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CANADIAN THESES ON MICROFICHE | THÈSES CANADIENNES SUR MICROFICHE

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TITLE OF THESIS/TITRE DE LA THÈSE A DESCRIPTIVE STUDY OF GRADE TEN STUDENTS' UNDERSTANDING OF WRITTEN METAPHOR

UNIVERSITY/UNIVERSITÉ UNIVERSITY OF ALBERTA

DEGREE FOR WHICH THESIS WAS PRESENTED/ GRADE POUR LEQUEL CETTE THÈSE FUT PRÉSENTÉE M ED

YEAR THIS DEGREE CONFERRED/ANNÉE D'OBTENTION DE CE GRADE 1978

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A DESCRIPTIVE STUDY OF GRADE TEN STUDENTS' UNDERSTANDING OF WRITTEN METAPHOR

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

DEPARTMENT OF ELEMENTARY EDUCATION

EDMONTON, ALBERTA

FALL, 1978

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "A Descriptive Study of Grade Ten Students' Understanding of Written Metaphor" submitted by Margaret R. Hunsberger in partial fulfilment of the requirements for the degree of Master of Education.

Margaret W. Hunsberger
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Date October 17, 1978

ABSTRACT

The purpose of this study was to examine the ability of grade ten students to interpret literary metaphor, including both the understanding demonstrated and the difficulties encountered.

Twenty students from two high schools of the Edmonton Catholic School Board were involved. These were divided on the basis of a reading comprehension test into two groups of high and average comprehenders with ten students per group. Students were interviewed individually by the researcher.

Two tasks were used. First, students were asked to read and discuss ten metaphors contained in short paragraphs as selected by Smith for his doctoral study in 1973. Secondly, students were asked to read Emily Dickinson's poem, "I like to see it lap the miles" which contains a sustained metaphor. Students were given as much time as they wished to study the poem and were then asked several questions about it.

Each interview was tape-recorded and transcribed. Responses were categorized according to a system derived "a posteriori" from the data. A descriptive analysis was made through an examination of the responses, a notation of frequency of category usage, a comparison of the results of the individual metaphor task with the results found by Smith (1973) and a comparison of the responses to the two tasks.

It was found that all students approached metaphor as something quite different from literal language and were usually able to distinguish between the literal and figurative terms of the metaphor. The degree of insight into the metaphor varied greatly according to

the ability of the student and to a lesser extent according to the complexity of the metaphor. All students were sometimes able to state the more obvious interpretations of the metaphor, but some could not do so consistently. Insightful and sophisticated interpretations were less common. Poor comprehension leading to an incorrect interpretation of both literal and figurative text was the major difficulty encountered. Both the best and the poorest responses were given for the poem, suggesting that it, more than individual metaphors, was able to reveal students' strengths and weaknesses. Complete context appeared to be of vital importance. Sentence or paragraph context appeared insufficient, since any part or all of the preceeding text of the work could influence interpretation of the metaphor.

ACKNOWLEDGEMENTS

Thanks are due especially to Dr. Marion Jenkinson, thesis supervisor, for her insights into people, ideas and research, and for her sustained encouragement during the preparation of this thesis. Appreciation is also expressed to Dr. [illegible]er and Dr. Jean E. Robertson, committee members, for their interest and time spent in considering the study. And many thanks go to Mrs. Margaret Voice, typist, whose expertise greatly eased the demands of the final preparatory stages. The assistance and cooperation of the Edmonton Catholic School Board are gratefully acknowledged.

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CHAPTER I

OVERVIEW

One thing that literature would be greatly the better for
Would be a more restricted employment by authors of simile
and metaphor.
Authors of all races, be they Greeks, Romans, Teutons or Celts,
Can't seem just to say that anything is the thing it is but
have to go out of their way to say that it is like something
else.
. . . . . .
That's the kind of thing that's being done all the time by
poets, from Homer to Tennyson;
They're always comparing ladies to lilies and veal to venison,
And they always say things like that the snow is a white blanket
after a winter storm.
Oh it is, is it, all right then, you sleep under a six-inch
blanket of snow and I'll sleep under a half-inch blanket of
unpoetical blanket material and we'll see which one keeps warm,
And after that maybe you'll begin to comprehend dimly
What I mean by too much metaphor and simile.

Ogden Nash, "Very Like a Whale,"
in I Wouldn't Have Missed It
(Boston: Little, Brown, 1975),
45-46.

Although authors have apparently long recognized the value of metaphor and have used it extensively in their writing, scholars have had considerably more difficulty in analysing metaphor and in assessing its value in the thinking and communication processes. Literary critics and philosophers beginning with Aristotle have discussed the subject from various points of view with varying degrees of insight. As a result, there is available at present a useful, although incomplete, body of theory about metaphor. Some aspects of the theory can be helpful to educators who are concerned more specifically with how children and youth understand metaphor and how that understanding can

be improved. Educators, however, have been late in giving attention to the needs and abilities of students to comprehend metaphor. The empirical studies dealing with children's comprehension of metaphor are limited in number, and those dealing with the comprehension of high school students are very rare. Hence, this study has attempted to take one more step in exploring the area of high school students' understanding of metaphor.

PURPOSE OF THE STUDY

The purpose of the study was to investigate the ability of grade ten students to comprehend literary metaphor, particularly by observing the degree of insight shown by the students and the nature of the difficulties they encountered. In order to do this, interpretations of two kinds of metaphor were sought from two groups of students. High and average comprehenders were asked to read and interpret individual metaphors contained in literary excerpts and a sustained metaphor contained in a complete poem.

BACKGROUND

Because so much thinking, speaking and writing are done metaphorically, metaphor is an area which seems important to pursue. The evidence is that scientific hypotheses are frequently formed through metaphoric thought. As scientists consider a problem in light of knowledge already gained, the metaphors provided by familiar concepts may result in further insight into the nature of the problem. Metaphor is also a highly useful and commonly employed method of communication.

Since metaphor involves analogous thinking, a speaker or writer uses metaphors from the familiar world of the listeners or readers to enable them to grasp new and unfamiliar concepts. With metaphor having this kind of significance in thought and communication, it is important that educators attend to the understanding their students have and do everything possible to increase students' understanding.

For this study, the topic outlined in the previous paragraph was narrowed to a consideration of literary metaphor. The theoretical framework for viewing metaphor is presented in Chapter II, with the emphasis on the interaction which occurs between the literal and figurative terms in the metaphor. It is regarded as inadequate to consider only the separate meanings of the two terms; rather the juxtaposition of the terms in the metaphoric presentation slightly alters the meaning of both. This interaction, and the ability of metaphor to use the reader's existing knowledge to provide new insights, are regarded as the real strengths of metaphor. A well-written metaphor causes in the reader a sense of cognitive surprise combined with pleasure, a reaction something like, "I hadn't thought of that, but yes, it seems right." It is apparent then that to interpret metaphor, the reader must be able both to draw on existing knowledge of the world and to make the required cognitive and linguistic juxtapositions. These two factors can present problems for children whose background experience is, of necessity, limited and whose cognitive development may be inadequate for abstract complexities.

This study is limited to an examination of the understanding of literary metaphor shown by grade ten students. For

literate teen-agers complete separation of oral and written language may not be possible and minimal attention is given to oral metaphor, but the focus is on its use in literature. By the teen-age years, students have achieved or are approaching the cognitive competencies of adults, but their experience of the world is more limited than that of adults. Hence it is interesting to determine what insights such students have, especially in view of earlier studies which examined the understanding of younger children, and are reviewed in the second section of Chapter II.

Grade ten students are mature enough that they can reasonably be asked to interpret all levels of metaphors, including those of considerable complexity. Also high quality literature was deliberately presented, so that students would not be constrained by poor material with little content, but would be challenged to make the most profound interpretations of which they were capable. The context of a metaphor also influences the reader's view of it. Therefore, although all metaphors were presented in context, some contexts were literary excerpts and two were complete poems of differing lengths, so that at least some of the effects of context could be assessed. In addition, students were required to construct their own statements of interpretation without being able to select from prepared answers. Previous studies had shown the limitations of a multiple choice task in which the student is both provided with interpretations which might not otherwise have come to mind and also is limited to those few ideas when others of greater breadth may have occurred but cannot then be expressed within the format. Also in the normal reading process,

readers are required to interpret the text for themselves; multiple choice selections are not provided at the end of paragraphs or chapters. Free interpretation is thus a much more realistic kind of reading task, while at the same time interpretation of literature is for high school students a normal school task to which students are accustomed.

Students with high and average comprehension skills were chosen with the expectation that their reading ability would thus be good enough that reading problems would not interfere with interpretations of metaphor, as might have occurred with poor readers. But it seemed reasonable that ability to comprehend metaphor would be one of the factors which influence the student's total reading comprehension, and the selection of the two groups allowed for that comparison.

Thus, given the importance of metaphor in communication and the limited knowledge of how it is comprehended, especially at the high school level, further research in this area appeared very much in order and the present study was undertaken.

DEFINITION OF TERMS

In this study the following terms are used as defined.

Metaphor: "A figure of speech in which a word denoting one object or idea is used to add meaning to another object or idea through the similarities between the two, as in 'Man is a wolf.' According to Black (1962), metaphor is the result of selecting appropriate associated commonplaces from a network of commonplaces attached to one subject (the subsidiary subject) and applying them to another subject (the main subject)" (Smith, 1973, p. 4).

Tenor: "The literal part of a metaphor to which the figurative part of a metaphor attaches meaning" (Smith, 1973, p. 4). In the metaphor "Her eyes were candles," "eyes" is the tenor. The tenor may also be termed the "main subject" of the metaphor.

Vehicle: "The figurative part of a metaphor from which certain associated commonplaces are selected and attached to the main subject" (Smith, 1973, p. 4). In "Her eyes were candles," "candles" is the vehicle. The vehicle may also be termed the "subsidiary subject" of the metaphor.

Associated commonplaces: Those characteristics which are shared by the tenor and vehicle and which interact between them to create the metaphor. In "Her eyes were candles," "glowed" is an associated commonplace.

Sustained metaphor: A metaphor which employs more than one set of associated commonplaces. It is extended beyond the immediate context in which it is first presented and may be continued through an entire poem or prose passage.

High comprehenders: Students who on the Sequential Tests of Educational Progress, Form 3B, Reading Section, ranked in the highest quartile.

Average Comprehenders: The ten students whose scores on the Sequential Tests of Educational Progress, Form 3B, Reading Section, were closest to the 50th percentile.

RESEARCH QUESTIONS

There were several questions of interest in this study.

1. What basic understandings of metaphor do grade ten students appear to have?

2. What difficulties do grade ten students encounter in interpreting literary metaphor?

3. What are the differences between good and average readers in their ability to interpret metaphor?

4. How successful are students in going beyond the valid, but obvious, interpretations of the metaphor and providing insights into the more subtle connotations?

5. How well can students interpret a sustained metaphor as contained in a short, but complete, poem?

PLAN OF THE STUDY

Ten high and ten average comprehenders, an equal number of boys and girls, were selected from two high schools administered by the Edmonton Separate School Board, Edmonton, Alberta. The data were collected in the latter part of April, 1978.

Students were asked to read and interpret the ten metaphors used by Smith in his doctoral study (1973). They were also asked to read and answer questions on the sustained metaphor found in Emily Dickinson's poem, "I like to see it lap the miles." Each student was interviewed individually, and an attempt was made to ensure that each student had sufficient quiet time in which to think so that the responses given represented the student's best thinking. All interviews

were tape-recorded and later transcribed.

Since it was the intent of the study to look for patterns emerging from the data showing the nature of the interpretations and the difficulties, the categorization system was determined "a posteriori."

LIMITATIONS

The following limitations must be taken into account.

1. No attempt was made to determine the type or amount of instruction students may have received in interpreting metaphor, but within the specifications for the two groups, there was a random selection of students from two schools, to ensure a variety of instructional backgrounds.

2. The data gathered were dependent on students' abilities to verbalize their understanding. It is reasonable to think that some students were more articulate than others.

3. The small sample size has limited the generalizations which could be made.

4. The presence of a tape-recorder may have affected students' responses.

SIGNIFICANCE

Although literary critics have long been interested in metaphor and have written about its role in literature, its nature and function are still not well understood. A limited amount of research has been done on how elementary school children understand metaphor and on how

metaphoric comprehension relates to cognitive development. Very minimal amounts of research have been reported on the ability of high school students to comprehend metaphor, especially written metaphor. Also it is not definitely known whether the ability to comprehend and interpret metaphor continues to increase after students have reached the formal operations stage of cognitive development. Yet students in elementary and high school are expected to comprehend metaphors of varying degrees of complexity, while their teachers remain uncertain of what they do understand and how teaching can best assist them.

Thus, more precise knowledge about the competency of grade ten students to comprehend metaphor will have implications for teaching. Additional knowledge about the insights of which students are capable, as well as the kinds of difficulty they encounter, is highly relevant information for teachers.

CHAPTER II

REVIEW OF RELATED LITERATURE

The literature dealing with metaphor and its interpretation shows widely differing views of what metaphor is and how it is best defined or described. Definitions range from the all-inclusive concept that all language is metaphor to the narrow view that metaphor is a comparison of two dissimilar objects or ideas. Considerable discussion also occurs on such issues as whether metaphor can be translated successfully into literal language, whether simile is or is not a form of metaphor, whether metaphor is an embellishment to language or a fundamental aspect of it, whether comprehension or production of metaphor is easier, and whether metaphor is more precise or more vague than literal language. A separate question, and one that is less fully discussed in the literature, is how children in various stages of cognitive development comprehend metaphor.

This study limits itself to concern with the comprehension of literary metaphor. Thus little direct attention is given to such aspects of metaphor as the important role it plays in providing scientific insights, or to its common usage in oral language, or to metaphoric production. All of these are recognized as interesting and valid areas of metaphor, but are discussed here only as they relate to, or overlap with, literary metaphor.

This chapter considers firstly then the theoretical framework within which metaphor may be analysed, and secondly the empirical

studies which have been done on children's understanding of metaphor, attending particularly to the relationship of metaphoric comprehension to cognitfve development.

THE THEORETICAL FRAMEWORK

Various terms have been used to designate the parts of the metaphor. Richards' (1929) terms of "tenor" and "vehicle" will be used here, with "tenor" indicating the literal term which is the topic under consideration, and "vehicle" indicating the figurative term used. Black (1962) views these two parts of the metaphor as each having a network of meanings. When a writer juxtaposes the two, the reader must draw the appropriate aspects from each network in order to see the similarity in dissimilars and thus comprehend the metaphor. These appropriate shared characteristics Black terms "associated commonplaces." Upon them the metaphor depends for its success, and they must be drawn from the reader's knowledge of tenor and vehicle. Thus metaphor requires that writer and reader share cultural views. Metaphors, as Black points out, can be translated from one language to another since they depend on semantics, not syntax, but they are culture-specific. If a reader encounters the sentence, "Man is a wolf," writer and reader must share views of vulpine nature or else the reader will assume a very different meaning from that intended by the writer. These notions about wolves need not be true, but they must be shared.

Asch (1955) assembled a list of adjectives which in English have a literal meaning in the physical world and a figurative meaning

when applied to people: for example, straight, crooked, hot, cold. He then asked native speakers of several other languages of widely differing origins and locations (Greek, Thai, Hausa, Chinese, Hebrew) to give him the meanings of the same words in their language when applied to the physical world and to people. He found that in most cases there was also a metaphoric meaning for personal characteristics, usually similar to the English usage. To the extent that these similarities occur, the metaphor works across cultures. Otherwise the translator must adapt the metaphor to suit the new culture.

Analysis of Metaphor

The view expressed by Shibles (1971) that language is symbolic, therefore all language is metaphoric, may or may not be correct, but is too broad to be useful here. If all language is regarded as metaphoric, then another term is needed for that type of language which we now call metaphor. Therefore, a more limited definition is used.

Black (1962) identifies three views of metaphor: substitution, comparison, and interaction. Other writers use different terms but frequently express designations similar to one of these three. Hence, it seems Black's three categories are a very useful framework to keep in mind as a way of imposing some organization on the subject.

The substitution view holds that a metaphor is merely a substitution of a figurative term for a perfectly adequate literal one. The author uses a figurative term in place of the literal one intended; the reader must then reverse the process and replace the literal term in order to gain understanding. Thus, in this view a metaphor is a mere decoration. It acts to obscure, rather than illuminate, the

meaning. In Renaissance times metaphor was frequently regarded as a "disreputable fiction," a "literary embellishment to trap the unwary" (Anderson, 1964).

Black suggests two reasons for a substitution usage. One is that the author or speaker cannot think of the most appropriate literal term and so substitutes a figurative one. The metaphor is a second best solution to the problem of a limited vocabulary. This probably occurs most frequently in young children who do not yet know the term they need and hence substitute a word from experiences they have had. Some writers credit small children with the ability to create clever metaphors, but a more likely explanation appears to be simply that both their vocabularies and their experiences with the world are of necessity limited and they are substituting the resources they have for knowledge not yet gained. Or they may be, as Watts (1944) suggests, simply misapplying a literal term. The second reason frequently given for a substitution usage is that it is good literary style because it gives the reader a pleasant surprise. Black is scornful of this notion, saying that when scholars are in doubt about a peculiarity encountered in language, they evade the problem by claiming it gives the reader pleasure.

The second view of metaphor identified by Black is the comparison view. This is widely held and is implicit in many definitions of metaphor. And indeed it is doubtful whether any metaphor ever works without a measure of comparison. When two dissimilars are presented to the reader in such a way that similarities are to be identified, comparison is invited. The problem with this view is

not so much that it is in error, as that it is incomplete. Good metaphors involve another element beyond comparison. Not all metaphors can be comprehended through analogy; some are more complex.

Wheelwright (1962) used the term "epiphor" to denote the extension of meaning through comparison. Although this is a comparison definition, it is somewhat more inclusive than Black's, since it adds the quality of extension of meaning, thus indicating that the tenor and the vehicle do affect each other by adding a new dimension to each other's meanings.

Black's third view involves interaction between the tenor and the vehicle so that a slightly new meaning results. The reader makes a connection between the two and perceives both a little differently. Interaction is "the whole eureka process which in bringing together the hitherto unconnected gives a new insight which belongs to neither" (Haynes, 1975, p. 273). Bruner (1964) explains the cognitive process involved as a mental presentation of two or more things causing a sense of relation which the reader uses to educe another thing. Even in a very simple metaphor such as, "Tom is a snake in the grass," not only is Tom somewhat denigrated but the snake is slightly humanized. The metaphor also helps the reader to organize a view of Tom. Those characteristics which are appropriately shared by a person and a snake are highlighted, while others are pushed into the background. Thus, Black indicates that the metaphor acts as a filter.

Wheelwright (1962) used the term "diaphor" for "creation of new meaning by juxtaposition and synthesis" (p. 72), a view that seems

similar to interaction, although according to Wheelright's examples, is interpreted in more limited and strict terms.

This interaction concept appears to have originated with I. A. Richards who, although he did not use the term, did make clear that the vehicle is not an embellishment of the tenor but that the two together take on new meaning and create new reality. Richards may be indebted to the Romantic poets, especially Coleridge, who held that metaphor is integral to language (Hawkes, 1971). They broke firmly away from the Renaissance "embellishment" and "trap" idea mentioned previously and regarded metaphor as intrinsic to language and literature.

Henle's (1965) breadth and depth metaphors appear to be very similar to substitution and interaction respectively. Breadth metaphors occur when an object is named through use of a metaphor, such as the "hood" of a car. These metaphors rapidly lose their freshness and quickly become literal. Depth metaphors on the other hand are more poetic and tend to be interactive. Henle notes that connotations are a part of the interaction. For instance, if old age is juxtaposed metaphorically with sunset, the metaphor "sunset of life" has positive connotations while "old age of the day" seems negative.

If the metaphor is successful it will be unexpected and therefore will cause a sense of cognitive surprise. However, it is crucial that the reader feel, not the surprise resulting from confusion or puzzlement, but the surprise of recognition that although the idea is unfamiliar it is appropriate and "right." Wheelwright (1962) in describing epiphor, expressed this condition effectively: "a tensive

vibrancy can be achieved only when an adroit choice of dissimilars is made, so that the comparison comes as a shock which is yet a shock of recognition"(p. 74).

The result of the interaction of vehicle and tenor and the surprise of recognition should be insight into relationships of which the reader was previously unaware. Metaphors are usually packed more tightly and embedded more deeply in poetry than prose. T. S. Eliot (as quoted by Wheelwright, 1962) says that a poet sees relationships and wholeness that others do not. This insight, provoked by the poet, is one contribution that poetry makes to enriching life.

Aristotle at one point warned against excessive use of metaphor since it makes ordinary language poetic and in his view, less clear, but he also saw educative value in metaphor: ". . . strange words simply puzzle us; ordinary words convey only what we know already; it is from metaphor that we can best get hold of something fresh" (cited by Hawkes, 1972, p. 10). This statement fits well with the interactive view.

Indeed one significant use of metaphor is that it makes the unfamiliar more meaningful. By juxtaposing a familiar object, experience or idea, an author may assist the reader in comprehending a new abstract idea. Metaphor can be used to "describe the otherwise indescribable in terms of something familiar which it may be taken to resemble" (Watts, 1944, p. 196). Watts suggests that this is particularly so for such difficult concepts as God, life or death. Gambell (1976) makes the same claim and further suggests that there is a largely unexplored, but intertwined relationship between logical

thought and metaphorical thought. Gambell particularly recommends the usefulness of metaphor to aid children struggling with abstractions. However, the age of the children and the difficulty of the metaphor must be taken into account here, since a complex metaphor may merely add to the confusion for young children who are as yet unable to interpret it. C. S. Lewis (as interpreted by Emig, 1972) makes a useful distinction between the master's metaphor used by a teacher to explain something, and the pupil's metaphor used by a student who is trying to understand. The major difference should be that the teacher is already familiar with the topic so that the teacher's thinking should extend well beyond the metaphor, whereas the student's thinking will extend only to the power of the metaphor. Gambell (1976) in his research used various stimuli to encourage children to use figurative language and found, not surprisingly, that the more abstract or unfamiliar the stimulus, the more figures of speech the children produced. It appears that in their struggle to articulate something unfamiliar they reached for known entities on which to build their descriptions. "Metaphors have always helped man perform one of his most difficult tasks: that of making the abstract comprehensible in terms of ordinary experience and of explaining the seemingly mysterious in everyday language" (Altick, cited by Smith, 1973, p. 9). As Shibles (1971) indicates, the style of writing, of presenting ideas, affects the ideas themselves.

Thus it can be seen that metaphor by juxtaposing a less and a more familiar concept creates a new insight and allows for the altering of, or the addition to, existing cognitive structures. In

that sense Haynes (1975) is correct in writing that metaphor is a model for the learning process. It imposes order, allows insights, and modifies thought. The reader is encouraged, in Bruner's (1964) memorable phrase, to go "beyond the information given." Samples (1978), after outlining three metaphoric modes which seem to be similar to Black's three views, adds a fourth called the inventive mode which occurs with a new level of awareness or knowing. This is the creative leap which, according to Haynes, metaphor facilitates. Both Samples (1975) and Bruner (1963) write of the role of the intuitive, creative part of the mind as a balance to the logical, rational part. The two work together and both are necessary for new insights to be generated in scientific and humanistic thought. The creative flash, in Bruner's terms, is metaphoric.

Perrine (1971) suggests a quite different way of categorizing metaphor. His system would seem to be particularly useful for students to keep in mind as they are confronted with literary metaphor. Four forms of metaphor are outlined. An author may: (1) name both the tenor and the vehicle—"All the world's a stage" (Shakespeare), (2) name only the tenor—"The tawny-hided desert crouches watching her" (Francis Thompson), (3) name only the vehicle—"Night's candles are burnt out" (Shakespeare), or (4) name neither the tenor nor the vehicle—"I like to see it lap the miles" (an Emily Dickinson poem which describes a train as though it were a horse, but does not name either). This structure assists in making readers aware of the key words they must supply themselves from the information given. Perrine points out that the third and fourth types are somewhat more problematic

than the first two. When only the vehicle is stated, readers sometimes mistake it for a literal term, so that in the third example above it is possible to think that the candles burned down without comprehending the reference to stars. This is an instance, however, in which context is very important since it makes the metaphoric reference quite clear. The fourth type requires a rather careful reading since readers must pick up the clues provided for two different concepts.

Simile as a Form of Metaphor

In some writings on metaphor, a distinction is made between simile and metaphor, but more frequently simile is regarded as one form of metaphor. That seems a valid view since both employ tenors, vehicles and associated commonplaces, and both cause cognitive surprise by identifying similarities between diverse items. A well-written simile can be highly effective.

However, before similes are allowed to come under the umbrella of metaphor, a few differences between the two forms need to be identified. Similes are much more realistic. They state that one thing is like another, not that it is another, as metaphor does. Thus, although the reader must be able to perceive a similarity, considerably less interpretation is required to make sense out of the figure of speech. Lockhart (1972) examined the similes contained in a number of books recommended for elementary school children and found that the great majority of the similes explicitly stated the associated commonplaces. This is frequently not true of metaphors which require the reader to determine the commonplaces. Also many similes use only

one associated commonplace, whereas metaphors typically suggest several.

Hawkes (1972) makes the distinction that simile presents a "fait accompli," whereas metaphor is more tentative. In Hawkes' terms, the metaphor leads the reader forward toward the target. Similes, with their use of "like" and "as," have a much more rigid structure than metaphors which can and do take a wide variety of forms. Metaphor is the more economical and therefore requires the reader to do more unpacking. Or put in other terms, the amount of reader involvement required is greater than that required for a simile.

However, similes can become more complex through such structures as the use of two vehicles for one subject. Lockhart's findings indicate that in good children's literature approximately one-quarter of the similes have some type of complexity. In both similes and metaphors interest depends on the disparity of the tenor and the vehicle, but since metaphors do not have a prescribed structure as similes do, they further require that the writer organize them syntactically so that they cause in the reader a sense of both recognition and surprise.

With these differences noted, simile will henceforth be regarded in this review as a form of metaphor with its own particular effectiveness. Lockhart (1972) outlines five functions she found for simile: "Proceeding from the most functionally significant these were: supports main topic, reinforces main theme, develops plot by anticipating or connecting action, explains or discovers new thought, and elaborates style" (p. 188). She notes that at least three-quarters of the similes were used to communicate a significant idea.

These functions apply equally aptly to other forms of metaphor and indicate the vital role it plays in written language.

Can Metaphors be Stated Literally?

In striving to understand what metaphor is and how it works, one must face the question of whether metaphors can be stated literally. It is quite apparent that if they cannot be so translated, they are an integral aspect of language, vital and essential, whereas if they can be replaced by literal terms they may be mere embellishment, quite unnecessary for coherent communication.

One view claims that "the passenger in the vehicle could, if he chose, get out and walk" (Barfield, 1960, p. 49). It is to be hoped, however, that the holders of such a position could express it adequately in other terms! This position was frequently held in Middle Ages and Renaissance writing, but is less common in modern times. Miller (1976), however, in challenging Ortony's position that metaphor is useful in education, accepts metaphor as a literary device and as an aid to memory since it is brief and can lessen the details which must be stored, but he objects to the "extravagant claims" that it assists in discovering ideas or expressing the inexpressible. Miller claims, in fact, that in educational writing metaphor is frequently used to further obscure whatever cannot be dealt with literally. Ortony (1976) retorts that if metaphor is used to obfuscate that is a criticism of the writers and their communication skills, not of metaphor itself. Miller, in a rather astonishing statement, says that educational writing does not need to be vivid. That seems to be an indirect admission of the power of metaphor to

enliven text, but it is incomprehensible that anyone should be content to accept dullness in educational writing.

Amongst modern scholars who have seriously examined metaphor there is general agreement that literal translations are not possible (Richards, 1938; Black, 1962; Henle, 1965; Perrine, 1971; Grinder, 1973; Ortony, 1975). Richards holds that of the various aspects of an effective metaphor, such as sense, implications, emotions, speaker's attitude, one of these may be adequately paraphrased, but the combination cannot be—and that sum total is what makes the metaphor. Similarly, Perrine's view is that literal language cannot capture both the idea and the emotion of the metaphor. Black writes that substitution and comparison metaphors can be paraphrased with a loss of style and charm, but no loss of cognitive content. Interaction metaphors, however, inevitably suffer loss of content when stated literally. Black considers that the translations will say too much or too little and say it with the wrong emphasis. Henle adds that the function of metaphor is to say what cannot be said literally.

Ortony's view is very close to Black's—that the metaphor organizes the material and directs the readers to fill in those details which it, in its compactness, has implied but not stated. Ortony further, in stating that some metaphors cannot be rendered literal, adds that metaphors are not used to convey one characteristic only. For that, literal statements may be more effective. Ortony's implication appears to be that the real use of metaphor is to convey several associated commonplaces, chunks of the network of meanings possessed by each term in the metaphor. As previously noted, Ortony

thinks that metaphor is particularly useful in teaching and educational writing since he regards it as an "essential ingredient of communication." Brooks (cited by Henle, 1965, p. 193) states the problem well:

> Let the reader try to formulate a proposition that will say what the poem 'says.' As his proposition approaches adequacy, he will find, not only that it has increased greatly in length, but that it has begun to fill itself up with reservations and qualifications—and most significant of all—the formulator will find that he has himself begun to fall back on metaphors of his own in his attempt to indicate what the poem 'says.' In sum his proposition, as it approaches adequacy, ceases to be a proposition.

Grinder refers particularly to poetic language which is highly compressed and says that it cannot be paraphrased without destroying the original meaning. Because a great deal can be expressed very briefly through metaphors, they tend to be used extensively in poetry (Smith says that most poems are extended metaphors) and to be embedded one within another, thus making the job of unpacking them much more complex. To take two or three levels of embeddings and explain them all literally makes the paraphrase very long and cumbersome and inevitably misses the interactions of tenors and vehicles which give metaphors their impact.

This is not to say, however, that no explanation of a particular metaphor should ever be attempted. Black speaks of the value of elaborating and probing a metaphor to gain more insight. Certainly teachers need to help their students comprehend figurative language and this will involve questions and explanations about metaphors, particularly those which are complex and difficult to understand. It requires considerable skill for a teacher to help students gain insight into a metaphor without treating it so heavy-handedly that it

loses for the students the very quicksilver quality which made it so appealing in the first place. However, the explanatory process of necessity robs the metaphor of surprise.

