other dominant frame, the CARE OF A SICK PIG frame, is entered in episode 1 as well, in sentence [38]. This instance of frame entry establishes an outline that the next three episodes (2, 3, and 4) follow. The events in these three episodes can be summarized by the instance of frame entry in sentence 38. Thus, frame entry serves to establish the macrostructure, using van Dijk's term, for the following three episodes.

In "Death of a Pig," White always prepares his reader for what is coming later in the narrative, as the "preview" in the stage and the procedure given in episode 1

indicate. These forewarnings, as we have seen, obtain via text-frame relationships.

As mentioned in section 4.2.1, most of the instances of frame tracing involve the CARE OF A SICK PIG frame. Since this is the frame that establishes the way that the events of episodes 2, 3, and 4 will go, it is not surprising that this frame is so frequently traced. Those places where the text traces this frame keep the development of the text in tune with the knowledge that the reader has obtained concerning the care of a sick pig. A particularly good example of the use of frame tracing in order to effect coherence occurs in episode 4. At the end of the episode, when the macrostructure outlined in episode 1 reaches the point when the enema is to be administered, White uses the discussion of his dog as the means to record the procedure. In sentences 88 through 97, he tells the reader about the vile enjoyment the dog finds in all the pig's (and the narrator's) suffering. A particular instance of this enjoyment occurs while the enema is being administered. The theme of this section of the text is the dog's perverseness and thus the main clauses of each sentence here focus on that. But to keep this section of text coherent with the rest of the narrative, White traces the CARE OF A SICK PIG frame in the subordinate temporal clauses. This instance of frame tracing demonstrates the chief function of frame tracing in almost every text, i.e., the maintenance of coherence.

After the contents of the CARE OF A SICK PIG frame have been exhausted by the events of episodes 2, 3, and 4, another frame is entered in episode 5—the ERYSIPELAS frame. Though the contents of this frame, at least those presented to us in the text, are meager, this instance of frame entry provides the crowning complication in the narrative. It also sets the stage for an excellent example of frame juxtaposition used humorously in episode 7.

In episode 6, White returns to the CARE OF A SICK PIG frame, but this

time it is not he who serves as the main participant but rather the local pig expert, MacFarland. White himself assumes, along with MacFarland's fiancée, the role of helper. The frame is again traced via the props contained in it. The account of this last attempt to help the pig is the last reference to the CARE OF A SICK PIG frame in the story.

Once care for the pig becomes useless, that is, once the pig dies, coherence is no longer effected by the text tracing the CARE OF A SICK PIG frame. In episode 7 the text does not cohere by virtue of tracing a frame but rather by virtue of grammatical and lexical signals. In episode 8 the text again employs frame tracing to effect coherence, this time with the HUMAN BURIAL frame.

A great part of White's success with this narrative is due to the humorous delivery. A primary device used by White to obtain the humorous effect is frame juxtaposition. Most of the instances of frame juxtaposition involve the PIG RAISING frame, the frame that the story jumps. Thus, White pokes fun at the very problem that he faces and this no doubt is what makes the story so attractive. White also juxtaposes the DOGS frame with other frames to make sport of Fred, his dachshund. The dog, then, becomes another source for the humor obtained in the narrative by frame juxtaposition.

There are only two instances of frame augmentation in the text and both are used as asides by White. The first [30-34] instance serves to explain why White began his phone conversation with a friend without a greeting. The second [81-82] adds information to the PIGS frame so that White's actions ("I made a sucking sound through my teeth to remind him of past pleasures of the feast") can be understood. Thus, both cases help to make seemingly incomprehensible actions comprehensible by defining them in terms of certain frames about which White assumes his readers have

only minimal knowledge.

4.5 Conclusions on the Text

White's "Death of a Pig" is a highly frame oriented text; that is, it develops as a whole in accordance with a few key frames. As we have seen, text-frame interaction supplies the necessary domains of knowledge according to which the text develops. Also, some of the literary devices employed by White can be identified as text-frame relationships. Because the text so well illustrates the text-frame relationships proposed here, it is possible to venture some generalizations and guesses about the relationships. I believe that these additional points could serve future text analyses performed within this framework well.

From what was seen in the narrative by White it seems that frame tracing functions primarily to support coherence in a text. Because of this frame tracing should, in most narratives, be the most common type of text-frame interaction, as it was in White's text. Because tracing depends on knowledge assumed to be shared by the text receiver, the text producer can easily refer to any type of information contained in the frame in practically any environment. Consider, for example, White's tracing of the props in episode 7 to recount the repetition of the procedure outlined in the CARE OF A SICK PIG frame. We can say, then, that frame tracing has a fairly free distribution in a narrative text. We shall see that this is not the case with some of the other frame types.

Frame manifestation will probably prove to function as staging or background material in a text. This conclusion comes from a consideration of the characteristics of frame manifestation in relation to the pragmatics of text production. Frame manifestation occurs when a text segment is organized according to the contents of a

frame which the text producer assumes that the text receiver shares. By "organized according to," I mean that the text segment focuses on and relates as its primary message the contents of the frame. But if the frame is shared by both sides of the communication situation, no exchange of information is taking place, and thus the need for the text to exist at all, if that is all the text is composed of, comes into question. Thus, it is hardly likely that frame manifestation, at least when it is intended to be such by the text producer, will constitute the main line of development in a narrative. It is conceivable, in fact White's use of frame manifestation is an actual proof of this, that this type of text-frame interaction will serve to bring to the fore in the text receiver's attention a frame that the text will interact with later in some other fashion, e.g., jumping, tracing, augmenting, etc. The manifestation of a shared frame, then, "sets up" the knowledge domain on which a text will later capitalize. From this it appears that frame manifestation is limited to background material in a narrative.

What comes to my mind in this regard are the typical instances of frame manifestation found in mystery novels and suspense stories. Frequently, a writer will present the fine details of a shared "chunk" of knowledge, not because it adds to the knowledge of the text receiver and thus communicates something to him/her, but because the fine detail elongates the time in the text and heightens the suspense. A story by Jack Finney, "Contents of the Dead Man's Pockets," has this precise use of frame manifestation. By a peculiar set of circumstances, the main character finds himself on the outside ledge of his high-rise apartment hundreds of feet above the bustling night traffic. As fear begins to grip him, he begins to grip the bricks in the wall against which he stands. Finney relates in vivid detail the feel of the bricks and mortar on the cheeks and fingertips of his main character. The information is not new to us because we all know what bricks and mortar feel like (at least on our fingertips).

But the description, and it is description because the main line of the narrative does not develop at these points, helps us to "feel" with the main character the fear involved; the suspense becomes almost unbearable through the frame manifestation employed.

Frame entry involves new knowledge, knowledge that the text producer assumes the text receiver does not possess. The text producer intends to add this new frame to the inventory of the text receiver's knowledge. Because of this, we should not expect to find frame entry on the main line of development in a narrative. A narrative presents the particular past experiences of a main character or group of main characters (= agent orientation), and while these experiences will in all probability be remembered by the text receiver, they will be remembered as particular instances of some general "chunk" of knowledge; they will not be stored as separate frames in the mind of the text receiver. Thus, development in narration via the main line material presents particulars, not generalizations, which are what frames are. The main line of development in a narrative, then, could not be an instance of frame entry, at least not in the intention of the text producer. Of course, via the skewing of the notional and surface structures of a text, a narration may be used to enter a frame into the text receiver's knowledge. An example of this would be a text that attempts to teach something (= to enter the frame) via a story about someone who correctly performed the thing being taught. But notice that the narration is not the main element of the text, but an embedded portion of a larger unit of expository text. Also, it may occur that a text is received as frame entry, though it was not intended to be so by the text producer. For example, Hemingway's Old Man and the Sea has some good techniques in it for reeling in a big fish, and the aspiring deep-sea fisherman may pick up a fairly detailed frame in the reading of it, but I don't think that this was Hemingway's

purpose for writing the narrative.

Frame entry seems to be a type of text-frame interaction that occurs in expository or procedural texts or embedded texts of this nature. These text types correspond to the characteristics of frame entry because the assumption underlying them is that the text receiver is to learn something new in the course of processing the text. In White's story the two instances of frame entry support this. The first instance, the entry of the CARE OF A SICK PIG frame, is an embedded procedural text as evidenced by the imperative mood verbs in sentence 38. The second instance in sentences 104-122 enters the ERYSIPELAS frame via an embedded expository text. It is interesting to see how White embeds these two texts inside of his narrative. He uses phone calls in which he can relate general information, that is framed knowledge, in a non-past, non-particularized mode.

Frame augmentation served in White's text as author comments on the accepted etiquette over country phone lines and on attracting pigs to a meal. In a narrative this is probably a typical use of frame augmentation. This type of text-frame interaction functions like frame entry in that it adds new knowledge to the text receiver's inventory of knowledge. Thus, we should not expect to find it occurring on the main line of development in narration. Probably it occurs as main line material in expository and procedural texts.

Frame juxtaposition would appear to have a fairly free distribution, as we saw with frame tracing. This text-frame relationship involves knowledge that is shared by both text producer and text receiver, and because of this it can serve the particulars found in narrations as well as new bits of information found in expositions and procedures.

The last type of text-frame interaction, frame jumping, seems best suited to

inciting moment and complications in a narrative. The departure from expectations which characterizes this text-frame relationship provides the best device for separating a narration-worthy experience from a normal, predictable experience that a frame would normally encompass.

In White's narrative only one frame is jumped (the CARE OF A SICK PIG frame), though there are frequent instances of it in the course of the story. I would expect this to be the norm in narration. If a narrative jumps more than one frame, there would be the risk that the events producing the jumps would compete for main line development. It is possible, however, that a text be composed of a series of frame jumpings and that these would be the point of the narrative, e.g., "The Day Everything Went Wrong" or something like this.

The analysis offered in the preceding sections and the generalizations offered in this section show, I believe, that an analysis of a text can be appreciably enhanced by examining the impact that the text has on the knowledge of the text receiver. It appears that such an examination sheds additional light on the text as a linguistic unit. But there are a few unanswered questions that still remain, questions which cannot be fully explored within the scope of this study. Perhaps they could serve as issues for future research. At this time I wish only to make them known.

The matter which puzzles me most is the varying degree of orientation for a frame or frames that a text can have. We have seen that "Death of a Pig" develops according to the contents of two major frames quite closely. But not all texts develop according to a frame as this text does. The brief analyses in the following section make this quite plain. Some texts follow the contents of a frame for their development; others do not seem to be influenced by a frame for development at all. In those texts that do not develop according to the contents of a frame, there is still

a considerable amount of text-frame interaction, but it may be types other than tracing and manifestation, which help a text develop according to a frame. Is it possible to categorize texts according to predominant types of text-frame interaction? Perhaps some texts would be called "tracing texts," others "juxtaposing texts," still others "Jumping texts," and so on. In reading the analyses to follow, the reader may be able to perceive a characteristic type of text-frame interaction for each text. Are we on to something here?

Another area of extreme interest to me in the text-frame relationships proposed is the possibility of grammatical signals for each of the relationships. For example, I have pointed out that frame augmentation in White's text is signalled by a verb tense shift. Are there similar signals for the other types of text-frame interaction?

Finally, what are the other text-frame relationships to be found in a text? I heartily assume that there are others. One comes to mind, but is at present only a hazy notion. For example, could there be a relationship called frame blocking, whereby a text purposely blocks access to a frame so that full comprehension is hindered. This sounds bizarre, but consider the text below. I heard it years ago on a television program and unfortunately am unable to trace its source. (I beg the text producer to come forward and claim this text for all due credits.) It is a riddle of sorts, so the reader should try to solve it before reading my comments that follow it. The text is as follows:

A man, who was a doctor, and his son were driving down a winding, fog-covered road one late evening. To their dreadful surprise they were met head-on by a rambling tractor-trailer truck. The outcome was quite unfortunate, for the man was killed instantly and his son, poor boy, was seriously injured. Fortunately, the driver of the rig was still able to call for help on his CB radio and soon an ambulance appeared

at the scene to take the boy away to a nearby hospital.

When the ambulance arrived at the hospital, the boy was quickly wheeled to the emergency room, where doctors soon determined that he needed surgery immediately. The surgeon on call was summoned to the operating room. As the boy was being prepared, the surgeon looked at him aghast.

"I can't operate on this boy!" said the surgeon.

"Why not, Doctor?" said a nurse, somewhat shocked.

"This boy is my son!" replied the surgeon, now dizzy and faint.

How is this possible? (The answer does not require notions of resurrection, divorce, second marriage, grandfathers, adoption, etc.)

In reading this text, many would wonder how the boy could have lost one father in a car wreck and still retained a father for the surgery. The problem lies in the expectation that the surgeon is the male parent of the boy—a culturally held, but not culturally accepted bit of knowledge, at least in the opinion of many. Of course, (if you haven't figured it out yet . . .) the surgeon would have to be the boy's mother. The point to be made is that the text was so constructed so as to block the possibility of a female surgeon. Is this a possible, yet granted quite rare, type text-frame interaction?

4.6 Text-Frame Interaction in Some Other Texts

"Death of a Pig" has proven to be an excellent text for demonstrating text-frame interaction and its relation to overall text structure. The fact that the text-frame relationships can be established by references to a "real" text and that they support to the extent shown the structure of the text should validate their usefulness. But I feel I owe it to the reader to at least briefly show how the types of text-frame interaction relate to the structures of a few other texts. I believe that this final demonstration will also shed light on the variety of functions that text-frame interaction can have in a text. In White's text we saw that some major structural

units, especially on the notional level, were built upon a few instances of text-frame interaction. His story was shown to be a highly frame-oriented text. This is not always the case in every text, however. The brief analyses presented below will hopefully uncover a few other possibilities.

The texts analyzed appear in their full form in the Appendix. I have provided sentence or line numbers for clear reference to the texts except in the case of Thurber's "A Lover and His Lass." The numbers appearing in that text are the ones provided by van Dijk and Petoefi in their edition of analyses on this text (1975:1).

The first text is "A Lover and His Lass" by Thurber. This short piece is about "inter-animal" bigotry in the African jungle. A pair of parrots deride the courtship shenanigans of a pair of hippos. Eventually, they decide to bring all their neighbors into the derision. Later in the day, the tables are turned as the hippos begin to deride the parrots' exchange of endearing terms. They too call up their friends to discuss the peculiar parrots. Thurber closes the tale with the moral: "Laugh and the world laughs with you, love and you love alone" [18]. In examining this text we find a heavy reliance upon framed knowledge and thus many text-frame relationships. None of these, however, serve to orient the development of the text as the CARE OF A SICK PIG frame did in White's narrative. Instead the instances of text-frame interaction help the text achieve coherence via frame tracing and humor via frame juxtaposition. Below is a list of the text-frame relationships and the frames referred to by them:

Frame tracing	HIPPOPOTAMUSES [8,10,13,14]
Frame tracing	SPRING [8, 10]
Frame tracing	COURTSHIP [9]
Frame juxtaposition	HIPPOPOTAMUSES/ BATHTUBS [5]

Frame juxtaposition	HIPPOPOTAMUSES/ COASTWISE FRUIT STEAMERS [7]
Frame juxtaposition	HIPPOPOTAMUSES/ BASKETBALLS [7]
Frame juxtaposition	HIPPOPOTAMUSES/ BUSES [11]
Frame juxtaposition	HIPPOPOTAMUSES/ MOVING VANS [11]
Frame juxtaposition	PARROTS/ GARDEN SHEARS [15]

The great number of instances of frame juxtaposition make the tale extremely funny. I believe the reader can see most of the humor involved just in reading the list above. All of these cases involve the major characters of the story—either the hippos or the parrots. This is similar to the concentration of instances of frame juxtaposition around a few central frames in the White narrative. This may point to a tendency by narrators to employ frame juxtaposition primarily with frames that play a major role in the narrative. Attempts to juxtapose too many non-major frames may be too digressive to be effective.

Another text by Thurber, "The Secret Life of Walter Mitty," employs text-frame in yet another way. The story, very briefly, is about a Walter Mitty, who frequently finds himself taking cues from his environment to drift off into daydreams in which he assumes the role of some larger-than-life hero. Each daydream employs frame tracing while the "real world" text sections follow a CITY SHOPPING TRIP frame (= couple drives into town; separates for various shopping excursions; re-unites at appointed time and place). Other incidental frames are traced as well in the "real world" text segments: DRIVING, GROOMING, CITY PARKING LOTS, SHOPPING,

OVERSHOES, HAIRDRESSING. The dream worlds are instances of the frame tracing of the following frames: NAVAL VESSELS, HOSPITALS, CRIMINAL TRIALS, WWI AIR WARFARE, and FIRING SQUADS. Each of these is somewhat like a mental movie set into and out of which Mitty moves. They are so conventional that Thurber is frequently able to refer to props that don't actually exist, at least not in the relevant frame, but that fit closely enough to match our expectations and allow us to smile through them. For example:

"Obstreosis of the ductal tract. Tertiary." HOSPITALS

"Coreopsis has set in." HOSPITALS

"This is my Webley-Vickers 50.80" CRIMINAL TRIALS

"Von Richtman's circus is between here and Saulier." WWI AIR WARFARE

Walter Mitty walked to the door of the dugout humming "Aupres de Ma Blonde." WWI AIR WARFARE

Each of these instances contains a reference to a fictional prop of the respective frame being traced. "Obstreosis" does not appear to be any known word. "Coreopsis" refers to a genus of herbs and specifically to a member of this genus by the same name, better known as tickweed. "Von Richtman" and "Saulier" are probably fictional names, but they match our expectations for a German ace and a French village in the frame. "Aupres de Ma Blonde" ("Next to my blonde") is probably a fiction as well, but again it corresponds to the expectations of the frame. Thurber's use of these fictional references is one thing that makes the story so delightful.

My last text is the "Gettysburg Address" by Abraham Lincoln. Many English speakers are familiar with this text, but few understand the impact it was to make on its listeners. A examination of the text from the point of view of text-frame

interaction can help to make clear some of the impact behind it.

The text begins with a quite artistic juxtaposition of two frames: COUNTRIES and HUMAN LIFE:

Fourscore and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.

The three verbals in this sentence serve as the references to the HUMAN LIFE frame: "brought forth," "conceived," and "dedicated." These references involve the birth component of the frame. It is interesting to note that "Liberty" is capitalized in Lincoln's copies of the Address, apparently in reference to the personification of liberty as a virtuous woman. In the Address I suspect that Lincoln intends to make this personification the mother of his country. Further, in keeping with the religious practice at the time, "dedication" is probably a reference to Christian paedobaptism, another event in the typical HUMAN LIFE frame of the day.

At the end of the Address Lincoln again juxtaposes these two frames for a very poetic effect:

that this nation, under God, shall have a new birth of freedom—and that government of the people, by the people, for the people, shall not perish from the earth.

Here Lincoln refers to both ends in the frame: birth and death.

The greatest rhetorical effect of the speech is achieved by frame jumping in the middle of the text. But to realize this requires some background on the Address. Prior to Lincoln's delivery, a great orator of the day, Edward Everett, delivered a two-hour discourse comparing the dedication there to the "Funeral Oration of Pericles" in Thucydides, in which Pericles honored the fallen at Marathon. The situations were somewhat akin in that both ceremonies involved the dedication of a decisive

battleground as the final resting place of the brave deceased. The event in ancient times was not typical since normally the dead were carried to Athens for eulogy and burial. For the Civil War the event was atypical as well since the North usually did not have the advantage of standing on Northern land to bury the dead after a battle—the Civil War battles were normally fought on Southern soil, so the dead were usually taken back to the North for burial. Gettysburg was a rare instance of a Northern victory on Northern land and so the Northerners wished to take full advantage of the situation. Everitt also took advantage of the situation by making this relationship to the noble dead at Marathon strikingly clear. From the speech by Everitt, the attendants became well acquainted with how the dedication of a such burial ground should be conducted. I believe it is safe to say that Everitt's speech served as an instance of frame entry whereby the CEMETERY DEDICATION frame became part of the audience's inventory of knowledge.

Lincoln himself knew fully what Everitt's speech would contain since two weeks prior to the ceremony he had been given a draft of the speech for his examination. It appears that Lincoln wrote his Address with Everitt's speech in mind. In sentences 3 through 5 Lincoln traces the CEMETERY DEDICATION frame:

We are met on a great battle-field of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives, that that nation might live. It is altogether fitting and proper that we should do this.

Then in the next three sentences, he jumps the frame:

But, in a larger sense, we can not dedicate—we can not consecrate—we can not hallow—this ground. The brave men, living and dead, who struggled here have consecrated it far above our poor power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what they did here.

With these sentences Lincoln dashes the expectations raised by the preceding events

in the ceremony. He informs his audience that what they have come to do is not possible, that what they have come to do has already been done by the noble dead. He departs radically from the dedication of a piece of a ground and proceeds boldly to the dedication of those standing upon it, as Pericles had also done:

It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—

I believe that the jump in the expectations is what makes this short speech so powerful. It strikes us, not only because of the beauty of its language, but even more so because of the bold break from a partisan burial to a higher moral. Lincoln had not come to Gettysburg to honor the dead because they had fought the Northern cause. In his mind there were no North and South. Rather, there was an experiment in history, an attempt to let people rule themselves, that had finally faced its only enemy—internal strife and possible division. For Lincoln the war was the struggling within the single body of the nation born 87 years earlier; it was a fight to ward off the inevitable childhood disease and to escape its scars. He rallies his audience to this higher cause and exhorts them to be dedicated to it with the same measure of devotion that those dead gave. This appeal to a higher plane immortalizes the Address and its author. Had it not been for so powerful a rally, Lincoln's predictions about the place of Gettysburg in history would have been quite true:

The world will little note, nor long remember what we say here, but it can never forget what they did here.

Ironically, "The Gettysburg Address" is and will continue to be long remembered, but the battle that inspired it fades away as yet another sad event in the passing away of time.

NOTES TO CHAPTER FOUR

¹ Of course, there is a nebulous grander cause for any endeavor in linguistics, that is, a better understanding of how human beings use language. But this cause hardly affects the way linguistic analysis is done in the sense that the grander scheme in other fields affects the way text analysis is done there; thus, for all practical purposes the nebulous "super-"cause in linguistics is no grander cause at all.

² The situation in linguistics in this respect is similar to that which exists in philosophical epistemology, as we saw in Chapter 2. Epistemology done without recourse to some higher concern is often too abstract for practical applications and thus invites experimental epistemologies that are designed with a view to the larger problem that employs them and are subordinate to that larger problem. The value of such experimental epistemologies is in their testability: if the demands dictated by the larger problem are not met by the proposed epistemology, the proposal is discarded. But philosophical epistemology answers to the demands of no larger domain. Thus, it is a rather free exercise constrained only by the concepts of the philosopher as to what knowledge is.

³ "In the mouth of two or three witnesses shall every word be established" (2 Corinthians 13:1).

⁴ See Longacre's full display on the surface structure of a narrative in Longacre 1983:22.

⁵ I have classified the text analyzed in this study as a narrative text based upon the system of text types proposed by Longacre (1983:3-10). I believe that this is the proper place to make some comments about this system. In his system of discourse analysis, Longacre has defined four text types: narrative, behavioral, procedural, and expository. He defines these four text types according to two fundamental parameters: agent orientation and contingent temporal succession. The former "refers to orientation towards agents with at least a partial identity of agent running through the discourse" and the latter "to a framework of temporal succession in which some (often most) of the events or doings are contingent on previous events or doings" (1983:3). Using these two parameters, he defines the four text types in this way:

<u>narrative</u> = +ag. orientation	<u>procedural</u> = -ag. orientation
+cont. temp. suc.	+cont. temp. suc.

<u>behavioral</u> = +ag. orientation	<u>expository</u> = -ag. orientation
-cont. temp. suc.	-cont. temp. suc.

In the context of his study, Longacre's definitions of text types function quite well since his study presents a framework for systematizing texts. The text types are

defined by drawing on the oppositions and differences among texts. Thus, the system is a closed one that encompasses linguistic texts only. In a study such as this one, however, where texts are beings viewed in their relationships to human knowledge, the definitions for the text types must be able to stand independently and must be able to relate to the external system independently. In a study of this nature, definitions should state what the characteristics of a text type are, not what they are not.

The perceived weakness in Longacre's definitions exists only from the particular viewpoint of my study. Further, Longacre is quick to admit that they are deficient when detached from the systemic framework in which he posited them. He jovially likens his definition of the expository type to the medieval definition of God: "God is not this. God is not that. And so on." (personal communication)

It is certainly easier to criticize than to theorize, so, lest my comments appear as no more than sounding brass, I would like to offer at least a partial solution to the problem addressed above. It may be possible to divide all possible texts into two major groups: one in which Longacre's parameters will operate and the other in which a different set of parameters will operate. While I do not pretend to have the second set of parameters even nebulously formulated, I believe that an appeal to traditional approaches to classifying text types could shed some light on the nature of those parameters. Such an appeal, then, is intended to support the proposal that a more basic "cut" be made in the set of all texts. What is of particular value in the traditional classifications is the identification of notional features not explicitly noticed in Longacre's work, i.e., spatiality, comparison/contrast, cause and effect, definition by analysis/synthesis, argument, etc. These are the properties that Longacre's expository texts should, I suppose, exhibit, and these are the things that text-frame relationships will correlate with. Rather than characterizing expository texts by the absence of certain parameters, we may find it more useful to find some positive basis for this text type.

It will be noted that contingent temporal succession and agent orientation are objective parameters. Temporality and participancy are qualities of text that exist outside of the text producer and text receiver. A text exhibits contingent temporal succession because the events being related in the text are in and of themselves contingent, temporal, and successive, not because the text communicants have imposed that view upon those events. Likewise, agent orientation obtains in a text that relates activities of someone or ones apart from how the text communicants view those activities. Thus, these two notions lie outside of the text communicants; they are objective.

The notions involved in expository texts, however, are rather subjective ones. For example, we perceive points of comparison and/or contrast between two entities and can expound these points; we assign certain causes to certain effects and make them the basis of an exposition; we reason that one side of a controversy is stronger than the other and demonstrate our reasons in an argument. That these notions are subjective can be seen in the various ways that different cultures perceive and relate them. (See the work of Robert Kaplan, 1966, on this point.) In essence then the expository text communicates the combination of objective real world entities with the

subjective observations of the text communicants. This should help us to identify a second set of features which would operate in expository texts and expository portions of other text types. For example, an argument would probably be composed of points and within the points, supports or proofs. This gives us a somewhat better basis for positing notional and surface structural units in expository texts because it provides a positive basis for defining the text types.

⁶ The editor of the anthology, Whit Burnett, requested these pieces from the various writers with a space constraint. Thus, in many cases what appears in the volume is really their best of that length.

⁷ This will no doubt prove to be the most enjoyable part of reading this study.

⁸ Narration, being, as Longacre has defined it, agent oriented and contingently successive and, further, past projected, tells a story of someone's past experience. If the knowledge of that experience is already shared by the reader, the point of the narrative is negated. It is possible, however, that in another text type, such as exposition, the further development of the PIG RAISING frame would be normal. In such a case, the frame manifestation employed by White here would serve to open the domain that the exposition would further augment. After sentence [5], a augmentative text would continue with a sentence something like this: "But this scheme has a far greater degree of complexity that not many people are aware of."

⁹ It may be possible that "the bowl" is instead an allusion to the uterus.

¹⁰ Some may wish to consider the first instance of the text tracing the HUMAN BURIAL frame (sentences 175-176) as an instance rather of frame jumping. Closer inspection of White's use of the frame, however, should make it clear that the segment is, as I have so stated, tracing the frame. The fact in the narrative is that only a pig has died and thus only an animal's burial is expected. Such a burial is in fact performed. Thus, no expectations from the HUMAN BURIAL frame operate until White explicitly mentions the frame label in sentence 175. What occurs in the burial is not discordant with the expectations we have, based upon the events that have transpired. White's negations—"no stopover in the undertaker's foul parlor, no wreath nor spray" [176]—do not signal a jump from the HUMAN BURIAL frame, but rather a tracing, only negatively, of the frame. The tracing is employed to effect a comparison between the simple burial of a pig and the elaborated one of a human. This is at least the obvious effect of the frame tracing here. But on a deeper, more literary level, it may be that White's tracing of the HUMAN BURIAL frame serves to bring to the surface the details of our own end and in so doing to underscore the theme of the narrative: that what could be true of the pig could also be true of the rest of our tidy world [128].

¹¹ I have deleted in my coarse analysis some of the fine details of surface

structure given by Longacre in his description of a typical narrative, viz. title, aperture, and finis. Since my analysis is intended to be only a rough one, I did not feel that these features would serve to enlighten the reader of this particular study.

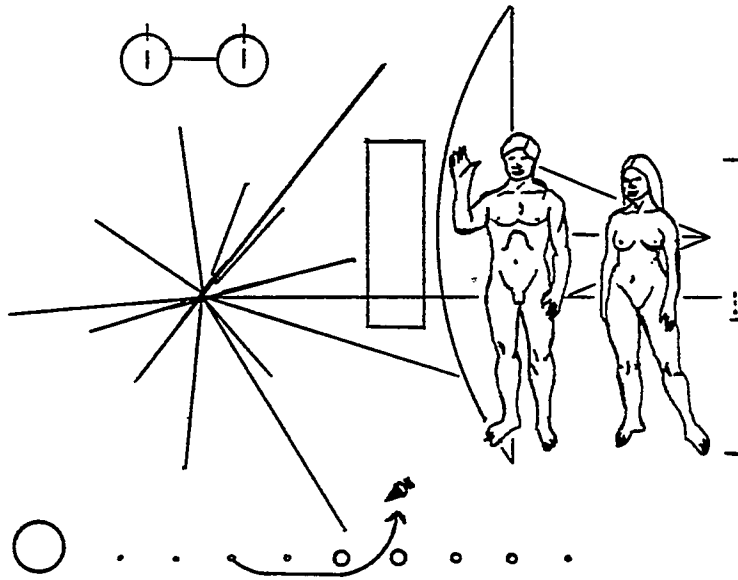
¹² I will assume that the value of this distinction is above question and thus will not attempt to defend it nor to review those researchers that have advocated it. Longacre (1983:15) gives a small list of scholars who have found the distinction useful. I refer the reader to his details.