Mixed Metaphors

When metaphors are embedded, they become mixed—although much simpler metaphors can also be mixed. In spite of the long-standing dictum against mixed metaphors, the real question appears to be, not whether there is a mix, but how appropriate the mixture is. As Perrine (1971) points out, good poets regularly use mixed metaphors, but they have the skill and literary style necessary to produce a harmonious effect. Some metaphors, mixed or not, simply do not work. Attention needs to be shifted from the idea of mixed metaphors to a consideration of the appropriateness of tenor and vehicle and to the interaction possible. Ortony (1977) quotes from a political speech made by Ronald Regan, "The ship of state is sailing the wrong way down a one-way street" (p. 4). The result is amusing certainly, but if the metaphor has an impact it is surely because of the incongruity of the mental image created as the reader envisions a ship sailing down a street. The writer's skill and the reader's judgment must determine which metaphors are successful. Consider Browning's

> The startled little waves that leap
> In fiery ringlets from their sleep.

In spite of the mixing of fire and water, the metaphor is successful first in personifying the waves and then within that image describing their appearance as they catch the light.

The foregoing statement was made in visual terms, but Hawkes

(1972) very sensibly objects to calling figurative language "imagery." He notes that while figurative language may appeal to the eye, it is essentially linguistic and goes far beyond mere eye appeal. That is a significant aspect, which should be obvious but seems frequently to be overlooked in discussions of figurative language.

Context

A metaphor cannot be divorced from its context. Black (1962) uses the term "frame" to refer to the context in which the metaphor is set. Just as a frame is an essential part of a window, so the context is of the metaphor. Which commonplaces are associated and appropriate depends in part on the context. Indeed whether a phrase, or even a whole sentence, is literal or metaphorical is determined by the context. Ortony (1977) gives an example of a sentence such as, "The troops marched on." Taken by itself it is a simple literal statement. Then he uses it as the concluding sentence in a paragraph which describes an unruly class busily damaging the room. Although the teacher raised her voice and threatened punishment, "the troops marched on." Here the context makes the statement metaphor and gives it quite another meaning. Reinsch (1972) in reporting on his experiment noted that he learned that metaphors are very context dependent. Much of the nature of the metaphor is determined by its context. Hawkes (1972), writing from the viewpoint of literary criticism, makes exactly the same observation, with the addition that too often the linguistic approach does not include enough context. Smith (1973) in his research with students in grades six and eight noted that those who attended to context were much more successful in correctly

interpreting the metaphors he presented. It appears that researchers should be careful to include sufficient context in any metaphoric task they present to subjects, and students must learn to use context to improve their reading comprehension, especially when figurative language is involved.

Generality and Precision in Metaphor

There are a variety of additional viewpoints from which metaphor may be assessed. A few of them are discussed briefly since they appear to shed light on the nature and comprehension of metaphor.

In the twentieth century metaphors have become rather personal. They are used by an individual to convey personal perceptions, understandings and emotions. This is perhaps shown most clearly by contrast with the Middle Ages when metaphors were used to relate collective, rather than personal, experience. Since the metaphors were relating community experience they aimed to be publicly acceptable rather than personally accurate. "For a Christian society, in the Middle Ages, a fundamental metaphor was that the world was a book written by God. And like any other book, it could and did 'mean' more than it apparently 'said'" (Hawkes, 1972, p. 17). Similar contrasts could be drawn from other eras, but perhaps this one will suffice to indicate how the world view of a society makes an impact on the kinds of truth its writers attempt to convey. Because our present society is more heterogeneous, even fractured, in its view of life, it is difficult to think of a modern writer trying to create metaphors which would sum up society's view of such subjects as God or life. The metaphors then are much more a record of personal experience.

"To future generations, an age may be known by the metaphors it chose to express its ideals" (Embler, 1966, p. vi).

How precisely a metaphor conveys its intended concept is another area of disagreement. Richards (1938), in his well known class assignments which asked his students to analyse poems, found that there was much disagreement over whether metaphor is vague and imprecise or even more precise than well-chosen literal language. Amongst writers on metaphor the same difference prevails. Smith (1973) suggests that metaphors are more vague than literal statements because so many associations may be called to mind that it is difficult to know exactly what is meant. Thus he suggests that children, in particular, need assistance in learning how to select the appropriate commonplaces that apply to both tenor and vehicle. Gambell (1976) on the other hand reasons that metaphors, being an integral part of language, are necessary for precision. Hawkes (1972) argues that it is ambiguity which makes metaphor possible, since words have more than one meaning, and that this ambiguity is desirable since it gives language a dynamic quality, allowing it to be deepened and enriched. To this writer, it seems that these views, rather than being contradictory, are all correct. One reason why so many complications occur when a literal translation is attempted is that the terms involved do have a network of associations, and therefore the metaphor cannot be replaced by literal words. This implies a certain amount of imprecision. On the other hand, interaction metaphors, by their very interactions, create new ideas. The new concepts then are very precise since they extend the reader's thinking, or as Richards and Hawkes

would have it, they extend language and create new reality. Some metaphors use analogy and some do not, but metaphor, like analogy, has limits beyond which similarities cannot be pushed without becoming absurd. Aristotle (cited by Richards, 1938) noted: "It is the mark of an educated man to look in every sentence for the degree of precision only which is suited to it" (p. 145).

Sustained Metaphor

Richards also noted that his students had problems with extended or sustained metaphors with many students uncertain whether a sustained metaphor was one or several. A sustained metaphor works in exactly the same fashion as a more limited metaphor except that the metaphoric juxtaposition is suggested not by one or two words but by a larger number of them throughout a longer passage of writing, such as a complete poem. A poet will frequently carry one metaphor throughout the poem and embed shorter ones within it. Thus the interaction between vehicle and tenor can be much more extensive with sustained metaphor since there is greater opportunity for its development. Embler (1966) argues that all novels are extended metaphors and uses Conrad's Heart of Darkness as an example. Without pursuing this argument in detail, it may be noted in passing that it is perhaps more appropriate to think of the majority of novels as symbolic rather than metaphoric since good novels in their mirroring of life very frequently present symbols of human life. While sustained metaphors can and do occur in prose writing, they are most common in poetry. Thus a reader who is competent in reading and understanding poetry must be able to interpret sustained metaphor.

Metaphor and Language Theory

Another way of categorizing types of metaphor is by familiarity to the reader. Several writers have outlined the steps they consider that the reader goes through. Reinsch (1972) uses Osborn's three stages: (1) error, when the reader attempts to interpret literally, (2) recoil, when rejection of the literal interpretation occurs, and (3) resolution, when the reader gains insight and is able to make associations between tenor and vehicle. Hisamoto (1975) combines Osborn's first two and adds another: (1) the metaphor is taken literally and seems to be nonsense, (2) the metaphor is dynamic and powerful, and (3) the metaphor is old and clichéd. Bentley (1970) likewise has three stages but again adds one to the previous list: (1) new and interesting metaphor, (2) clichéd, and (3) absorbed. He objects to the term "dead," but uses "absorbed" for the same category. Certainly it is true that many of the most effective metaphors are so appropriate that they are repeated endlessly and thus lose their power to cause cognitive surprise. Some, such as "the leg of the table" or "the hands of the clock" become so thoroughly absorbed as to be considered literal language. Bentley's view is that clichés and new metaphors are often found together in literature and that clichés are useful in sparking the creation of new metaphors. Ortony (1977) suggests that it is very useful to think of metaphor, not as having discrete types, but as a continuum with novel metaphors at one end and dead metaphors at the other.

Slang, frequently generated by teen-agers, is heavily metaphoric. Adults who quickly tire of the way adolescents endlessly

repeat one expression, may soon be so bored with the term that they fail to recognize the vitality and aptness it originally had. Slang spreads rapidly partly because teen-agers seem to need to talk alike in order to prove that they have in-group status, but also because of its expressiveness. For example, the 1960's term "square" as used to designate a stodgy, conventional and dull sort of person aptly did so through the vehicle of a geometric square which is composed of straight lines all of the same length and very precise right angles, with no variation or originality of design permitted. Thus if a person's thinking is strictly according to a prescribed and predictable pattern, how appropriate it is to call it "square." Discussion of current adolescent slang is a very effective starting point for assisting high school students in understanding what metaphor is and how basic and essential it is in language.

When a group of adults adopts a set of slang expressions, the choice of metaphors used reveals a great deal about the attitude and thinking of the group. The Watergate White House was famous, or more correctly infamous, for the quality of language used there, including the abundance of slang. Nixon and his associates were endlessly forming a "game plan," getting the right people on the "team," making sure everyone had the proper spirit of "team loyalty," assessing whether the plan would "play in Peoria," and in the last stages fearing the finding of the "smoking gun."

These metaphors drawn from sports, entertainment and the TV image of the wild west, suggest that in the Nixon White House the running of a huge and powerful government was thought of as a game,

usually a very rough game such as football, and one in which anything was permissible if the players could get away with it and any strategy, no matter how violent, could be used. This cavalier attitude which was more concerned with looking good in the history books than with meeting human need can be seen simply from the metaphors chosen and repeated. Perhaps it is appropriate to conclude that this presidency terminated when it was "smoked out" of office.

Because slang expressions are used so frequently, they usually either die quickly or become a respectable part of informal language. Only occasionally will a phrase remain slang over a long period of time. But when slang spreads rapidly, it does so because of its metaphoric vitality. G. K. Chesterton summed up the situation aptly when, as so often happens, he used a metaphor to talk about metaphor and made a comment to the effect that all slang is metaphor but its coinage is debased by the frequency of its usage.

One unusual and, in this writer's view, inadequate way of assessing metaphor is as a deviation. According to Shibles (1974) metaphor is a deviation from: usual diction, grammar, usual context of words, normal behaviour, established categories, custom or culture, and usual perception. Some of these appear to be more accurate than others. Certainly metaphors are found in a different context than the same words would be if used literally. As previously noted, that is what makes them metaphors. Most metaphors, however, use very conventional grammar and cannot be said to deviate grammatically. The more serious problem here is with the term "deviation" itself. It seems to imply some sort of abnormality or aberration. This is quite

unacceptable to anyone who holds the view, taken in this study, that metaphor is an integral, vital and necessary aspect of language.

Similarly, Verbrugge and McCarrell (1977) divide the research on metaphor into two categories: associationism which speaks of a network of associated meanings, and transformational linguistics which regards metaphor as a deviant sentence form. The first concept appears partially valid but very incomplete, the second is unacceptable in the same way that Shibles' analysis is. According to Verbrugge and McCarrell the reader must intuit the literal meaning in order to comprehend the metaphor. It seems that any reader who actually did this would certainly miss the subtleties and perhaps the whole concept presented by the metaphor.

Ortony (1977) points out that most current language theories and models, both transformational and semantic, are not very effective in dealing with metaphor. The transformational grammarians had great difficulty in writing transformations that allowed metaphor as well-formed sentences, but excluded semantic nonsense as ill-formed. The semantic theories tend to regard metaphor as a semantic anomaly and again have difficulty distinguishing between metaphor and semantic unacceptability. Some models simply suggest rephrasing metaphors as literal statements and then analysing them. This is a quite unacceptable way of dealing with metaphor. Nor can it be argued, as some theories do, that if a statement is not semantically anomalous it is not metaphorical. Ortony suggests that one test of the adequacy of a language theory is to examine how it handles metaphor. In his view there is not now available a "theoretical account of the nature of

metaphor which can be fruitfully employed in psychological and educational research" (p. 44).

Thus it appears that much useful thought has been contributed by philosophy and literary criticism regarding the nature of metaphor. Nevertheless, it remains a language phenomenon which, although it has long been a powerful tool in the hands of skilled writers, continues to defy a complete analysis. Perhaps that is part of its fascination.

EMPIRICAL STUDIES OF METAPHORIC COMPREHENSION IN CHILDREN

Early Studies in Metaphoric Comprehension

> The more special problems have to do with Figures of Speech—about which current theory is oddly out of date, and our practice most deceiving. Experiments with figures easily awaken a raging curiosity which, if it is suitably fed and not choked with formulas, can cut deep and spread wide. Well led, it should be able to fertilize almost any topic, redeeming it from the status of desert to be crossed to that of region to be cultivated. (Richards, 1938, p. 15)

Although Richards wrote this statement in 1938 it appears to be quite applicable at the present time. The theory discussed in the previous section has evolved in the meantime, but teachers are still left struggling for effective ways to teach figurative language. A very limited number of experiments have been done on how people, especially children, comprehend metaphor. This section is concerned with examining those findings in light of theory about cognitive development.

Richards (1938) reported that college students when asked to analyse poems had difficulty with metaphor. They frequently confused the tenor and the vehicle of the metaphor. Sometimes they focused

only on the tenor or the vehicle to the exclusion of the other term, and as previously noted, uncertainty occurred regarding sustained metaphor.

Twenty years later two different and significant studies were done. Letton working with capable grade nine students had them individually read a sonnet containing a sustained metaphor and then discuss it with her. She first asked for the student's reactions to the poem and then asked literal and interpretive questions. Her study included all aspects of poetry, not only metaphor, and showed that IQ was a very significant factor in determining level of comprehension. Some students appeared to interpret the metaphor well, but others had considerable difficulty with the poem because they did not.

At the same time (1958) Hollingsed examined the figures of speech used in grade four to six readers and found that there were many, with approximately fifty percent being metaphors. He therefore examined students from these grades on their comprehension of metaphor. Although he used multiple choice questions which both [redacted] and limit the student's response, his study made very clear that the children had considerable difficulty comprehending the figures of speech. Two factors which appeared to be influencing comprehension were the age of the student and the difficulty of the metaphor. As the grade level increased, so did the number of correct answers. The percentage of students checking the correct answer for metaphors varied from 0 to 98, depending on the difficulty of a particular metaphor. That variation seemed to indicate that children in these middle grades had some understanding but were easily baffled by metaphor. Hollingsed's

examination of the textbooks also showed that virtually no instruction in metaphor was provided.

In 1961 Groesbeck did a teaching study with students in grades three to five. She found that children tend to interpret print literally, unless helped to do otherwise. The children apparently benefitted somewhat from the ten lessons given in the study, but the gains for the younger children were slight. The older students profitted a little more. This led Groesbeck to conclude that the experience of the child was an important factor in comprehension and that children should be instructed in interpreting the good quality figures of speech found in their textbooks.

Horne (1966) also conducted a teaching study in which she used highly rated literature to teach comprehension to grade six students and at the same time encouraged the writing of figurative language. On the post-test students wrote more and better figures of speech.

Burt (1972) studied the understanding of similes shown by grade five students. She found positive correlation between understanding of similes and mental and reading abilities. Background experiences, such as reading a newspaper, which would extend a child's knowledge of the world were also found to correlate significantly with understanding of similes. Burt also concluded that an important aspect in comprehending figurative language is depth of vocabulary—that is, knowledge of the multiple meanings one word may have. Burt avoided the complete dependence on multiple choice tests which had been a limitation of some previous studies, but used it along with retrospective interpretation. Students' scores were

somewhat higher when they merely had to check an answer provided than when they had to supply their own.

Lockhart (1972) examined the similes found in books recommended for elementary school children and found a number of factors which affect the demands made on the child reader. Over half the similes occurred two or more per page and frequently in clusters. This was particularly true at the beginning of books since similes were much more frequent in the first fifth of the books examined. Uncommon vocabulary tended to be used in similes. If the tenor was uncommon, many clues to its meaning were provided by the context, but this was not true of the vehicle with which little or no help was given. As previously indicated, in most cases the associated commonplace was directly stated, thus easing the reader's task. Also in three-quarters of the similes examined, the vehicles were the names of concrete objects. For children still at the concrete operations stage of cognitive development this would be helpful, while the remaining one-quarter would present an introduction to more abstract tasks. However, some of the books examined contained many more abstract vehicles than others. If, as Lockhart also found, these abstract terms tend to be outside children's experience, the comprehension task becomes very difficult. If all these factors are combined, it can be seen that the cognitive demands placed upon the child reader differ greatly with the wide variations and combinations possible in numbers of similes, amount of clustering, degree of complexity, difficulty of vocabulary, presence or absence of associated commonplaces, and the concreteness or abstractions of the terms used.

Cognitive Development as a Factor in Metaphoric Comprehension

Smith (1973) applied Piagetian theory to Black's analysis of metaphor and hypothesized that comprehension of complex metaphors would not be complete until children had reached the formal operations stage of cognitive development. According to this theory, children in the concrete operations stage should be able to comprehend simple metaphors with obvious associations, or in Black's terms, substitution and comparison metaphors, but not those involving interaction. Smith then selected ten metaphors, which were from the works of highly regarded authors and which were rated as grade five level of reading difficulty. These, contained in the paragraphs in which they occurred, were presented to students in grades six to eight who were asked to discuss the meaning of the metaphors. This procedure had the advantage of not confining the children to fixed multiple choice responses. Also in his analysis of the responses Smith did not simply score answers as right or wrong, but attended to the degree of understanding shown. Although he found very few totally erroneous responses, he also found few complete analyses. His data largely supported his insightful theory that the complexity of metaphor which children can comprehend is related to their stage of cognitive development.

Billow (1975) after testing boys ages five to thirteen on their ability to explain metaphor and proverbs also concluded that this ability is closely related to maturing cognitive operations. Since even the youngest boys were able to give some partially appropriate responses, Billow reasoned that rudimentary forms of metaphorical comprehension exist much earlier than was previously supposed.

However, it should be noted that those responses were very marginal indeed.

Gardner (1973) gave subjects ages three to nineteen pairs of polar adjectives (warm-cold, loud-quiet) and asked the subjects to apply them to other modalities. For example, he asked that the adjectives be applied to two colours, so that it was a forced choice situation. Although the scores improved with age even the pre-school children did very well. However, it is important that this task is non-linguistic and perhaps has more to do with the subjects' knowledge of cultural attitudes and perceptions than with the metaphoric ability which Gardner claimed for it. As Hawkes (1972) has observed, metaphor is a linguistic process, and it is doubtful whether this non-verbal task can be considered fully metaphoric. Thus it is significant that Gardner did include a verbal dimension by asking subjects to explain their choice and by asking questions which encouraged metaphoric answers. The results are interesting:

> Metaphoric behaviour is much less likely to emerge if younger subjects are required to produce a metaphor on their own, select a metaphoric formulation in preference to a literal one, give an appropriate reason for their choice, or make a metaphoric match when presented with a larger group of materials. (Gardner, 1973, p. 11)

Gardner also acknowledged that the reasoning behind the choices may be as important as the correct match, since some quite sophisticated reasoning led to wrong choices and some correct choices were explained with irrelevant reasoning. This raises another problem with the study in that the "correct answers" were those determined beforehand by conventional standards, yet the essence of good metaphor is that it contains surprise and is, therefore, unconventional.

Gardner did admit that an acceptable metaphor will not necessarily get high agreement in advance. To insist on prior common agreement would seem, however, to eliminate the chance of all interesting metaphors and permit only rather clichéd ones.

Gambell (1976), after presenting stimuli which encouraged children to produce oral figurative language, agreed with Gardner that children use metaphors, including genuine original figures, long before they can explain them. A very useful insight for educators is the observation that there "may be a wide divergence between spontaneous production of figures of speech, the comprehension of metaphor, and the metalinguistic awareness that makes possible an explication of the metaphor's rationale" (Winner, Rosentiel & Gardner, 1976).

Winner (1975) conducted a training study with grade five students and observed that although the children learned at different rates, all of them in learning to produce metaphors went through the same stages: (1) the untrained metaphorical output, in which before training metaphors were rare, (2) the embellishment of conventional statements, (3) an inappropriate comparison stage in which any unusual comparison would do, (4) the use of inappropriate links which occurred when the child had two subjects in mind but could not link them, (5) incomplete metaphors, and (6) metaphoric endings.

In a subsequent study (Winner et al., 1976) in which children ages six to fourteen were given metaphorical sentences and asked to explain them, four levels of understanding were observed. At the lowest level, young children simply resorted to a magical or fairy

tale explanation. When presented with the sentence, "After many years of working at the jail, the prison guard had become a hard rock that could not be moved," they replied that the king had a magic rock and had used it to turn the guard to stone. At the second level, called metonymic, children altered the meaning of the sentence to fit into literal reality as they knew it. They applied the rock quality to the prison walls rather than to the man. At the third or primitive-metaphoric level, there was the beginning of understanding, but no crossing from the physical to the psychological world, so that there were replies like, "The guard had hard, tough muscles." The fourth level then was one of genuine metaphoric understanding. Winner et al. also noted that children frequently shifted back and forth from one level to an adjacent one, so that there appears to be a transition period in which some interpretations are more appropriate than others. The complexity of a particular metaphor is also a significant factor as a child may give a genuine metaphorical interpretation of a simpler metaphor, but go back to the primitive-metaphoric level with a more difficult metaphor. Older children were also more likely than younger ones to see a variety of relationships instead of only one.

This analysis is helpful, but one problem with it, as with a number of studies cited earlier, is that the category designated "correct" needs to be further sub-divided. A response may be correct at the most obvious level and yet miss many of the images, emotions, comparisons, or implications of the metaphor. This is particularly the case if the interpretations of older students are studied. They

are unlikely to give replies in the magical category, but there may be great variation in the quality of their valid replies and in the depth of their insight. Goldman (1964) in an extensive study done on children's religious thinking found that the replies children gave were consistent with Piaget's stages of development, but noted further there was a wide difference in quality of thinking done by children who had just entered the formal operations stage and those who had been in it for several years and were accustomed to abstract thought. Ability to think abstractly appears to continue to increase after the onset of formal operations, perhaps because of further cognitive development, or additional experience with the world, or continued practice in abstract thinking, or some combination of all three. Both Letton (1958) and Smith (1973) working with junior high school students did include subdivisions of correctness.

Proverbs

Proverbs are one kind of metaphorical language. Unlike other metaphors, however, they do make sense at a completely literal level. That is, "A rolling stone gathers no moss" is literally both sensible and true, although so obvious that it would normally not be stated. But if the proverb is to be interpreted figuratively, then, like other metaphors, it requires the reader to have sufficient knowledge of the culture from which the proverb comes to see a broader meaning. The reader must also be able to generalize from the specific situation to other wider circumstances. These two requirements, knowledge of the culture and ability to generalize, are necessary for anything more than a literal interpretation.

Piaget (1926), working with nine- to eleven-year-old children, asked the children to match the proverbs with sentences containing the same ideas stated literally and found that the children did not understand the proverbs. Also they were not aware that they had failed to understand, but were quite satisfied with their answers. Watts (1944) conducted a multiple choice experiment and found that if the children were uncertain they chose the literal meanings. Orton (1966) also found that when grade six children were asked to read and explain proverbs, they tended to give literal interpretations, but their responses were somewhat more abstract when they were given multiple choices and allowed to select an answer. Orton concluded that while children of this grade level had considerable difficulty in making abstract interpretations, they had enough understanding that they would profit from instruction on how to read proverbs. Proverbs appear to be more difficult for children than simple metaphors, since a correct, if not profound, interpretation of the metaphors will usually be given before that of proverbs. However, the children themselves may not be aware of this difference as they may give a literal interpretation of a proverb and be content with it, whereas this is not possible with other metaphors. Winner et al. (1976) reported that even young children were frequently aware that a realistic literal interpretation was impossible and on hearing the metaphor would make exclamations such as, "But that's impossible," and then conclude that the story was a fairy tale and resort to magical interpretation, this being apparently the only reconciliation they could make between the sentence taken literally and their knowledge

of reality. Having sufficient knowledge of the world and having the necessary generalizing ability to interpret proverbs figuratively appear to occur with the advent of the formal operations stage of cognitive development.

The Importance of Knowledge of the World

In a further report (1977) Winner and Gardner also indicate that a crucial factor in comprehending metaphor may be knowledge of the world. This observation had previously been made by Burt (1972). Since metaphor requires the reader to have available a network of meanings and to be able to draw associated commonplaces to link tenor and vehicle, this knowledge must come from experience with the world. Metaphors frequently call upon uncommon or unusual connotations of the words involved; therefore, the reader who possesses considerable depth of vocabulary and a broad experiental knowledge of the world will be likely to be able to grasp the similarities implied and the interaction which subtly alters meaning. If the concepts used in the metaphor are outside the reader's experience—as they will probably be when knowledge of the world is very limited—the reader faces a hopeless task.

When children read metaphor then, two very crucial factors would seem to be the stage of their cognitive development and the extent of their background knowledge. As long ago as 1944 Watts warned teachers against trying to teach figurative language before children are mature enough.

However, in spite of these indications that children need a certain degree of cognitive maturity in order to comprehend metaphor

fully, it seems important that they be exposed to metaphor in both oral and written language and be encouraged to attempt comprehension, with the benefit of whatever assistance adults can give. Since metaphor is such a rich and important aspect of language, it would be very unfortunate if children who can comprehend it even partially were to be deprived of it.

Link of This Study to the Literature

It is known that high school students encounter difficulties in reading comprehension. Squire (19[illegible]) had students read and discuss four short stories and concluded:

> Adolescent readers clearly nee[illegible]ance in learning to interpret literature. The find[illegible]ndicate that misinterpretations which arise during the process of reading affect the reader's cumulative judgment of a story. Many readers overlook obvious evidence in the narrative and must learn to consider the possible implications of action and dialogue. Others are guided by their emotions in responding and disregard evidence which seems distasteful. (p. 54)

In summary this chapter has attempted to present a theoretical framework for the interpretation of metaphor and a review of the research which examines children's understanding of literary metaphor particularly in light of their cognitive development.

But there appears to be a paucity of research on the metaphoric understanding of high school students. By the time they reach high school, almost all students will have reached the formal operations stage of cognitive development, will have amassed considerable experiental knowledge, and should have substantial reading skills. How then do they comprehend literary metaphor? What metaphorical insights are they capable of? Thus far, research has apparently very

few answers.

This study follows directly on the work of Smith (1973) and attempts to extend it into the high school. Smith selected ten literary metaphors from the work of highly regarded authors and asked students in grades six and eight to give retrospective interpretations of them. This study used the same ten metaphors with students in grade ten and employed the same method of asking students to freely discuss and explain the metaphors. Thus it should be possible to make some comparisons about the degree of understanding shown across the three grade levels. Another dimension, not used by Smith, was added to the study by having students discuss with the researcher a short, but complete, poem containing a sustained metaphor. Many [illegible] use sustained metaphor and students in high school classes are expected to read and comprehend them. Thus, the study was intended to take a further step toward answering the questions asked in the previous paragraph.

CHAPTER III

THE EXPERIMENTAL DESIGN

This chapter describes the student sample, the testing instrument and its administration, the pilot study, and the treatment of data.

THE STUDENT SAMPLE

The sample was comprised of twenty students from two high schools in the Edmonton Separate School system. The students were in grade ten and were native speakers of English. At this grade level, metaphor may have been taught directly, indirectly as encountered in literature, or not at all, and may have been taught in the present school year or in a previous one; therefore the sample was drawn from two schools to ensure that students had a variety of instructional backgrounds. In actual fact, the variety was much greater than two, because in each school students were drawn from a range of classes having different teachers.

Students were selected in order to form two categories of high and average comprehenders. High comprehenders were chosen with the intention of selecting students who could give the best quality of response of which grade ten students are capable. It is known that there is a high positive correlation between mental ability and reading ability; also the tasks involved required students to read and then comment upon what was read. Thus, it seemed likely that the

high comprehenders would give the most insightful responses. Average comprehenders were then selected in order to have a comparison group. If reading comprehension skill does make a difference in students' ability to interpret metaphor, such a difference should begin to emerge between high and average comprehenders. Also it seemed probable that average comprehenders would still read well enough that their responses would reflect their ability to interpret metaphor without undue interference caused by reading difficulties, as would likely be the case with poor comprehenders.

In May of the previous school year (that is, when they were completing grade nine) students had been given the Sequential Tests of Educational Progress (STEP), Form 3B, and on the basis of the Reading Section of the test the schools had on file a percentile comprehension ranking for each student. For the purpose of this study, high comprehenders were taken to be those who scored above the 75th percentile. Ten students, five from each school, were selected from this group. The average comprehenders were the five students in each school whose scores were closest to the 50th percentile. Each group contained five boys and five girls. (See Table 1.)

THE INSTRUMENT

Since it was the intention of this study to examine grade ten students' ability to read and interpret metaphor, it seemed important to use metaphors of genuine literary merit, so that any student who possessed the ability to explore a metaphor in depth was given the opportunity to do so. Also good quality literature, as

Table 1

Comprehension Percentile Ranking for Each Subject in the Study

Student	Percentile Ranking
1	50
2	45
3	50
4	45
5	35
6	50
7	55
8	55
9	60
10	50
11	98
12	96
13	88
14	78
15	95
16	95
17	95
18	95
19	75
20	80

opposed to mediocre, is more likely to challenge students to think as deeply and interpret as fully as they can. Two separate tasks were arranged.

Ten Metaphors

For the first task, the ten metaphors selected by Smith for his doctoral study (1973) were used. Since Smith had worked with students in grades six and eight, it appeared that by having grade ten students interpret the same metaphors he had used, it would be possible to compare the responses of the older students with the younger, and to note any differences in quality of response or depth of insight. As noted in the previous chapter, there is reason to think that the stage of cognitive development and the amount of experience with the world affect the ability to comprehend metaphor; therefore, some differences would be expected to appear. Use of the same task would greatly facilitate the comparison.

In addition, Smith's metaphors were from the writings of reputable authors and were all judged to have literary merit. Each metaphor was quoted in a paragraph (or two) to give students the context which is required for a full understanding of a metaphor. One context was a complete but very short poem (Sandburg's "Fog").

Also Smith had carefully chosen the metaphors to provide a wide range in the degree of complexity. He rated the metaphors on four scales: simple to complex, concrete to abstract, common to unusual, and denotative to connotative. The more difficult end of each scale is designated by the second term used. Following is a summary of Smith's description of each dimension.

The simple-complex dimension is based on Black's views of interaction in metaphor with a complex metaphor involving interaction. Therefore, a simple metaphor is, in Black's terms, a "substitution" or "comparison" metaphor and can most easily be translated into literal language, while a complex metaphor cannot be stated literally without some loss of cognitive content.

In the concrete-abstract dimension, concrete metaphors are those which are directly associated with the physical world, while abstract metaphors involve generalizations or conceptualizations. In Piagetian terms then, to fully interpret abstract metaphors would be very difficult or impossible for any child who had not yet reached the formal operations stage of cognitive development.

The common-unusual dimension is based on the familiarity of the juxtaposition presented in the metaphor. Common metaphors are those which are fairly common in language and therefore are somewhat familiar, while unusual metaphors surprise the reader and thus are more likely to focus attention on themselves. This dimension "was based on the views of philosophers (Richards, Black, Henle) and psychologists (Berlyne, Bruner) who claimed that incongruity and surprise are more effective in producing cognitive change than familiarity" (Smith, pp. 53-54).