¹³ Exceptions to this are common, but not "usual". For example, the opening chapter of Michener's Hawaii relates events that would be expected to occur thousands of years apart: first, a tiny undersea volcanic eruption that leaves a residue of perhaps a few inches, then centuries later another, and so on until the accumulated residue results in the Hawaiian isles.

¹⁴ This discussion is not intended to apply to all narratives. Many narratives have spatially based episodes. In this case, a change in venue marks a different episode. Longacre suggests the travelog as an example of this (personal communication). But it does seem that in the greater number of cases, at least according to my own personal observation, narratives have temporally based episodes. In some cases, a narrative will employ both, particularly when the narrative depends on various sets of concurrent events in which separate sets of participants are involved. An example of this is Pearl Buck's The Good Earth.

CHAPTER FIVE

APPLICATION TO EFL READING METHODOLOGY



5.0 Introduction

From what has preceded in the foregoing chapters, it should be clear that a very plausible approach to text analysis is one that takes into consideration, and into central consideration, the interaction between the text and the knowledge systems of the text communicants. When a text producer sets out to produce a text, he/she must make certain assumptions about the inventory of knowledge that the prospective text receiver has. These assumptions determine at least to some extent the delivery of the text, as we have seen in the previous chapter in the analysis of White's "Death of a Pig." If, for example, the text producer assumes that the text receiver possess a

relevant frame, certain text-frame relationships will succeed, such as frame tracing, frame manifestation, etc. On the other hand, if the text producer assumes that the text receiver does not have a relevant frame, he/she must manipulate the text in some way that will provide the proper knowledge, for example, by employing frame entry or frame augmentation. Once a text has been produced, the success it will have in being comprehended by the text receiver depends upon how correct the text producer's assumptions are. If those assumptions are true to the actual knowledge situation of the receiver, the text will more than likely succeed in communicating what the producer intended; if they do not match, to a rather large degree, the receiver's knowledge situation, the text will more than likely fail. In essence, all of this means that a writer writes with the reader in view, that the speaker speaks with the hearer in view.

The assumptions that a text producer makes about the inventory of knowledge in the text receiver's mind would seem to be based primarily on the knowledge that the text producer himself/herself has about the text receiver. Sometimes this knowledge of the other side of the communication situation is quite full. For instance, letters between husband and wife, brother and sister, mother and daughter, etc. are produced with perhaps the most complete picture of the text receiver possible.¹ At the other extreme, knowledge about the text receiver can be very scanty. Perhaps the text produced with the least amount of knowledge about its receivers is the message that was included on the Pioneer 10 and 11 missions to outer space. This message was visual; it included a line drawing of a man and a woman in front of a scaled drawing of the spacecraft, a diagram of our solar system with the trajectory of the spacecraft indicating a launch from the third planet (Earth) and a voyage past the fifth planet (Jupiter), a map showing the relation of our sun to fourteen pulsars, and a diagram of

the hydrogen molecule to establish time measurement standards. (This chapter begins with a reproduction of the message.²) Even though this message was produced with so little knowledge of its receivers (if receivers exist at all), it assumes that they have visual capabilities like our own, that they can recognize our human form to be the form of an intelligent being, that they are aware of the fourteen pulsars, and that they understand the molecular structure of hydrogen. I believe these are as safe a set of assumptions as any could be.

A writer like E. B. White must make assumptions about the readers of his work without actually knowing all of them personally. Thus, his knowledge is knowledge about typical readers of the publications in which his work appeared. "Death of a Pig" first appeared in The Atlantic Monthly, so White presumably wrote his narrative with the typical Atlantic Monthly reader in view. To my impression, though I did not read his story where it first appeared, his assumptions about the readers were for the most part correct. His text succeeds with most educated Americans because it was written to them.

Sometimes, however, a text is received by persons that are not in the group for which the text was intended. Assumptions about intended text receivers, then, may or may not be true of the "alien" text receiver. An example of this is the "text" reproduced at the beginning of this chapter. You may be one of the fortunate ones who had never actually seen the message sent into space before, and thus you should have been thoroughly confused about its meaning. You would have no doubt assumed that there is a meaning in the peculiar image because you assume that everything in a text such as this study has some meaning. But the message was not produced with you in mind as the receiver; it was not intended for you! Even though it is the message with perhaps the least amount of knowledge about its receivers and seemingly

the greatest possibility of comprehension by anyone, it was not produced with the view that it would be read by seekers of human textlinguistic truth. This exposes another assumption that scientists made prior to producing the space "letter," viz., that the receiver would ask, "Where does this vessel come from?" (a translation, of course, of the actual utterance). If you were not familiar with the message, you did not know that it was directed toward deep outer space. It would have probably never dawned upon you that you are to associate the series of small circles with our solar system. (You should recognize the human form, but the significance of its appearance here probably would have eluded you.) Thus, a text received by someone who is not in the intended group of receivers can just as easily fail as one that is produced with incorrect assumptions about the intended receivers. In this regard, Paul Ricoeur observes:

In fact, a book is addressed to only a section of the public and reaches its appropriate readers through media that are themselves submitted to social rules of exclusion and admission. In other words, reading is a social phenomenon, which obeys certain patterns and therefore suffers from specific limitations. (1976:31)

Kenneth Goodman also notes that text producers "may influence the comprehensibility of a text particularly for specific targeted audiences" (1979:658).

This type of text failure, occurring when a text is received by recipients for whom the text was not specifically intended, happens frequently when learners of English as a second or foreign language attempt to read English texts designed for native English-speaking readers. Because they are not members of the group for which these texts are intended, the assumptions that the text producer operated under in producing the texts frequently do not pertain to them. What the writer expects that his/her reader will know may not be correct when it comes to the learner of English. Thus, such texts stand an easy chance of failure, either partial or complete.

Again, reference to White's text can be illuminating here. White, as mentioned above, wrote his text, we can assume, for an American audience. Since it first appeared in The Atlantic Monthly, that audience can be assumed to be educated (through high school most certainly and with some college presumably) and interested in literary works of our times. I believe that in our reading of the text it is clear that White did not intend it for pig farmers, though no doubt one or two have encountered the text. We should assume that he did not intend the text for the even more general farm community since he pauses here and there to explain why things operate the way they do in rural America. But these groups of people would have no trouble with the text because they know what White is talking about better than he does. Yet it is conceivable, in fact, probable, that much of what appears in the text would be incomprehensible to a person just learning English as a second or foreign language. White did not intend for the narrative to be read, at least read widely, by persons of this group. His presentation does not meet their needs and accordingly, his text may not be comprehended by them, again either partially or completely.

This chapter seeks to explore this dimension of ESL/EFL reading and how it relates to the teaching of reading in the ESL/EFL classroom.⁹ In the sections to follow I will discuss a psycholinguistic model of reading that gives adequate attention to the role of framed knowledge in reading comprehension. Following this, I will discuss the problems that ESL/EFL readers encounter because of differences between their knowledge inventories and the text producer's assumptions about the receiver's knowledge. Finally, I will review and expand some of the procedures suggested in the literature for overcoming these difficulties. This last section will include suggestions that incorporate the text-frame relationships. In it I attempt to show how an appeal to text-frame interaction can determine what should be addressed by the teacher and

what should be left to the reader's own cognitive processes.

5.1 A Psycholinguistic Model of Reading

In order to teach reading effectively, a teacher must have a view of what reading is, a theoretical idea of the cognitive processes involved when a reader encounters a written text and comprehends its meaning. The academic world, especially that branch of it called education, has not failed to provide a multiplicity of theories about reading. Depending on when we learned to read, we were taught to read, more likely than not, according to one of these various theoretical models. The more recent models are, of course, more encompassing in their domain of accounting than earlier ones. The latest models of import take "background knowledge" (a general term here intended to account for all the colorful labels that actually exist) into account. Of these, the model put forth by researchers like Goodman (1967, 1971, 1973) and Smith (1982) has received the most attention from ESL/EFL theorists and methodologists. I will present primarily the views of Smith (1982) in this chapter, though Goodman's work presents some of the clearest single statements about what this psycholinguistic model of reading is. The title of Goodman's first publication on the matter best describes the model: "Reading: a psycholinguistic guessing game" (1967). In another paper Goodman sees the reader as one who "reconstructs, as best as he can, a message which has been encoded by a writer as a graphic display" (1971:135). I shall rely on Smith for further elucidation of the model.

Smith's view of reading comprehension can best be described as a process of continual prediction and confirmation or rejection of prediction. He divides predictions into two types: global and focal. By appealing to an analogy of driving, he defines global predictions as those that "tend to influence large parts of the journey" and "tend

to bring us always toward our intended goal" (1982:167). Focal predictions, in the same manner of analogy, "concern for short periods of time only and have no lasting consequence for the journey as a whole" (1982:167). In more straightforward terms he writes:

We make similar global and focal predictions when we read. While reading a novel, for example, we may be concerned with a number of quite different predictions simultaneously, some global that can persist through the entire length of the book, others more focal that can rise and be disposed of in a single fixation. (1982:168)

In reading a novel, to use Smith's example, global predications operate as to the content based upon the book's title or reports that we have heard about the book. Global predictions operate also within the chapters of the book, usually inspired by the reading of the previous chapter or chapters. As the unit of language decreases in size, from book to chapter to paragraph to sentence and so on, global predictions operate less frequently and focal ones begin to dominate.

But prediction is, of course, only one side of the reading process. The predictions made by a reader, both global and focal, must be tested for verification or rejection (Smith 1982:168). If the prediction was accurate, based upon the incoming data from the text, the prediction becomes text fact and new predictions are built upon it. If the prediction was incorrect, it must be discarded and another prediction must be made. In these terms, reading is a process whereby the reader continually predicts, tests, accepts or rejects the prediction, and then goes on to make new predictions.

Carrell and Eisterhold (1983) integrate this psycholinguistic model of reading with a model of cognitive structure. Their work has a direct bearing on the problem addressed in this chapter, so I will recount some of their notions here. Carrell and Eisterhold employ the schema theory model of Rumelhart and Ortony (1977) and Rumelhart (1980). This model of knowledge structure is somewhat different from the

notion of frames proposed by Minsky (1974) and employed in this study, but the differences are not so great that the concepts from the one cannot and do not transfer to the other. Like Minsky's notion of frames, "schemata are hierarchically organized, from the most general at the top to most specific at the bottom" (Carrell and Eisterhold 1983:557). For the sake of simplicity, we can take "schema" and "schemata" to be roughly equivalent to "frame" and "frames" respectively in the discussion that follows.

The two-sided process in reading as proposed by Smith, prediction and testing, correspond to the notions of "top-down" and "bottom-up" processing in schema theory.

Adams and Collins explain:

Every input event [in the text] must be mapped against some schema, and all aspects of that schema must be compatible with the input information. The first mode, bottom-up processing, is evoked by the incoming data. The features of the data enter the system through the best fitting, bottom-level schemata. As these schemata converge into higher level schemata, they too are activated. In this way, the information is propagated upward through the hierarchy, through increasingly comprehensive levels of interpretation. The other mode, top-down processing, works in the opposite direction. Top-down processing occurs as the system searches for information to fit into partially satisfied, higher order schemata. (1979:5)

Smith, applying his own terms that presage the computerese inherent in schema theory and frame theory, characterizes top-down processing (his "inside-out" perspective) as that by which "the reader determines how a text will be approached, dealt with, and interpreted" and bottom-up processing (his "outside-in") as that which puts "the text in charge, with the letters on the page the first and final arbiters of the reader's responses" (1982:192). Carrell and Eisterhold, donning the computerese, say that top-down processing is "conceptually-driven" and bottom-up processing is "data-driven" (1983:557).

According to the proposals of these reading specialists, both types of processing occur simultaneously. Bottom-up processing provides information that is novel or not according to the expectations established by the knowledge system; top-down processing arbitrates between ambiguous text material and competing interpretations on incoming text data (Adams and Collins 1979:5) as well as provides expectations for bottom-up processing. The two processes go hand in hand to effect text comprehension.

5.2 Problems for the ESL/EFL Learner

The psycholinguistic model of reading presented above, relying so heavily on prediction, relies in essence on the reader's knowledge. The predictions made in the process of reading, that is, in the process of comprehending a text, are made based upon the reader's knowledge, and specifically, upon the reader's knowledge of the relevant topics in the text being read. If the reader has the relevant knowledge, the predictions come naturally and freely; if he/she does not, the predictions either do not come at all or they are misguided. This is frequently the situation with the ESL/EFL learner in reading a text produced for native English speakers. These readers often fail to comprehend a text because the text producer has relied on social-cultural meaning, culture-specific values, and/or covert information in producing the text (Carrell and Eisterhold 1983:563-566). It appears that these types of culture-specific knowledge encode the text producer's intentions to limit the readership to a certain culturally bound group, such as Americans or engineers or women, etc.

In reading a culturally bound text, the English learner attempts to fit the incoming text data into the knowledge system that he/she possesses (Hudson 1982:9). His/her system may not, however, have the same frame or the same content for the

frame that the text references. For example, the following text would be incomprehensible to a Greek learning American English. It is from an article entitled, "In pro football, they play best who play what they are," written by the "psychiatrist-in-residence" for the San Diego Chargers:

Back to the line, to the tight end. It's difficult to find an ideal tight end because the chores he is required to do are virtually incompatible and therefore demand incompatible personality traits. The tight end must block like an offensive lineman or a fullback yet catch passes like a wide receiver. Blocking well requires bodily sacrifice for the welfare of others and does not gratify vanity; so the tight end can't have too much wide receiver in him. He does well to replace that with a bit of distrust found in the Duane Thomas-type running back. (Mandell 1974)

The first problem the Greek learner of English would have with this text is its use of the FOOTBALL frame. The Greek has such a frame but the contents are vastly dissimilar since "football" for a Greek denotes that which "soccer" denotes for Americans, for whom the text was written. Second, the term "line" in reference to the playing field and the various participants mentioned in this text, "the tight end," "an offensive lineman," "a fullback," "a wide receiver," and "the running back," would be meaningless terms and thus their respective duties in the game would be missing in the reader's inventory of knowledge. (The specific reference to Duane Thomas can be partially comprehended by a previous reference to him earlier in the text.) Because of this, the points that Mandell seeks to make about the match between personality and position in football fails for the Greek reader. Carrell and Eisterhold (1983) offer some examples of texts that have caused actual difficulty for ESL/EFL learners, taken from a popular ESL reading text (Baudoin et al. 1977). They carefully identify the knowledge needed for comprehension of their samples and recounts experiences with students who lacked this necessary knowledge.