In the denotative-connotative dimension, a denotative metaphor is one which relies on precise definition and is a short-cut to definition or description. A connotative metaphor relies on association of ideas, or subjective impressions and establishment of mood. Smith based this scale on Luria's writings of nominative versus

associative aspects of meaning.

Smith and ten colleagues rated each metaphor on each scale. The judgments they made and percentages of agreement are shown in Table 2.

The Poem

The second task, involving the use of a complete poem, was an addition to Smith's study and was chosen for the reasons presented below.

Although the ten metaphors were each presented in a complete paragraph (or two) to give the student benefit of context, each metaphor was contained within a few words and was complete within one sentence. By contrast, a sustained metaphor is carried on throughout an entire poem or prose passage and is evoked with a variety of words across sentences. Part of the intention of this study was to compare students' ability to interpret relatively short metaphors contained in literary excerpts and one very short poem with their ability to interpret sustained metaphor contained in a complete work of art. Context appears to be crucial in the understanding of metaphor (Hawkes, 1972; Ortony, 1977) and the use of a complete work had the advantage of presenting both a sustained metaphor and the full context available. Since this complete literary work needed to be short enough to be read in a few minutes, a poem seemed the logical choice. A more significant reason for choosing a poem, however, is the fact that high school students are expected to be able to read and comprehend poetry and are regularly required to do so. Therefore, it seemed useful to look at the degree of success they achieve and the nature

Table 2

Rating of the Ten Metaphors

Terms following each metaphor indicate the judgments made on each dimension and numbers indicate the percentage of inter-rater agreement. All information is taken from Smith's study (1973).

1. tongues of water

simple	(100%)
concrete	(90)
common	(80)
denotative	(?)

2. mare looked half wolf

simple	(90)
concrete	(100)
common	(90)
denotative	(70)

3. fog comes on cat feet

complex	(70)
concrete-abstract	(50-50)[1]
unusual	(60)
denotative	(60)

4. eyes were candles

simple	(60)
concrete	(70)
common	(60)
connotative	(60)

5. bandaged town

complex	(80)
concrete	(60)
unusual	(100)
denotative	(70)

6. making ghosts with their breath

simple	(70%)
concrete	(70)
unusual	(90)
denotative	(80)

7. motor-car possessed all earth and air

complex	(100)
abstract	(100)
unusual	(90)
connotative	(80)

8. doors of the Black Gate under its frowning arch

complex	(70)
concrete-abstract	(50-50)[2]
unusual	(60)
connotative	(100)

9. stones bit them

simple	(90)
concrete	(100)
unusual	(80)
denotative	(100)

10. evening invade the avenue

simple	(80)
abstract	(80)
unusual	(90)
connotative	(90)

[1] Smith himself felt strongly that this metaphor was concrete and unusual, but reported extensive disagreement among the raters.

[2] Smith argued that this split occurred because in fact this metaphor is both concrete and abstract.

of the difficulties they encounter.

Emily Dickinson's poem, "I like to see it lap the miles" was chosen. (See Appendix A.) In this poem, a train is being described metaphorically as though it were a horse and the metaphor is carried throughout the poem, but no antecedent for "it" is directly stated. The words "train" and "horse" do not occur in the poem. Thus the poem can be comprehended only through recognition and interpretation of the metaphor.

Four words used in the poem were thought likely to be unfamiliar to students and were footnoted and defined at the bottom of the page.

THE INTERVIEW

Students were interviewed individually in a small separate room in the guidance area of each school. The rooms were quiet and disturbances were minimal.

All interviews were tape-recorded.

The interview began with the researcher introducing herself, explaining that the purpose of the study was to see how grade ten students interpret certain aspects of literature, and asking for the student's cooperation. Some students needed to be reassured that the interview was not a test. A brief conversation then followed, the chief purpose of which was to help the student feel at ease in the situation and comfortable with the researcher. Since the tasks following required real thinking, it seemed to be important that the student be free to concentrate attention on the reading and

interpretation and thus provide the best quality answer possible. Usually the conversation centred on the student's interests and activities, although sometimes other subjects arose also.

The ten passages containing the metaphors were typed on 4 x 6 filing cards, in each case with the words of the metaphor itself underlined. An extra card contained an example which was discussed with the student as directions were given. The student was asked to read a passage silently, think about it, and interpret the underlined words as fully as possible. The cards were then examined one at a time, and comments given.

During this process, the researcher did not comment except to give reassurance occasionally or to respond to a student's question. If the student appeared to be attending to the context and ignoring the metaphor itself, an open-ended question was asked to focus attention on the metaphor. For example, in the sixth passage some students tended to talk about the welcome mats, the porch, and the coldness suggested by jogging from foot to foot; so the question might be asked "What is meant by 'making ghosts with their breath'?" Although in this task the intention was to determine the quality of interpretation students could give without the guidance provided by questions and comments from an instructor, it was also important to ensure that students were giving the best responses of which they were capable. Thus an occasional question if needed was deemed both appropriate and useful to the study.

The second task was presented by the researcher explaining that this time instead of reading short quotations the student would

be asked to read an entire poem. Students were instructed to read silently and to take as much time as they wanted to re-read, think about the poem and study it; they were also told that when they had done so, they would be asked a few questions. A period of silence then followed in which the researcher was careful to be occupied in a reading or writing activity, so that the students would not feel pressured by someone waiting for them to finish.

When the student indicated readiness to proceed, the first question directed attention to the word "it" in the first line of the poem and asked, "What do you think 'it' is?" Since no antecedent for "it" is given in the poem and the word is part of the metaphor, this question was very helpful in determining how the student had interpreted the metaphor and indeed the whole poem. The student's answer to this question determined the format of the remainder of the questions. Three variations were possible depending on whether the student had answered with the main subject and correct answer (train), the subsidiary subject or figurative term (horse), or some other response. (For a listing of the questions asked, see Appendix B.) Sometimes a student, in answering a later question, changed the response to the original question of what "it" is. Also sometimes a student's answer seemed to be implying an understanding that was not definitely stated. It was then necessary for the researcher to be alert and attempt to encourage further exploration of an idea without guiding the student into it. Any comments about answers being right or wrong were avoided. A frequent response to a student comment was "Why do you think so?". In this particular task, the researcher was

really part of the instrument and had to make instantaneous judgements about follow-up questions. The attempt was always to use open-ended questions and encourage the student to develop an idea another step further if the student could do so, but to avoid any leading or directive questions.

Interviews varied considerably in length as some students used more thinking time than others and length of responses differed considerably, but all interviews were completed within one class period of the school's schedule.

All interviewing was done by the researcher.

PILOT STUDY

A pilot study was conducted prior to the main study to determine that the data collection procedures were feasible, to allow for preliminary analysis of data, and to permit any alterations that seemed desirable.

Four students were used, two high and two average comprehenders with one boy and one girl in each category.

As a result of the pilot study two changes were made. It was discovered that both tasks could easily be completed in one interview, instead of requiring two as had previously been thought.

Also the original plan had been to use Ruth Crary's poem "Hands" as the complete work. This poem contained a sustained metaphor used by Letton (1958) in her doctoral study with advanced grade nine students. However, the first day of the pilot study showed that students tended either to misinterpret the poem badly or to fail to

respond, that the vocabulary caused a considerable problem for them, and that it was difficult to ask questions which focused students' attention and challenged their thinking without unduly guiding them. The students seemed to read the poem without becoming involved in it and discussed it politely but with few signs of interest. Although the poem has considerable literary merit, contains vivid imagery, and is capable of evoking thoughtful reflections about life, it seemed an inappropriate choice for these students.

On the second day of the pilot study the Dickinson poem was used with considerable alleviation of the difficulties mentioned above. Students appeared interested in the poem. And since the quality of responses to it varied considerably even with such a small sample, it seemed that it would be useful in showing students' response to sustained metaphor.

TREATMENT OF THE DATA

Complete transcripts of the interviews were made from the tape recordings.

Each answer was divided into units on the basis of Squire's method which termed each unit a response and defined it as "the smallest combination of words which conveyed the sense of a single thought" (1964, p. 17).

For example, five responses are included in the following excerpt. "The author's describing when it's cold outside/ and there's snow on the ground./ The people that are breathing, their breath is putting out steam,/ and he's sort of dramatizing the steam/ by calling

it dancing ghosts."/

Since the study focused on meaning, it seemed desirable to use semantic units so that each idea presented by the student could easily be a separate unit and could be evaluated as such. By Squire's definition the length of a unit varies considerably since one single thought may be expressed in a very few words or may on occasion extend past the sentence boundary. This presents no difficulty. Incomplete sentences are not a problem since they frequently express a thought and are thus semantic units even though they would not qualify syntactically. If they do not express a thought they are simply included as part of the next response. Mazes also are merely included as part of the response. Focus is thus entirely on the meaning expressed by the student.

Since the intention was to examine the data for quality of response and since it was desirable to avoid forcing the data into a categorization system that was inappropriate, the categories of responses were determined "a posteriori" and are discussed in the following chapter.

When the data had been categorized and the categories tabulated, bar graphs were constructed to facilitate comparison of responses from student to student, between high and average comprehenders and across categories. The analysis is descriptive in order to focus on the ideas students expressed. This analysis is presented in Chapter V.

CHAPTER IV

CATEGORIES OF RESPONSES

After the data had been divided into semantic units, termed by Squire (1964) "responses," categorization was begun. The categories for the responses were determined "a posteriori." It was thought to be important that the categories be determined upon examination of the data, in order to avoid the distortion which could occur if the responses were forced to fit into pre-determined categories. The categorization used by Smith (1973) served initially as a guideline and was useful in suggesting possibilities for categories, but was soon found to be unsuitable "in toto" for these data. Of the categories eventually derived, some are similar to Smith's, others differ. For example, one type of response found in these data was that in which the student made a literary evaluation, a judgment about the writing style of the author. This category appears to be absent from Smith's system, a difference that seems logical since the present study worked with students who, compared to Smith's, had had at least two more years of maturing and of reading and studying literature. Since Smith's categories were also derived "a posteriori," comparison can be made to his findings, both on the basis of similarities and differences noted. The organization of the categories here also differs from Smith's.

This study was concerned with the literary interpretation given by students and with the understanding shown. Therefore, there

was no classification of oral language features such as mazes and incomplete sentences. These were simply included as part of the semantic unit. It appeared, however, that while students frequently used mazes in the process of articulating an idea, they much less frequently made statements which were so incomplete that the meaning could not be determined.

The categories eventually derived are described below.

Group A responses were those which did not refer to the text and added no information.

A1. Responses which indicated lack of understanding and inability to make a beginning. "I don't understand," "I don't know what to say about it."

If the student said, "I don't know" and stopped, this was classed as an A1 response. However, some students were in the habit of prefacing their remarks with "I don't know, but . . ." If the student began that way, but did in fact immediately make an interpretation, the response was categorized according to the interpretation given.

A2. Repetition of the student's own statement. No new material was added as the student merely repeated previously given information.

Group B responses were those which used the text but did not interpret.

B1. Repetition of text. The student read a portion of the text but made no attempt to discuss it.

B2. Slight paraphrase of the text. The text was reworded

slightly, but no real interpretation occurred, as for metaphor 2, "She looked half wolf is the way the horse looked when she turned around." Or for metaphor 4, "Her brow was the same as a white lilac."

If difficulty arose in distinguishing a B2 response from a C1, the rater had to judge whether the response was mere rewording of text or involved interpretation. Any response which seemed to go beyond the text in any way was classed as Group C.

Group C responses were those which involved interpretation based on the context given in the passage.

C1. Use of context to make a correct and logical interpretation, as for metaphor 4, "She's a very beautiful woman."

C2. Use of context to make a partially valid response. These responses were "logically possible" in Smith's phrase, in the sense that they did not contradict anything explicitly stated in the text, yet they seemed to be outside the author's intent or focus, as for metaphor 10, "I can see the city." A clue to the possible presence of a city is given by the word "avenue," yet the passage gives no indication of the geographical features of the view, but instead concentrates on the person herself as she watches the approaching dusk. Similarly, for metaphor 7, "It sounds like the first car ever owned by anyone in a small town." This meaning is logically possible since the car received considerable attention, but there is no mention of cars being new, and the magnificence of the car provides ample reason for the interest it aroused.

C3. Misreading or misinterpretation of the context so that the student's response contradicted something stated in the text, as

for metaphor 1, "A person is sitting by the water, dipping her hand into it," or for metaphor 7, "The driver is flying and he's the only one up in the air."

Group D responses were those which explicitly drew on background knowledge. While it is recognized that reading is really not possible without use of background knowledge, the term is used here in a much narrower sense to designate only those responses which had to come entirely from background knowledge since the student gave information not referred to by the text, as for metaphor 6, "Ghosts float around." There is nothing stated in the text about how ghosts move.

D1. Correct interpretation from background knowledge, as for metaphor 3, "You really don't notice when a cat leaves the room or something because they walk so quietly." Or, "Cats' paws are padded, so you don't hear them walk." The way cats walk is not described in the passage, but it is background knowledge the reader must have in order to comprehend the metaphor.

D2. Partially valid interpretation from background knowledge. The reader used background knowledge to make an interpretation which was logically possible in the sense that it did not contradict the text, but which nevertheless appeared to miss the author's intent, as for metaphor 10, "So many bad things happen in the evening."

D3. Interpretation from background knowledge which might be valid by itself, but was incorrect in that it contradicted something in the text, as for metaphor 4, the suggestion that the woman may be violent "because fire is so violent." Fire can indeed be violent, but

it should be noted that the error lay, not in the recollection itself, but in its inappropriate application to this passage in which beauty is emphasized, and the candles, far from being a violent fire, are used to connotate such attributes as beauty, warmth and life.

Group E responses focused directly on the metaphors themselves.

E1. A sophisticated interpretation of the metaphor. This category was reserved for a rather insightful response which went beyond the obvious, as for metaphor 10, "The darkness was taking over, or capturing, the light." Here the student went well beyond the obvious interpretation that it's getting dark, and attended to the implications of the word "invade."

E2. A much more obvious interpretation of the metaphor than an E1 response. This response showed that the student had correctly comprehended the basic intent of the metaphor, but had not yet gone on to the subtleties of it, as for metaphor 2, "half wolf is showing ferocity," or for metaphor 5, "the bandaged town was snow-covered."

The distinction between an E1 and an E2 response was the degree of insight shown. Thus, to speak of the bandaged town in metaphor 5 as "snow-covered" was regarded as the obvious first step, but to go on to discuss it as "protected or secure" was giving evidence of attending to the interaction between the protectiveness of a bandage and the shelter afforded vegetation by a snow-covering.

E3. An incorrect interpretation of the metaphor, as for metaphor 9, "hard stones bit them means it's so cold that it feels as if something's biting them," or for metaphor 7, "possessed all earth and air shows that he's coming down on top of those people."

E4. One type of error in interpreting the metaphor, that of mistaking the vehicle for the tenor or vice versa. One student took metaphor 3 to be a description of cats not wanting to stay around a place very long, thus assuming the figurative term "cats" to be the tenor. Another student took the fog to represent "life or death," thus not only demonstrating uncertainty of meaning, but also taking the fog as the vehicle.

E5. Another type of error, the identification of inappropriate associated commonplaces. Sometimes the errors consisted of identifying a characteristic which applied only to the tenor or the vehicle but not to both, as when for metaphor 3 a student said, "It's like when a cat's mad it arches its back and everything." In other instances a student identified a commonplace which can be associated with both tenor and vehicle but which is inappropriate for the particular metaphor and context, as when for metaphor 4 the princess was described as "angry, so that you could see the fire in her eyes." This interpretation draws on a familiar description of an angry person as having eyes flashing fire, but it is inappropriate in this context given the connotations of the candles, the beauty and the tranquility.

E6. The use of an original figure of speech to interpret the metaphor, as for metaphor 10, the darkness is "killing the daylight," or for metaphor 6, "the steam is dancing back and forth."

E7. A mere restatement of the metaphor as a comparison, as for metaphor 2, "It looked like she was part wolf instead of all horse."

Group F responses indicate the student's willingness or reluctance to make judgments and to alter them.

F1. Self-correction. The student while continuing to re-read and comment becomes aware of a previous error and corrects it.

F2. Tentativeness. This category designates a with-holding of final judgment, a willingness to live with ambiguity for a time while reading or thinking further about the subject. This quality may be an important aspect of comprehension skill. Loban (1976) in his longitudinal study of children's language reported that "members of the High group were superior in tentativeness or flexibility of expression; they avoided the flat dogmatism of the Low group, the stark statement without possibility of qualification or supposition" (p. 71). One student, for example, showed awareness of having waited to decide. When asked what "it" is in "I like to see it lap the miles," the student replied, "I really couldn't tell until I got to the end." More typically students expressed tentativeness with phrases such as, "Well, it seems as if it could be . . . , but I think probably it's . . ."

F3. Sticking to error and changing easily to another error. This category applied chiefly to the poem since its greater length and longer discussion time gave opportunity to students to continue with their first interpretation or change to a different one. This category includes those responses in which the student persisted with an erroneous response or switched to another error.

Group G responses indicated the students' awareness of the task as one of literary interpretation.

G1. Literary evaluation. The student made an evaluation or judgment about the literary techniques, the writing style of the author,

as for metaphor 1, "This is personification," or for metaphor 6, "He's [the author] sort of dramatizing the steam by calling it dancing ghosts."

G2. Citing text as evidence. The student, in giving an interpretation, cited part of the text to support the interpretation. This is a procedure that English teachers customarily require of their students.

The difference between a B1 and a G2 response was the context in which it occurred. A B1 response was the reading of part of the passage with no comment, whereas a G2 response was preceded or followed by an explanation.

Group H responses used affect, with the student discussing the feelings or emotions involved.

H1. Correct assessment of feelings as stated or implied in the text. The student's reference to emotions appeared to come directly from the text and was regarded as a correct interpretation, as for metaphor 5, "The feeling of joy is put forth," and for metaphor 9, "There's a foreboding feeling here, as if something's going to happen."

H2. A partially valid assessment of feelings as stated or implied in the text. These interpretations were logically possible in that nothing in the text contradicted them, but they appeared to be peripheral to the passage, as for metaphor 1, "The water wants you," and for metaphor 4, "It gives you a very lazy feeling."

H3. An incorrect assessment of the feelings stated or implied in the text. The student apparently missed or ignored part of the text so that the interpretation contradicted it, as for metaphor 1,

"The water needs something that can help it with its life," or "It sounds like the person's depressed."

H4. The recounting of personal feelings or experience. This involved a remembrance apparently triggered by something in the text, but reported with the student's awareness that a comparison was being made to personal experience, as for metaphor 1, "This relates to when I went surfing a couple of times," or for metaphor 6, "The huffing and puffing sounds like phys. ed. class."

Group J responses involved moving beyond the text, making statements which imagined or hypothesized additional factors not included in the text.

J1. Extrapolation. The student suggested a possibility which, while not included in the text, was logically possible and had direct relevance to the text, as for metaphor 4, "The princess was looking forward to something that was going to happen."

J2. Confabulation. These responses completely lacked loyalty to the print. The student added imaginary material which presumably was triggered by a word or phrase in the text but was irrelevant and highly inappropriate, as for metaphor 10, "Maybe she doesn't like what she's seeing out the window. Maybe kids are getting beat up on the street. Maybe people are smashing in cars and just destroying everything. Sounds like a dirty place wherever she is, nothing clean. Maybe she's living in a city where there's lots of pollution, and all the bad things. She sounds kind of sad, like she'd like to help, but she knows there's nothing she can do."

It will be readily apparent that these categories are not

mutually exclusive, nor are they meant to be. Group H in particular overlaps with others, as a statement of affect can easily include information from context, background knowledge or the metaphor. Many others overlap as well.

A summary of the categories follows.

A1. "I don't understand."

A2. Repetition of student's own statement.

B1. Repetition of text.

B2. Paraphrase of test with no interpretation.

C1. Interpretation from context - correct.

C2. Interpretation from context - partially valid, logically possible.

C3. Interpretation from context - incorrect.

D1. Interpretation from background knowledge - correct.

D2. Interpretation from background knowledge - partially valid, logically possible.

D3. Interpretation from background knowledge - incorrect.

E1. Interpretation of metaphor - correct, including insightful and subtle implications.

E2. Interpretation of metaphor - correct, obvious concept only.

E3. Interpretation of metaphor - incorrect.

E4. Interpretation of metaphor - mistaking the figurative term for the literal.

E5. Interpretation of metaphor - inappropriate associated commonplaces.

E6. Interpretation of metaphor - use of an original figure of speech to explain.

E7. Interpretation of metaphor - restatement of metaphor as comparison.

F1. Self-correction.

F2. Tentativeness, with-holding judgment, temporarily accepting ambiguity.

F3. Sticking to error, and changing to another error.

G1. Literary evaluation.

G2. Citing text as evidence.

H1. Affect - assessment of feelings as stated or implied in the text.

H2. Affect - assessment of feelings - logically possible.

H3. Affect - assessment of feelings - incorrect.

H4. Affect - recounting of personal feelings or experience.

J1. Extrapolation - going beyond the text with a logically possible addition.

J2. Confabulation - adding irrelevant material, lacking loyalty to the print.

RELIABILITY OF RESPONSE CATEGORIZATION

After the responses had been categorized by the researcher, two independent judges were asked to categorize protocols in order to determine the reliability of the system. Both judges were graduate students specializing in reading and both were experienced teachers of language and literature. The experimenter first described the categories, then one protocol was categorized and discussed in order to provide training for the judges. Interpretation of both the individual metaphors and the complete poem was included. Additional protocols were then analysed independently by each judge, and a final discussion was held regarding those responses over which there seemed to be some uncertainty.

It was found to be slightly easier to reach agreement on the Dickinson poem with its cohesiveness of thought, than on the ten metaphors each of which was a separate passage and required recognition of a new context. Agreement between the experimenter and each judge was calculated according to the formula used by Feifel and Lorge (1950):

$$\frac{2 \times \text{agreements}}{2 \times \text{agreements} + \text{disagreements}}$$

The percentage of agreement with one judge was 95, and with the other 93.

CHAPTER V

ANALYSIS OF FINDINGS

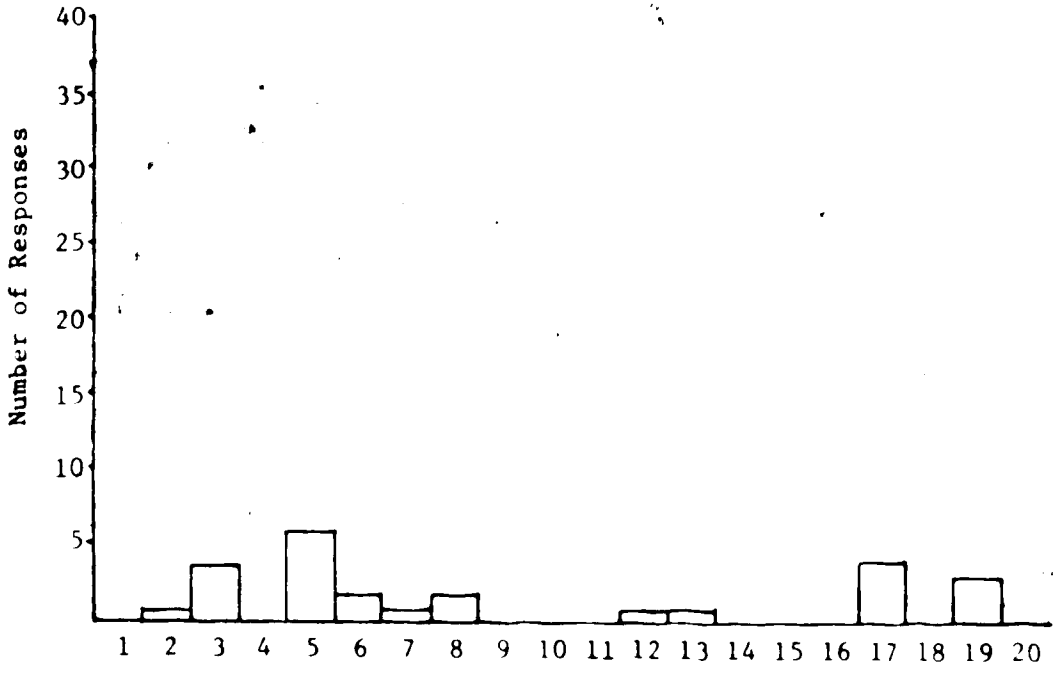
This chapter is divided into four sections. First, the responses given to the Smith metaphor task are discussed by category. Then these results are compared with those found by John Smith who developed the metaphor instrument for his 1973 study with students in grades six and eight. Thirdly, each student's interpretation of the poem is considered, and finally a comparison is made between the responses to the two tasks used in this study.

In each case the analysis is made through an examination of the ideas expressed by the students. Thus the assessment is verbal, rather than statistical. It was felt that the important aspect of this study is to be found in the quality of interpretation the students were able or unable to make, and that it was essential to attend to the concepts expressed, to the depth of insight shown, to the comprehension difficulties encountered—in short, to what it was that students were doing when they interpreted metaphor. Thus, the analysis is in discussion form, supplemented by bar graphs and percentages where they seemed to be useful.

SMITH METAPHORS DISCUSSED BY CATEGORY

A1. "I don't understand."

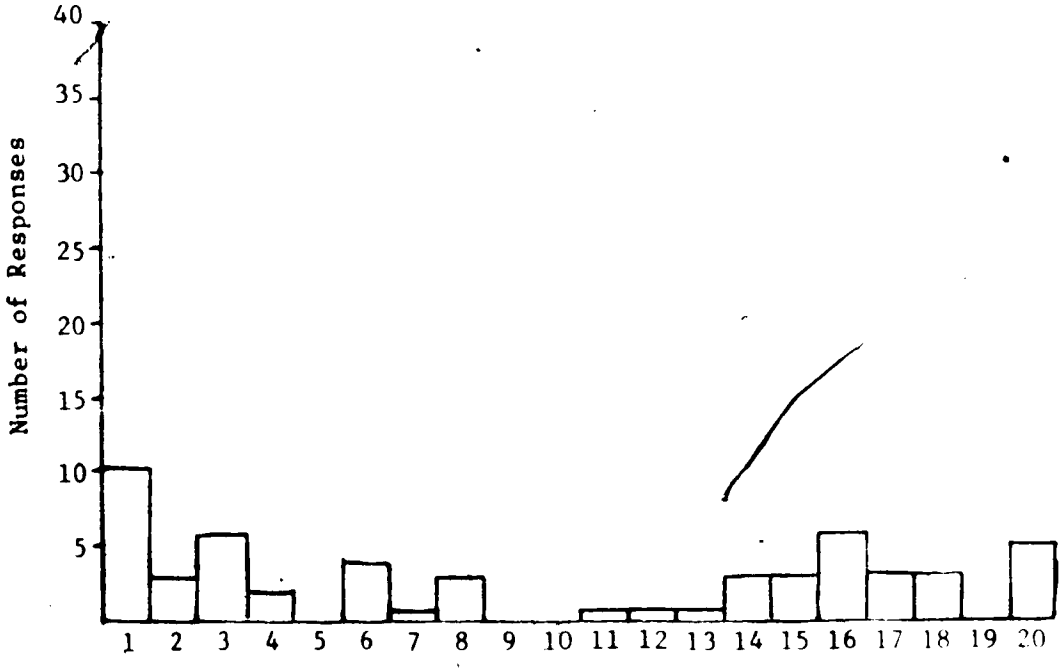
This category, although used almost twice as often by average comprehenders as by high comprehenders, was not employed frequently. Exactly half (ten) of the students did not give any responses in this category. The student who made most use of this response (six times) was also the one who had the lowest comprehension score (35th percentile) on the STEP. In general, students made an attempt to give a more informative response and to avoid this answer whenever they could.



A2. Repetition of student's own statement

This category was used almost equally by average and high comprehenders, was used by 17 of the 20 students, and except for one student who gave ten repeats, was fairly evenly distributed. Sometimes students repeated a statement directly after making it the first time, as if the repeat were being used to gain some thinking time for the next response. But a more frequent pattern was for an idea to be stated initially, followed by further explanation and then repeated. This appeared to be a way either of emphasizing an idea or of returning to it when the student had thought it necessary to elucidate it.

Category A2 - Repetition of Own Statement

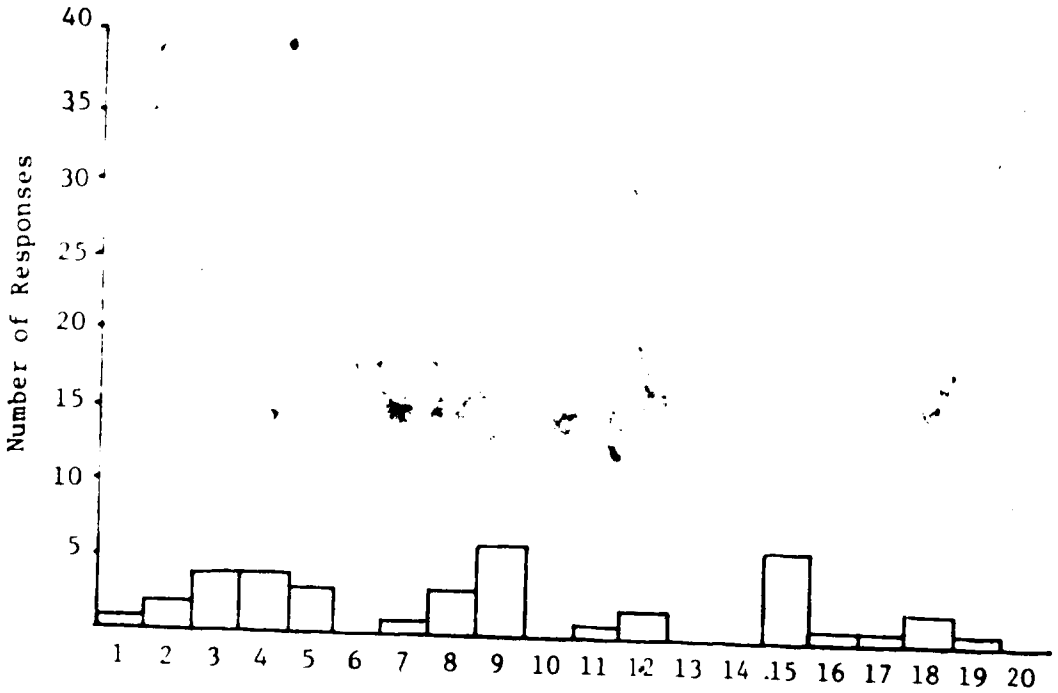


Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

B Repetition of text

This category applied only to quotations of text made with no accompanying explanation. It was employed by three-quarters of the students who used it from one to six times. It seemed to be a process of reading aloud as preparation for the next part of the discussion. Students appeared to be refreshing their memories about that part of the text and also thinking about it.

Category B1 - Repetition of Text

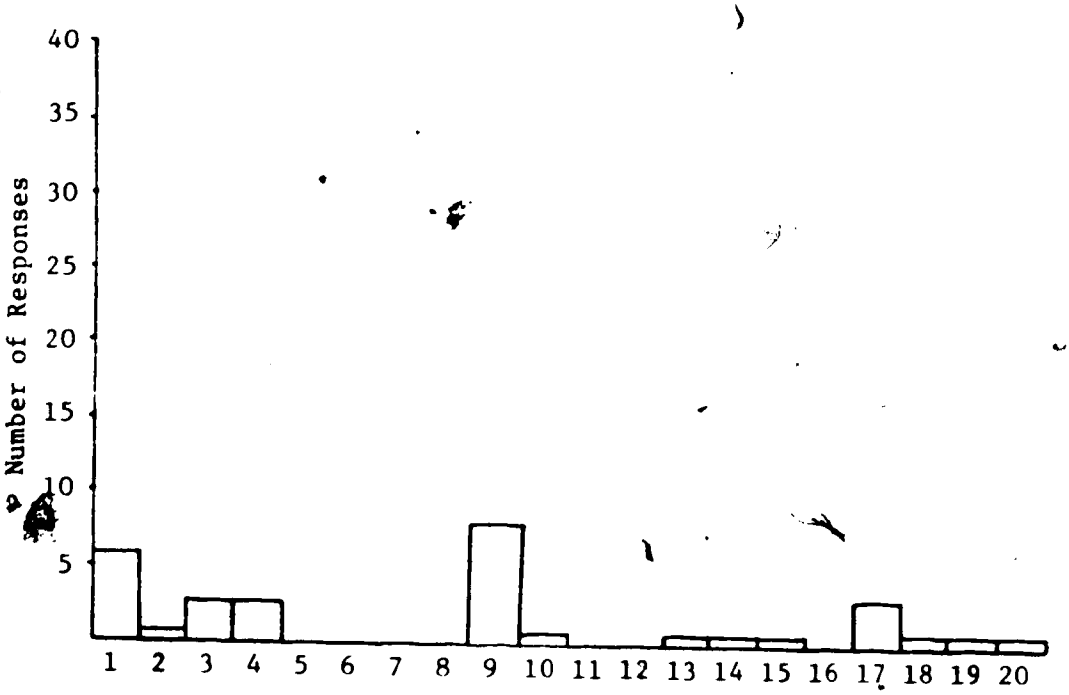


Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

B2. Slight paraphrase of text with no interpretation

Thirteen of the 20 students used this category, but eight of them used it only once. Two students, both average comprehenders, accounted for almost half of these responses. Seventy-one percent of the B2 responses were given by average comprehenders.

Category B2 - Slight Paraphrase



Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

C1. Correct interpretations from context

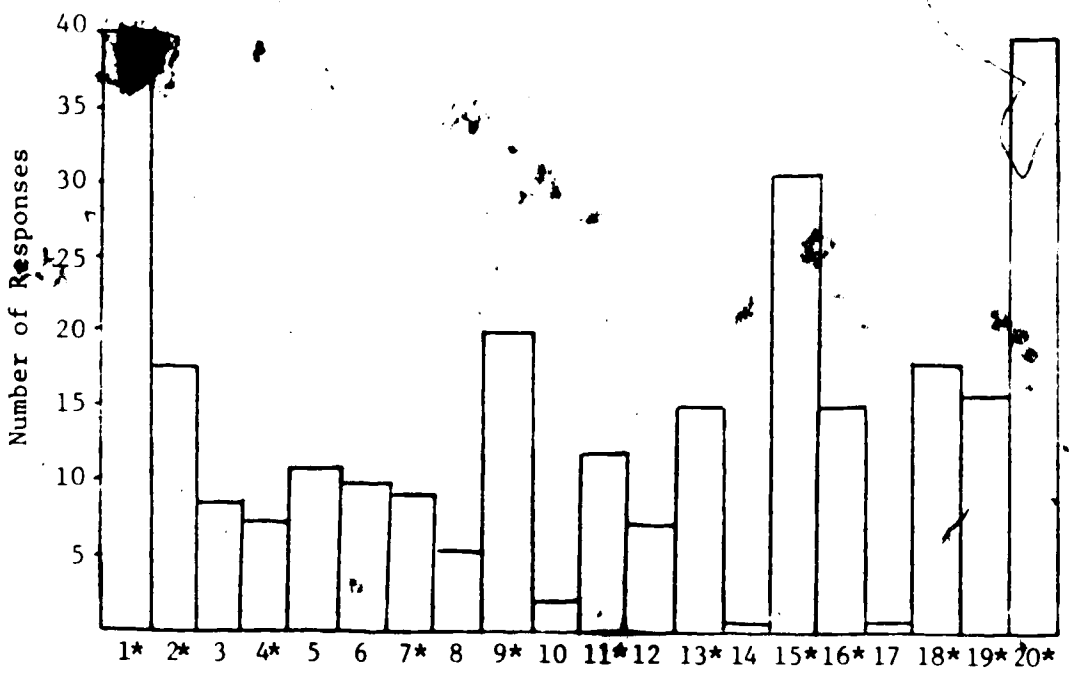
This category had, by a considerable margin, the largest number of responses. This concentration on correct interpretation of context is probably an appropriate situation since effective understanding of what is read requires attention to context, and it appeared that the majority of the students were making use of context. Whether the students realized it or not, consideration of context is absolutely crucial for a logical and complete interpretation of metaphor, and they were thus beginning appropriately. Half of the students gave more responses in this category than in any other.

However, it must be noted that two students, with 40 responses each, accounted for a disproportionately high number of the responses. Three students used this category only once or twice indicating that they were either misinterpreting context or not giving enough attention to it. An examination of the graphs for categories C2 and C3 indicates that the latter is the case. Subject 10 gave two responses that were a correct interpretation from context, two that were partially valid, and none that were incorrect. Subject 14 gave one correct contextual interpretation, two partially valid, and seven incorrect. Subject 17 had one each in the correct and incorrect categories and five partially valid. While Subject 14 especially needed to learn to interpret context more accurately, all three appeared to be failing to use adequately the clues provided by context.

It seems reasonable to assume that each student should have made at least one reference to context for each metaphor, both because

that is a normal part of proficient reading and also because the directions suggested that students use the entire passage in their interpretations. Therefore, each student should have given at least ten correct context responses. Eight students did not.

Category C1 - Context, Correct

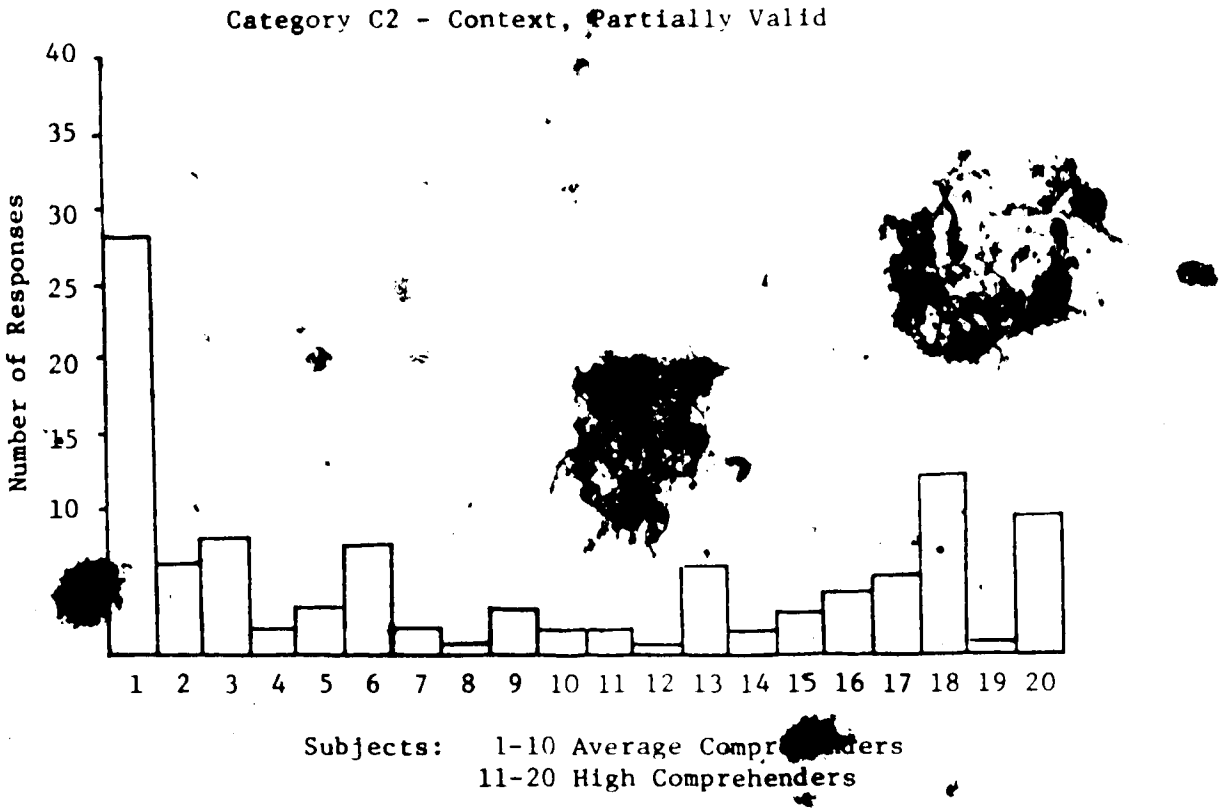


Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

*Students had more responses in this category than any other.

C2. Partially valid interpretation from context

One student in the average comprehender group gave more than twice as many responses in this category as anyone else. This person was also one of the two who gave an extremely high number of responses in category C1. Each student gave at least one response in this category.



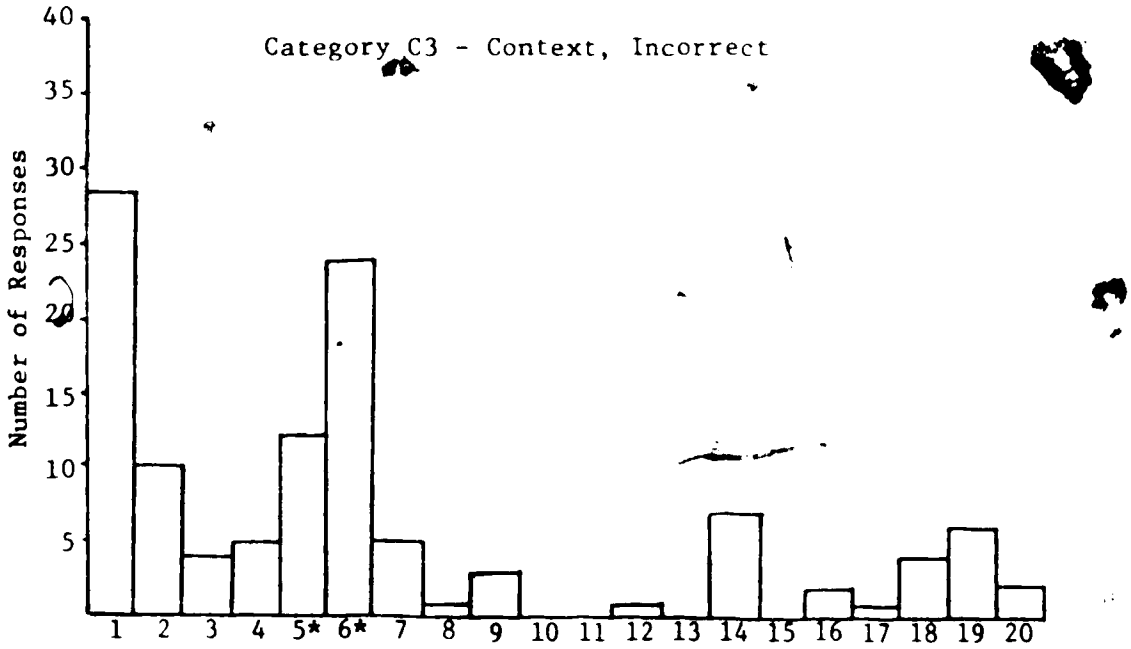
C3. Incorrect interpretation from context

Average comprehenders gave 80% of the erroneous interpretations from context, thus showing a marked difference between the average and high comprehenders. There was also a difference in the patterns of the two groups. Of all the interpretations from context given by high comprehenders, 70% were correct, 20% were partially valid, and 10% were incorrect. The average comprehenders, however, had only 46% of their

responses in the correct category, 22% were partially valid, and 32% were incorrect. Thus the average comprehenders had more errors than partially correct responses. However, two of the average comprehenders accounted for more than half the errors made by that group.

One of these, Subject 1, is the same person who gave a large number of responses in the two previous categories. As that pattern would suggest, this person spoke at greater length than any other student. Also, an examination of the graphs for the E categories (interpretation of metaphor) shows that this subject attended too little to the metaphors themselves and relied too heavily on context—in spite of being reminded during the interview to be sure to pay particular attention to the underlined words in the passages.

Two average comprehenders actually had their highest number of responses in this erroneous category.

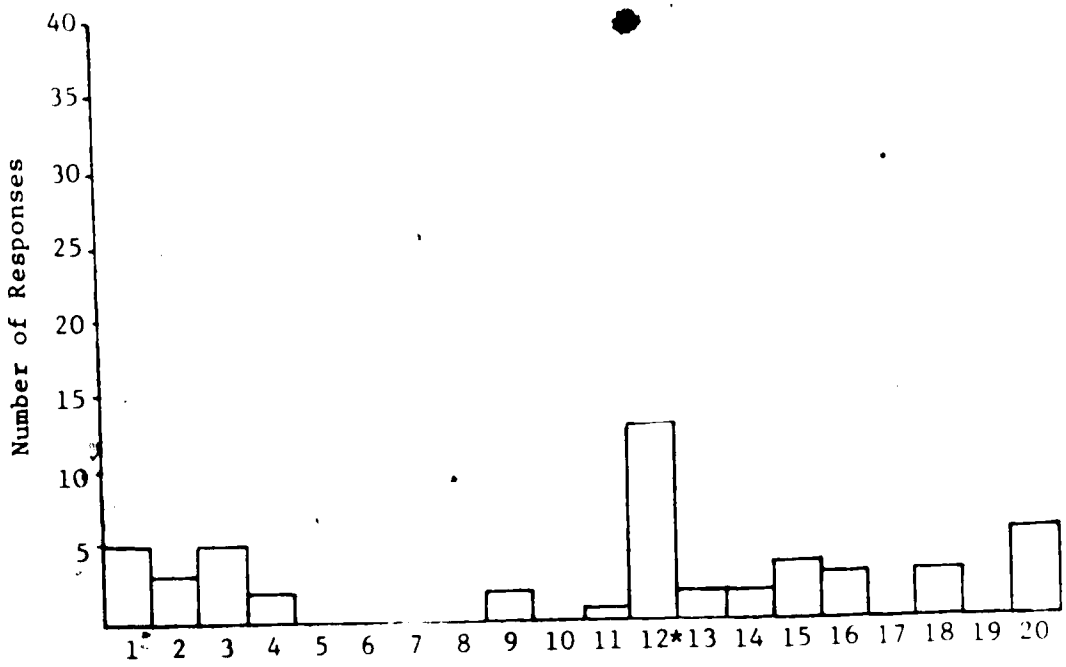


*Student had more responses in this category than any other.

D1. Correct interpretation from background knowledge

High comprehenders used this category twice as often as did average comprehenders, with one student again having a large impact on it. Seven students, four from the average group, did not use it at all. It must be remembered, however, that for the purposes of this study, background knowledge was defined very narrowly and was limited only to those references clearly not in the text, so that very frequent usage of this category would not be expected.

Category D1 - Background Knowledge, Correct



Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

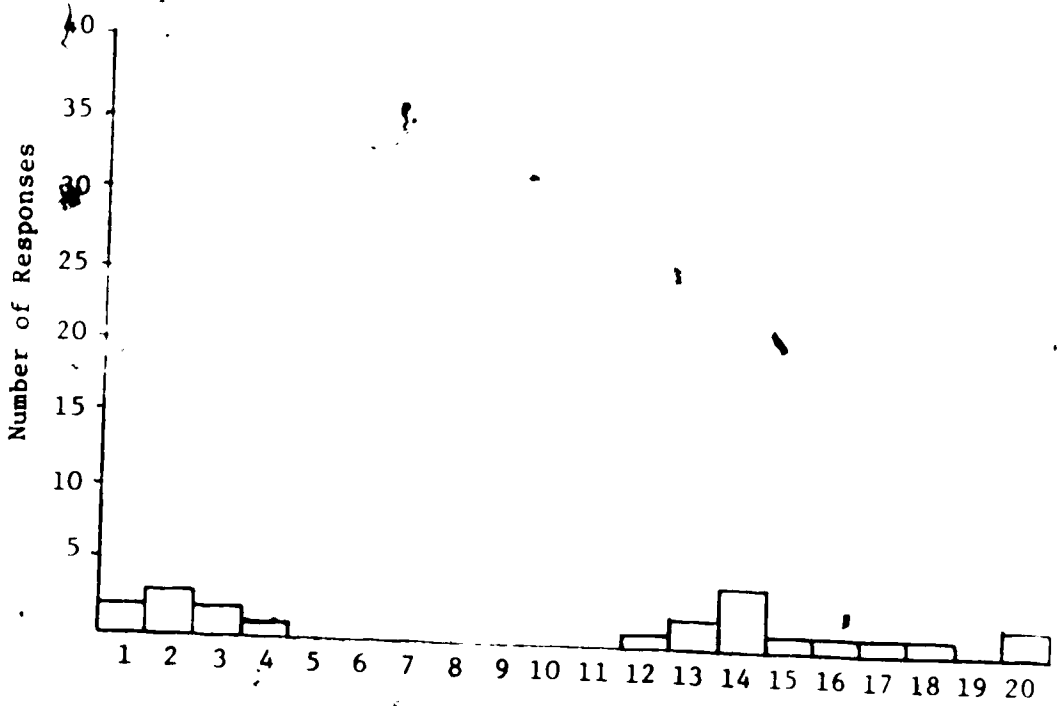
*Student had more responses in this category than any other.

D2. Partially valid interpretation from background knowledge

As would be expected given the definition employed, this category had very limited usage, with eight students not using it at all.

However, high comprehenders had more responses here than did average comprehenders. This may perhaps be explained by the fact that the high group had relatively few errors and managed to have more of their responses at least partially correct. The pattern for the D responses was rather similar to that of the C group, with high comprehenders having most responses in the correct category, fewer in partially valid and least in incorrect, while average comprehenders had slightly more incorrect than correct and fewest in partially valid.

Category D2 - Background Knowledge, Partially Valid

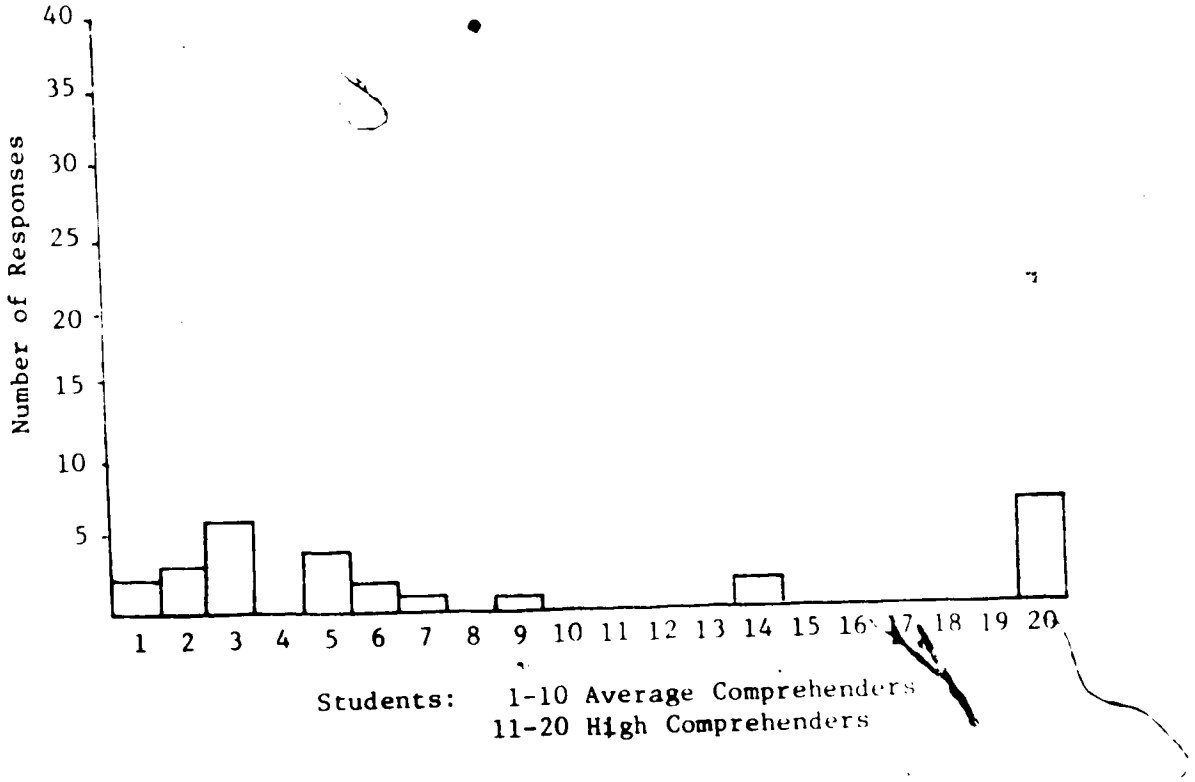


Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

D3. Incorrect interpretation from background knowledge

Only two high comprehenders had any responses here, while seven average comprehenders did. Average comprehenders made twice as many errors as high comprehenders, with one student accounting for most of the high comprehender errors.

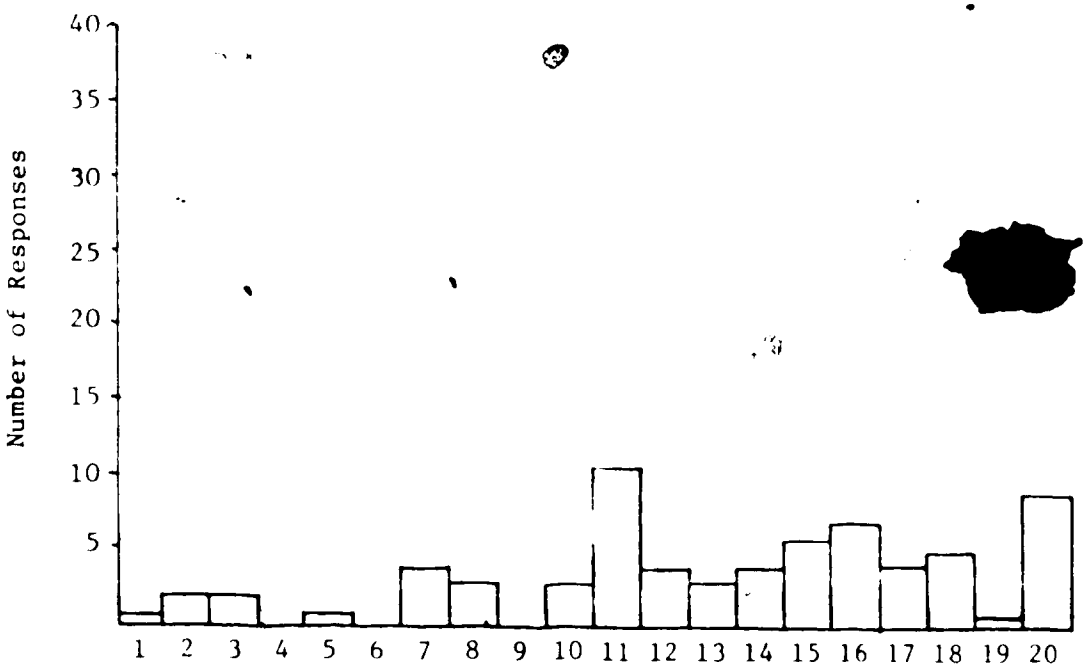
Category D3 - Background Knowledge, Incorrect



E1. Insightful interpretation of metaphor

Seventeen of the students had responses in this category, although three of them used it only once. The advantage of the high comprehenders showed clearly in this category which required more insight and skilled interpretation than any other, as they gave 80% of the responses. Again two students, both high comprehenders, strongly influenced the number of responses.

Category E1 - Metaphor, Insightful Interpretation



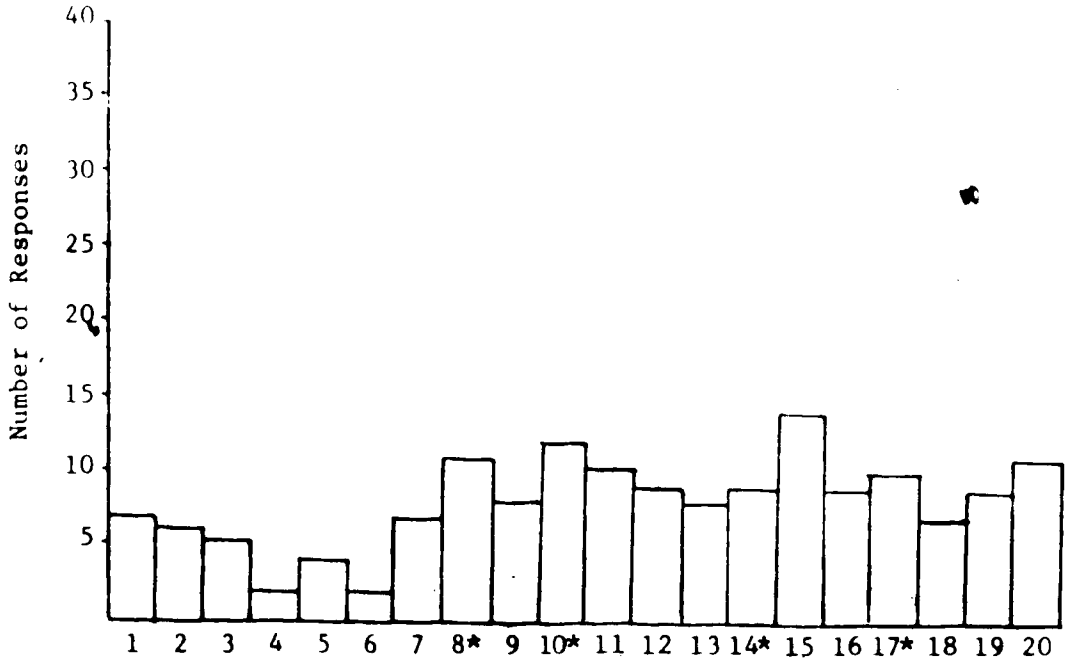
Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

E2. More obvious interpretation of metaphor

Since students were asked to attend particularly to the underlined words (which contained the metaphor) in each passage, it could be expected that each student would have at least one response for each metaphor in either this category or E1. Where such was not the case

the student had either misinterpreted the metaphor so that the response was placed in one of the categories following, or had failed to attend to the metaphor itself. If the E1 and E2 responses were combined, the high comprehenders all had more than ten responses each, but only three of the average group did. However, when individual results were examined, it was found that only one subject, Subject 11, actually did have either an E1 or E2 response for each metaphor. Subject 15 missed only one, but one student (S6) missed eight of the metaphors. Students certainly found some metaphors easier than others and gave some thoughtful and sensitive interpretations. But they appeared to experience some difficulty in consistently stating even the more obvious aspects of the metaphors with which they were presented.

Category E2 - Metaphor, Obvious Interpretation



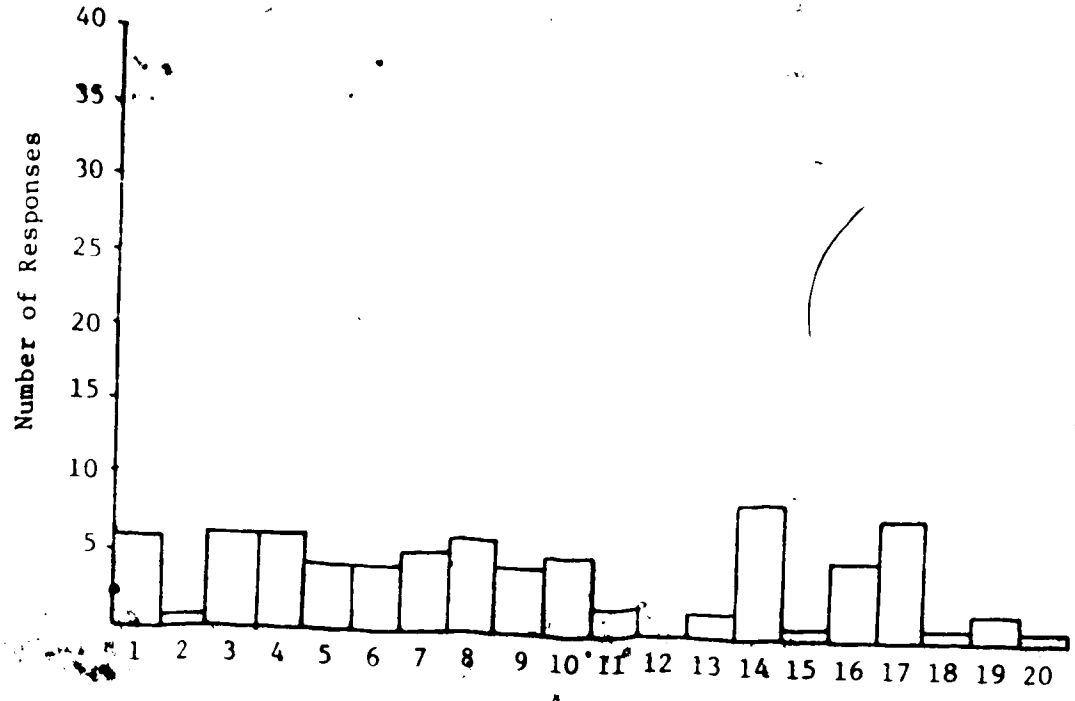
Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

* Student had more responses in this category than any other.

E3. Incorrect interpretation of metaphor

Categories E4 and E5 deal with two particular kinds of error, while E3 includes any other incorrect response about the metaphor. Only one person, S12, made no errors, although S11 had only two, both of which were expressed in a tentative way showing the student's uncertainty about them. Among the high comprehenders two students accounted for more than half the errors. The distribution was much more even in the average group.