Carrell and Eisterhold (1983) also discuss the effect on comprehension that differing background knowledge can have on reading comprehension. From their work emerge two possibilities: insignificant and significant misconceptions about what the text is about. Insignificant misconceptions occur when a reader, due to differing background knowledge, fails to comprehend a portion of text that is structurally insignificant. Their example of such a misconception deals with a text segment that "sets the scene" (1983:565). This may not be the best example possible, from the point of view of the textlinguist, since that which sets the scene, the stage in a narration, for example, is hardly insignificant, but I believe her basic tenet is correct. It is probably better to say that misconceptions about supportive material is less damaging to comprehension than those about main line material. Significant misconceptions occur, then, when main line material is misunderstood because of differing background knowledge. This is a useful distinction and it will greatly help us below in formulating a strategy for the teacher who wishes to present culture-specific texts to ESL/EFL learners.

Among the many problems that ESL/EFL learners have in comprehending the texts that they read, the problem of background knowledge is only now being seriously considered. Researchers like Carrell and Eisterhold (1983), Clarke and Silberstein (1977), Johnson (1981), Hudson (1982), and Steffensen, Joag-dev, and Anderson (1979) have examined the problem of background knowledge in reading comprehension and have identified it as a critical reading "stumbling-block."

5.3 Some Possible Solutions and a Feasible Method

Based upon my experience in teaching reading to both ESL and EFL students, I would like to propose a method for teaching culture-specific texts to non-native

readers of English. But before doing this, I wish to review some suggestions made by Carrell and Eisterhold (1983) along these lines. For the most part I disagree with their proposals for "classroom activities" (1983:566-569) for reasons I shall give below, but there are some ideas that seem indispensable to the success of guiding learners into "meaningful" reading experiences. I shall address these as well below.

My disagreements with Carrell and Eisterhold (1983) are based upon my particular understanding of why second language acquisition succeeds at all, much less reading comprehension in particular. I have become convinced that the primary factors that affect second language learning are not the ones that generally raise suspicions in the general public's mind, that is, age of the learner, intellectual aptitude of the learner, method of instruction, etc., but the ones that are called "affective variables" (Schumann 1980:222). The former group of factors I have re-classified as "excuses"; the latter as target areas for counseling/instruction with students. If the former were in actuality causes for poor performance in second language learning, there would be little chance for reaction by the teacher to rectify the situation: there are no elixirs that make learners younger, there are no known exercises that increase mental aptitude, there are no ways to get a teacher to change his/her methodology for one student, etc. The struggling ESL/EFL learner will no doubt find comfort in these "excuses," but the teacher can do little else but ignore them. Instead, from the start the teacher should be alert to problems that his/her students have with regards to attitude, motivation, and empathy.

In a study on a project conducted in London, Ontario, Gardner et al. (1974) have proposed a set of attitudinal factors that were seen to affect the success of their test subjects' learning of French. A primary factor is the learner's attitude concerning the group that speaks the target language as natives. It should not be

assumed that simply because a person submits himself/herself to language instruction, he/she has a positive attitude concerning the native speakers of that language. The contrary is true in many EFL situations and among some ESL learners. Frequently, for example, a teacher will encounter students in countries where anti-American or anti-British sentiment is high, but because career or education demands it, they are learning English. A hostile attitude toward American or British culture and the respective peoples can impede the acquisition of English extensively. But hostility is not the only possible negative attitude a learner can have concerning the native speakers of the target language. A sense of cultural superiority, racial prejudice, etc. hinder learning as well. Attitudes about the language itself can also present problems for the learner. Thoughts that a certain language sounds barbaric, obscene, harsh, childish, etc., that a certain language has an extremely difficult grammar, illogical grammar, no grammar, etc., that a certain language is the language of demagogues, terrorists, sluggards, etc. or of scientists, philosophers, etc., that a certain language is spoken in poor countries, religiously fanatical countries, backward countries, etc., and so on can secretly hold the learner back from progressing from a very limited command of the target language to near-native proficiency. The language becomes somewhat like a bag of foul garbage that is to be held as far from one's person as possible. Further, attitudes about the course and teacher play an important role in the language learning process. Negative attitudes about the teacher may reflect the learner's attitude about the native speaker group (if the teacher is a native speaker of the target language), or it may spring from interpersonal conflicts between the learner and the teacher. Finally, the learner's attitude about himself/herself can affect second language learning. How a learner feels about the possibility of success in learning a second language, whether or not those feelings are grounded in truth, will determine the

learner's actual success. We Americans, for example, have a difficult time learning a second largely, I believe, because of negative feelings about possible success. Because of the largely monolingual society that we live in, second language acquisition is not a way of life for us as it is in places like western Europe, where a variety of languages interact. Thus, learning a second language well enough to communicate proficiently in it seems more of a feat than a norm. Such an attitude makes second language acquisition a super-human (or rather, super-American) task.

Schumann (1980) reports on a second affective variable in second language learning, viz. motivation. In his discussion he refers to two motivational components--integrative motivation and instrumental motivation:

An integratively oriented learner is interested in learning the second language in order to meet and communicate with valued members of the target language community. A learner with an instrumental orientation is one who has little interest in the people who speak the target language but nevertheless wants to learn the language for more self-oriented or utilitarian reasons such as getting ahead in one's occupation or gaining social recognition from one's own membership group. (1980:227)

Typically, integrative motivation characterizes ESL learning, while instrumental motivation characterizes EFL learning. The teacher of English should firstly be aware of the motivational orientations of his/her students and should secondly be prepared to adjust materials and presentations to help the learners take full advantage of their motivations for learning English. The teacher should also be willing to increase the learner's motivation level through counseling, if necessary. Of the three affective variables discussed here, motivation appears to be the one that the teacher can alter the most directly and with the greatest result.

The final affective variable, empathy, refers to a learner's ability to emotionally apprehend the affective experience of others and to thus gain an understanding of

others (Guiora 1972:142). As applied to second language learning, Guiora feels that persons with empathetic personalities make better second language learners. Intuitively, I feel that the notion is correct since frequently I have observed that learners who "see" into the personalities of their native speaker peers or instructors and who further attempt to identify with those personalities (Guiora's concept of "permeability of [language] ego boundaries," 1972:147), succeed in becoming proficient users of the target language.

These affective variables, to my impression, have more to do with successful second language learning than age, intellect, and method, and of the three affective variables, I submit that it is motivation that a teacher can most efficiently work with to accomplish the aim of teaching the second language. Attitudes are difficult to change and empathy, being a part of one's natural endowment, can hardly be learned, but every learner comes to the task of learning a second language with some motivation, if it be only pressure from parents or peers, and this can be good starting capital for the teacher. Why a person wishes to learn a language should always be applied by the teacher to the task, and conversely, that motivation should not be ignored, suppressed, or overruled.

Carrell and Eisterhold's (1983) suggestions for "classroom activities" that compensate for differences in background knowledge held by ESL/EFL learners involve the manipulation of either the text or the receiver. Three of their four suggestions for text manipulation seek "to minimize reading difficulties" (1983:566). In principle, I find fault with such an attempt. Learners of English hope to be able to handle English texts on the texts' own terms; they wish to encounter them and walk away with the meaning in the texts via the correct processing of the language within them, reading difficulties and all. I feel that to "manipulate" reading material is to

cheat the learner of an experience that he/she will eventually face continually, that is, the reading and hopefully the comprehension of unmanipulated texts. If in the ESL/EFL classroom the learner becomes accustomed to texts that have been "manipulated" free of their difficulties, he/she will have a hard time handling the wild and woolly texts that go about the real world seeking to devour unprepared learners. Instead, it seems better to present texts that are real, and unmanipulated. In English, texts exist at all possible levels of difficulty, so I don't think it is so great a task to find texts of proper inherent difficulty (i.e., just beyond the skill level of the learner) that will serve rather to bring the reader's skills up.

Specifically, Carrell and Eisterhold offer four suggestions of text manipulation. The first of these is the Language Experience Approach (Rigg 1981). Basically a methodology for beginners, the LEA technique utilizes the learners' ideas and words to prepare reading materials. The teacher takes down the input from the students and fashions it into reading material that is simple and grammatically correct. Then students read the material constructed from their own ideas and words. The obvious problem with this is that expectations are completely removed in the reading and the whole psycholinguistic basis of reading is ignored. The learners are led to believe that reading is just that simple. Fortunately, a small taste of outside reading will quickly diffuse the misconception, though probably at the expense of their trust in the teacher's usefulness. But with regard to what has been said about motivation in second language learning, the LEA technique fails even more so. It is hardly credible that learners will feel fulfilled at being able to read what they themselves have previously said. They learn a second language as a means of getting at the ideas of others, not at their own. Though it will be argued that the LEA is not intended to be an end (to think otherwise would indeed be folly) but rather a means for arriving at

the end, it suppresses the motivation to understand "real" English and puts this off until later.

Offering a concept first elucidated by Stephen Krashen (1981), Carrell and Eisterhold suggest "narrow reading" as a second possibility of text manipulation:

Reading teachers usually provide short and varied selections which never allow students to adjust to an author's style, to become familiar with the specialized vocabulary of the topic, or to develop enough context to facilitate comprehension. Rather, such selections force students to move from frustration to frustration.

However, students who read either a single topic or a single author find that the text becomes easier to comprehend after the first few pages. Readers adjust either to the repeated vocabulary of a particular topic or to the particular style of a writer. Furthermore, repetitions of vocabulary and structure mean that review is built into the reading. (Carrell and Eisterhold 1983:566-567).

This suggestion is less objectionable than the first, but it still has elements in it that would seem to detract from the overall goals of teaching reading. Again, the problem lies in the world of English reading that we lead our students to believe exists, even though the faux pas is probably unintentional. Indeed, writers have their styles, and topics have their preferred vocabularies; indeed, narrow reading of single writers and/or single topics will lead to a better command of those writers and/or topics better than broad reading; but the real world of English texts is made neither of single writers nor of single topics. Further, the frustrations from which we protect our students by presenting narrow reading assignments to them are only the frustrations they will eventually have to face alone in outside reading without our help.

Carrell and Eisterhold further suggest "using texts with local settings and specialized low-frequency vocabulary" (1983:567 referring to materials development proposed by Paulston and Bruder, 1976). These texts would be gathered from the local community and would feature information of local interest. Of the three suggestions

thus far reviewed, this is the least objectionable since it is probable that ESL learners would be fairly motivated to learn about their host community and thus to read the texts. But EFL learners abroad will probably have little interest in English descriptions of their own local community, so material would have to be imported. If the learner is integratively motivated, such materials will probably succeed; if he/she is instrumentally motivated, they probably will not. Again, the motivation and goals for learning English will determine the success of this suggestion in an actual teaching situation.

The last suggestion made by Carrell and Eisterhold is, I feel, the most ideal among the four she gives for text manipulation. They refer to it as "Sustained Silent Reading (SSR)" (1983:567). (I would prefer to call it Unmanipulated Real Text Reading—URTR.) In what they call "an excellent activity for ESL readers," students read what they want to "read with respect to content, level of difficulty, and length." This models most closely what the learner will be doing with his/her reading skills. It brings outside reading into the classroom, where the learner can get the adequate help from the teacher on the types of reading he/she wants to do. More importantly, and consonant with the point being stressed here concerning motivation, this type of reading helps the learner realize the goals for his/her language learning endeavors regardless of whether he/she is integratively or instrumentally motivated. It matches what the learner came to the English classroom to do.

Yet SSR makes teaching an extremely difficult job since it entails work on a different text for each student in the ESL/EFL class. This is possible occasionally, but for most of the reading done in the class the teacher will have to mediate selection in order to make teaching manageable. We shall see something of this in the proposed method following shortly.

Carrell and Eisterhold finally suggest "manipulating" the reader in order to compensate for background knowledge differences. Their suggestions in this area are to (1) provide a preliminary outline of the text (especially for low-level readers), (2) teach concepts central to the text which are culture-specific, and (3) explain specialized vocabulary and structures that may cause difficulties in reading (1983:568). I am somewhat leery about the first of these since again this may take away the motivation for reading the text in the first place. But for low-level students it may help to prime expectations that will be useful to the reading process. The other two suggestions are, I feel, the most sound advice Carrell and Eisterhold have for teachers who are willing to teach to the problem of different background knowledge. The question that immediately arises though is how these suggestions should be implemented. How does a teacher determine which concepts are first central to the text and second culture-specific? How also does a teacher determine which lexical items and grammatical structures are specialized? These questions will be addressed in the discussion on the method I am proposing below. I believe that an appeal to text-frame relationships provides a practical and very effective method for overcoming the problems that ESL/EFL learners encounter when reading texts not specifically intended for their eyes.

The method I wish to propose should be construed as merely an aid to teachers in the preparation of English texts and in the preparation of the learners who will read them. Thus, it could be incorporated into practically any reading methodology that has components in which teachers prepare the text for reading and spend time preparing their students to handle the text. For my presentation here I will follow one of the popular outlines of a reading lesson plan used in the United States (Rivers and Temperley 1978:240-241). This lesson plan consists of six components:

1. Selection of a suitable text.
2. Preparation of the text by the teacher.
3. Introduction of the text to the learners.
4. Reading of the text.
5. Discussion of the text.
6. Application of the reading.

The bulk of my contribution deals with components 2 and 3 above, so my comments will focus on them. Component 1, however, deserves at least one minor point of discussion that goes beyond the discussion given by Rivers and Temperley. I have noticed that students and, more shockingly, teachers tend to harbor the concept that reading materials should be at or below the language skill level of the learner. Students presented with a text slightly higher than their present level of, say, speaking ability present in return horrified looks of disbelief; teachers, when advised to teach such a text to their students, frequently resist with varying degrees of adamancy depending upon their respective cultural backgrounds. And when both teacher and student secretly agree that a text is far beyond the student's possible ability to comprehend, indeed the text becomes an insurmountable "mountain" to be ignored in favor of less challenging "peaks." But I believe my point has been made with enough repetition above to indicate my strong feeling on the matter. Since texts in the outside world of English have no mercy on ESL/EFL learners, we should prepare our students to meet them as quickly as common paedogical sense will allow. Of course, a beginner cannot handle the complexities of many writers and exposure to them prematurely is not my suggestion. But I am persuaded that students must learn to wade in waters above their heads and just far enough from the bank to require a little hardy

swimming. Soon they find out that they can indeed make it to shore and become more eager to find themselves in even deeper and more distant waters. Reading is a receptive skill, not a productive one. This means that what a student can do is no indicator of what a student can take. In the vast majority of cases, the learner can handle vocabulary, structures, and meanings encountered in a reading passage of a more difficult nature than what he/she is able to produce. By presenting texts of a slightly more difficult level, the normal, natural cognitive processes used to seek out and identify meaning have a way to operate and expand. For component 1, then, my unreserved suggestion is that texts be chosen which exceed the current skill level of the learners.

Component 2, the preparation stage, is probably the most critical to the success of presenting texts that assume background knowledge not possessed by the learners. Rivers and Temperley (1978:240) advise the teacher to check for necessary background information and difficult lexical and structural items and to devise an interesting way of presenting the text. The first of these, checking for necessary background knowledge, can be accomplished with the help of a rough analysis of the text and its text-frame relationships. I suggest the following particular steps for accomplishing this:

In the teacher's reading of the text, he/she should:

1. Find major structural units (episodes, points, etc.).
2. Identify major frames with which the text interacts.
3. Find text segments which reference frames that the teacher suspects are lacking in the learner's inventory of knowledge.

In finding the major structural units of the text, the teacher is not expected to conduct a full-scale linguistic analysis, but should simply arrive at a rough idea of

where the text breaks and what constitutes staging, supportive, and main line material. This is important since any references on the main line of development to frames not possessed by the learner may fail and may cause damage to comprehension. On the other hand, supportive material relying on culture-specific frames probably need not be stressed by the teacher since it will not contribute to the eventual outcome of the text. The teacher should look for linguistic signals to help her/him identify the onset of new units in the texts: fronted time markers, fronted place markers, references to new participants, shifts in verb tense, etc.

Frequently, as we saw in the preceding chapter, a text is composed of the exploitation of one or more key frames. The teacher should be aware of this if such is the case. For example, in "The Secret Life of Walter Mitty" we saw that five frames served to support the portions of the text in which Mitty finds himself daydreaming and one to support the events in the real world. These are the key frames in the story. Further, the teacher should determine how the text interacts with these key frames. This is the most crucial step in the preparation. If a writer assumes the presence of a frame in his/her reader's inventory of knowledge, the teacher must be sensitive to the assumption.

From what has preceded in chapters 3 and 4, the identification of the text-frame relationships should help the teacher to decide whether the relevant contents of a frame should be pre-taught or left to the mechanisms in the text for elucidation. Of the six text-frame relationships introduced in this study, three will probably suggest pre-teaching if they involve a major frame in the text: frame tracing, frame jumping, and frame juxtaposition. These three relationships assume shared knowledge between text producer and receiver; thus the knowledge needs to reside in the learner's mind for the text to succeed. Since we are talking about major frames

here, new frames (relative to the learner) referenced by the text in these ways deserve pre-teaching. A frame that is traced extensively by a text will obviously require more detailed pre-teaching, but brevity should be the maxim in all activities of this sort. Learners should be given only what they need. As was pointed out in chapter 4, frame jumping, more likely than not, will involve only one frame within a single text. Pre-teaching of a frame that the text jumps should include information on the events leading up to the point where the jump occurs and one or two events beyond. This will build expectations for the learner as he/she reads which the text will be able to effectively jump. It may sound cruel to teach our students what they need in order to be bushwhacked by the text, but I believe we would want them to register the effect intended by the writer. Pre-teaching for a frame that is juxtaposed should only deal with that item of the frame that the writer uses to make the juxtaposition, that is, the participant, prop, or event that references another frame as well.

The other three types of text-frame interaction should not require that the relevant frames be pre-taught. Frame entry assumes no prior knowledge, so the text should be allowed to do its work on the reader and the reader should be allowed to be taught by the text itself. Frame augmentation intends to add new knowledge to an existing frame. If the frame itself is new to the reader, the teacher may want to pre-teach some of its contents, but he/she should limit the pre-teaching to only what is necessary and certainly refrain from teaching what the text eventually will when it is read. In many cases, however, frame augmentation can succeed without too much shared knowledge. Because of this, the text needs little help from the teacher in order for the relationship to do what it was intended to do.

The sixth text-frame relationship, frame manifestation, assumes shared knowledge, but because the text manifests that knowledge the learner will not be

hindered in comprehension. Of course, the learner who lacks the frame that is being manifested will not come to the text with the expectations that the reader who does possess the frame will, but this will affect speed of processing the text or text segment not the comprehension of it. Thus, the learner should be allowed to grapple with the text on its own terms.

The third step in preparing a text for presentation to ESL/EFL learners is a search for text segments that refer to frames that may cause difficulty when the text is read. Note that these are not major frames for the text, but could very possibly be frames that occur in crucial structural units of the text. The decision to pre-teach these frames first depends on how crucial they are to the structure of the text. Here is where the teacher's rough idea of the structure of the text comes to bear. If one of these minor frames interacts with supportive material in the text, it is probably not worth the effort to pre-teach them. If, however, such a frame occurs on the main line of development, a decision to pre-teach must be further based on the criteria outlined in the preceding paragraphs. Again, the same precautions against over-teaching should be taken for these minor frames.

In the discussion by Rivers and Temperley, the second bit of advice for a teacher's preparation of reading material is to check for difficult lexical and structural items. Since this study seeks to apply the text-frame relationships to ESL/EFL reading, this point is somewhat off the "main line of development." Thus, I will spare the reader from an extended discussion of this. Rivers and Temperley offer excellent, specific suggestions for the interested reader (1978:251-258). Suffice it to say here that the text should be allowed to serve the needs of the learner as much possible. Thus, difficult vocabulary items should not be "yanked" from their warm contexts so quickly by hearty and eager teachers. A good practice for the teacher is to go through the

text underlining those words that will probably cause problems for the learner. (Most teachers know their students' level of proficiency and can almost always predict difficult items. I have full trust in this inexplicable ability.) These words should then be placed into three groups: those that are not crucial to the comprehension of the sentences in which they occur, those that are crucial to comprehension but easily defined by an appeal to their contexts, and those remaining, that is, those that are crucial to comprehension and not easily defined by their contexts. The first two groups of words can be ignored for the moment; the last group should be pre-taught.⁵

The third major component of the lesson plan suggested by Rivers and Temperley is the introduction of the text to the learners. This is the component in which the pre-teaching of necessary frames and difficult lexical and structural items takes place. The pre-teaching of necessary frames is not to be confused with presenting an outline of the text to the learner. I have already reacted against such a practice above. Pre-teaching the necessary frames serves instead to provide the information the learner will use to establish predictions about the text. In doing this, the teacher should be careful not to tie the information being taught to the particular contents of the text. A frame is supposed to be a general knowledge structure, so it should be possible to teach it without reference to a particular text.

In the EFL classroom especially, the pre-teaching of framed knowledge provides excellent "warm-up" activities. Unlike in the ESL classroom in an English-speaking country, the learner in an EFL classroom in a country where English is not spoken does not have the advantage of always being "bombarded" by English stimuli. The EFL learner comes to the classroom just a step away and a moment away from his/her native language and culture. Teachers in such a situation usually have a "warm-up" activity in which they help the learner make the transition smoothly

and effectively. In essence, they help the learner "switch" to English mode. In these activities the student is encouraged to get his/her mouth open. Error-correction is usually minimal if present at all so as to invite the student to speak. Generally, everything goes as far as language use—poor pronunciation, incorrect word choice, grammatical errors, etc. The only rule to be followed in a warm-up activity is that talk must be in English (or a reasonable facsimile thereof). The goal is simply to make the student feel comfortable in his/her target language environment, though limited it be. Framed knowledge can be presented in this type of activity with much success. Since the learner does not possess the frame, the teacher can present some of the contents of the frame which are pertinent to the text to be read and prompt the student to make predictions about further contents. Correct predictions should be recognized audibly by the teacher and reinforced. When wrong predictions are made, the teacher should help the student to discard them through open discussion and to reformulate theories.

Many times the teacher will find that there are some students in a classroom who possess the frame that is to be presented, especially in the ESL setting. This is a great opportunity in disguise for practice in oral communication. Learners, like other members of the human species, like language to be used for actual communication; that is, they enjoy language that conveys information from those who have it to those who don't. The students who possess the frame will be more than willing to communicate this knowledge to those who don't and those who don't are usually willing to hear, ask questions, and comment. The teacher should capitalize on such an "information gap" in his/her class.

Warm-up activities properly executed are usually hard to stop. Students enjoy flapping their English wings. Relationships between the teacher and his/her students

are usually built up during times like these. But the teacher should use the activity for warm-up only. Once the material to be pre-taught has been presented (probably without the students realizing it if done well by the teacher), the students should be led to the text. They should now be equipped to handle the text, text-frame interaction and all.

By way of example, let us consider the four texts discussed in the preceding chapter. Based upon the analyses of the text-frame interaction that occurs in those texts, what should the teacher expect to pre-teach so that students encountering these texts will be equipped to handle the background knowledge assumed by the text producers? We should first consider White's "Death of a Pig." As the analysis indicated, there are two major frames with which this text interacts: the PIG RAISING frame and the CARE OF A SICK PIG frame. Fortunately for the reader, however, early in the text these two frames are manifested and entered, respectively. Thus, the ESL/EFL reader should have no problem understanding what White has to say with regard to these two frames. I should point out, however, that the PIG RAISING frame will perhaps differ from a similar frame possessed by some ESL/EFL learners and thus some pre-teaching of this frame may be beneficial. The ritual which White assigns to the task of raising a pig may not match practices in another culture. Further, in many countries pigs are not eaten and not raised for religious reasons, so indeed the frame will be foreign to them and very possibly offensive. (I have encountered students who, upon the simple mentioning of the word "pig," became squeamish.) Therefore, care must be exercised by the teacher to insure that such students will understand how an American can become so attached to a farm animal, lest the whole point of the story be lost. As for minor frames, only two occur in significant structural places: the ERYSIPELAS frame and the HUMAN

BURIAL frame. The first of these is entered in the text; thus, the teacher need not pre-teach the frame. The second occupies a great part of the last episode, so some pre-teaching would be beneficial. It may be possible to compare burial customs in America with those in the learner's native culture. But the teacher should be careful with this topic since the open talk of death and interment is taboo in some cultures.

The second text, "A Lover and His Lass" by Thurber, relies on two major frames, the HIPPOPOTAMUSES and PARROTS frames. Most of the humor is achieved by frame juxtaposition of these two frames, so a pre-teaching activity should prepare students to understand metaphors and similes relating to these two animals. Perhaps the teacher could bring in a picture of the two animals and ask the students to create their own metaphors and similes for them. References to hippos should focus on their awkward movements, those to parrots, on their squeaky calls.

The next text, "The Secret Life of Walter Mitty" also by Thurber, has six major frames, as was observed above: SHOPPING, NAVAL VESSELS, HOSPITALS, CRIMINAL TRIALS, WWI AIR WARFARE, and FIRING SQUADS. All of these frames are traced by the text, so Thurber has assumed that the reader possesses them. Probably most of these frames are familiar to the ESL/EFL reader, but CRIMINAL TRIALS and WWI AIR WARFARE may require some pre-teaching. The main thrust of activities focusing on these frames should be the participants since the daydream text segments of this text focus on the major participant (played by Mitty) of each frame traced. There are no minor frames occurring at major structural places in this text.

The final text, Lincoln's "Gettysburg Address," is a difficult text to use in an ESL/EFL classroom because of its very particular background. Such a background would have to be introduced to the learner if the text is to have its proper impact.

Some EFL audiences, however, may be more prepared to read this text than many Americans ones. Greeks, for example, could be easily prompted to recall the battle at Marathon and the "Funeral Oration of Pericles." If there is not a Greek handy, the teacher could prompt the students to imagine what the proper thing to do in honoring the fallen in battle would be. This would build up expectations which the Address will be able to jump when it is read. The only minor frame referenced in a structurally significant part of the text is the HUMAN LIFE frame juxtaposed with the COUNTRIES frame at the beginning and end of the text. There is obviously no need to pre-teach this frame if the learners are human.

5.4 Conclusion

In this chapter I have attempted to show that the text-frame relationships proposed in this study can be practically applied to the teaching of reading to ESL/EFL learners. Since English texts are targeted for native English readers, ESL/EFL learners frequently fall beyond the scope of intended readership and thus are excluded by the assumptions made by the text producer as to what the readership knows and/or does not know. These differences in shared knowledge can cause reading comprehension to break down for the ESL/EFL reader. Among the various proposals put forth by ESL researchers to solve this problem, I have endorsed the one that focuses on preparing the reader for texts that rely on framed knowledge and have rejected all proposals to modify what the reader reads. I have suggested that the teacher follow a procedure of rough text analysis, identification of major frames, and identification of crucial text segments that reference less major frames in order to prepare pre-teaching activities.

NOTES TO CHAPTER FIVE

¹ If one believes, as I do, that the Bible is the inspired word of God and that He is its ultimate author, then this text has been produced with an absolutely complete knowledge of the text receiver.

² The text producers for this unique message were Carl Sagan, Frank Drake, and Linda Salzman Sagen. Carl Sagen and Frank Drake describe the two identical plaques upon which the messages were engraved as follows:

"Each plaque measures six by nine inches and is made of gold-anodized aluminum. These engraved cosmic greeting cards bear the location of the earth and the time the spacecraft was built and launched. The sun is located with respect to 14 pulsars. The precise periods of the pulsars are specified in binary code to allow them to be identified. Since pulsars are cosmic clocks that are running down at a largely constant rate, the difference in the pulsar periods at the time one of the spacecraft is recovered and the periods indicated on the plaque will enable any technically sophisticated civilization to deduce the year the vehicle was sent on its epic journey. Units of time and distance are specified in terms of the frequency of the hydrogen spin-flip at 1,420 megahertz. In order to identify the exact location of the spacecraft's launch a diagram of the solar system is given. The trajectory of the spacecraft is shown as it leaves the third planet, the earth, and swings by the fifth planet, Jupiter. (The diversion of Pioneer 11 past Saturn had not been planned when the plaques were prepared.) Last, the plaques show images of a man and a woman of the earth in 1973. An attempt was made to give the images panracial characteristics. Their heights are shown with respect to the spacecraft and are also given by a binary number stated in terms of the wavelength of the spectral line at 1,420 megahertz (21 centimeters)." (Sagen and Drake 1975:89)

Not only the message itself, but obviously also the the producers' explanation of its meaning elude the reader for whom they were not intended.

³ The labels "ESL" and "EFL" signify "English as a second language" and "English as a foreign language" respectively. Briefly, in the way of definition and not of elucidation of the differences in paedagogical content, ESL is commonly accepted as the label that encompasses the teaching of English to learners who will or do use English in an English speaking country. These learners employ English as their primary linguistic tool in an adopted country and culture. Generally, this designation refers to learners who are immigrants to, students on a long-term basis in, or workers for an indefinite period in an English speaking country. EFL denotes the teaching of English to learners who will have only brief and/or sporadic contact with English speakers either in an English speaking country or in their own lands. This is typically

what is taught in non-English speaking countries. EFL learners are usually people who encounter English speakers in their own country either for business or social reasons or who visit English speaking countries for a brief time for the same reasons.

My own experience in both fields, as an ESL teacher and administrator in various American universities and as an EFL teacher and administrator in a bi-national center in Greece, proves to me that the difference between the two fields is not merely nominal. At the most basic level of second language learning, the level of learner motivation, the two differ. And in the final outcome of learning, in the abilities the learner has after instruction, the two differ.

In the discussion in this chapter, I have attempted to speak to the needs of both fields so that the applicability of my framework for text analysis and its benefits to this area of applied linguistics would be more general. But the trained reader will observe a bias toward EFL instruction since in it the teaching of reading, and even more so, of the reading of texts intended for American readers, is the greater challenge. The application to ESL may be an overkill, therefore. I am certain, however, that the qualified ESL teacher will be able to perceive any superfluity and adjust accordingly.