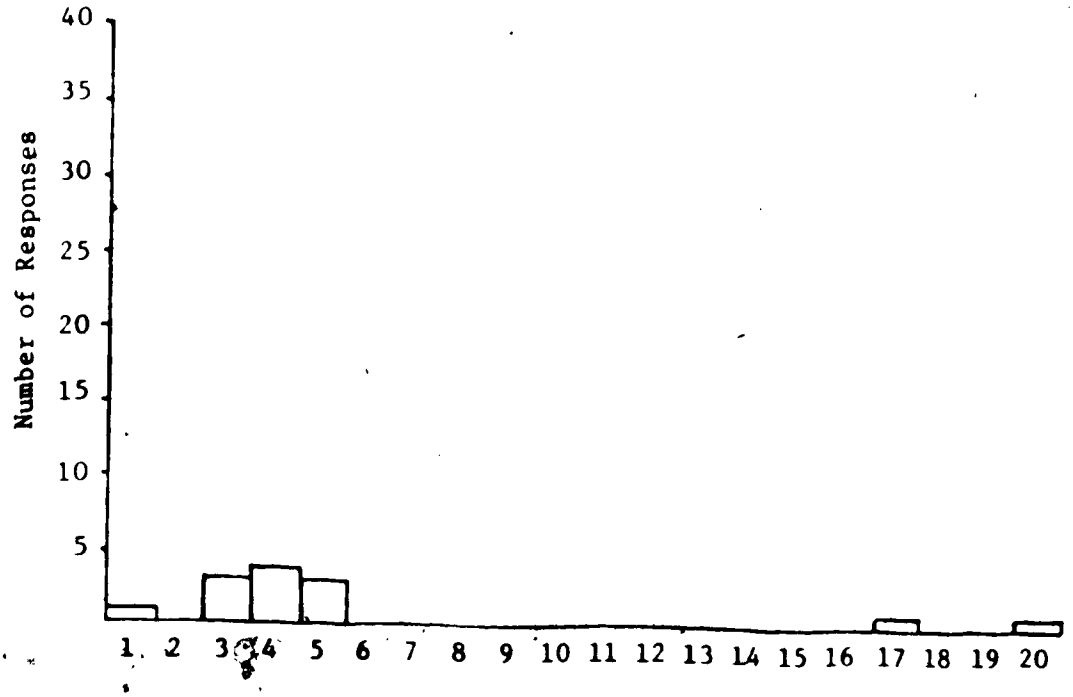
Category E3 - Metaphor, Incorrect



E4. Confusion of the vehicle and tenor of the metaphor

This problem arose eleven times for four of the average comprehenders, but only twice in the high group. While two students made three mistakes each on the third metaphor, only one student actually confused the vehicle and tenor on more than one metaphor. Thus, it appeared that most students were fairly consistently able to identify the figurative term and had thus taken a crucial basic step in metaphoric interpretation.

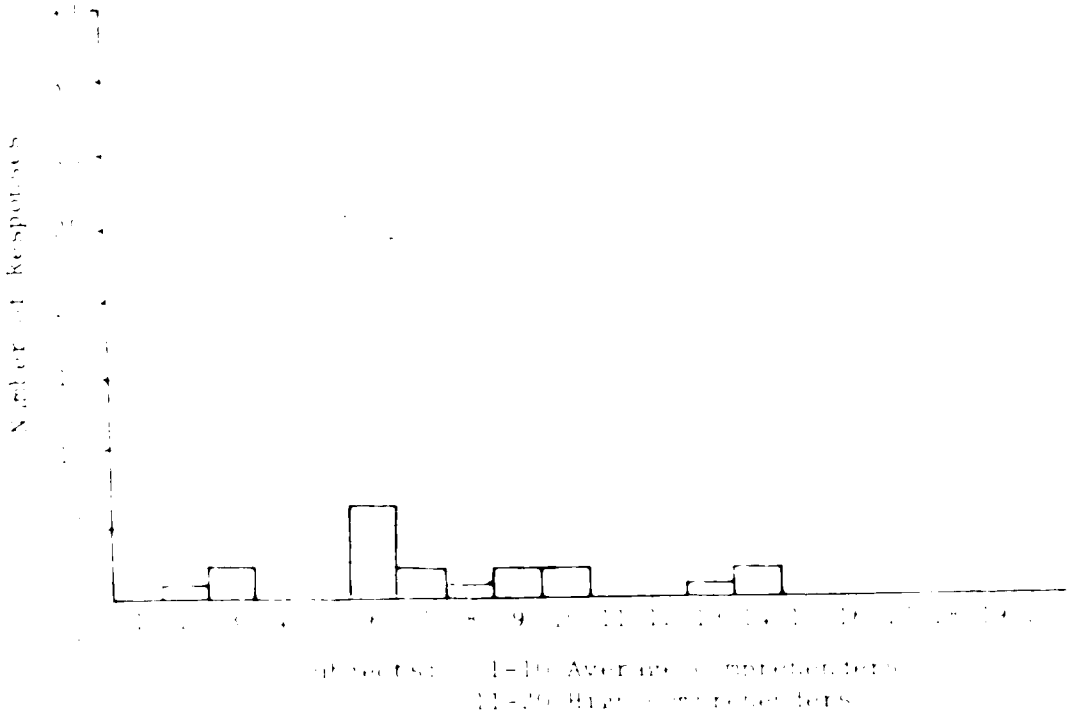
Category E4 - Metaphor, Confusion of Vehicle and Tenor



E5. Inappropriate associated commonplaces of the metaphor

This type of error, more subtle than the foregoing, was made by seven of the average comprehenders and by two of the high comprehenders. It appeared that average comprehenders were more ready to rely on clichéd associations rather than attending carefully to the actual ideas of the text, particularly if an association sprang readily to mind, as it frequently seemed to for the fourth metaphor when it was easy to associate eyes and fire with anger. This passage is not a difficult one, so it appeared that the problem was not inability to understand, as it may have been for a metaphor such as the seventh, but rather simply using a familiar concept if it came to mind. This may sometimes be an efficient way to work, but in this instance proved misleading.

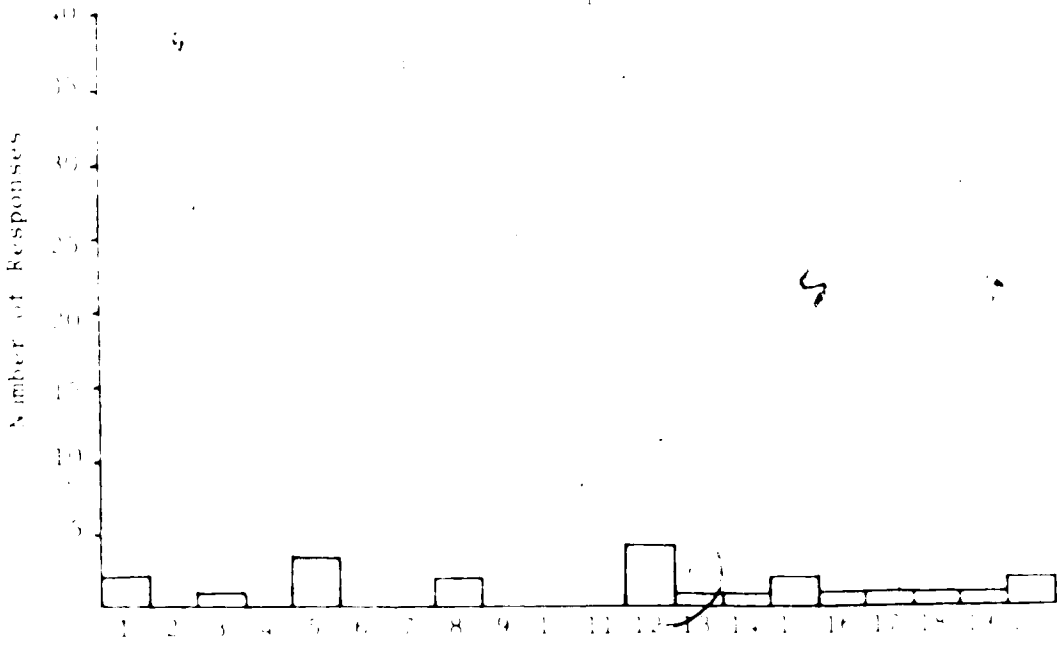
Category E5 - Metaphor, Inappropriate commonplaces



F6. Use of an original figure of speech to interpret the metaphor

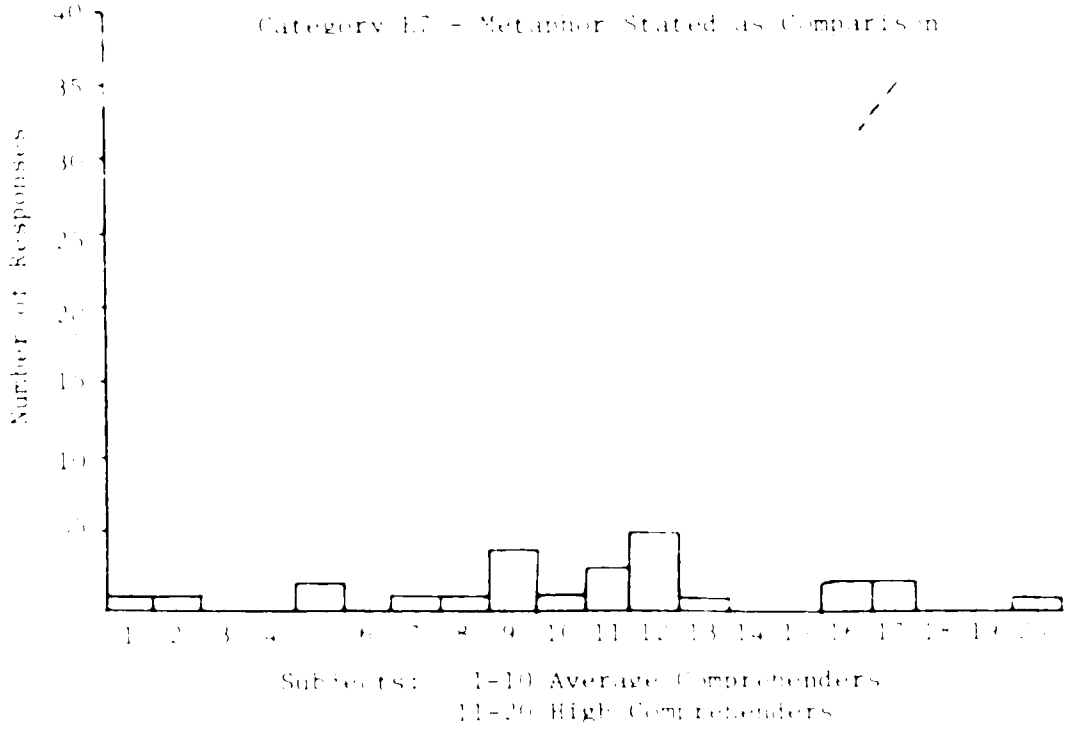
It appears in the literature that metaphor stimulates metaphor and that as people are exposed to metaphor they improve their skill at both interpretation and creation. It was therefore interesting to see if students used figures of speech in their explanations. Thirteen of them did so at least once. This is far from being an impressive amount of figurative language, but does indicate that students are capable of using it. All of the high comprehenders used an original figure except for S11, the same person who gave the most insightful interpretations and the highest number of E1 responses. It may be that this student, who appeared to be highly capable and fluent, was aware that the nature of the task was to explain figurative language and therefore felt constrained to do so in quite literal terms.

Category F6 - Metaphor, Use of Original Figure of Speech



E7. Metaphor stated as comparison

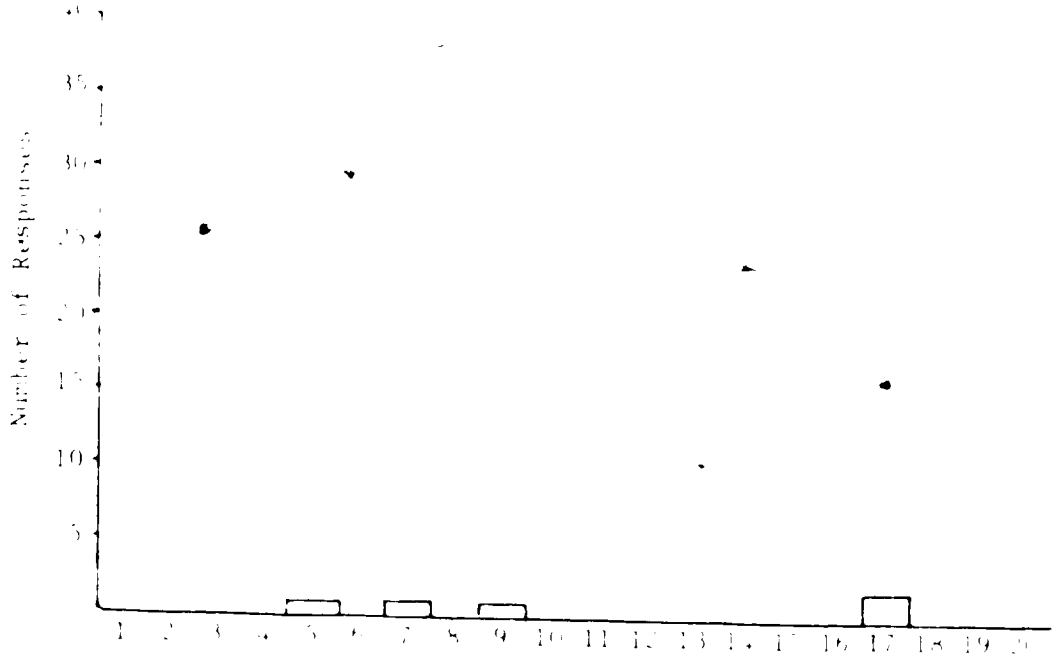
Thirteen students did at some point restate the metaphor as a comparison, although seven of them did so only once. While, as noted in Chapter II, a comparison is regarded as an inadequate reformulation of the metaphor, there is nevertheless an aspect of comparison involved in metaphor and it thus seemed reasonable that students would occasionally state their responses in a comparative form. However, most of them seemed to be aware that in doing so they were repeating too much of the vocabulary of the original passage and were not explaining very much, so that they frequently went on to make another attempt at stating the same idea in different terms. This uneasiness with merely making the comparison more explicit may be the result of teachers, especially English teachers, asking for text interpretations "in your own words."



F1. Self-correction

Within the short passages provided, there was very limited opportunity for a student to realize reading or interpretational errors and make corrections, so it is not surprising that this occurred only five times. Since each passage was discussed individually without reference back to previous ones, students tended to complete one passage quickly enough that they did not become aware of their own errors. Students had each passage in front of them as they discussed it, however, and were given as much time as they wanted, so that some of them did more re-reading than others.

Category F1 - Self-correction

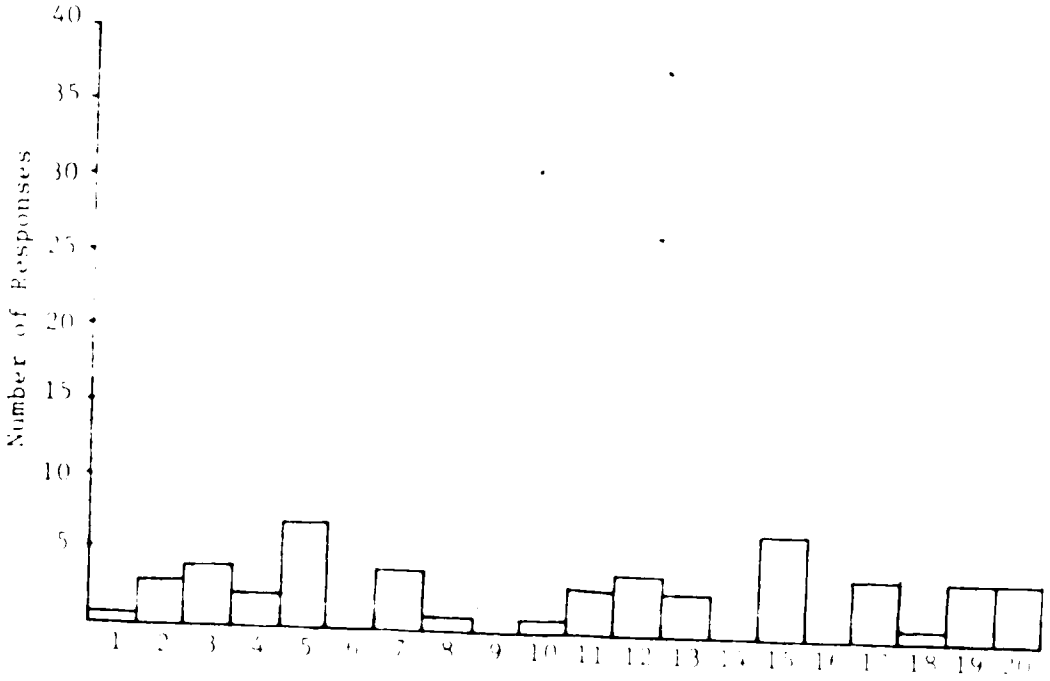


Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

F2. Tentativeness

Sixteen students expressed at least one interpretation in a tentative form. However, one of those who did not was very confident about making extensive comments which were irrelevant to the text. The tentativeness almost certainly indicated that students were aware they were making judgments which could be called into question. The limited context provided required them to make their own interpretations, but many of them did so with awareness of the risk involved.

Category F2 - Tentativeness



Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

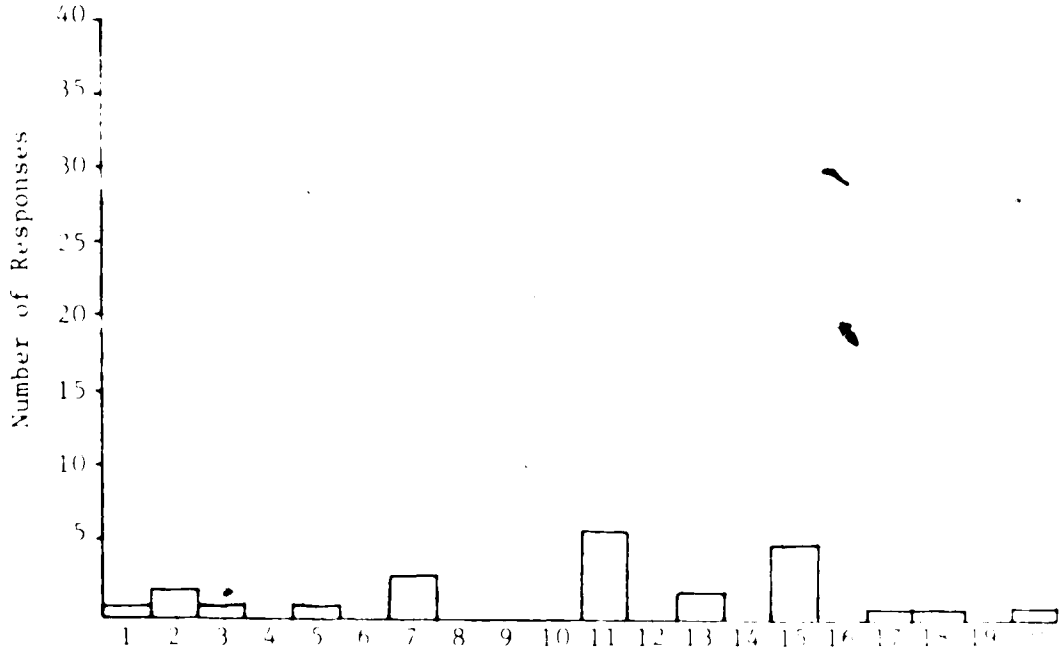
F3. Sticking to error

This category was more applicable to the complete poem and was not used for the individual metaphors.

G1. Literary evaluation

Literary evaluations were made exactly twice as frequently by high comprehenders as by low, with two of the best interpreters of metaphor accounting for 46% of these responses. Twelve students made such evaluations. In terms of students' maturing assessments of literature, this category is important since it indicates not only ability to comprehend what is read, but awareness of literary techniques and style as well. The student is thus showing a developing ability both to be involved with print and to stand back and assess what the author is doing.

Category G1 - Literary Evaluation

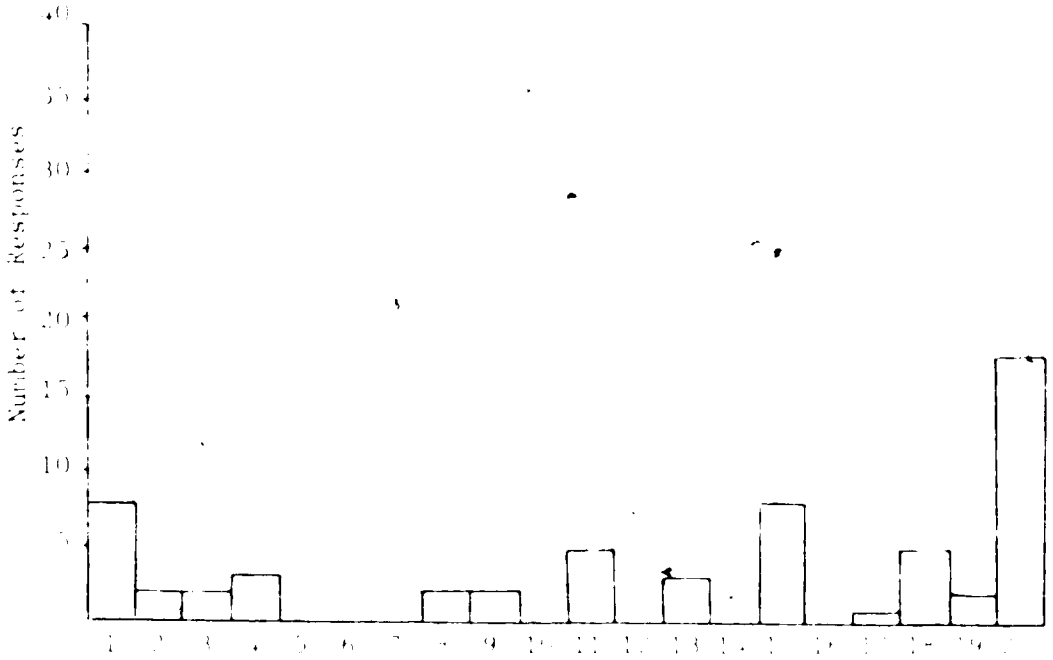


Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

C. Citing text as evidence

In spite of the fact that most English teachers routinely insist upon students supporting their interpretations with textual evidence, seven students did not do so at all and only one was fairly consistent in providing evidence for eight of the ten interpretations. Seventy-one percent of these responses came from high apprehenders.

Category C - Citing text as Evidence



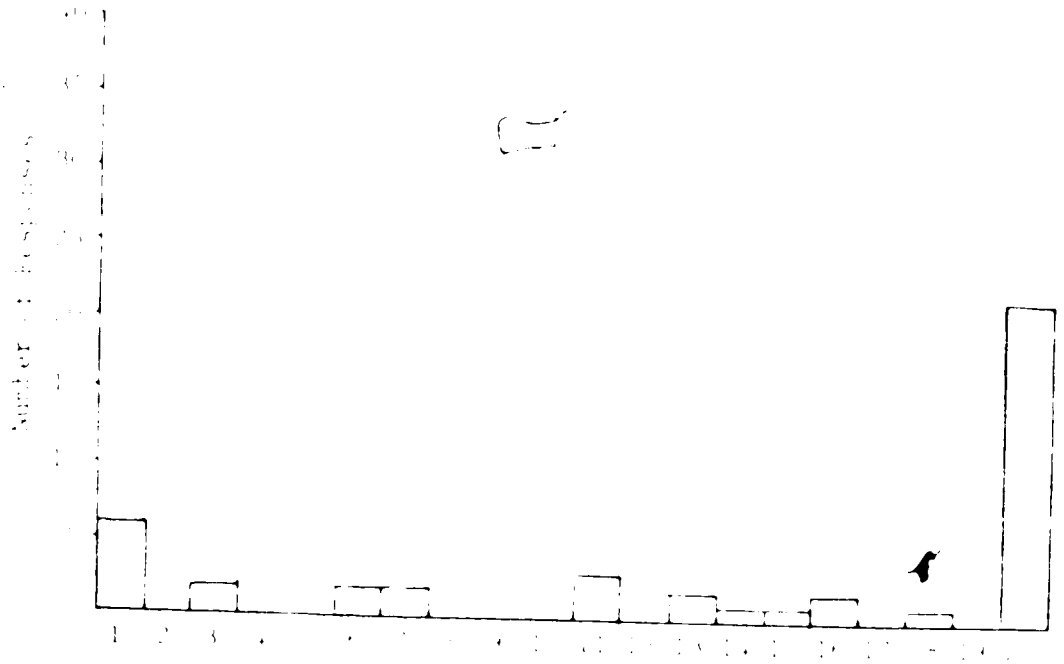
Subjects: 1-10 Average Comprehenders
11-20 High Comprehenders

dl. Correct interpretation of effect

[redacted] theory was used by eleven students, seven of them both comprehenders who [redacted] the test items. However, two students, [redacted] an undue effect upon the total number. The average comprehender gave [redacted] of the responses in that [redacted] not [redacted] comprehender [redacted] of the high group responses. The remarks for [redacted] students, [redacted] effect increment [redacted]

[redacted]

Categories of [redacted]

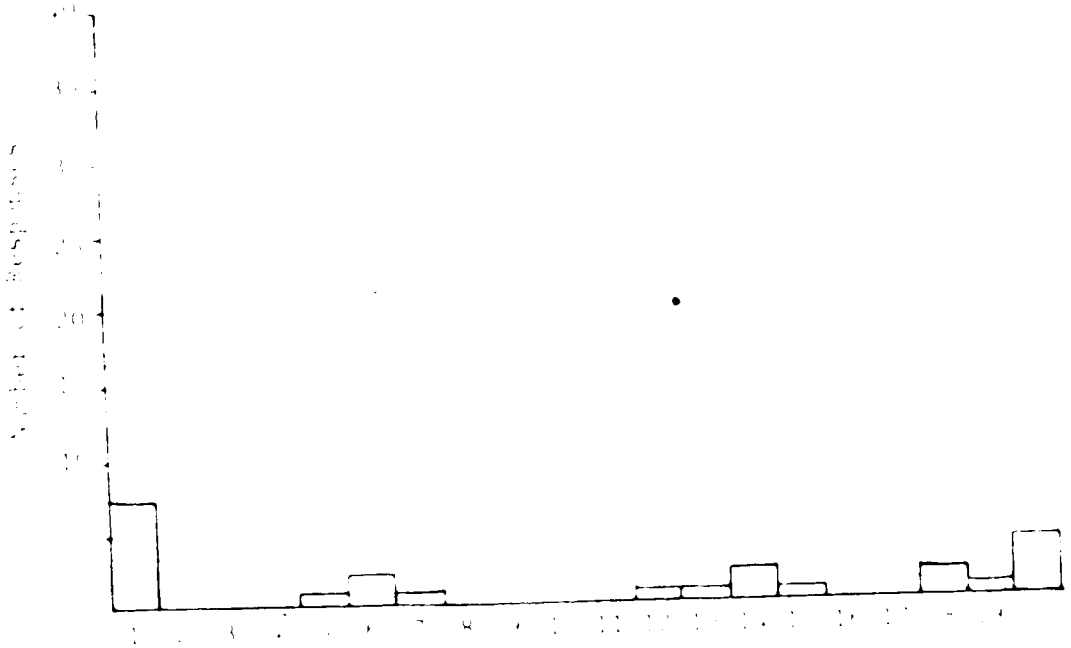


[redacted] Average comprehenders
[redacted] High comprehenders

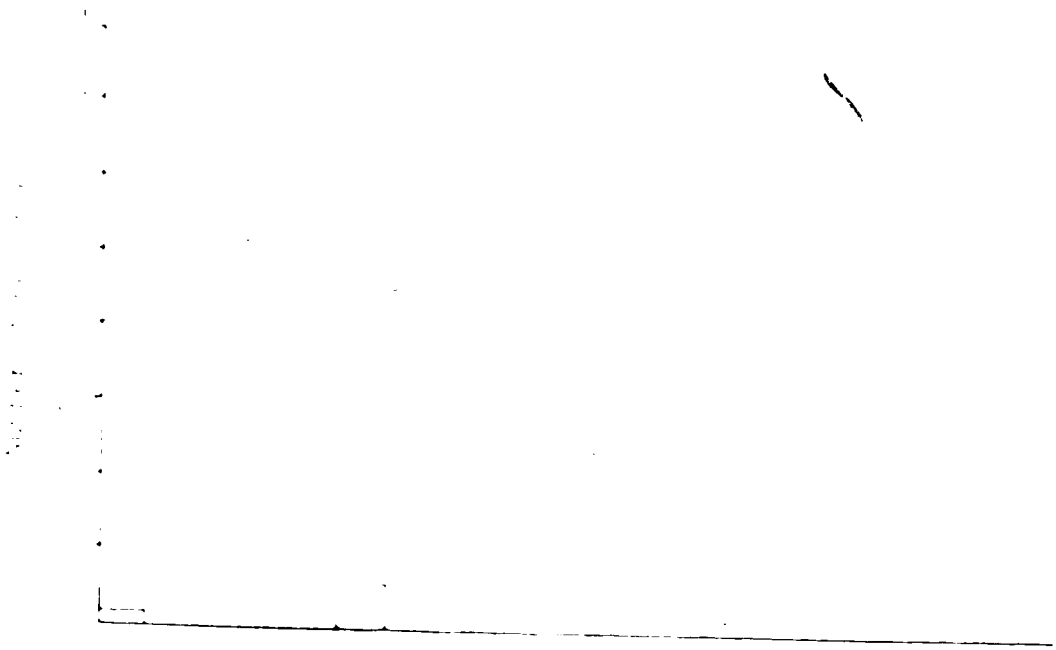
H2. Partially valid interpretation of affect.