⁴ This suggested practice for pre-teaching vocabulary follows the suggestions made to me by Thomas Miller in Athens, Greece during the academic year of 1983-84. Mr. Miller is presently an English Language Specialist for the United States Information Agency. I gratefully acknowledge his excellent suggestion.

CHAPTER SIX

SOME FINAL CONSIDERATIONS

6.0 The Eventual Destination

I began this study with a very broad examination of two very broad fields: linguistics and epistemology. My intention in so doing was to choose certain themes so as to build a feasible bridge between the two for the sake of conducting a type of text analysis that attends to the interaction between a text and a text receiver's knowledge. This study is primarily a linguistic one: it seeks to shed additional light on the text as a linguistic phenomenon. Of course, such an endeavor can easily be construed as simply a theoretical construct, without much bearing on the world of needs and necessities in which our physical bodies, metaphysical souls, and ethereal spirits move. I did not desire to leave the matter at that, so I brought the notions that I proposed into the "valley" of paedogogy, where theory's true substance is tested and its grit is either praised or mocked. In the arena of practice the notions proposed in this study have weathered the assail, I believe. But the triumph is somewhat hollow unless these notions can stand as firmly before the tribunal of philosophical scrutiny. The limitations imposed at the beginning of this study do not give license to theorizing that goes against accepted norms in the larger art of theorizing. What has been proposed within the limited confines of this study must be returned and subjected to that larger realm from which it was extracted. Philosophia occupies the role of judge in matters of this sort; she sits and listens, calmly checking the exasperated claims of

a newly thought theory against her own being, against her own intuition, which is truly her prerogative. Thus, this study, as all studies of any phenomena, must make its final defense before her. It has not finished its initiation until it comes through, approved by her. Regardless of former success in arenas practical and sublime, every endeavor of this sort must make its way to this eventual destination.

Here and there throughout the preceding chapters, I have held off discussion on matters of philosophical controversy. I have made assumptions with respect to these controversies and offered no more explanation for those assumptions than to say that a time would come for them. In this chapter I wish to address the controversies and the stances I have taken as the bases for my assumptions. From the start, lest expectations be allowed to long for something grand, I should say that these comments are in no way advances in thought. I have nothing to teach *Philosophia*. They are merely some of the philosophical stances for those things which I have contributed and truly believe are advances in the realm of a smaller domain, i.e., textlinguistics. My desire is to demonstrate that these stances are valid ones, that they are founded on the legitimate views of those philosophers who have indeed made advances. Furthermore, I do not wish to defend their advances. I assume, and hope that the reader will as well, that the advances are worthy of the consideration and application to other fields by the various researchers therein. That I have chosen a particular stance and that the reader may feel that another stance is better suited to the task is, to use Hirsch's term, a matter of ethical choice. I believe that what is at issue here, however, is not the resolution of ethical difficulties, but that the notions introduced here support the ethical choice that I have made. I beg the reader, then, to view this discussion not as an appeal for agreement with the ethical choice but as a petition for scrutiny of the theoretical basis of that choice.

The issues that I wish to address in this chapter can be presented in the form of two questions. First, how does a text mean? And second, what is the relationship of language to mind? The philosopher will at once realize that these two questions are perennially debated issues in the history of philosophy. That these issues are being touched upon here will come as no surprise to him/her after having read the preceding chapters. In the discussion to follow, my program is quite simple. I will first state what seem to be the major positions for each issue. These statements will, of course, be brief but, I hope, true to what proponents of the various positions have set forth. Next, I will state my stance in each issue as taken in this study. My stance will be found to conform closely to one of the major proponents for each issue. Finally, I will attempt to justify my stance in terms of the needs of this study. The justifications for my stance in each case, then, are quite pragmatic ones.

6.1 How Does a Text Mean?

In a previous chapter, I have briefly described the communication situation as being composed of the text producer, the text produced and received, and the text receiver. The question at issue can be reformulated in terms of these three "stations" in the communication situation: Does a text's meaning reside in the text producer, in the text itself, or in the text receiver? Or does that meaning reside in the interaction of the text with one or both of the text communicants? It is in this sense that I ask, "How does a text mean?" Let us examine the possibilities one by one.

E. D. Hirsch, Jr. (1967, 1976) has argued strongly for meaning residing in the text producer. "All valid interpretation, of every sort, is founded on the recognition of what an author meant" (1967:126). Thus, the intentions of the writer of a written text should be sought out. "The reader should try to reconstruct authorial meaning, and he

can in principle succeed in his attempt" (1976:8). For Hirsch, then, textual meaning is derived from what the text producer meant. Of course, Hirsch allows the possibility that a reader may choose to apply the meaning that a text presents to formulate a significance that was not intended by the author. These two categories, meaning and significance, form a crucial distinction in the thinking of Hirsch. Meaning is stable and corresponds to what the author intended by the text; significance is the application of that stable meaning to the changing contexts of various readers. Even if the significance of a text for a particular reader is opposed to its meaning, the meaning is still stable. "[W]hen an interpreter emphatically rejects the attitudes of a speaker or writer, he also adopts those attitudes in order to reject them" (1976:80).

At the other extreme is the view that textual meaning resides only in the text receiver, that a text means only in the mind of the text receiver. This view is prompted by the notion that once the text is produced, we are completely unable to get at the text producer's intentions and thus at any meaning associated with him/her. The text bears no "stain" of authorial intention. It derives its meaning in its interaction with the text receiver, and thus there is no single meaning to a text. Rather, there can be a multitude of receivers and hence a multitude of meanings. Stanley Fish (1980) has argued for this the most forcefully.

Paul Ricoeur offers yet a third possibility:

To mean is what the speaker does. But it is also what the sentence does. The utterance meaning--in the sense of the propositional content--is the "objective" side of this meaning. The utterer's meaning--in the threefold sense of the self-reference of the sentence, the illocutionary dimension of the speech act, and the intention of recognition by the hearer--is the "subjective" side of meaning. (1976:19).

For Ricoeur, then, textual meaning has two dimensions to it: authorial, "subjective" meaning and "textual," "objective" meaning. When, however, we consider written texts,

the text producer and text receiver no longer share the communication situation simultaneously. This means that the producer's intentions are left to mere representation in the text. "In other words, we have to guess the meaning of the text because the author's intention is beyond our reach" (1976:75). The bigger question for Ricoeur then becomes the validation of such guesses, a question I will not address here. In effect, then, where a written text is concerned, meaning is interpreted by the receiver based upon the meaning residing in the text itself and by whatever expressions of authorial meaning exist in the text: "An asymmetric relation obtains between the text and reader, in which only one [the text] of the partners speak for the two [the text and the text producer]" (1976:75).

In the course of my discussion in the preceding chapters, I have relied heavily on the notion of author intention. This immediately separates me from the second view of meaning presented above, i.e., that meaning resides in the interaction of text with text receiver solely. I find this view completely incompatible with my very deed of analysis. To say that the meaning of a text is unstable, that it varies from receiver to receiver, makes analysis a futile attempt. Why should I attempt analysis if it will be analysis of what I alone comprehend in a text? And since I am always in change, what confidence can I have that after the analysis is done, or even while I am conducting it, it will still be an analysis of the text I first set out to analyze and will still be worth consulting for insight into future texts? What confidence, further, can I have that the analysis will be of any future value, since it will constantly change in meaning as I myself undergo change? As Hirsch has said, ". . . without the stable determinacy of meaning there can be no knowledge in interpretation, nor any knowledge in the many humanistic disciplines based upon textual interpretation" (1976:1).

But the heavy reliance on author intention is not a signal of total agreement with Hirsch. I find that Hirsch is only partially correct. I agree with his insistence that the author's intention should be sought--as Hirsch puts it, there should be the "re-cognition" of that intention--but the actual success of such re-cognition is necessarily limited to the vestiges of it in the text. Yet, we are not left with a defective meaning in the text because the producer's intentions are not, of necessity, fully preserved in the text. We always find a rather rich meaning in any text, and that fullness derives from the meaning in the text itself compounded upon the vestige of authorial meaning. This is quite Ricoeurian, I believe.

If authorial meaning is only vestigial, why then have I relied so heavily upon it in my analysis? The reason has to do with the type of analysis being conducted in this study and my particular view of what a text is. At the very basic philosophical level of this study, I am viewing the text as an instrument for information exchange, a medium, so to speak, that allows the conceptual structures formulated by one person (the text producer) to be shared by another person (the text receiver). Notice that I have said here "conceptual structures" and not "concepts," "ideas," "thoughts," etc. By "structures" I mean the collocation and arrangement of those entities. What is shared via the text is not those entities, but rather the ordered collocations of an author. Because I view the text as an "information exchanger," I necessarily imply a source for the information exchanged. This is the text producer. Granted the text may, and very possibly will, mean more than what the text producer intended it to mean, yet his/her intended transfers of structures should not be lost. Thus, I take the intentions of the text producer to either exploit or add knowledge to the text receiver's inventory of knowledge (see the discussion of logical possibilities for text and knowledge interaction in chapter 3) to be a part of the vestigial authorial meaning in the text.

Because I believe that this has not been lost, a tendency to refer to vestigial authorial intention more frequently than meaning residing in the text itself is justified within a study that attends to the interaction of text with text receiver knowledge. Finally, notice that my emphasis on the text producer focuses only on this very limited domain of meaning, that is, on his/her intention to either exploit or add knowledge to the text receiver's inventory of knowledge. This corresponds, I believe, to what Ricoeur above called "the intention of recognition by the hearer." I am not concerned in this study with the other types of meaning ("the self-reference of the sentence" and "the illocutionary dimension of the speech act").

6.2 What is the Relationship of Language to Mind?

In this study I have brought into a single focus two aspects of human cognition—knowledge and language. While my particular focus on these two aspects is admittedly quite limited, enough attention has been paid to them to warrant discussion on the relationship between the two. The issue that this study touches upon can, I believe, be formulated into two smaller questions. The first is: how does language exist for a language-user? The second: how is knowledge related to language? For the first question I will consult the foundational work in linguistics of Ferdinand de Saussure; for the second I will refer to what has been called "the Whorf-Sapir hypothesis."

From the beginning I assert that language is "in the mind" in the sense asserted by de Saussure: ". . . language, as defined, is homogeneous. It is a system of signs in which the only essential thing is the union of meanings and sound-images, and in which both parts of the sign are psychological" (1959:15). But language is not merely a psychological reality of the individual. Unlike other psychological entities, language exists as well in the outside community of its users. ". . . for the realization of

language, a community of speakers [masse parlante] is necessary. Contrary to all appearances, language never exists apart from the social fact, for it is a semiological phenomenon. Its social nature is one of its inner characteristics" (de Saussure 1959:77). Language, then, is a psychocultural entity that exists at one and the same time in its users as individuals and in its users as a community. The speakers of a language are both indwelt by language and dwell in language. The relationship is a kind of "coinherence."

This definition of language protects us from falling into two snares that threaten us. By saying that language resides only "in the minds" of the individual speakers of it and that there is no existence of language external to the speakers, we fall into the trap of making language too idiolectic to allow communication within the community. But saying that language exists solely in the community disallows the idiosyncratic, productive uses of language that we find in individuals. To account for both the necessary communicative nature and the possible idiosyncratic quality of language, we must posit a reality for language that is both individual and corporate.

The second question concerns how language is related to knowledge. The controversy involved in this second question is stated most sharply in the Whorf-Sapir hypothesis. The hypothesis quite simply is this: language dictates thought. If we accept that hypothesis and apply it to knowledge, we would be forced to conclude that all knowledge is linguistic.

However, among linguists there exist two forms of the hypothesis. Slobin explains:

And there are two broad types of theories here, frequently referred to as the "strong" and the "weak" versions of the Whorf hypothesis. The strong form—often espoused by Whorf himself—holds that the language determines thought and behavior patterns; that the language is a sort of mold for thought and philosophy. The weak form—usually held

to today in one way or another--merely asserts that certain aspects of language can predispose people to think or act in one way rather than another, but that there is no rigid determinism: One is not fully a prisoner of one's language; it is just a guide to thought and other sorts of behavior. (1971:122)

It appears that the weak version is the more reasoned one by virtue of the absurd implications that result if the strong version is adopted. If we allow that all thought and thus knowledge as well are dictated by language, then knowledge is limited to that for which we have linguistic expression. But there are types of knowledge for which we have no linguistic expression, e.g., tacit knowledge (Polanyi 1962). Further, since knowledge helps us to interpret experience, it would be possible to imagine, if the strong version were accepted, that our knowledge would not be able to interpret experience for which we do not have linguistic expression. The logic could be taken to an even more absurd extreme whereby we imagine that our knowledge, enslaved to language as it would be if the strong version were correct, hinders us from even perceiving certain things around us because we do not possess the language to know them and then in turn the knowledge to perceive them.

But I think that our daily experience proves otherwise, especially if it includes contact with speakers of other languages. We frequently encounter things for which we have no language. For instance, while living in Greece I encountered a word that troubled me for some time as to its meaning. The word in Greek is 'amerikanaki' and literally means 'little American'. It is used in a derogatory fashion as we might employ an ethnic name to deride an irritating character. And though the term was used in such a way by Greeks, I did not know the exact force of derision that it had. Now having learned the word, I realize that there is no exact equivalent for it in English. In essence, it refers to someone who believes everything everyone tells him/her, who is easily taken in and taken advantage of. This somewhat corresponds to the concept

expressed by our word "gullible," but our word does not have the particular character of the Greek people related to it as their word 'amerikanàki' does. Part of the meaning of the word requires a glance back at the person uttering it, at the Greek who takes pride not in frankness but rather in craftiness. "Gullibleness" is innocent for us; being an 'amerikanàki' is "just plain stupid" for the Greeks. After living in Athens for some months and after inspecting how I normally conducted myself with the Greeks, the word 'amerikanàki' made perfect sense. I was in no way hindered by the lack of the word in English. Granted now I have the word (in Greek) in my own personal lexicon, but that lexical entry is not that knowledge. Rather it is a convenient label for all the knowledge gained by hard-earned experience. As Humpty-Dumpty might say, "The word is my slave, not I its. That's all."

APPENDIX

THE TEXTS ANALYZED IN THIS STUDY

DEATH OF A PIG

by
E. B. White

(1) I spent several days and nights in mid-September with an ailing pig and I feel driven to account for this stretch of time, more particularly since the pig died at last, and I lived, and things might easily have gone the other way round and none left to do the accounting. (2) Even now, so close to the event, I cannot recall the hours sharply and am not ready to say whether death came on the third night or the fourth night. (3) This uncertainty afflicts me with a sense of personal deterioration; (4) if I were in decent health I would know how many nights I had sat up with a pig.

(5) The scheme of buying a spring pig in blossomtime, feeding it through summer and fall, and butchering it when the solid cold weather arrives, is a familiar scheme to me and follows an antique pattern. (6) It is a tragedy enacted on most farms with perfect fidelity to the original script. (7) The murder, being premeditated, is in the first degree but is quick and skillful, and the smoked bacon and ham provide a ceremonial ending whose fitness is seldom questioned.