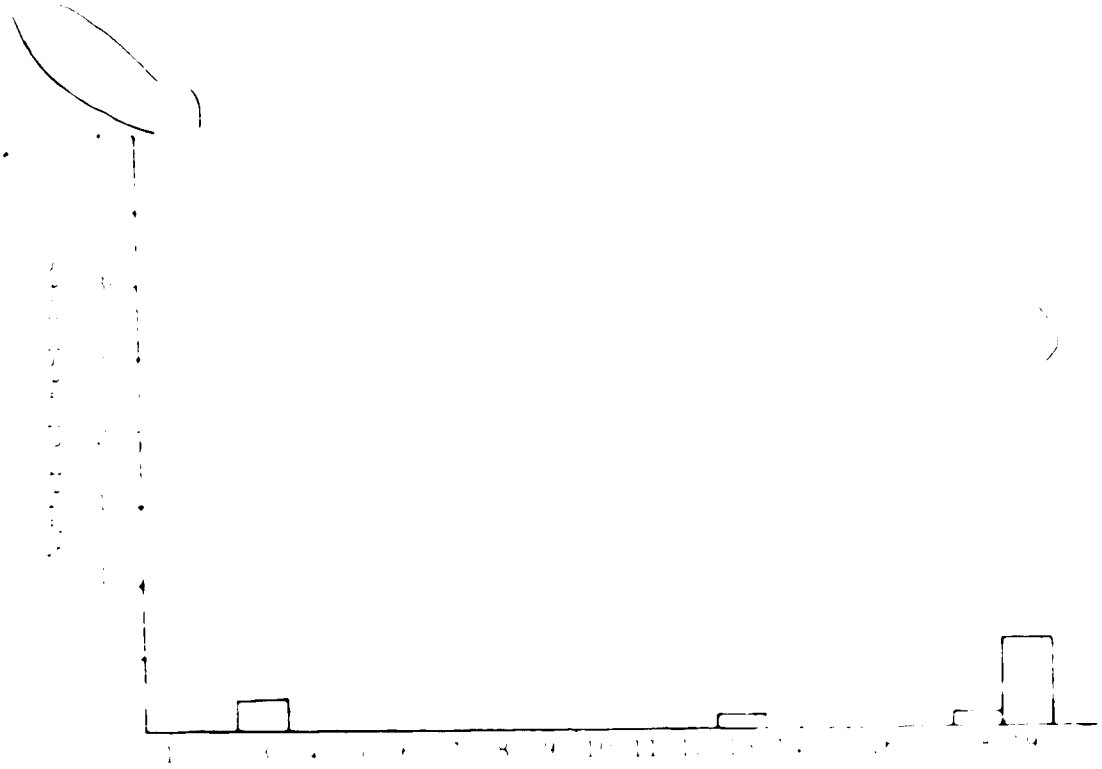
This category was also used by eleven students with eight of them being the same individuals who made correct use of affect. The same average comprehender, cl, who gave hints of the H1 response came from the average group, also were the majority of average group responses here. In the West group there was a somewhat more even distribution. Also each group accounted for half the responses in the category.

Category H2 - Affect, Partially Valid



Subject [illegible] - Average comprehender
[illegible] - High comprehender

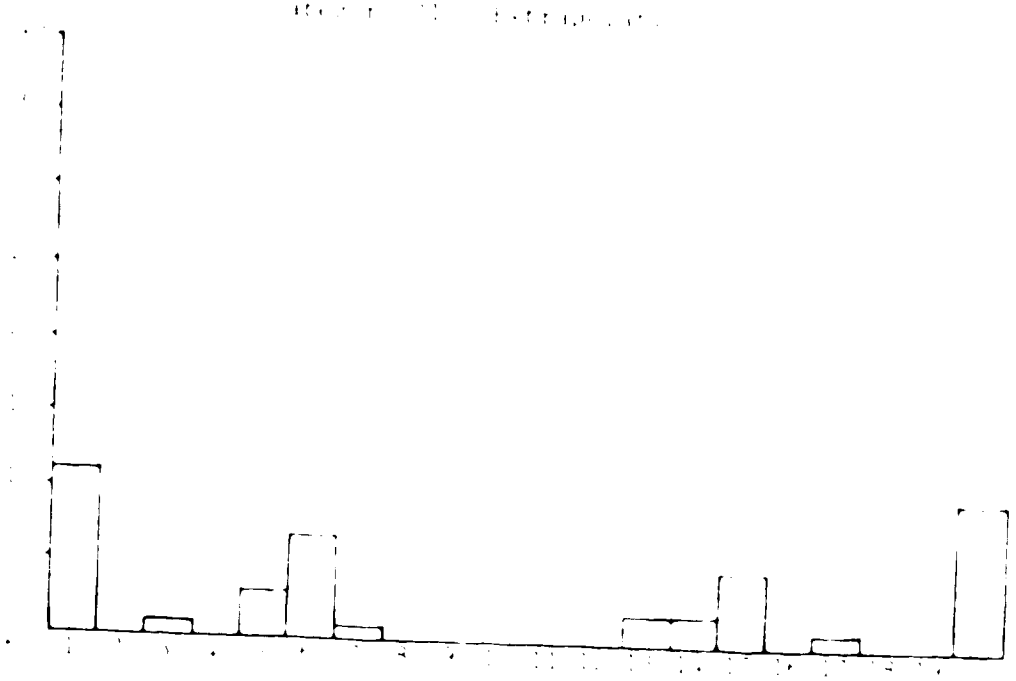




[illegible] Extrapolation

Ten students used extrapolation with the test cases below [illegible] words. It did not between older and average comprehenders. However, two criteria, one in each group, was needed for half the responses. There is some evidence in the literature that ability to extrapolate can lead to creative thinking. Hence it is interesting to note the [illegible] between these two students. Dave contributed about the same amount of extrapolations, but one made considerably more errors and did a great deal of [illegible], while the other demonstrated much [illegible] errors, gave more [illegible] responses, and was more [illegible] using text to [illegible]. Thus it would seem that [illegible] rather than [illegible] differences in [illegible] reading skills and that these factors [illegible] to them [illegible] in any assessment of [illegible] skill.

[illegible] Extrapolation



Subjects: 1-5 Average comprehenders
6-10 High comprehenders

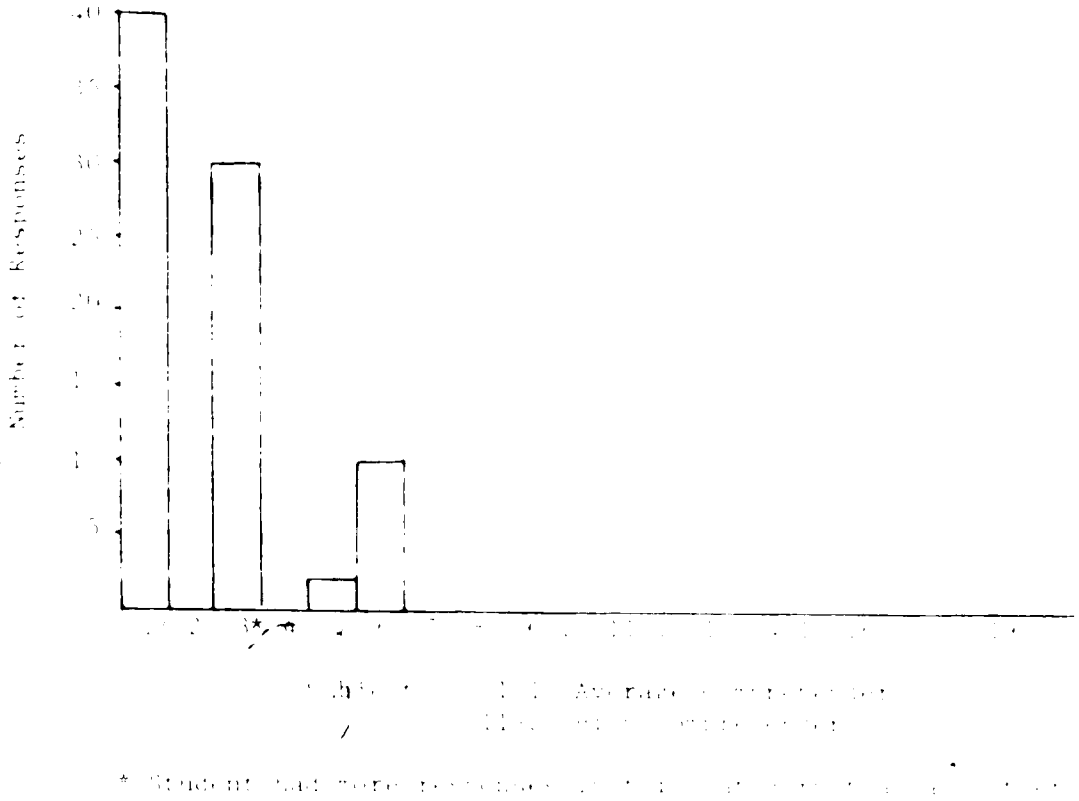
[illegible] Confabulation

[illegible] four students used confabulation, and even within these limits two of them accounted for [illegible] of it. All four were average comprehenders. It appeared that the majority of the students who used confabulation [illegible] much more loyalty to the text.

Two of the four students spoke enthusiastically of reading as a [illegible] and much [illegible]. However, from the responses given it appeared that each person's pattern was to pick one or two words out of the text and [illegible] a form of free association with that word to invent a different set of details. Reading thus seemed to be not a matter of attempting to understand the writer's ideas, but a form of day dreaming in which [illegible] of commonality was involved.

It would seem likely that there was [illegible] between [illegible] of the text [illegible] of the students [illegible] generally [illegible] writer, [illegible] defined the two [illegible] text [illegible] comment, although [illegible]

Category 12 - Contraception



RELATIONSHIP OF THESE RESULTS TO SMITH'S

Smith in his 1973 study used students in grades six and eight and developed the instrument used in this study. Some of the categories of responses derived for the studies were the same, some were similar, and others were quite different. Comparisons between the two can thus be made, although caution must be exercised with those categories which are only similar. But the very fact that the two sets of categories are not identical is already an important comparison, since both sets were derived "a posteriori" to suit their respective data.

Another important distinction is that Smith's subjects were all identified by their teachers as capable in the language arts, especially the grade eight students, whereas this study used both high and average comprehenders.

The six categories which are similar in the two studies are considered first, and then the additional ones are dealt with. Also, the categories are presented here in the order in which they occur in this study; Smith presented them somewhat differently.

The two A categories in this study ("I don't understand" and reference to the reader's own strategies) are not found in Smith's. The absence of the first category is understandable, since the three grades, until the grade ten future, are not [illegible] adolescents frequently have more difficulty than children and are more likely to experience some kind of comprehension embarrassment. The second category ("I use my own strategies") [illegible] instead of the first grade.

The two B categories, repetition of text and slight paraphrase of text also appeared identical to Smith's. Usage of repetition increased steadily with the grade level. Slight paraphrase, however, showed a slight increase in use from grades six to eight, but then declined abruptly at the grade ten level. The grade ten students were perhaps more aware that small changes in wording did not constitute an adequate interpretation and therefore attempted to be more complete in their explanations.

The use of context categories are defined somewhat differently in the two studies. Whereas this study simply speaks of an interpretation made from context, Smith defined his categories as an inference made from context. That difference must be borne in mind in the following comparisons. If inference is defined broadly, it may be that there is actually very little difference. This could well have been the case since Smith did not appear to have non-inferential context categories. Both studies, however, had three categories within the area of correct use of context, partially valid use, and incorrect use. In each study correct use of context was, by a wide margin, the most frequently used category. Across the three grades it increased slightly, but gradually, in keeping per centage of the total responses. This once again pointed up the importance of context in reading and in interpretation of metaphor. Partially valid use of context shows exactly the opposite pattern with usage declining slightly but steadily across the three grades. However, for incorrect use of context the pattern is not so consistent. Usage declined between grade six to eight, but then rose again, so that grade ten students made more

mistakes than did those in grade six.

For the use of background knowledge categories, the same reservations regarding comparisons must be made as for use of context: both studies used correct, partially valid and incorrect categories, but Smith specified that his categories referred specifically to inferences made from background knowledge. In each of the three categories, the pattern was the same: usage remained almost constant in grades six and eight, but was much higher in grade ten. This suggested that either there was a substantial difference in the definitions applied, or else the older students made considerably more extensive use of background knowledge to interpret what they read. The increase in usage is particularly interesting since background knowledge was already quite narrowly defined in this study. Of course, grade ten students had more background experience to bring to bear. Another difference was that if the three categories were compared, grades six and eight students had the lowest number of responses in the correct category and the highest in the incorrect, but for grade ten the highest number was correct and the least partially valid. This may well have been evidence of increasing exactitude in thinking and expression as students mature.

For those categories which dealt with interpretation of the metaphor, five appeared to be very similar in the two studies. The sophisticated, insightful interpretation category differed only in that Smith also used frequency of occurrence as a criterion, while this study did not since it seemed that as students became older insightful interpretations should become more frequent, and it would

therefore be misleading to insist that responses were insightful only if they were rare. Nevertheless, that appeared to happen. Smith found that this category was used three times more frequently by grade eight students than by grade six, but this trend did not continue into grade ten where usage dropped off sharply. This may have been at least partly due to sampling, especially since Smith's grade eight sample consisted of particularly capable language arts students.

For the more obvious interpretation of metaphor category on the other hand, percentage of responses increased gradually and steadily. Grades six and ten both had many more responses in the more obvious category than in the insightful one, but grade eight had an almost equal number in each. The pattern exhibited by grades six and ten seemed the more likely one, especially since Smith indicated that his grade eight sample consisted of very capable language arts students.

Confusion of figurative and literal terms declined across the three grades. Ability to identify the vehicle of the metaphor is an important aspect of metaphorical comprehension, and it appeared to be developing steadily so that by grade ten the problem was fairly infrequent.

Use of inappropriate associated commonplaces declined sharply as the students matured. While this error was still occurring at the grade ten level, it seemed to be diminishing fairly rapidly.

Restating the metaphor in the form of a comparison, on the other hand, although never used frequently remained very constant for all three grades. It may be that occasionally students found this a helpful

way to organize their thinking about a particular metaphor and to come to terms with the juxtaposition of ideas in it.

Three affect categories also seemed comparable in the two studies. Use of correct interpretation of affect rose slightly between grades six and eight, then more than doubled in usage by grade ten students. There was a corresponding decrease in the incorrect interpretation of affect, again with a sharp decline between grades eight and ten. These patterns appeared to indicate that maturing students were becoming more sensitive to human emotions, at least in the literature they read. The personal experience category was used very infrequently by all three grades. However, grade six students used it the least and grade eight the most, with grade ten being directly in the middle.

The sets of categories which in this study are labelled F, G, and J did not appear to be directly comparable to Smith's. In the F group, the category of self-correction was not used by Smith. That was not surprising since it was used very minimally in this study and would, in any case, seem more likely to occur with older students who might happen to re-read as they were discussing and realize a discrepancy. Also it is a category that was more applicable to a longer text than to short excerpts. (As previously noted, the sticking to error category did not apply to this task.)

Tentativeness is a category used by Smith, but the following comparison was made with considerable caution since Smith classed tentativeness in a group called "irrelevant responses," and to the present writer, the quality of tentativeness seemed very relevant. To the extent that the tentativeness indicated a withholding of

judgment until sufficient reading and thinking had occurred, it was a crucial factor in comprehension and interpretation of the metaphors. The amount of tentativeness increased considerably from grade six to grade ten, so that it appeared students may have been developing an increased ability to withhold judgment and stay flexible.

The G responses of literary evaluation and citing text as evidence did not appear at all in Smith's categories. It may well be that at approximately the grade nine level students begin to develop the ability to make literary judgments, to assess writing style, and to be involved with literature, not only as story but also as work of art.

While Smith did not seem to have categories analagous to the J responses of extrapolation and contabulation, he did have a set of categories described as "the supplying of additional concrete details or factual information." These additions were then classed as correct, less appropriate or incorrect. Those categories may have contained some responses similar to the J categories since it seemed unlikely that contabulation especially would begin at the high school level. However, there may have been more of it used there, or it may have been used in a more obvious way. Extrapolation could be either a detriment or an aid to thinking depending on the circumstances of its use, but contabulation is clearly most undesirable, so it would be very unfortunate if its use were increasing as students grew older.

From these comparisons, it appeared that valuable gains in metaphorical interpretation ability were made by students in the two year between grades eight and ten.

DISCUSSION OF RESPONSES TO POEM

In interpreting the poem "I like to see it lap the miles" it is vital that the reader realize that an extended metaphor is being used, and that the vehicle of the metaphor is a horse. Then the tenor must be identified as a train, or at least as some powerful and self-propelled object.

Therefore, in the interviews questions were asked to see if students could identify the train and were aware that it was being described as a horse. The word "it" occurs without an antecedent in the first line, so the first question asked students to identify "it."

The section following reports the students' views on the subject of the poem and on the metaphor used. Because the metaphor is sustained and students discussed it at some length, they had the opportunity to alter their explanations if they wished.

Subject 1 thought that "it" was a big truck and, after further consideration of the text, stressed that it had to be a very big truck. She first said that the truck was being described as a person or an animal, then gradually narrowed the identification down to a horse. The vehicle of the metaphor was thus eventually identified correctly, and the emphasis on a large truck showed that the student had attended to details suggesting the size, power and movement of the object.

S2 took "it" to be a severe rain storm, but was not sure if there were any other possibilities, suggesting a [illegible] storm idea was defended with such evidence as "the trees are moving around mountains, the thunder makes the noise, and the storm [illegible]"

in the sense that everything gets wet. The student thought there was a comparison to either an animal or a human being, but was unable to be more specific since "there's not really one animal that crawls and has ribs. It kind of goes back to that." This perceived contradiction was not resolved, as the student appeared to be seeking a straightforward literal explanation and feeling that any failure to find one was the author's fault.

I began by suggesting that "it" was "not a sometime that can just destroy everything and has just hit the world," and immediately added that it was better used as a tool, or it. However, when questioned further, he suggested that the poem was really about building up civilization with the reference to a quarry indicating industrial expansion. No attempt was made to reconcile these with the oppositeness of these two interpretations. When the student had originally suggested that a horse was good some of the time, he was unable to relate it to anything else in the poem and it seemed a forced statement uttered finally to "make sense" of the literally.

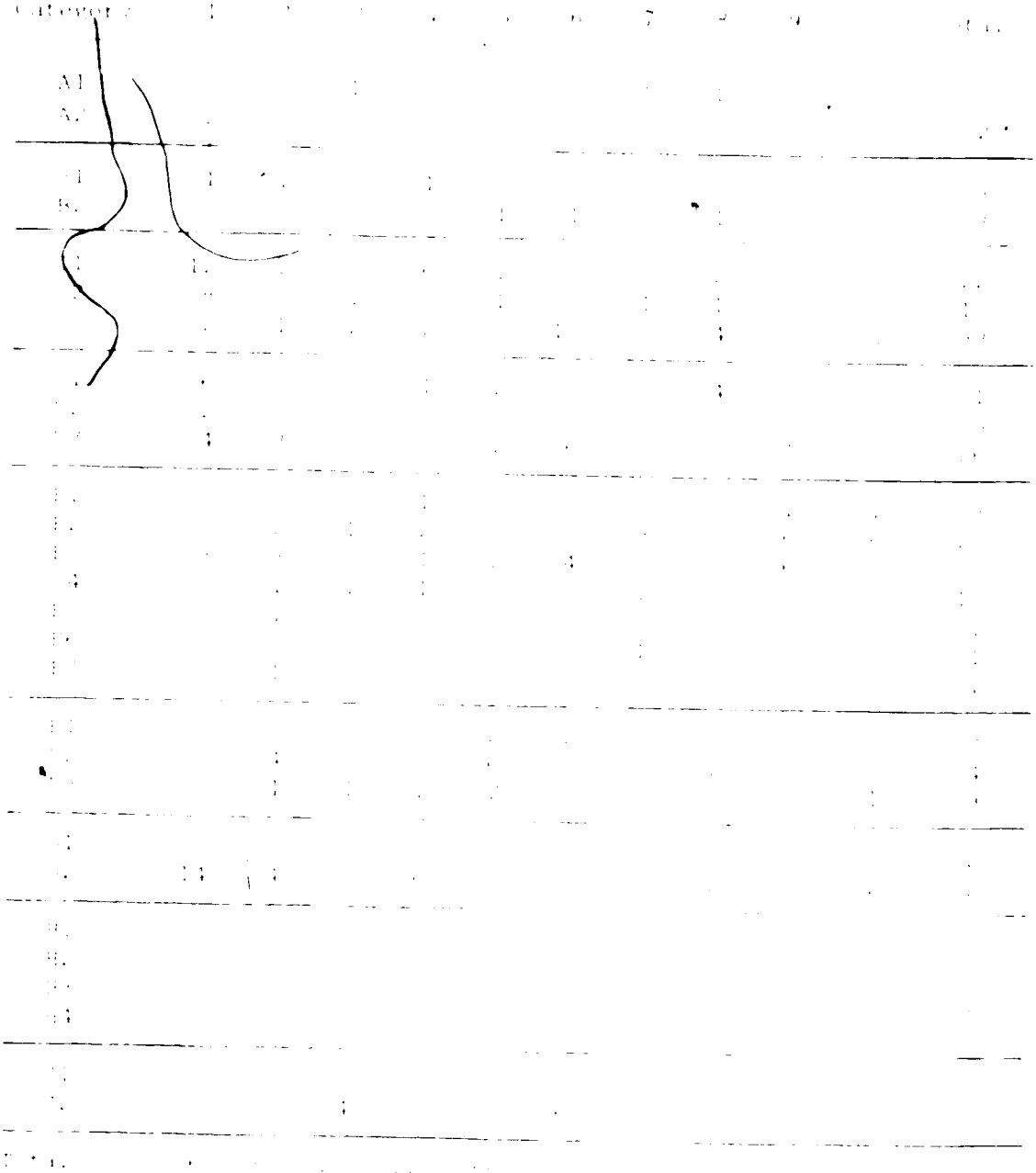
This student gave some evidence of not understanding what it meant to speak as if [illegible] creation and destruction, or life and death were more like synonyms than opposites.

She first suggested that "it" was [illegible]. When I asked her to think of things we do to it, she replied that we look at it as a star that it was able to [illegible] because of the phrases which could apply to a star, like twinkle. The responses generally were rather [illegible], as were the student's responses to [illegible] able and sensible.

Table 3

● Number of Sections [illegible] Item in Interpretive Test of the Poem

▲ Student Number (Average [illegible] Corresponding [illegible])



[illegible] first suggested that "it" was happiness then out of "or at a distance" which might mean dancing, then out of [illegible] famine or a "to lift its ribs and crawl between" and later in an interview that the poem could be about slavery. Interpretation appeared to be based on a few words in the poem, with no consideration given to the impact of the entire poem. She, when a meaning had been suggested for a phrase, the student stuck with it and seemed unable to realize that a phrase might have another meaning more in keeping with the rest of the poem. Thus, he was aware of the discrepancy between the two concepts of happiness and pain, but was unable to resolve the problem. Nor did he see the importance of the poem.

Dr. Draper recalls from her interviews with Jason that he was different one, with no apparent concern for the correctness or incompleteness that established and was not to attempt to get the answers in the text. The poem was first said to be about a person, then about a man who had [illegible] and finally about a person who was writing a poem because "I need to trouble for somebody." The interviewer [illegible] suggested them and Jason the student saw no comparison to the poem.

It was not to [illegible] that [illegible] that nothing else was [illegible] a train was suggested [illegible] evident comparisons. However, [illegible] poem was on lands [illegible] mountains" and seemed [illegible]

unimportant.

S8 first thought that "it" was a horse, but was completely unable to see any other idea in the poem. After a train was suggested to her, she still found it difficult to relate the two and to see how various phrases could simultaneously refer to both train and horse. It appeared that the student was trying hard to be cooperative, rather than stating any genuine understandings.

S9 first said the poem was about a person, possibly an animal and cited evidence for that. However, when asked if it could possibly be about anything else, she replied, "It reminds me of a train," and again cited evidence. Interestingly, she said that no comparison was being made in the poem, but that the train had "animal like qualities" which affected her impressions of the train.

S1 first thought that "it" was a horse, but also suggested there was something supernatural in the poem. When given the idea of a train, however, the student was able to make relations ips between horse and train. He was also clear to describe whether poem was the particular he liked.

S11 gave near-perfect responses. He started out very slowly and became more confident as further discussion. He said that the poem was about a train and gave evidence for that, that the train was being described as a horse and different words that could refer to both. While listing ways "it" was like trains," he identified this train as steam-powered and referred to the distinctive sound of a steam engine's whistle. When asked if the way the train was different because of the metaphors referred to a

horse," he said that it gave the train personality, illustrated how it did so, and added that he found it difficult from this poem to think of a train as a means of transportation -- a comment which shows sensitivity to the portrayal of a train as a living creature, not a mechanical carrier. The student concluded with the comment that he liked the poem and thought it was well-written, although he was unable to say what he liked about the style. He showed real understanding and insight, and in fact gave 6% of the total 51 responses from all the students on the poem. His responses in discussing the poem fell primarily into four categories: correct use of background knowledge (6), insightful interpretations of metaphor (11), literary evaluation (10), and citing of text as evidence (6).

S12 identified "it" as a horse, and thought that was the literal meaning. When the train idea was suggested, she was able to explain how a number of phrases could refer to both. There were brilliant insights in this interpretation, neither were there any serious errors.

S13 began by saying, "Well, they're describing a horse, but I don't think it's that. I think it's a train." After a bit of thinking aloud, she correctly sorted out the relationship between the two. She had no difficulty in explaining how various phrases referred to both a train and a horse. However she thought that describing the train as a horse simply made the poem more difficult.

S14 thought that "it" was a horse, but soon suggested that it was also about a car. Several other students also referred to a car, so it should be noted that there is considerable similarity between a

Table

Number of responses given to the interpretation [illegible]

Student Number [illegible] Comprehension Score

Category	11	12	13	14	15	16	17	18	19	20	Total
A2						1			1		
A3			1							1	
B1				1		1			1		
B2											
C1											
C2		1									
C3							1			1	
C4		12				1					
C5											
D1		10									
E2		8		1							
E3				1							
E4					1	1					
E5											
E6											
E7											
F1											
F2											
F3				1	1						
G1	1										
G2		1		11							
H1	1										
H2											
H3											
H4											
I1											
Total	58	3									

train and a car, and that present day students are much more familiar with cars and trucks, so it is neither surprising nor particularly inappropriate for them to give such a response. When train was suggested, this student made several of the more obvious analogies.

S1 initially and firmly said that "it" was a car, but quickly changed to train, and added that it must be a steam train since it filled up at a water tank. This student also realized that the train was being described as a horse and quite ably made the appropriate links. He also said that the presentation of the train as a horse made the train seem alive, so that the inanimate object became animate.

S16 thought of "it" as a powerful sports car, which he described as "everything really marvellous and something special". This student was unable to interpret a horse or any other object, but did spear of the car as animate and personified. [illegible] his analysis, but made no attempt to resolve them.

S17 thought "it" was a horse because it reminded her of a white stream, although she commented that the stream idea didn't fit very well. last stanza. Even when the idea of a train was suggested, established relatively few links between train and horse.

S18 responded similarly to S17 in that she thought "it" was a horse, and when given the idea of train was able to make only a few links.

S19 thought "it" was a car, but also that it could be a person also. He said that in the first stanza, you could call a frame "it" or a car, but in the second stanza make this kind of interpretation, it seems it can't be a car

[illegible] and seemed to be determined to be completely literal. Anything that was not literal and obvious was rejected. It is therefore not surprising that he added, "I'm not much for poems."

S2 said that "it" was a car described in terms of a horse and was able to justify that view from the text. The argument presented was logical, consistent, and at times insightful. This student was very precise about what he did and did not understand, except for the line, "The meaning of it's hidden to me." However, it was a line that is much more applicable to a train than a car, but when the idea of a train was suggested to him, he rejected it as being an incorrect assumption about trains.

From an examination of these responses, certain facts can be noted. All the older [illegible] stated that the poem was about a train, a horse, or a car. [illegible] and while the latter two are not completely correct, they can at least be said to be related to the text [illegible] reading of it. [illegible]

t insight into the metaphor in contemporary terms: those who were on the wrong track missed the train. But some of them were able to get a horse.

There seemed to emerge three levels of consistency in interpretation. Some students presented arguments which, whether or not they were precisely correct, were consistent throughout. If these student noticed a phrase which did not coincide with their statements, they altered their explanations, thus showing that they had maintained the necessary flexibility to do so and were aware that interpretations must not contradict anything in the text and must be wholistic. They appeared to realize that in the end all the pieces of the jigsaw puzzle must fit. The second group of students were those who started on an explanation but when they encountered a contradiction did not make any adaptation. They commented on the discrepancies, showing they were aware of a problem, but made no recognizable attempts at resolution. Some students replied that the interpretation they had given was the only one possible, and if a problem existed it was the author's. The third group were those who made contradictory statements and apparently remained unaware that they had done so. They did not seem to realize that consistency was required either within their own interpretations or between their interpretations and the text.

As noted earlier in this chapter, closely related to consistency was the matter of tentativeness. Some students were quick to form impressions and suggest interpretations with no apparent hesitancy or decisions. When in the need for adjustment arose, they were able to adapt. These generally were the students who gave the best text

explanations since they altered their views only where necessary to be more appropriate to the text. Other students seemed to be locked in to their first impressions and therefore were unable to adjust in order to resolve inconsistencies. A third group changed their interpretations, but did so by wild leaps to a completely different idea. They seemed not to be attending to the print but simply making another blind guess, rather than carefully fine tuning their ideas to gain consistency and coherence.

Both the high and average groups in discussing the poem gave the largest number of responses in category 6, citing of text as evidence. This was no doubt a factor of their being asked specifically why they made certain statements. All the students were able to quote phrases from the poem and had no difficulty in reading them aloud correctly. But when the next most frequently used categories were examined, there was an important difference between the groups. The high comprehenders then made most use of categories 1, correct obvious interpretation of metaphor, and 3, correct interpretation of context respectively, while the average comprehenders used 2, (incorrect interpretation of metaphor) and 4, incorrect interpretation of context) in that order. This pattern would suggest that both groups were attempting to follow the same procedure, but the high comprehenders were succeeding to a much greater degree. The problem was apparently not that the average group could not, or did not, make references to the text, but rather that they did not comprehend accurately. The ability to match the meaning as closely as possible to that intended by the author appeared to be a major distinction between the two groups.

COMPARISON OF RESPONSES TO SMITH METAPHORS AND TO POEM

The design of the two tasks caused certain differences in the responses. Because in the poem interview students were asked for evidence to support their expressed views, there was considerably more frequent use of category G2, citing text as evidence, than there was with the Smith metaphors when students had to think on their own of the possibility of citing evidence. But it appeared that the question was a reminder chiefly to the average comprehenders, with the high group more likely to volunteer textual evidence, since in the poem responses the average comprehenders gave 45% of the total G responses, but for the Smith metaphors they gave only 29%.

This raised the question of whether being reminded to consult the text again is of any use to students in increasing accuracy of interpretation. As noted in the previous section, some students did become aware of a discrepancy but the awareness did not necessarily cause them to make adaptations, and other students cited text but were apparently unable to comprehend and made misinterpretations. There seemed to be a circular pattern operating here: those who were good comprehenders benefitted from citing text since they made adjustments in their interpretations, but they also made more correct interpretations initially and volunteered textual passages as evidence. The average comprehenders were less likely to cite text unless asked to do so, and then did not make adjustments or benefit from it.

For the Smith metaphors there were proportionately more responses in the C categories (interpretation from context) were as for the poem the concentration of responses was in the I categories

Table 5

Number of Responses in Each Category and Percentage of Total Responses

	Smith Metaphors		Poem	
Category	Number of Responses	% of Total Responses	Number of Responses	% of Total Responses
A1	24	1.6	9	1.3
A2	56	3.7	8	1.2
B1	38	2.5	7	1.0
B2	31	2.1	8	1.2
C1	287	19.2	34	5.0
C2	105	7.0	27	3.9
C3	115	7.7	42	6.1
D1	51	3.4	80	11.7
D2	21	1.4	13	1.9
D3	28	1.9	34	5.0
E1	67	4.5	18	2.6
E2	160	10.7	77	11.2
E3	78	5.2	54	7.9
E4	13	.9	19	2.8
E5	19	1.3	4	.6
E6	22	1.5	3	.4
E7	25	1.7	2	.3
F1	5	.3	5	.7
F2	53	3.5	34	5.0
F3	--	--	13	1.9
G1	24	1.6	16	2.3
G2	65	4.3	158	23.0
H1	44	2.9	2	.3
H2	23	1.5	--	--
H3	5	.3	1	.2
H4	9	.6	2	.3
J1	43	2.9	--	--
J2	83	5.6	13	1.9
Total	1,494		693	

(interpretation of the metaphor). This seemed natural since the sustained metaphor ran throughout the poem and many responses therefore dealt directly with it.

The poem did, however, require more use of background knowledge than the individual metaphors which contained some literal context. As noted in Chapter II, background knowledge is essential to the interpretation of any metaphor; this is particularly true in a case where the metaphor is sustained throughout the complete work so that the topic is not provided by preceeding literal statements. The D categories (interpretation from background knowledge) were therefore used much more extensively in interpreting the poem than in the individual metaphors, and the percentage was especially higher for the poem in category D1 (correct use of background knowledge). In spite of a change in the amount of usage, the percentage of errors, while quite different for the two groups of comprehenders, remained similar for the two tasks. Within category D responses, the average group had an error rate of 43% on the Smith metaphors and 42% on the poem; the high comprehenders had 16% errors on the Smith metaphors and 12% on the poem.

The C responses (interpretation from context), however, showed a quite different pattern. There were fewer C responses given for the poem, and for both groups of comprehenders the percentage of error increased substantially. The average comprehenders had an error rate of 32% on the Smith metaphors and 47% on the poem; the high group had 10% and 27% respectively. Thus as Table 5 shows, the percentage of C1 responses (correct interpretation of context) declined

substantially for the poem. The increase in contextual errors may perhaps be due to the fact that the poem gives less literal context, so it is easier to misinterpret.

Both groups also increased the percentage of error in the E responses (interpretation of metaphor) to the poem, from 49% to 63% for the average comprehenders and from 19% to 30% for the high group. This increase was at least partially due to the difficulty some students encountered in identifying the tenor or the vehicle of the metaphor in the poem.

The H categories (interpretation of affect) were used only rarely in the responses to the poem. Apparently it did not generate strong emotions, or at least not empathetic feelings. This may perhaps be because human beings are not involved in the poem; whereas people or personifications are involved in the majority of Smith metaphors.

The I1 category (extrapolation) did not distinguish at all between groups of students but it definitely did between tasks. In the interpretation of the Smith metaphors ten students used this category, five from each group; but no one used it at all in explaining the poem. It may be that students had enough difficulty with basic concepts in the poem so that they were not tempted to speculate beyond the text, or perhaps the complete text of the poem and the concepts of the metaphors made the difference, with speculation unnecessary when the context was complete.

The I2 category (confabulation) on the other hand distinction between groups of comprehenders since it was used [illegible]

tasks by average comprehenders, but not at all by high comprehenders. However, the amount of usage by the average group declined greatly for the poem.

The poem appeared to be the more difficult task in that the sustained metaphor required students to pursue one theme at greater length and in greater depth. Also in terms of Perrine's (1971) analysis of metaphors, described in Chapter II, the poem is an example of the fourth type in which neither the term nor the vehicle is directly named. The Smith metaphors were completely separate items, so that students who encountered difficulty with one could very soon have a fresh start with another.

On the other hand, the length of the poem could also be advantageous as more clues were provided for the metaphor. Several students commented that they were not sure of the meaning until they got to the last stanza. And it seemed clear that at least a few of the Smith metaphors contained either a more difficult concept or a more complex writing style than did the poem. For example, in metaphor 5 the juxtaposition of "bandaged" and "snow-covered" seemed to be a concept that caused problems for some students. Metaphor 7 ("possessed all earth and air") also evoked a number of errors. In this case, both the concept and the syntax are rather complex. However, the opportunity to leave the confusion behind and begin again on a separate item appeared to reduce the percentage of errors, for it also permitted escape from an unsolved problem. Since natural reading tasks are more likely to be wholistic than fragmented, the poem may have been the more realistic of the two. And readers are expected to

one to terms with what they read and to make sense out of the text.

Many students demonstrated similar patterns of responses and apparently used virtually identical processes on the two tasks. Occasionally, a difference appeared. Subject 1, for example, after using a great deal of confabulation on the Smith metaphors, gave poem responses that were much more logical and text based, with the result that the percentage of error decreased from 36% to 16%.

S13 was the only person to reply at greater length to the poem than to the ten metaphors combined. The error rate remained constant, so the student apparently comprehended equally well on the two tasks, but was more responsive when his train of thought was not broken.

The responses given by S13 showed a different pattern of distribution on the two tasks. For the ten metaphors, the responses were spread out across most of the categories, but for the poem they were clustered, particularly in the correct, obvious interpretation of metaphor and the string of text as evidenced. Both sets of responses were almost error free. The responses of S14 had a similar pattern of distribution but contained considerably more errors.

These students who responded similarly to both tasks tended to divide into three groups: some students made an effort, instead of comments, offered interpretations which were mostly correct, or at least were reasonable statements, but which also were brief and lacked any real insight and depth of understanding; and some gave wildly illogical fabrications. As would be expected, the explanatory responses came almost entirely from high comprehenders, metaphoric responses very largely from average comprehenders. But the second

group of responses which were fairly sensible but unimaginative and dull came from students with a wide range of comprehension scores. For example, S6 and S12, whose comprehension scores were at the 65th and 96th percentile respectively, were both in this middle group. S6 did make considerable more errors, but the errors were for the most part reasonable ones. And S12, with that high percentile standing, had no "I responses (insightful interpretation of the metaphor) for the poem, although three of the Smith metaphors were probed more keenly. S19 appeared to want everything to be literal and experiential, and made no "I" comments, as for metaphor 9, "Hard stones hit them. I guess it just hurts to sleep on stones. I never tried it, you know."

Another type of interpretational pattern which occurred in both tasks was a simple lack of emphasis. In this case, students correctly interpreted a number of details from the text, but then apparently missed the point of the passage. For example, S7 suggested that the poem was really about landscapes, but that in metaphor 9 the stress was on the size of stones which he said are "always made out to be big," and "larger than other people."

There was a high variation in the percentage of errors made by different students, with the spread in the poem being extremely wide. In determining incorrect responses, those that were labelled incorrect in 3, 28, 33, 34, 5, 13, 16, and 17 were stated clearly were counted. For the Smith metaphors the percentage of errors for a particular student ranged from 0% to 67%. The errors which were critical of the 9 were stated contrariwise, however, showing that the student was uncertain about them. For the poem responses, the errors ranged fr

0% to 86%. The two virtually error-free interpretations were achieved by the same student, and the two error-ridden responses were also committed by one student. Four students were able to keep their error rate below 8% on both tasks, and two students had more than 40% errors on both. Thus, it can be argued that the two tasks, especially the poem, were effective instruments for allowing students to show their ability to comprehend metaphor.

In general then, the poem made somewhat clearer distinctions in the interpretational abilities of the students than did the Smith metaphors. With the poem task, the strengths of the best comprehenders and the weaknesses of the poorest comprehenders in the sample both showed more clearly. In that regard, the poem appeared to have been a better kind of task. It was also a realistic reading task in that it required the students to read and discuss a complete work of literature, not merely excerpts. An important difference thus established appeared to have been in the amount of context provided, with complete context being a fixed alternative to the reader. However, the poem interview did involve questions. Although a careful effort was made to phrase the questions so that no hint was given of an expected answer, the students had the benefit of the structure of the questions. This made the task unlike a leisure reading activity, but similar to a school task. The differences from the school task were that students' interpretations were not commented upon, they were not told that their answers were right or wrong, and there were of course no classmates to continue the discussion. Thus it was a regular reading task in the sense that students were dependent entirely on their own

resources for interpretive ideas.

It appeared from the results that the two tasks were similar enough to be comparable and that the poem followed logically upon the Smith metaphors as an appropriate next step for maturing students of literature, but that the differences in length, completeness of context, and type of metaphor were relevant and worthy of attention.

CHAPTER 5

SUMMARY, CONCLUSIONS AND IMPLICATIONS

This chapter presents a summary of the study, the findings, conclusions, implications for teaching and for further research, and a concluding statement.

SUMMARY

Good literature uses metaphors extensively and is the richer for it. Therefore, readers must be able to comprehend metaphor if they are to read effectively. Yet little is known about high school students' ability to comprehend metaphor. Thus the purpose of this study was to examine the ability of students to comprehend literary metaphor, particularly the [illegible] they encountered.

The student sample consisted of [illegible] students from two area schools. The school district [illegible] system. Half of the students ranked in the top [illegible] and the other half as average.

Students were interviewed individually on each of three two tasks. The first task was to read and interpret individual metaphors contained in literary excerpts as well as [illegible] (19's). The second was to read and answer several questions about Dickinson's poem "I like to see it lap the miles," a poem which contains a sustained metaphor.

The students' responses were categorized according to a system derived from the data. Analysis was made through an examination of the responses, a notation of frequency of category usage, a comparison of the results of the individual metaphor task with the results found by Smith (1973) and a comparison of the responses to the two tasks.

FINDINGS AND CONCLUSIONS

Question 1

What basic understandings of metaphor do students appear to have?

Students were usually able to recognize that the statement containing the metaphor was not literal and could not be so interpreted. As indicated in Chapter 2, this is an important step in metaphoric comprehension. Confusion of the vehicle and the topic occurred occasionally, as when some students said the poet was really about a horse. This problem arose only for a few students and was with more complex metaphors. All students gave evidence of attempting a metaphoric interpretation for the majority of metaphors.

Students were normally able to identify appropriate associated commonplaces for the metaphors. In Black's view, as noted in Chapter 2, metaphor, this ability is essential for understanding.

Winner (1976), as reviewed in Chapter 2, identified three levels of insufficient understanding of the metaphor. She further indicates that there is frequent movement back and forth from one level to another. Most of the students in this study gave evidence of having reached the fourth level at least for most metaphors. Only occasionally with a complex metaphor did a

student regress to the third level of being unable to move from the physical to the psychological world, as when for metaphor 7 a student said that "possessed all earth and air" meant that the driver owned the whole world. Students' explanations were not necessarily correct, but they were made on the fourth level of full recognition of metaphoric language as something quite different from literal.

As noted in Chapter 2, understanding metaphor requires knowledge of the world. This may be why grade ten students used it more than the younger children in Smith's study (1973). The students did appear ready and able to bring background knowledge to bear in their interpretations. And they were most successful in interpreting those metaphors that dealt with matters within their experience, such as sports or breaking up with boyfriends.

All of the students were capable of at least "literal," or "literal plus" answers; most of these were quite simple, but some were much more elaborate and explicit about it. Metaphor 7 was able to be abstracted to very great, while metaphor 6 was also fairly consistent. There was a correspondence in the fairly well-built abstract thought required by each of these: those who answered literal or literal plus answers tended to stay at concrete operational levels of thought; those who answered "right" usually moved into formal operations.

Students were frequently able to make the move from literal interpretations of the metaphor to demonstrate elements of understanding of them, but this ability varied. Sometimes this movement from one level to another was also affected somewhat by the familiarity of the metaphor.

Question 2

What difficulties do grade ten students encounter in interpreting literary metaphor?

Not all of the students experienced difficulty, but for others the problems were considerable.

Some students appeared to have no loyalty to the print and did not use the clues provided to reconstruct the author's meaning. Another aspect to this difficulty was that some students made no attempt to present a wholistic interpretation in which all of their own statements complemented each other. Thus, contradictions occurred, either between the student's interpretation and the text, or within the interpretation itself. There were two levels to this problem as some students seemed unaware that there was a difficulty, and others commented on the misfit, but were unable to make a reconciliation. These problems occurred with the literal contexts surrounding the metaphor, as well as with the metaphors themselves. Thus, the most serious difficulty appeared to be with basic reading comprehension. It should be remembered that these students were not the weakest in the grade, but were those who had achieved average comprehension scores.

Since context is required to understand a metaphor, a misinterpretation of context can have a detrimental effect on the comprehension of the metaphor. Occasionally this difficulty arose.

Another problem was that [illegible] which I found that some students focused only on the tenor or the vehicle to the exclusion of the other. This happened very infrequently with the individual metaphors (one student with metaphor 4 concentrated on it's to the exclusion of the fog), but was somewhat more common in the

interpretations of the poem.

No student attempted to take a metaphor literally, but there were a few instances in which a student could really not go further than to say that the metaphor did not make sense. In Reinsch's terms (1972), the student could reject the literal explanation as nonsense, but could not go on to make the necessary resolution by a suitable figurative explanation.

A more subtle difficulty was that sometimes students missed the implications of the metaphor. As noted in Chapter 2, Black (1962) speaks of metaphor acting as a filter to organize our view of the tenor. Some students were apparently not sensitive enough to the metaphor to let it focus their attention sufficiently and thus they failed to identify the characteristics being highlighted.

Another subtle but important difficulty was that some students tended to keep the tenor and vehicle too separated, so that students would describe each but would not be clear about the relationship between them. Or in other cases the relationship between tenor and vehicle would be kept to that of a comparison, so that in Black's terms, students failed to appreciate the effects of the interaction of the metaphor. In these instances, students were not giving erroneous interpretations, but were simply being somewhat incomplete and therefore depriving themselves of full comprehension.

The matter of context emerged in this study as crucial in interpreting metaphor. The clear advantage of the poem over the Smith metaphors was that for the poem the context was complete. Chapter 2 discusses the importance of context and stresses that sufficient context

is vital. However, it is not made clear how much context is sufficient. Perhaps a very great deal is needed. If a metaphor in a book-length work describes a character, everything the reader has already learned about that character influences and colours the reading of the metaphor. And details about the character are likely to be scattered throughout all the preceding pages. The mood and atmosphere which the author has created also influence the way the metaphor is interpreted. A reader who knows nothing at all about Dylan Thomas' A Child's Christmas in Wales and then encounters "bandaged town" may drift into such errors as notions of the town recovering from war damage or plague. No reader who approaches the metaphor through the context of the earlier pages of the account and the mood of joie d'vivre and amusement could ever think of such a mistake. Put in context the metaphor takes on great power to portray the encapsulated happiness, security and beauty which were the mood of remembered childhood Christmases. The context which colours the reader's perception of a particular metaphor may thus be any part or all of the preceding pages of the work. It may well be that a reader cannot fully appreciate all the subtleties and implications afforded by a well-written metaphor if deprived of this larger context.

Question 3

What are the differences between first and average [illegible] in their ability to interpret metaphor?

In the depth of insight and degree of understanding shown there was a very great range amongst the twenty students.

One difference between the two groups was that the first

comprehenders made fewer errors. Of the total responses given by the high group to the Smith metaphors, 10% were errors, and for the poem 14%; the average comprehenders had a rate of 35% for the Smith metaphors and 38% for the poem. Thus, each group remained fairly consistent on the two tasks, but the difference between the groups was considerable.

All of the confabulation responses came from the average comprehenders. The high group showed a much stronger sense of staying within the bounds of the print and of knowing what inferences can be drawn from the information given.

Both G categories, literary evaluation and citing text as evidence, were used much more by the high comprehenders. Literary evaluation, particularly, seemed to be an indicator of good comprehension skills, since two students who gave excellent interpretations accounted for the majority of these responses. In discussion of the poem students were asked to cite text as evidence. Average comprehenders, therefore, did so more than for the Smith metaphors, but their usage was still somewhat less than that of the high comprehenders who were more thorough and complete in their answers. For the Smith metaphors where no suggestion was made on this point, high comprehenders cited text more than twice as often as average comprehenders. However, the difference appeared more complex than mere citing of text. Some of the average comprehenders gave interpretations which were inconsistent with the very text they were citing; whereas the high comprehenders who were volunteering text were in fact, basing their interpretations upon it. It seemed that the citing of text itself had no real

value in assisting an accurate interpretation, but was more of a symbol of comprehension ability. The students who were most likely to cite text had already made the best interpretations. Asking students to cite text appeared to be of very little use to them unless accompanied by some method of getting them to attend to what they were citing and to make their explanations consistent with the text.

While both groups were able to make some of the more obvious interpretations of the metaphor, there was a considerable difference in their ability to provide the more insightful and subtle meanings. The average group averaged 1.3 E1 responses on the Smith metaphor and the high group averaged 5.4.

The high comprehenders were usually able to achieve a reasonable balance between attending to the context and the metaphor. Their usual pattern was to discuss the context first, beginning with the easier aspects and then work their way into the metaphor itself proceeding toward the more complex ideas or subtle interpretations. In the poem the structure of the task altered the procedure somewhat, but again they started with details they were certain about and worked toward the complexities. They gave the impression of having as secure a foundation as they could, and of using that framework to build toward the goal of a fuller understanding.

The average comprehenders were usually much less organized in their approach. They seemed more to be grasping at whatever idea came floating along and hoping it would carry them somewhere. They tended to look too much at either the context or the metaphor, usually the context, and make fewer interrelationships. They frequently then had

difficulty in stating even the more obvious connotations of the metaphor and often did not get to the subtleties.

Question 4

> How successful are students in going beyond the valid, but obvious, interpretations of the metaphor and providing insights into the more subtle connotations?

The answer to this question appeared to be that it depends very much upon which student is doing the interpreting. Some students had considerable difficulty comprehending the more obvious aspects and never did get to the subtleties. But two students in particular were fairly consistent in probing deeply into each metaphor.

As Black (1962) has described it, the interaction of the tenor and vehicle gives new insight which belongs to neither. Some students gave evidence of having perceived that interaction so that they were able to speak of the isolation and security of the "bandaged town," or the personal qualities of the train. They were not yet able to do this consistently, however. Four students only gave insightful responses to five or more of the Smith responses.

Occasionally students explored one metaphor more fully and made several insightful comments (the highest number was five for one metaphor) on it. As noted in Chapter 2, Winner found that older children were more likely to see a variety of relationships. Again the results were uneven from student to student, but some of them were able at times to be quite complete. Most students seemed to be in a transition stage, where they were sometimes able to be very insightful, sometimes to have flashes of insight and sometimes at the lower stage of giving obvious responses only. This is consistent with the literature which

suggests that students grow gradually in their comprehension and move back and forth between levels of understanding. It is also consistent with Piaget's theory of transition in stages of cognitive development.

Whether or not students felt the sense of cognitive surprise that should accompany metaphorical comprehension, it was not always possible to determine. At times, however, they did. As they became aware of an interaction, the surprise would be apparent in the voices and would sometimes be accompanied by a statement such as, "I never thought of it that way," or "Oh yeah, I see what it means." Unfortunately, it was at times equally clear that a student was feeling only the surprise of puzzlement, rather than that of recognition. The best comprehenders in the group did, however, experience some cognitive surprise accompanied, as it should be, by insight.

Most students were able to react to the positive and negative connotations of the metaphors, as described in Chapter 2. This was especially apparent in the two metaphors taken from Golden's writing, metaphors 8 and 10. Frequently, students who had misinterpreted details and who seemed to be fumbling for words would nevertheless convey clearly the sense of foreboding, doom or bleakness they felt from the passage. This kind of sensitivity appeared to be well developed in the students.

There were a few students who, according to their test scores, were very capable readers, but who gave only obvious interpretive responses and did not show any real creativity or insight. The test from which the scores were obtained asked literal level questions only. Some students have apparently come to be satisfied

with very routine answers, or else they think that such answers are what is required in school.

Question 3:

> How well are students able to interpret a sustained metaphor as contained in a short, but complete, poem?

The fact that the metaphor was sustained appeared to be a source of both resistance and confusion to the students. Some of them definitely benefitted from the combination of the various metaphorical words used and said that some words made them aware of the theme of the poem, then additional words later confirmed their views. Other students, however, were unable to achieve that kind of synthesis and were simply confused by what appeared to them to be mixed metaphors. Of course, a student who had an inappropriate idea in mind would find evidence to support it. If the student then lacked the necessary flexibility to make adjustments in the ideas being formed, mixed or contradictions would probably result. This apparently happened for a number of students.

As noted in Chapter 2, a basic use of metaphor is to make the unfamiliar more familiar. For those students who believed that the poem was about a tree, that supposed. Trees are no longer as important a part of life experience as they once were, so trees are not a subject of great familiarity to most present day high school students. But a consideration of the poem did serve the familiarity with the subject and did cause students to alter their views. It is true, particularly by leading them to think of the trees as private and horseflies.

IMPLICATIONS FOR TEACHING

The results of the study hold certain implications for teaching.

The major source of difficulty for students appeared to be in basic reading comprehension. Even though all the students interviewed in this study were assessed as having average or better comprehension skills, some of them could not correctly interpret the literal parts of the passages with any consistency. Reading comprehension appears to need considerable teacher attention even at the high school level.

The range of achievement and ability shown by the different students within one grade was very wide. Teachers need to be aware of the enormous individual differences in reading and interpretational ability within their classes. And even after all students are able to think abstractly, there remains great variation in the quality of abstract thought of which they are capable.

To encourage students to prove their statements by text may not be very useful by itself. Some students cited text and still interpreted it illogically. Therefore, it seems that teachers must not only ask for the evidence from the text, but must get the students attending to the text and ensuring that there is consistency between text and interpretation.

If standardized reading tests are to be used, they must be examined carefully to determine just what it is that they are actually testing. The test which had been given to the students in this study restricted itself to literal level comprehension questions on short passages. The results were useful, but any generalizations from the results must be made with great caution. The students with the biggest

literal comprehension scores were not necessarily the most insightful interpreters of metaphor.

Students should be taught directly what metaphor is and how it functions. As Bruner (1964) has pointed out, codes are learned more easily when the subject knows there is one. The more able students who knew what a metaphor was and could use the word, were also the best interpreters of metaphor. Students should also be taught the roles metaphor has and the purposes it serves in language and literature.

However, in teaching about metaphor the amount of structure given should be related to the needs of the students, so that the more difficulty a student is having in comprehending metaphor, the more structure is provided in the teaching. More able students who do not need structured lessons could not be given them.

In this study, there was with one exception a close relationship between enjoyment of reading and good comprehension of metaphor. One student claimed to like reading, but gave little evidence of real comprehension. Otherwise, the lovers of reading were the good comprehenders.

The vocabulary in which metaphors are expressed and the complex sentence structure in which they may be embedded can greatly complicate the interpretive task. Teachers should be aware of the effects that vocabulary and sentence structure may have on the students' abilities. However, that does not mean that more complex metaphors should be avoided. The more difficult ones sometimes have more interesting concepts to convey and therefore may be much more satisfying when they are comprehended. By the high school level, teachers should be

more concerned with helping students with the difficult aspects of reading tasks rather than necessarily selecting easier material for them to read.

Since context is so vital in comprehension of metaphor and since the appropriate amount of context may be some or all of the preceeding part of the work being read, teachers should be careful to provide this context and to help students become aware of how this prior knowledge influences the metaphorical interpretation. Metaphors in isolation or in very limited contexts are to be avoided.

SUGGESTIONS FOR FURTHER RESEARCH

The system of categorization worked out in this study could be used with a larger sample and a wide variety of metaphors to see what patterns of understanding and difficulty emerge.

Since context appeared to be crucial in comprehending metaphor, it would be interesting to know if the provision of a longer and more complete context would affect the quality of responses students were able to give. Also a comparison could be made between the interpretations given to individual metaphors from different contexts and those which are related by being part of the same passage.

A very useful study would be one which was able first to diagnose and secondly to remediate the basic comprehension problems which some students were experiencing.

Willingness to withhold judgment and to remain tentative until sufficient clues are provided by the text appears to be an important aspect of reading comprehension. It would be helpful to know precisely

the relationship between tentativeness and metaphoric comprehension.

Citing of text as evidence has commonly been thought to be a useful way to encourage students to interpret text accurately. In this study the question arose as to whether citing text encourages accurate comprehension, is the result produced by a reader who is already interpreting effectively, or is a substitute for an inadequate verbalization. This last possibility was suggested by the fact that some students cited text which contradicted their own interpretations, but they apparently did not realize this. Further research is, therefore, needed to determine the nature of text citing and the reasons for its use.

CONCLUDING STATEMENT

The findings in this study indicate that most grade ten students have a conceptual base for understanding metaphor and can use appropriate context, background knowledge and affect to make the more obvious interpretations. Comprehension difficulties interfere in this process in some cases. But only a small number of the most able students can respond inferentially and imaginatively to the full impact of literary metaphor.

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APPENDICES

APPENDIX A

SMITH METAPHORS AND POEM

SMITH METAPHORS

1. The wave struck the cliff. It sent long tongues streaming around me so that I could neither see nor hear.

The tongues of water licked into all the crevices, drawed at my hand and at my bare feet gripping the ledge.

Scott O'Dell, Island of the Blue Dolphins

2. The little mare had whirled to face them, keeping the colt behind her. With her teeth bared and her ears laid back, she looked half wolf for sure.

R. Sanders and E. Kosar, New Directions in English.

3. The fog comes

on little cat feet.

It sits looking

over harbor and city

on silent haunches

And then moves on.

Carl Sandburg, The Fog.

4. The Princess Saralinda was tall, with ivy in for her hair and she wore serenity gracefully like the rainbow. It was not easy to tell her mouth from the rose, or her brow from the [illegible]. Her voice was faraway music and her eyes were candles burning on a tranquil night.

James Thurber, The Thirteen Clocks.

5. And they rang their ringings over the bandaged town, over the frozen foam of the powder and ice-cream hills, over the crackling sea. It seemed that all the churches boomed for us under my window, and the weathercocks crew for Christmas on our towers.

Dylan Thomas, A Child's Christmas in Wales.

6. And then they stood on the white welcome mat in the little dritted porches and huffed and puffed, making gusts with their breath and jerked from foot to foot [illegible]

Kenneth Graham, The Wind in the Willows.

7. The 'poop-poop' rang out with a brazen shout in their ears, they had a moment's glimpse of an interior of glittering plate-glass and rich morocco, and the magnificent motor-car, immense, breath-snatching, passed onto, with its pilot tense and bent over his wheel, possessed all earth and air for a fleeting second, then an envelope of fine dust and pungent vapour hid it from their astonished eyes, and then dwindled [illegible] to a speck in the far distance, hanged back into a droning bee once more.

Kenneth Graham, The Wind in the Willows.

8. The [illegible] were quiet as they sang it [illegible] were fast asleep. Upon the battlements [illegible] All was silent but [illegible]

J. R. R. Tolkien, The Lord of the Rings

4. They slept a little in uneasy fits; for their sweat grew chill on them and the hard stones bit them, and they shivered. [illegible] North from the Black Gate there flowed whispering along the ground a cold air.

J. R. R. Tolkien, The Lord of the Rings.

5. She sat at the window watching the evening invade the room. Her head was leaned against the window curtains and in her nostrils was the odor of dusty retreme.

James [illegible], Ulysses.

I like to see it lap the Miles

I like to see it lap the Miles –
And lick the Valleys up –
And stop to feed itself at Tanks –
And then – prodigious[1] step

Around a Pile of Mountains,
And, supercilious[2] peer
In Mines – and the sides of Stacks –
And then a quarry pare

To fit its Ribs
And crawl between
Complaining all the while
In horrid – hooting stanza –
Then chase itself down hill –

And neigh like Boanerges[3]
Then – punt[4] like a Pony,
Stop – to prance and paw
At its own foam –

[illegible]

[1] prodigious: marvelous
[2] supercilious: proud
[3] Boanerges: a noisy speaker
[4] omnipotent: all powerful

APPENDIX B

INTERVIEW FORMAT

INTERVIEW FORMAT

After an introductory chat with the student, the first task was described.

Introduction to the Smith metaphor task

"I'd like you to help me in a study I'm doing on how students in grade ten understand and explain some things they read in literature. I'm going to give you some paragraphs with a few words underlined and ask you to tell me what ideas and comparisons these words bring to mind. In your explanation use the whole paragraph to help you, but pay particular attention to the underlined words. They are the part I'd like you to interpret. For example, look at this card."

The student was then shown a card containing the lines,

"All the world's a stage,
And all the men and women merely players."

Interviewer and student then discussed the lines, with the interviewer inviting the student to contribute ideas, but ensuring that at least two different but possible views were given.

The student was then given the first card, asked to read it silently, encouraged to take time to think and reread for as long as the student wished to do so, and then begin to speak about it when ready.

Introduction to the poem interpretation task

"The second thing I'd like you to do is to read a whole poem instead of just short paragraphs. Read it over silently several times. Take as much time as you need. Nobody every completely understands a

poem the first time through. So read it until you've figured out what it's about, and you feel somewhat familiar with it. And then when you're ready to talk about it, let me know, and I'll have a few questions to ask you."

(Questions I like to see it lap the miles)

1. You noticed the word it in the first line. What do you think it is?

   What clues in the poem make you think so?

The student's answers to this question determined which of the three patterns of follow-up questions would be used.

Train response

2. To what is the train being compared?

   Which parts of the poem apply to both a train and a horse?

3. Is the impression you have of the train different because it is described as a horse? If so, how?

4. Is there anything else I didn't ask you that you'd like to mention about the poem?

Horse response

2. In the poem something else is being described as if it were a horse. Read the poem again and see if you can tell me what that something else is.

   Why do you think that?

3. If student does not state train on the second attempt, suggest it.

4. Find any words or phrases you can which could refer to

both a train and a horse and explain how.

5. Is there anything else I didn't ask you that you'd like to mention about the poem?

Other response

2. I'd like you to examine the poem again and see if you think it could be describing something else, and if so, what else.