(8) Once in a while something slips— (9) one of the actors goes up in his lines and the whole performance stumbles and halts. (10) My pig simply failed to show up for a meal. (11) The alarm spread rapidly. (12) The classic outline of the tragedy was lost. (13) I found myself cast suddenly in the role of pig's friend and physician—a farcical character with an enema bag for a prop. (14) I had a presentiment, the very first afternoon, that the play would never regain its balance and that my sympathies were now wholly with the pig. (15) This was slapstick—the sort of dramatic treatment that instantly appealed to my old dachshund, Fred, who joined the vigil, held the bag, and, when all was over, presided at the interment. (16) When we slid the body into the grave, we both were shaken to the core. (17) The loss we felt was not the loss of ham but the loss of pig. (18) He had evidently become precious to me, not that he represented a distant nourishment in a hungry time, but that he had suffered in a suffering world. (19) But I'm running ahead of my story and shall have to go back.

(20) My pigpen is at the bottom of an old orchard below the house. (21) The pigs I have raised have lived in a faded building that once was an icehouse. (22) There is a pleasant yard to move about in, shaded by an apple tree that overhangs the low rail fence. (23) A pig couldn't ask for anything better—or none has, at any rate. (24) The sawdust in the icehouse makes a comfortable bottom in which to root, and a warm bed. (25) This sawdust, however, came under suspicion when the pig took sick. (26) One of my neighbors said he thought the pig would have done better on new ground—the same principle that applies in planting potatoes. (27) He said there might be something unhealthy about that sawdust, that he never thought well of sawdust.

(28) It was about four o'clock in the afternoon when I first noticed that there was something wrong with the pig. (29) He failed to appear at the trough for his supper, and when a pig (or a child) refuses supper a chill wave of fear runs though

any household, or ice-household. (30) After examining my pig, who was stretched out in the sawdust inside the building, I went to the phone and cranked it four times. (31) Mr. Dameron answered. (32) "What's good for a sick pig?" I asked. (33) (There is never any identification needed on a country phone; (34) the person on the other end knows who is talking by the sound of the voice and by the character of the question.)

(35) "I don't know, I never had a sick pig," said Mr. Dameron, "but I can find out quick enough. (36) You hang up and I'll call Henry."

(37) Mr. Dameron was back on the line again in five minutes. (38) "Henry says roll him over on his back and give him two ounces of castor oil or sweet oil, and if that doesn't do the trick give him an injection of soapy water. (39) He says he's almost sure the pig's plugged up, and even if he's wrong, it can't do any harm."

(40) I thanked Mr. Dameron. (41) I didn't go right down to the pig, though. (42) I sank into a chair and sat still for a few minutes to think about my troubles, and then I got up and went to the barn, catching up on some odds and ends that needed tending to. (43) Unconsciously I held off, for an hour, the deed by which I would officially recognize the collapse of the performance of raising a pig; (44) I wanted no interruption in the regularity of feeding, the steadiness of growth, the even succession of days. (45) I wanted no interruption, wanted no oil, no deviation. (46) I just wanted to keep on raising a pig, full meal after full meal, spring into summer into fall. (47) I didn't even know whether there were two ounces of castor oil on the place.

(48) Shortly after five o'clock I remembered that we had been invited out to dinner that night and realized that if I were to dose a pig there was no time to lose. (49) The dinner date seemed a familiar conflict: (50) I move in a desultory society and often a week or two will roll by without my going to anybody's house to dinner or anyone's coming to mine, but when an occasion does arise, and I am summoned, something usually turns up (an hour or two in advance) to make all human intercourse seem vastly inappropriate. (51) I have come to believe that there is in hostesses a special power of divination, and that they deliberately arrange dinners to coincide with pig failure or some other sort of failure. (52) At any rate, it was after five o'clock and I knew I could put off no longer the evil hour.

(53) When my son and I arrived at the pigyard, armed with a small bottle of castor oil and a length of clothesline, the pig had emerged from his house and was standing in the middle of his yard, listlessly. (54) He gave us a slim greeting. (55) I could see that he felt uncomfortable and uncertain. (56) I had brought the clothesline thinking I'd have to tie him (the pig weighed more than a hundred pounds) but we never used it. (57) My son reached down, grabbed both front legs, upset him quickly, and when he opened his mouth to scream I turned the oil into his throat—a pink, corrugated area I had never seen before. (58) I had just time to read the label while the neck of the bottle was in his mouth. (59) It said Puretest. (60) The screams, slightly muffled by oil, were pitched in the hysterically high range of pig-sound, as though torture were being carried out, but they didn't last long: (61) it was all over rather suddenly, and, his legs released, the pig righted himself.

(62) In the upset position the corners of his mouth had been turned down, giving him a frowning expression. (63) Back on his feet again, he regained the set

smile that a pig wears even in sickness. (64) He stood his ground, sucking slightly at the residue of oil; (65) a few drops leaked out of his lips while his wicked eyes, shaded by their coy little lashes, turned on me in disgust and hatred. (66) I scratched him gently with oily fingers and he remained quiet, as though trying to recall the satisfaction of being scratched when in health, and seeming to rehearse in his mind the indignity to which he had just been subjected. (67) I noticed, as I stood there, four or five small dark spots on his back near the tail end, reddish brown in color, each about the size of a housefly. (68) I could not make out what they were. (69) They did not look troublesome but at the same time they did not look like mere surface bruises or chafe marks. (70) Rather they seemed blemishes of internal origin. (71) His stiff white bristles almost completely hid them and I had to part the bristles with my fingers to get a good look.

(72) Several hours later, a few minutes before midnight, having dined well and at someone else's expense, I returned to the pighouse with a flashlight. (73) The patient was asleep. (74) Kneeling, I felt his ears (as you might put your hand on the forehead of a child) and they seemed cool, and then with the light made a careful examination of the yard and the house for sign that the oil had worked. (75) I found none and went to bed.

(76) We had been having an unseasonable spell of weather--hot, close days, with a fog shutting in every night, scaling for a few hours in midday, then creeping back again at dark, drifting in first over the trees on the point, then suddenly blowing across the fields, blotting out the world and taking possession of houses, men, and animals. (77) Everyone kept hoping for a break, but the break failed to come. (78) Next day was another hot one. (79) I visited the pig before breakfast and tried to tempt him with a little milk in his trough. (80) He just stared at it, while I made a sucking sound through my teeth to remind him of past pleasures of the feast. (81) With very small, timid pigs, weanlings, this ruse is often quite successful and will encourage them to eat; (82) but with a large, sick pig the ruse is senseless and the sound I made must have made him feel, if anything, more miserable. (83) He not only did not crave food, he felt a positive revulsion to it. (84) I found a place under the apple tree where he had vomited in the night.

(85) At this point, although a depression had settled over me, I didn't suppose that I was going to lose my pig. (86) From the lustiness of a healthy pig a man derives a feeling of personal lustiness; (87) the stuff that goes into the trough and is received with such enthusiasm is an earnest of some later feast of his own, and when this suddenly comes to an end and the food lies stale and untouched, souring in the sun, the pig's imbalance becomes the man's vicariously, and life seems insecure, displaced, transitory.

(88) As my own spirits declined, along with the pig's, the spirits of my vile old dachshund rose. (89) The frequency of our trips down the footpath through the orchard to the pigyard delighted him, although he suffers greatly from arthritis, moves with difficulty, and would be bedridden if he could find someone willing to serve him meals on a tray.

(90) He never missed a chance to visit the pig with me, and he made many

professional calls on his own. (91) You could see him down there at all hours, his white face parting the grass along the fence as he wobbled and stumbled about, his stethoscope dangling—a happy quack, writing his villainous prescriptions and grinning his corrosive grin. (92) When the enema bag appeared, and the bucket of warm suds, his happiness was complete, and he managed to squeeze his enormous body between the two lowest rails of the yard and then assumed full charge of the irrigation. (93) Once, when I lowered the bag to check the flow, he reached in and hurriedly drank a few mouthfuls of the suds to test their potency. (94) I have noticed that Fred will feverishly consume any substance that is associated with trouble—(95) the bitter flavor is to his liking. (96) When the bag was above reach, he concentrated on the pig and was everywhere at once, a tower of strength and convenience. (97) The pig, curiously enough, stood rather quietly through this colonic carnival, and the enema, though ineffective, was not as difficult as I had anticipated.

(98) I discovered, though, that once having given a pig an enema there is no turning back, no chance of resuming one of life's more stereotyped roles. (99) The pig's lot and mine were inextricably bound now, as though the rubber tube were the silver cord. (100) From then until the time of his death I held the pig steadily in the bowl of my mind; (101) the task of trying to deliver him from his misery became a strong obsession. (102) His suffering soon became the embodiment of all earthly wretchedness. (103) Along toward the end of the afternoon, defeated in physicking, I phoned the veterinary twenty miles away and placed the case formally in his hands. (104) He was full of questions, and when I casually mentioned the dark spots on the pig's back, his voice changed its tone.

(105) "I don't want to scare you," he said, "but when there are spots, erysipelas has to be considered."

(106) Together we considered erysipelas, with frequent interruptions from the telephone operator, who wasn't sure the connection had been established.

(107) "If a pig has erysipelas can he give it to a person?" I asked.

(108) "Yes, he can," replied the vet.

(109) "Have they answered?" asked the operator.

(110) "Yes, they have," I said. (111) Then I addressed the vet again. (112) "You better come over here and examine this pig right away."

(113) "I can't come myself," said the vet, "but McFarland can come this evening if that's all right. (114) Mac knows more about pigs than I do anyway. (115) You needn't worry too much about the spots. (116) To indicate erysipelas they would have to be deep hemorrhagic infarcts."

(117) "Deep hemorrhagic what?" I asked.

(118) "Infarcts," said the vet.

(119) "Have they answered?" asked the operator.

(120) "Well," I said, "I don't know what you'd call these spots, except they're about the size of a housefly. (121) If the pig has erysipelas I guess I have it, too, by this time, because we've been very close lately."

(122) "McFarland will be over," said the vet.

(123) I hung up. (124) My throat felt dry and I went to the cupboard and got a

bottle of whiskey. (125) Deep hemorrhagic infarcts--the phrase began fastening its hooks in my head. (126) I had assumed that there could be nothing much wrong with a pig during the months it was being groomed for murder; (127) my confidence in the essential health and endurance of pigs had been strong and deep, particularly in the health of pigs that belonged to me and that were part of my proud scheme. (128) The awakening had been violent and I minded it all the more because I knew that what could be true of my pig could be true also of the rest of my tidy world. (129) I tried to put this distasteful idea from me, but it kept recurring. (130) I took a short drink of the whiskey and then, although I wanted to go down to the yard and look for fresh signs, I was scared to. (131) I was certain I had erysipelas.

(132) It was long after dark and the supper dishes had been put away when a car drove in and McFarland got out. (133) He had a girl with him. (134) I could just make her out in the darkness-- (135) she seemed young and pretty. (136) "This is Miss Owen," he said. (137) "We've been having a picnic supper on the shore, that's why I'm late."

(138) McFarland stood in the driveway and stripped off his jacket, then his shirt. (139) His stocky arms and capable hands showed up in my flashlight's gleam as I helped him find his coverall and get zipped up. (140) The rear seat of his car contained an astonishing amount of paraphernalia, which he soon overhauled, selecting a chain, a syringe, a bottle of oil, a rubber tube, and some other things I couldn't identify. (141) Miss Owen said she'd go along with us and see the pig. (142) I led the way down the warm slope of the orchard, my light picking out the path for them, and we all three climbed the fence, entered the piggishouse, and squatted by the pig while McFarland took a rectal reading. (143) My flashlight picked up the glitter of an engagement ring on the girl's hand.

(144) "No elevation," said McFarland, twisting the thermometer in the light. (145) "You needn't worry about erysipelas." (146) He ran his hand slowly over the pig's stomach and at one point the pig cried out in pain.

(147) "Poor piggledy-wiggledy!" said Miss Owen.

(148) The treatment I had been giving the pig for two days was then repeated, somewhat more expertly, by the doctor, Miss Owen and I handing him things as he needed them--holding the chain that he had looped around the pig's upper jaw, holding the syringe, holding the bottle stopper, the end of the tube, all of us working in darkness and in comfort, working with the instinctive teamwork induced by emergency conditions, the pig unprotesting, the house shadowy, protecting, intimate. (149) I went to bed tired but with a feeling of relief that I had turned over part of the responsibility of the case to a licensed doctor. (150) I was beginning to think, though, that the pig was not going to live.

(151) He died twenty-four hours later, or it might have been forty-eight-- (152) there is a blur in time here, and I may have lost or picked up a day in the telling and the pig one in the dying. (153) At intervals during the last days I took cool fresh water down to him and at such times as he found the strength to get to his feet he would stand with head in the pail and snuffle his snout around. (154) He drank a few sips but no more; (155) yet it seemed to comfort him to dip his nose in water and

bobble it about, sucking in and blowing out through his teeth. (156) Much of the time, now, he lay indoors half buried in sawdust. (157) Once, near the last, while I was attending him I saw him try to make a bed for himself but he lacked the strength, and when he set his snout into the dust he was unable to plow even the little furrow he needed to lie down in.

(158) He came out of the house to die. (159) When I went down, before going to bed, he lay stretched in the yard a few feet from the door. (160) I knelt, saw that he was dead, and left him there: (161) his face had a mild look, expressive neither of deep peace nor of deep suffering, although I think he had suffered a good deal. (162) I went back up to the house and to bed, and cried internally--deep hemorrhagic intears. (163) I didn't wake till nearly eight the next morning, and when I looked out the open window the grave was already being dug, down beyond the dump under a wild apple. (164) I could hear the spade strike against the small rocks that blocked the way. (165) Never send to know for whom the grave is dug, I said to myself, it's dug for thee. (166) Fred, I well knew, was supervising the work of digging, so I ate breakfast slowly.

(167) It was a Saturday morning. (168) The thicket in which I found the gravediggers at work was dark and warm, the sky overcast. (169) Here, among alders and young hackmatacks, at the foot of the apple tree, Lennie had dug a beautiful hole, five feet long, three feet wide, three feet deep. (170) He was standing in it, removing the last spadefuls of earth while Fred patrolled the brink in simple but impressive circles, disturbing the loose earth of the mound so that it trickled back in. (171) There had been no rain in weeks and the soil, even three feet down, was dry and powdery. (172) As I stood and stared, an enormous earthworm which had been partially exposed by the spade at the bottom dug itself deeper and made a slow withdrawal, seeking even remoter moistures at even lonelier depths. (173) And just as Lennie stepped out and rested his spade against the tree and lit a cigarette, a small green apple separated itself from a branch overhead and fell into the hole. (174) Everything about this last scene seemed overwritten--the dismal sky, the shabby woods, the imminence of rain, the worm (legendary bedfellow of the dead), the apple (conventional garnish of a pig).