3. Is there a comparison being made? If yes, what is it?

4. How long ago do you estimate the poem was written?

5. Is there anything else I didn't ask that you'd like to mention about the poem?

APPENDIX C

TABULATION OF RESPONSES GIVEN BY EACH SUBJECT FOR THE SMITH METAPH[illegible]

SUBJECT 1

Category	Metaphor 1	2	3	4	5	6	7	8	9	10	Total
A1											
A2			3				6		1		10
B1				1							1
B2	2			2	1			1			6
C1	2	3	5	3	1	3	11	8	3	1	40
C2	2	2	1	4	5	3	4	1	5	1	28
C3	9	1		2		3	6	1	4	2	28
D1		3	1			1					5
D2				1				1			2
D3							2				2
E1								1			1
E2		1		1			1	2		2	7
E3	1					4	1				6
E4							1				1
E5											
E6			2								2
E7				1							1
F1											
F2							1				1
F3											
G1				1							1
G2	1	1	1				2	2	1		8
H1		1						3	1	1	6
H2								3	3		7
H3									1		1
H4											
J1				2		2	5			2	11
J2	4				12				12	9	41
Total	21	12	13	18	19	17	40	23	35	18	216

SUBJECT 2

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1	1										1
A2	1					1				1	3
B1				1					1		2
B2										1	1
C1	3	2	2	3	6			1	1		18
C2	4						1	1			6
C3	4						3	2	1		10
D1		1	1	1							3
D2			3								3
D3								2	1		3
E1						1				1	2
E2				1		3	1			1	6
E3					1						1
E4											
E5				1							1
E6											
E7			1								1
F1											
F2	1	1			1						3
F3											
G1	1			1							2
G2	1	1									2
H1											
H2											
H3											
H4											
J1											
J2											
Total	16	5	7	8	8	5	5	6	4	4	68

SUBJECT 3

Category	Metaphor 1	2	3	4	5	6	7	8	9	10	Total
A1	2	1				1					4
A2			1	2	4				2	1	6
B1	1		1						2		4
B2				2					1		3
C1		2		2	3				1		8
C2			1	2				1	2	2	8
C3				2				2			4
D1	1	1			3						5
D2									1	1	2
D3			2			1	2		1		6
E1	1			1							2
E2					2	1				2	5
E3	2		1	1					1	1	6
E4			3								3
E5	1									1	2
E6	1										1
E7											
F1											
F2		1	2			1					4
F3											
G1				1							1
G2			1					1			2
H1		1									2
H2									1		
H3											
H4					1					1	2
J1		1									1
J2		3				1	6	3	9	8	30
Total	9	10	12	13	9	3	8	7	21	17	111

SUBJECT 4

Category	Metaphor 1	2	3	4	5	6	7	8	9	10	Total
A1											
A2	1					1					2
B1				1	1	1					
B2	2		1							1	4
											3
C1	4	1					1			1	7
C2			2								2
C3				1	3				1		5
D1		1						1			2
D2				1							1
D3											
E1											
E2	1			1							
E3				1		1	1	2		1	2
E4		1			2				1		6
E5											4
E6											
E7											
F1											
F2					1			1			
F3											2
G1											
G2	2								1		3
H1											
H2											
H3											
H4											
J1											
J2											
Total	10	3	3	5	7	3	2	4	3	[illegible]	43

SUBJECT 5

Category	Metaphor 1	2	3	4	5	6	7	8	9	10	Total
A1			1			2	1		2		6
A2											
B1	1					2					3
B2											
C1	2	2		1	3	1			1	1	11
C2		1							2		3
C3	1	1	1	1		2	3	3	1		12
D1											
D2											
D3			1				3				4
E1				1							1
E2					1					3	4
E3					4						4
E4			3								3
E5											
E6	3										3
E7				1		1					2
F1								1			1
F2	1		1		2		1	2			7
F3											
G1									1		1
G2											
H1											
H2										1	1
H3											
H4											
J1					1					2	3
J2								2			2
Total	8	4	7	4	11	7	8	8	7	7	81

SUBJECT 6

Metaphor

Category	1	2	3	4	5	6	7	8	9	10	Total
A1						2					2
A2	2				1		1				4
B1											
B2											
C1	3	4			1				2	1	10
C2	1			2		2			2		7
C3	4		3		1	2	3	3	1	3	20
D1											
D2											
D3			2								2
E1											
E2	1					2					3
E3				1	2	1					4
E4											
E5			3		2	1					6
E6											
E7											
F1											
F2											
F3											
G1											
G2											
H1		2									2
H2	2										2
H3	2										2
H4											0
I1				2	3			2			7
I2							4		4	2	10
Total	15	6	8	5	10	9	10	6	9	4	82

SUBJECT 7

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1					1						1
A2				1							1
B1					1						1
B2											
C1		1	3			1		1	3		9
C2				1				1			2
C3	2				2			1			
D1											
D2											
D3							1				1
E1		1	1	1						1	4
E2	1	1						1	1	1	
E3				1	2		2				5
E4											
E5				1		1					2
E6											
E7			1								1
F1							1				1
F2				1	2		1				4
F3											
G1	1	1	1							1	3
G2											
H1									2		2
H2					1			1			1
H3											
H4											
I1					2			2			4
I2								1			
Total	4	4	6	6	8	3	3	5	6	2	51

SUBJECT 3

Net number

Category	1	2	3	4	6	7	8	9	12	Total
A1						1				1
A2						1			2	3
B1				1		1		1		3
B2										
C1	2	2	1							5
C2								1		1
C3			1							1
D1										
D2										
D3										
E1	1				1				1	3
E2	1	1	1	2	1		1	1	3	10
E3				3				1		4
E4										
E5				1						1
E6			1	1						2
E7					1					1
F1										
F2						1				1
F3										
G1										
G2	2									2
H1										
H2										
H3										
H4										
J1										
J2										
Total	6	3	4	5	3	3	7	3	4	44

SUBJECT 9

Category	Metaphor 1	2	3	4	5	6	7	8	9	10	Total
A1											
A2											
B1		2	1				1	2			6
B2	1	2		3			1	1			8
C1	6	1	3			1	2		7		20
C2								1		2	3
C3							1	1	1		3
D1			1			1					2
D2											
D3							1				1
E1											
E2	3		1			1			1		8
E3					2		2				4
E4											
E5				2							2
E6											
E7	1	1				1			1		4
F1		1									1
F2											
F3											
G1											
G2						2		1			3
H1											
H2											
H3											
H4											
J1											
J2											
Total	11	7	6	5	2	5	8	5	10	3	62

SUBJECT 10

Category	Metaphor 1	2	3	4	5	6	7	8	9	10	Total
A1											
A2											
B1											
B2										1	1
C1		2									2
C2	1										1
C3											
D1											
D2											
D3											
E1				1				1		1	3
E2	3	2	2	1		1				3	12
E3							3		2		5
E4											
E5				1	1						2
E6											
E7						1					1
F1											
F2							1				1
F3											
G1											
G2											
H1											
H2											
H3											
H4											
I1											
I2											1
Total	4	4	2	2	1	2	4	2	2	4	28

SUBJECT 11

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1											
A2				1							1
B1			1								1
B2											
C1		2	1			1	3	1	4		12
C2						1		1			2
C3											
D1			1								1
D2											
D3											
E1	1		2	2		1	2	2		1	11
E2		2			2	1	1		2	2	10
E3				1	1						2
E4											
E5											
E6	1		1			1				1	4
E7	1	1	1								3
F1											
F2		1		1	1						3
F3											
G1				1	2	2		1			6
G2				1	1			1	1	1	5
H1					1			2			3
H2											
H3											
H4											
J1											
J2											
Total	3	6	7	7	8	7	6	8	7	5	64

SUBJECT 12

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1							1				1
A2			1								1
B1			1			1					2
B2											
C1	3	2		1	1						7
C2								1			1
C3							1				1
D1		1	6	1		1			1	3	13
D2										1	1
D3											
E1						2			1	1	4
E2			2	1	2	1	1	1	1		9
E3											
E4											
E5											
E6	1										1
E7	2	2			1						5
F1											
F2	1						1			2	4
F3											
G1											
G2											
H1											
H2								1			1
H3											
H4											
J1											
J2											
Total	7		10	3	4	5	4	3	3	7	51

SUBJECT 13

Category	Metaphor 1	2	3	4	5	6	7	8	9	10	Total
A1	1										1
A2							1				1
B1											
B2								1			1
C1	1		2	2	2		6		2		15
C2						4		1		1	6
C3											
D1			2								2
D2								1		1	2
D3											
E1					1			1		1	3
E2		1	2	1		2			1	1	8
E3									2		2
E4											
E5	1										1
E6											
E7		1									1
F1											
F2								1	1	1	3
F3											
G1				2							2
G2							3				3
H1							1	1			2
H2								1			1
H3											
H4				1							1
J1										2	2
J2											
Total	3	2	6	6	3	6	11	7	6	7	57

SUBJECT 14

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1											
A2	2					1					3
B1											
B2								1			1
C1	1										1
C2			1					1			2
C3					2		4		1		7
D1								1		1	2
D2				1						3	4
D3				1						1	2
E1	1			1		1		1			4
E2	1	1	2			2		2		1	9
E3	1	1	1	1	2		1		2		9
E4											
E5					1					1	2
E6			1								1
E7											
F1											
F2											
F3											
G1											
G2											
H1								1			1
H2								2			2
H3											
H4											
I1									2		2
I2											
Total	6	3	5	4	5	4	5	9	5	7	52

SUBJECT 15

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1											
A2			2					1			3
B1	3				2				1		6
B2							1				1
C1	3	1	5	2	5	4	3	2	3	3	31
C2					1		1	1			3
C3											
D1		1	2						1		4
D2			1								1
D3											
E1		1	1	1			2				5
E2		2	1		5	1		1			10
E3								1			1
E4											
E5											
E6	2										2
E7											
F1											
F2	1	1		2	1			2			7
F3											
G1	2						1	1	1		5
G2	1			1			2	2	1	1	8
H1										1	1
H2				1							1
H3											
H4											
J1		1	3	1							5
J2											
Total	12	7	15	8	14	5	10	11	9	8	99

SUBJECT 16

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1											
A2		1		1		1	2			1	6
B1			1								1
B2											
C1	1	2	1	1	1	3	1	2	1	2	15
C2						1		1	2		4
C3	1					1					2
D1		1	2								3
D2			1								1
D3											
E1				1		1	1		1	1	7
E2						1			3	1	9
E3					3	2					5
E4											
E5											
E6			1								1
E7	1		1								2
F1											
F2											
F3											
G1											
G2				1			1		1	1	4
H1								2			2
H2											
H3											
H4											
J1											
J2											
TOTAL	7	6	7	4	4	10	5	5	8	6	62

SUBJECT 17

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1	4										4
A2			1				1			1	3
B1				1							1
B2	1	1						1			3
C1							1				1
C2				1			1	1	1	1	5
C3							1				1
D1											
D2			1								1
D3											
E1						2		1		1	4
E2		1	1	2		2		1	1		10
E3					2		3		3		8
E4							1				1
E5											
E6							1				1
E7		1					1				2
F1							1		1		2
F2							4				4
F3											
G1					1						1
G2							1				1
H1											
H2											
H3											
H4											
J1								1			1
J2											
Total	5	3	3	4	3	4	16	5	6	5	54

SUBJECT 18

Category	Metaphor 1	2	3	4	5	6	7	8	9	10	Total
A1											
A2	2								1		3
B1			1					1			2
B2								1			1
C1		3	2	2	2				6	1	20
C2	3		2	1	1				1	1	12
C3	4										4
D1											
D2				1				1			3
D3											1
E1	1			1	1	1					
E2						1	1	1	1	3	5
E3											7
E4											1
E5											
E6			1								
E7											1
F1											
F2											
F3											1
G1											
G2		1		1		1			1	1	1
									1	1	5
H1	1										
H2											1
H3	1							1		1	2
H4											1
J1											
J2											
Total	12	5	6	6	5	7	4	7	10	9	71

SUBJECT 19

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1	1			1				1			3
A2											
B1									1		1
B2								1			1
C1		1	3	1	1	2	4	1	2	1	16
C2								1			1
C3					2	1	1		1	1	6
D1											
D2											
D3											
E1					1						1
E2	1	1	2	1		1	1		1	1	9
E3		1			1						2
E4											
E5											
E6			1								1
E7											
F1											
F2	1	1			1				1		4
F3											
G1											
G2							1			1	2
H1											
H2										1	1
H3											
H4	4					1			1		6
J1											
J2											
Total	7	4	6	3	6	5	7	4	7	5	54

SUBJECT 20

Category	Metaphor 1	2	3	4	5	6	7	8	9	10	Total
A1											
A2	1				1			2	1		5
B1											
B2								1			1
C1	5		6	6	4	4	6	3	5	1	40
C2	3		2	1			1		1	1	9
C3					1					1	2
D1		2	1		1	1			1		6
D2			2								2
D3	1		4					2			7
E1		1		3				5			9
E2		2		2	2			1	2	2	11
E3							1				1
E4						1					1
E5											
E6							2				2
E7	1										1
F1											
F2		2			1	1					4
F3											
G1	1										1
G2	2		3	4	1	2	3	1	2		18
H1	4		2	2	3		3	4	2		20
H2			1	1			2				4
H3											
H4											
J1		1	4			2				3	10
J2											
Total	18	8	25	19	14	11	18	19	14	10	156

TOTAL NUMBER OF RESPONSES GIVEN BY AVERAGE COMPREHENDERS FOR SMITH METAPHORS

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1	3	1	1			5	3		2		15
A2	4		4	3	1	2	8		3	4	29
B1	2	2	2	4	2	3	2	2	4	1	24
B2	5	2	1	7	1		1	2	1	2	22
C1	22	20	14	9	14	6	14	10	17	4	129
C2	8	3	4	9	5	5	5	5	12	5	61
C3	20	2	5	6	6	6	18	13	9	7	92
D1	1	5	3	1	3	2		1			17
D2			3	2				1	1	1	8
D3			5			1	9	2	2		19
E1	2	1	1	3		2		1		3	13
E2	10	5	4	7	3	10	2	4	3	16	64
E3	3		1	4	14	6	11	2	4	2	47
E4		1	6		2		1		1		11
E5	1		3	6	3	2				1	16
E6	4		3	1							8
E7	1	1	2	2		4			1		11
F1		1					1	1			3
F2	2	2	3	1	6	1	5	3			23
F3											--
G1	2	1	1	3					1		8
G2	6	2	2			1	2	4	2		19
H1		4						3	4		12
H2	2					1		4	3	1	11
H3	2							1	1		4
H4					1					1	2
J1		1		4	4	3	5	2		4	23
J2	4	3			12	1	10	5	29	19	83
Total	104	57	68	72	77	61	97	66	100	72	774

TOTAL NUMBER OF RESPONSES GIVEN BY HIGH COMPREHENDERS FOR SMITH METAPHORS

	Metaphor										
Category	1	2	3	4	5	6	7	8	9	10	Total
A1	6			1			1	1			9
A2	5	1	4	2	1	2	5	3	2	2	27
B1	3		4	1	2	1		1	2		14
B2	1	1					1	6			9
C1	14	11	20	15	16	16	24	11	23	8	158
C2	6		5	3	2	6	6	7	5	4	44
C3	5				5	2	7		2	2	23
D1		5	14	2	1	4		2	2	4	34
D2			5	2				1		5	13
D3	1		4	1				2		1	9
E1	5	2	3	9	3	8	5	10	2	7	54
E2	4	12	10	7	11	12	4	2	14	15	96
E3	1	3	1	2	9	2	5	1	7		31
E4						1	1				2
E5	1				1					1	3
E6	4		5			1	3			1	14
E7	5	5	2		1		1				14
F1							1		1		2
F2	3	5		3	5	1	5	3	2	3	30
F3											--
G1	3			3	3	2	1	2	1	1	16
G2	3	1	3	8	2	3	11	4	6	5	46
H1	5		2	2	4		4	10	2	3	32
H2			1	2			2	5		2	12
H3	1										1
H4	4			1		1			1		7
J1		2	7	1		2		1	2	5	20
J2											--
Total	80	48	90	65	66	64	87	77	74	69	720

APPENDIX D

SAMPLE PROTOCOLS

Four sample protocols are given here, one of the better and one of the poorer interpretations to each of the two tasks. They are from four different students.

Subject 15 - Smith Metaphors - Good Interpretation

B1
1. It's uh - in the first one where the wave struck the cliff. /
B1
It sent long tongues streaming around me so that I could neither see
C1
nor hear. / Uh - it's obviously - he's dealing with uh - with the
F2 G1
ocean. / Or at least it seems to be obvious. / And it's rather descrip-
G2
tive. / It says "sent long tongues streaming around me so that I could
E6
neither see nor hear." / So that he's - it seems to me he's completely
envelóped - enveloped, excuse me, in what he's seeing. / Uh - he's
G1
using the description of long tongues to put his point across as best
B1
he can. / Tongues of water - tongues of water. / The second one - it
E6
seems to me that tongues of water become almost an evil that wants to -
C1
to pull him to his death, / as if - when he's - when he's just hanging
C1
there on that ledge / and it's trying to pull him into the water. /

E2
2. In this one I - I see now uh - you can see the protective - /
E1
the maternal instinct as the - the mother tries to uh - protect her -
F2-J1
her uh - colt from whatever is fac- / I guess in this case it would
E2
probably be people facing her. / But in the description, she looked
C1
half wolf uh - it's showing the ferocity / and the care she'd show
D1
for the young, / and how strong the maternal instinct would be in a
female, with her young. /

I1
3. In this one when it says "the fog comes on little cat feet,"
it's uh - as - you take cat - and cats are supposed to be, for exa[illegible]
J1
they represent evil, / and at times the fog can represent evil. I [illegible]
J1
know how Jack the Ripper was supposed to strike in the fog, for
D1
example. / And a cat goes quite silently, / and the fog doesn't make
A3
very much noise when it comes. / So as the fog comes on little cat -
on little cat feet uh - to me kind of describes that uh - how
D1-E1
silently the fog comes / without - you can really not notice it until
C1
it's there. / And as it goes on to say, the fog uh - just kind of sits
C1 C1
there / and it envelops everything, / and it just stays / and then it
C1 C1
begins to move on. / And it just uh - I don't know, it shows the
D2
silence of the whole place, / 'cause when there's fog there's very
A3
little activity, / and it kinda shows the silence. /

C1
4. In this one uh - I guess he's describing uh - the beauty of
C1
the princess / and comparing her with the - the original beauty of
E1
nature / to show that uh - it is - I guess, in this case this woman
G2
is a part of nature's wonders, / as in comparing her mouth with the
rose or her eyes with uh - white lilac and her voice with music and
her eyes were candles burning on a tranquil night. / This goes to
J1
show that there was - I suppose her emotions could be seen rather well,
if they could be reflected through - through the eyes. / I suppose

F2
that's why he uses the example of candles. /

Researcher: What emotion would you say?

F2-H2
Subject: /More than likely, it'd probably be, say, love. /

C1-F2
I don't know, it seems as if they're describing bells in - in
B1
the one. / Like they rang their tidings over bandaged towns. / I guess
E2
the bandage would pertain to the - the snow, that would be on the
E2
town /'cause the snow's white and the bandages are white. /
E2-C1
Uh - it describes uh - describes the snow, and how the hills, uh
the ice-cream hills, how the snow looks like ice-cream cones. / And the
E2-C1
crackling sea would be more than likely the ice on the sea. / It seemed
C2
as if the person is listening or looking through the window / and
C1
he - he can see - he sees the joy of uh - the idea that Christmas
B1
means to people. / And uh - like the weathercocks crew for Christmas
E2-C1
on our fence, / even the weathercocks, iron, inanimate objects, it
seemed to him that even they were uh - they were happy about it. /

C1
Well, the people uh - that came onto the porch in this one,
C1
uh - they were standing there / and they were uh - more than likely
A2
they just finished running. / And they drifted - with little drifted
E2
porches, / they huffed and puffed making ghosts with their breath,
C1
which obviously refers to the vapour. / And jogged from foot to foot,

which obviously means they were rather cold standing there, / not -
C1
probably not being able to be let in wherever they wanted to go. /

7. C1
/Uh - here they're describing - describing the car and it - it
B2 G2
shows the magnificence of the car / with its uh - glittering plate
G1
glass, the rich morocco uh - / and it goes on to describe what - what
impact it had on the person who was watching; / it's immense, breath-
G2
snatching, passionate, with its pilot tense and hugging the wheel. /
E1
And then he looks at it - at it, for that time it possessed all - all
his senses, for all the earth and air. / He didn't notice E1 really
anything else for that fraction of a second. / And then as it continued
C2
to go on, all it did was uh - leave the colour of dust, / and every-
C1
thing was back to normal, / except it could have been C1 just one other
car going down the highway. /

8. C1
/Uh - here it looks like uh - this place is preparing for war, /
C2
or - or looking for somebody who is going to take over with them. /
G2
Like upon the battlement nothing could be seen. / All was silent G2 but
watchful. / So these people on the battlement were just staring,
C1
being very quiet, but looking for signs of some activity. / And under
E2-F2
its frowning arch were fast enclosed - I suppose the arch was just in
E3-F2
the shape of a frown, / that it was just sitting there not doing

anything. That's not too good. /

R: Not too good?

G1
S: /No, I can't see much in that description, frowning arch, but uh - it's the only one I could give. / I don't know exactly, but the frowning arch, I guess it just is in the shape of a frown, and that would be about all. /

C1
9. /I guess this one continues on the same as the one I left off / C3 that when the guards did have to sleep when they were watching, / they B1 C1 E2 slept uneasily, / for it was cold / and they could uh - not sleep E2 well on the hard stones; / the hard stones cut into them as they were lying down or leaning up against it. / And it goes on to describe the G1 uh - how the wind blowing on the uh - Black Gate followed them through C1 the thin cold air - / that the cold air would uh - be rather miserable G2 in the situation they were in, / 'cause uh - like they say, the sweat D1 grew chill. / More than likely because of that cold breeze. /

C1
10. /Uh - this - this girl's just watching the window / and she's E2 H1 just watching the sunset. / And watching - and I guess when she says "evening invade the avenue," she must - she must not like the evening / G2 or she wouldn't - she probably wouldn't use the term invade. / When E1 somebody's invading they're uh - they're not wanted. / And uh - I

don't know, what's cretonne, by any chance would you know?

R: It's a kind of material, cotton material that was commonly used to make curtains.

S: /Well then I guess all she's doing, she's just sitting there uh - / C1
watching - watching the sunset and the darkness coming, / and all she E2
does is smell those curtains. / C1

Subject 4 - Smith Metaphors - Poor Interpretation

1. /Um - tongues of water sounds like uh - pails of water / just splashing up against the rocks and cliffs and stuff like that. / And uh - seeping into crevices. / And dragged at my hand, / it feels like it's powerful, / dragging into the water back - back into the water and stuff. / Where he said like uh - gripping his uh - feet to the ledge, / sounds like he was getting pulled in to the water - / strong water to pull him back in and stuff. /

Researcher: Would you like to add anything about tongues of water?

Subject: No.

2. /Well half-wolf - looks like uh - like when wolves get mad they growl and their fangs come out and stuff like that and their ears go back. / So half wolf, she's a little mare, she's not really a wolf - / half wolf and half little mare. /

3. /Well, cat feet means like uh - the fog just comes in little places at times / and then it moves on. / It gets certain places of the area that it's covering over. /

4. /Her eyes were like candles. / That would mean like uh - bright, sparkle in her eyes. / Guess you could say eyes with candles, both are white lace because uh - white lace is usually a sparkle - / candles are

D2 C3
white, kinda yellow, / and I guess it would go kinda good with her white lace dress. /

B1
5. /Bandaged town's like it uh - says uh - bandaged town over the frozen foam of the powder and ice-cream hills. / Sounds like it C3
was damaged by ice-cream hills, whatever that is. / Over the cracked F2-C3
ice sounds like it was a bad winter up north or something,/ ice cracked E4 C3
or something like that, / and house got damaged, town, whatever. /

R: So you're saying it's bandaged because?

E4
S: /Mighta got wrecked or something like that. /

E3
6. /Well, ghosts with their breath sounds like when you're running you breathe out and breathe in, seems like ghosts, / and it says B1
huffed and puffed making ghosts with their breath. / Making ghosts A3
with their breath when you breathe in and out. /

C1
7. /Well, possessed all earth and air means like uh - when the E3
car was uh - going so fast / it just took all the air and the dust and everything else that was behind it and stuff. /

8. (Very long pause)

R: Is that one giving you trouble? Think about why it might say a <u>frowning</u> arch. Do you know what an arch is?

D1
S: /Yeah, it's something that holds it up, a gateway. (Gestured an

arch shape.) / Well, frowning arch could mean like uh - where the E3
door always slams / and maybe it could be like a person frowning F2-E3
because it hurt, or something like that. /

9. /Hard stones bit them - / it means like uh - the frost or G2 C3
chill or sweat or whatever was getting colder up north, / and just
like stones bite you and hurt more. / E4

10. /Well evening invades means like uh - she was uh - watching C1
out the window / and evening invaded the avenue, / like a dark cloud B1 E3
came over it. /

R: Anything else, there?

S: No.

Subject 11 - I like to see it lap the miles - Good Interpretation

Researcher: [redacted] the word it in the first line. What do you think it is?

Subject: /I think it's a train./

R: And what clues in the poem make you think that?

S: /Uh - it says it stops (G2) to feed itself at tanks, / like if it was a steam engine, it would (E1) uh - stop to be filled at tanks. /

R: Anything else?

S: /Uh - around (G2) a pile of mountains, / like uh - you'd see a lot of trains, (E1-D1) like if you'd take a trip to B.C., how they sorta of uh - you know, (G2) wind through the mountains there. / Complain all the while in horrid-hooting stanza, / (E1) that would be like the chugging of the engine, if it's a steam engine. / (G2) Neigh like Boanerges, / (E1) that would be the whistle, I guess. / (G2) At its own stable door, / (E2) that would be back at the train station, or whatever you call it. / (F2) I'm not too up on trains. /

R: You're doing pretty well for someone who's not up on them. To what is the train being compared?

S: /(F2-C1) Some kind of creature, pretty well. / I don't know, it doesn't sound like - (F2-C2) like something people'd be afraid of, but like a friendly - I don't know like a friendly monster, or something. /

R: Would you take a minute to read the poem over and see if you can

tell me exactly what kind of creature.

S: /I don't know. Maybe a horse, 'cause it neighs, like Boanerges. /
But then it crawls too. /

R: Which parts of the poem could apply to both train and creature or horse?

S: /"And stopped to feed itself." /

R: Would you tell me how that could apply to both train

S: /Well, like live things feed themselves and stop to eat in the course of the day. / And the steam engine would have to stop at tanks every so often to refill its water supply so it could continue going too. / Uh - neigh like Boanerges, / like a horse would neigh, / and the engine's whistle would make quite a scream. / And it stopped docile and omnipotent at its own stable door. /

R: How would that fit into both?

S: /Like after the train stopped going, you just let it sit there. / It's not going to do nothing when it's back at the station 'cause there's nothing for it to do. / A horse, if you let it in at night, it's going to stay and rest in the stable. /

R: Is that it, or any more?

S: /It could be sort of playful here when it says chase itself down hill. / An animal would - like how a dog chases it's tail or something. /

And the way a train speeds up because of the weight behind it when D1-E1
it's going down hill. / Lapping miles and licking valleys is comparing G2-E1
like, how animals lap at water and lick salt or something. / And uh -
the way a - a train would just roll over these. / It's sort of a - E2
really a little distorted view though because it really changes the G1-E1
meaning of lapping and licking. /

R: Is the impression you have of the train different because it is compared to an animal?

S: /It uh - gives it personality. / G1

R: Would you elaborate on that a bit?

S: /Well, like it's chasing itself down hill. / We'd never say a G2
train is chasing itself down hill, but if you compare it to an B1-G1
animal you could easily say it's chasing itself down hill. / And uh -
complaining all the while is a human quality and gives it personality. / G1
It sort of takes away the meaning of a train too, like for transporta- D1-G1
tion. / It doesn't relate at all to transportation. / It's just talking D1
about uh - how the train moves and what it appears to do when it's G1
moving. / That's not a view that everybody takes to trains. / G1

R: So are you suggesting that from this description you find it hard to think of a train as a way of moving goods?

S: Yeah.

R: Is there anything else I didn't ask you that you'd like to mention about the poem?

G1

S: /Not really. I think it's not bad, it's pretty good: Just well-written. /

R: Can you be any more specific about why you think it's well-written?

H4

S: /I don't know, just sometimes I like things and sometimes I

H4-G1

don't. I like it. / It's interesting maybe to read a different view. /

Subject 6 - I like to see it lap the miles - Poor Interpretation

Researcher: You notice the word it in the first line. What do you think it is?

Subject: /Could be E3 a person, / something - someone J2 that's generous and wants to give. /

R: What clues in the poem make you think that?

S: /I think by travelling the B2 mountains and going through the valleys and the mountains. / Stopping, say in C3-J2 shanties, and by the sides of roads, to help people who were in need. / Anyone who tried to hurt anybody else, C3 like chasing itself down hill. / Being there - when it says, G2 "punctual as a star," / being there when C3 somebody needs you. /

R: O.K., would you look at it one more time and see if there's a possiblity that it could be anything else.

S: /I think it could be uh - F3-E3 economics too, like inflation - / and F3-E3 corruption, too. /

R: What leads you to that conclusion?

S: Which one?

R: Both of them, if you think it could be both.

S: /With the inflation, the way C3 it's taking everything with greed, / and that's what D3 part of inflation is, is greed. / I think corruption

C3-J2
by um - the way - the way it's taking everything away from the
C3-J2 C3
people / and making it unfair for them. / And causing trouble for
C3-J2
everyone. / And having power over everything whether they like it or
C3
not. / It's evil. /

R: Is a comparison being made in the poem?

C3
S: /I don't think so. /

R: How long ago would you estimate the poem was written?

C3
S: /I'd say at the beginning of the world, maybe. /

R: Why do you say that?

G2 D3
S: /It mentions um - to fit its ribs, / and at the beginning that's
D3-F1
what Adam was made of / - or that's what Eve was made of. I'd better
G2
get it straight. / And then punctual as a star / - then they cared
D3 D3-C3
more about everyone else than they do now. / So if someone was needed,
D3
they'd be there, / they wouldn't be fooling around doing something
else. /

R: Is there anything else I didn't ask you that you'd like to mention
about the poem?

E3
S: /It's something or someone saying they want to see someone do
C3
something in life. / Maybe they want to see it travel / - or make
J2
trouble for somebody. /