(175) But even so, there was a directness and dispatch about animal burial, I thought, that made it a more decent affair than human burial: (176) there was no stopover in the undertaker's foul parlor, no wreath nor spray; (177) and when we hitched a line to the pig's hind legs and dragged him swiftly from his yard, throwing our weight into the harness and leaving a wake of crushed grass and smoothed rubble over the dump, ours was a businesslike procession, with Fred, the dishonorable pallbearer, staggering along in the rear, his perverse bereavement showing in every seam in his face; (178) and the post mortem performed handily and swiftly right at the edge of the grave, so that the inwards that had caused the pig's death preceded him into the ground and he lay at last resting squarely on the cause of his own undoing.

(179) I threw in the first shovelful, and then we worked rapidly and without talk, until the job was complete. (180) I picked up the rope, made it fast to Fred's collar (he is a notorious ghou), and we all three filed back up the path to the house, Fred bringing up the rear and holding back every inch of the way, feigning unusual

stiffness. (181) I noticed that although he weighed far less than the pig, he was harder to drag, being possessed of the vital spark.

(182) The news of the death of my pig travelled fast and far, and I received many expressions of sympathy from friends and neighbors, for no one took the event lightly and the premature expiration of a pig is, I soon discovered, a departure which the community marks solemnly on its calendar, a sorrow in which it feels fully involved. (183) I have written this account in penitence and in grief, as a man who failed to raise his pig, and to explain my deviation from the classic course of so many raised pigs. (184) The grave in the woods is unmarked, but Fred can direct the mourner to it unerringly and with immense good will, and I know he and I shall often revisit it, singly and together, in seasons of reflection and despair, on flagless memorial days of our own choosing.

THE LOVER AND HIS LASS

by

James Thurber

(1) An arrogant gray parrot and his arrogant mate listened, one African afternoon, in disdain and derision, to the lovemaking of a lover and his lass, who happened to be hippopotamuses.

(2) "He calls her snooky-ookums," said Mrs. Gray. (3) "Can you believe that?"

(4) "No," said Gray. (5) "I don't see how any male in his right mind could entertain affection for a female that has no more charm than a capsized bathtub."

(6) "Capsized bathtub, indeed!" exclaimed Mrs. Gray. (7) "Both of them have the appeal of a coastwise fruit steamer with a cargo of waterlogged basketballs."

(8) But it was spring, and the lover and his lass were young, and they were oblivious of the scornful comments of their sharp-tongued neighbors, and they continued to bump each other around in the water, happily pushing and pulling, backing and filling, and snorting and snaffling. (9) The tender things they said to each other during the monolithic give-and-take of their courtship sounded as lyric to them as flowers in bud or green things opening. (10) To the Grays, however, the bumbling romp of the lover and his lass was hard to comprehend and even harder to tolerate, and for a time they thought of calling the A.B.I., or African Bureau of Investigation, on the ground that monolithic lovemaking by enormous creatures who should have become decent fossils long ago was probably a threat to the security of the jungle. (11) But they decided instead to phone their friends and neighbors and gossip about the shameless pair, and describe them in mocking and monstrous metaphors involving skidding buses on icy streets and overturned moving vans.

(12) Late that evening, the hippopotamus and the hippopotama were surprised and shocked to hear the Grays exchanging terms of endearment. (13) "Listen to those squawks," wuffled the male hippopotamus.

(14) "What in the world can they see in each other?" gurbled the female hippopotamus.

(15) "I would as soon live with a pair of unoled garden shears," said her inamoratus.

(16) They called up their friends and neighbors and discussed the incredible fact that a male gray parrot and a female gray parrot could possibly have any sex appeal.

(17) It was long after midnight before the hippopotamuses stopped criticizing the Grays and fell asleep, and the Grays stopped maligning the hippopotamuses and retired to their beds.

(18) Moral: Laugh and world laughs with you, love and you love alone.

THE SECRET LIFE OF WALTER MITTY

by
James Thurber

"We're going through!" The Commander's voice was like thin ice breaking. He wore his full-dress uniform, with the heavily braided white cap pulled down rakishly over one cold gray eye. "We can't make it, sir. It's spoiling for a hurricane, if you ask me." "I'm not asking you, Lieutenant Berg," said the Commander. "Throw on the power lights! Rev her up to 8,500! We're going through! The pounding of the cylinders increased: ta-pocketa-pocketa-pocketa-pocketa. The Commander stared at the ice forming on the pilot window. He walked over and twisted a row of complicated dials. "Switch on No. 8 auxiliary!" he shouted. "Switch on No. 8 auxiliary!" repeated Lieutenant Berg. "Full strength in No. 3 turret!" The crew, bending to their various tasks in the huge, hurtling eight-engined Navy hydroplane, looked at each other and grinned. "The Old Man'll get us through," they said to one another. "The Old Man ain't afraid of Hell!" . . .

"Not so fast! You're driving too fast!" said Mrs. Mitty. "What are you driving so fast for?"

"Hmm?" said Walter Mitty. He looked at his wife, in the seat beside him, with shocked astonishment. She seemed grossly unfamiliar, like a strange woman who had yelled at him in a crowd. "You were up to fifty-five," she said. "You know I don't like to go more than forty. You were up to fifty-five." Walter Mitty drove on toward Waterbury in silence, the roaring of the SN202 through the worst storm in twenty years of Navy flying fading in the remote, intimate airways of his mind. "You're tensed up again," said Mrs. Mitty. "It's one of your days. I wish you'd let Dr. Renshaw look you over."

Walter Mitty stopped the car in front of the building where his wife went to have her hair done. "Remember to get those overshoes while I'm having my hair done," she said. "I don't need overshoes," said Mitty. She put her mirror back into her bag. "We've been all through that," she said, getting out of the car. "You're not a young man any longer." He raced the engine a little. "Why don't you wear your gloves? Have you lost your gloves?" Walter Mitty reached in a pocket and brought out the gloves. He put them on, but after she had turned and gone into the building and he had driven on to a red light, he took them off again. "Pick it up, brother!" snapped a cop as the light changed, and Mitty hastily pulled on his gloves and lurched ahead. He drove around the streets aimlessly for a time, and then he drove past the hospital on his way to the parking lot.

. . . "It's the millionaire banker, Wellington McMillan," said the pretty nurse. "Yes?" said Walter Mitty, removing his gloves slowly. "Who has the case?" "Dr. Renshaw and Dr. Benbow, but there are two specialists here, Dr. Remington from New York and Mr. Pritchard-Mitford from London. He flew over." A door opened down a long, cool corridor and Dr. Renshaw came out. He looked distraught and haggard. "Hello, Mitty," he said. "We're having the devil's own time with McMillan, the millionaire banker and close personal friend of Roosevelt. Obstrosis of the ductal

tract. Tertiary. Wish you'd take a look at him." "Glad to," said Mitty.

In the operating room there were whispered introductions: "Dr. Remington, Dr. Mitty. Mr. Pritchard-Mitford, Dr. Mitty." "I've read your book on streptothricosis," said Pritchard-Mitford, shaking hands. "A brilliant performance, sir." "Thank you," said Walter Mitty. "Didn't know you were in the States, Mitty," grumbled Remington. "Coals to Newcastle, bringing Mitford and me up here for a tertiary."

"You are very kind," said Mitty. A huge, complicated machine, connected to the operating table, with many tubes and wires, began at this moment to go pocketa-pocketa-pocketa. "The new anesthetizer is giving way!" shouted an intern. "There is no one in the East who knows how to fix it!" "Quiet, man!" said Mitty, in a low, cool voice. He sprang to the machine, which was now going pocketa-pocketa-queep-pocketa-queep. He began fingering delicately a row of glistening dials. "Give me a fountain pen!" he snapped. Someone handed him a fountain pen. He pulled a faulty piston out of the machine and inserted the pen in its place. "That will hold for ten minutes," he said. "Get on with the operation." A nurse hurried over and whispered to Renshaw, and Mitty saw the man turn pale. "Coreopsis has set in," said Renshaw nervously. "If you would take over, Mitty?" Mitty looked at him and at the craven figure of Benbow, who drank, and at the grave, uncertain faces of the two great specialists. "If you wish," he said. They slipped a white gown on him; he adjusted a mask and drew on thin gloves; nurses handed him shining. . .

"Back it up, Mac! Look out for that Buick!" Walter Mitty jammed on the brakes. "Wrong lane, Mac," said the parking-lot attendant, looking at Mitty closely. "Gee. Yeh," muttered Mitty. He began cautiously to back out of the lane marked "Exit Only." "Leave her sit there," said the attendant. "I'll put her away." Mitty got out of the car. "Hey, better leave the key." "Oh," said Mitty, handing the man the ignition key. The attendant vaulted into the car, backed it up with insolent skill, and put it where it belonged.

They're so damn cocky, thought Walter Mitty, walking along Main Street; they think they know everything. Once he had tried to take his chains off, outside New Milford, and he had got them wound around the axles. A man had had to come out in a wrecking car and unwind them, a young, grinning garageman. Since then Mrs. Mitty always made him drive to a garage to have the chains taken off. The next time, he thought, I'll wear my right arm in a sling; they won't grin at me then. I'll have my right arm in a sling and they'll see I couldn't possibly take the chains off myself. He kicked at the slush on the sidewalk. "Overshoes," he said to himself, and he began looking for a shoe store.

When he came out in the street again, with the overshoes in a box under his arm, Walter Mitty began to wonder what the other thing was his wife had told him to get. She had told him, twice, before they set out from their house for Waterbury. In a way he hated these weekly trips to town—he was always getting something wrong. Kleenex, he thought, Squibb's, razor blades? No. Toothpaste, toothbrush, bicarbonate, carborundum, initiative and referendum? He gave it up. But he would remember it. "Where's the what's-its-name?" she would ask. "Don't tell me you forgot the what's-its-name." A newsboy went by shouting something about the Waterbury trial.

... "Perhaps this will refresh your memory." The District Attorney suddenly thrust a heavy automatic at the quiet figure on the witness stand. "Have you ever seen this before?" Walter Mitty took the gun and examined it expertly. "This is my Webley-Vickers 50.80," he said calmly. An excited buzz ran around the courtroom. The Judge rapped for order. "You are a crack shot with any sort of firearms, I believe?" said the District Attorney, insinuatingly. "Objection!" shouted Mitty's attorney. "We have shown that the defendant could not have fired the shot. We have shown that he wore his right arm in a sling on the night of the fourteenth of July." Walter Mitty raised his hand briefly and the bickering attorneys were stilled. "With any known make of gun," he said evenly, "I could have killed Gregory Fitzhurst at three hundred feet with my left hand." Pandemonium broke loose in the courtroom. A woman's scream rose above the bedlam and suddenly a lovely, dark-haired girl was in Walter Mitty's arms. The District Attorney struck at her savagely. Without rising from his chair, Mitty let the man have it on the point of the chin. "You miserable cur!"

"Puppy biscuit," said Walter Mitty. He stopped walking and the buildings of Waterbury rose up out of the misty courtroom and surrounded him again. A woman who was passing laughed. "He said 'Puppy biscuit,'" she said to her companion. "That man said 'Puppy biscuit' to himself." Walter Mitty hurried on. He went into an A. & P., not the first one he came to but a smaller one farther up the street. "I want some biscuit for small, young dogs," he said to the clerk. "Any special brand, sir?" The greatest pistol shot in the world thought a moment. "It says 'Puppies Bark for It' on the box," said Walter Mitty.

His wife would be through at the hairdresser's in fifteen minutes, Mitty saw in looking at his watch, unless they had trouble drying it; sometimes they had trouble drying it. She didn't like to get to the hotel first; she would want him to be there waiting for her as usual. He found a big leather chair in the lobby, facing a window, and he put the overshoes and the puppy biscuit on the floor beside it. He picked up an old copy of Liberty and sank down into the chair. "Can Germany Conquer the World Through the Air?" Walter Mitty looked at the pictures of bombing planes and of ruined streets.

... "The cannonading has got the wind up in young Raleigh, sir," said the sergeant. Captain Mitty looked up at him through tousled hair. "Get him to bed," he said wearily. "With the others. I'll fly alone." "But you can't, sir," said the sergeant anxiously. "It takes two men to handle that bomber and the Archies are pounding hell out of the air. Von Richtman's circus is between here and Saulier." "Somebody's got to get that ammunition dump," said Mitty. "I'm going over. Spot of brandy?" He poured a drink for the sergeant and one for himself. War thundered and whined around the dugout and battered at the door. There was a rending of wood and splinters flew through the room. "A bit of a near thing," said Captain Mitty carelessly. "The box barrage is closing in," said the sergeant. "We only live once, Sergeant," said Mitty, with his faint, fleeting smile. "Or do we?" He poured another brandy and tossed it off. "I never see a man could hold his brandy like you, sir," said the sergeant. "Begging your pardon, sir." Captain Mitty stood up and strapped on his

huge Webley-Vickers automatic. "It's forty kilometers through hell, sir," said the sergeant. Mitty finished one last brandy. "After all," he said softly, "what isn't?" The pounding of the cannon increased; there was a rat-tat-tatting of machine guns, and from somewhere came the menacing pocketa-pocketa-pocketa of the new flame-throwers. Walter Mitty walked to the door of the dugout humming "Aupres de Ma Blonde." He turned and waved to the sergeant. "Cheerio!" he said. . . .

Something struck his shoulder. "I've been looking all over this hotel for you," said Mrs. Mitty. "Why do you have to hide in this old chair? How did you expect me to find you?" "Things close in," said Walter Mitty vaguely. "What?" Mrs. Mitty said. "Did you get the what's-its-name? The puppy biscuit? What's in that box?" "Overshoes," said Mitty. "Couldn't you have put them on in the store?" "I was thinking," said Walter Mitty. "Does it ever occur to you that I am sometimes thinking?" She looked at him. "I'm going to take your temperature when I get you home," she said.

They went out through the revolving doors that made a faintly derisive whistling sound when you pushed them. It was two blocks to the parking lot. At the drugstore on the corner she said, "Wait here for me. I forgot something. I won't be a minute." She was more than a minute. Walter Mitty lighted a cigarette. It began to rain, rain with sleet in it. He stood up against the wall of the drugstore, smoking. . . He put his shoulders back and his heels together. "To hell with the handkerchief," said Walter Mitty scornfully. He took one last drag on his cigarette and snapped it away. Then, with that faint, fleeting smile playing about his lips, he faced the firing squad; erect and motionless, proud and disdainful, Walter Mitty the Undefeated, inscrutable to the last.

THE GETTYSBURG ADDRESS

by
Abraham Lincoln

Fourscore and seven years ago our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.

Now we are engaged in great civil war, testing whether that nation or any nation so conceived and so dedicated, can long endure. We are met on a great battle-field of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.

But, in a larger sense, we can not dedicate--we can not consecrate--we can not hallow--this ground. The brave men, living and dead, who struggled here, have hallowed it far above our poor power to add or detract. The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us--that from these honored dead we take increased devotion to that cause for which they gave their last full measure of devotion--that we here highly resolve that these dead shall not have died in vain--that this nation, under God, shall have a new birth of freedom--and that government of the people, by the people, for the people, shall not perish from the earth.

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