ABSTRACT
        To bring the junior high school student to an
awareness of himself as a unique personality constantly undergoing
further definition, this presentation of organizing principles for
English teaching focuses upon two primary aspects of man: his role as
organizer and formulator and his role as communicator. It provides
problem-solving activities within a curriculum framework for teaching
English that emphasizes the student's role as the communicator of his
creation. The first section is concerned with the problem of
synthesizing and integrating a chaos of perceptions into a cohesive
pattern through the discrete acts of "isolation," "definition,"
"accommodation," and "assimilation." The second section focuses on
man as a model-maker who uses language to contact, teach, and learn
from his contemporaries and people of the past; through the stimulus
of new information he forms and manipulates his image of himself and
his environment. The third section takes up the particular position
of the author as model-maker--his creative capacity, his linguistic
resources, and the limiting and defining characteristics of his art.
(LH)

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# YOUTH IN TRANSITION

## SOME NOTES ON TEACHING ENGLISH

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# Preface

This monograph grew out of many things. It began with my inability to formulate a knowledge base from which I might present viable alternatives to my high school English students. As a result I became a student of activities concerned with theorizing and mathematizing in the behavioral sciences. In attempting to focus on some of the essential aspects of the organizing ideas which have guided the research of educators, psychologists, and cyberneticians, I began to explore the field of communication as a possibility for the advancement of research in curriculum development.

In October, 1966, I received an invitation to provide in service training for English teachers at Belen Junior High School, Belen, New Mexico. Here I found that other teachers experienced similar frustrations and uncertainties concerning the lack of a knowledge base for teacher plan generation. Several levels of inquiry developed at Belen Junior High School. One of the major interests concerned the possibility of initiating team teaching within a nongraded situation. It became clear that some of my preliminary work on the application of insights derived from the communication field could be applied to an understanding of some aspects of the learning process.

Within this context, I began to isolate ideas about communication processes and to organize them into a system for teacher planning. Yvonne Robinson and Alice Sanchez must be acknowledged for their invaluable insights and contributions. We began

with a consideration of a familiar feature of scientific knowl-edge—theories are always open to question, modifications, development and even abandonment. We argued and reasoned that merely covering the data is the weakest requirement that can be imposed on a theoretical model. We concluded that the most demanding and challenging requirement is that our theoretical model be intuitively insightful and promising of further development.

As a result of a continuous process of learning, unlearning and relearning, we postponed team teaching and nongradedness until we had suffered through a basic understanding of criteria that are involved in developing a theoretical model that could be used for teacher plan generation. During the several months that followed, we searched and organized content from the field of literature. Miss Robinson and Mrs. Sanchez created a test laboratory for the materials that had been developed by combining a seventh with a ninth grade English class. During the months that followed, we engaged in team teaching. These classroom experiences led to continuous shaping and reshaping of the program. In some cases, we modified or amplified the material. In other cases, we abandoned our initial thinking.

During the summer of 1967, under the auspices of the Future Schools Study Project, we engaged in intensive planning for the school year 1967-1968, when Miss Robinson would continue to test the plausibility of the English program in seventh grade classes. These teachers were now convinced that team teaching and nongraded classrooms should be used only as strategies to reinforce program development. At the same time, we were interested in the implications of extending these ideas. Antoinette Wuykowski and Dolores Garcia of the Albuquerque Public Schools delved into the material for possible application to the primary grades.

In September, 1967, I accepted an assistant professorship at Temple University. During that year, I had an opportunity to test some of my thinking with colleagues and my students. I remained in contact with Miss Robinson so that these insights

could be further incorporated into the experimental teaching-learning process at Belen Junior High School.

During the summer of 1968, again under the auspices of the Future Schools Study Project, we were ready to begin the last formal draft of the proposed program. Barbara Willens and Jeffrey Willens, Temple University graduate students, rendered into prose some sections of this program from extensive outlines that had been generated during the preceding two years. In some cases, they tested our data and our statements against their background of competencies in literature.

Many teachers contributed to the evolution of this program. I must single out for attention the following teachers from the Albuquerque Public Schools: Evelyn Gutierrez, Jean Craven, Amy Erbele, Antonia Koehler and Jane Barr. I am especially indebted to Solomon Abeyta, Richard Gilbert and John Aragon from the Belen Public Schools. In addition, two Albuquerque Public School students, Phil Marshall, Jr. and Andrew Teller, Jr., were especially helpful. I am indebted also to Harlan Hamilton, Assistant Professor of English, Jersey City State College.

# Contents

# Youth in Transition: Some Notes on Teaching English

# *Introduction*

At the junior high school level, the study of English, and one particular aspect of that study, literature, becomes separate from work in other areas, complementary to work in mathematics, science, and social studies. The total curriculum is divided into a number of disciplines or aspects of human knowledge which may indeed be seen in isolation as containing certain organizing concepts which, when identified, yield a comprehension of that which is uniquely geography or history or English.[1] However, while retaining our awareness of the wholeness or integrity of each of the disciplines, we must not lose sight of their essential unity of purpose—the development of mental processes through which an individual might organize and interpret acquired data in order to increase his knowledge of individual disciplines, of himself, of his immediate environment, and of his world environment. If all of the disciplines accomplish this goal, education will have given each individual who passes through the educational system a basis upon which he might analyze and internalize facts, concepts, data, definitions, and statements as he continues to learn throughout life. If education fails, the student will have "learned" a series of factual responses to a limited number of stimuli and will have failed to develop the mental tools of creative inquiry and analysis which are necessary to the "man-in-process," the man who continues to acquire, interpret, and transform information in a never-ending cycle of learning.

The curriculum component of the Future Schools Study Project is attempting both to approach the isolation of those organizing concepts which contribute to the integrity of each of the disciplines and to understand the operational framework within which each of the disciplines provides opportunity for growth in personal knowledge through experiences in idea formation and manipulation. This proposal does not presume to be a formulation of the organizing concepts without which English would be geography, or history, or science. It does attempt, however, to present certain *organizing principles*, which might be used for teacher planning. This approach is based on the theoretical position that the study of English at the junior high school level might constructively be viewed as the study of man as a system, a self-organizing system, constantly involved in goal-directed activities within certain boundaries. Emphasizing the student's role as a transformer of ideas, we attempt to focus attention on those activities of selection and patterning through which the individual may shape a holistic world view within the boundaries he perceives and conceives. We focus attention on the student's world and on the author-structured world as involving constant generation and transformation of plans of action through the use of various kinds of problem-solving activities based on the data or information available.

Emphasizing the student's role as communicator of that which he creates, we attempt to focus attention on the principles of "feedback" and "noise" through the use of a modified communication model. Communication involves human senders and receivers and an intermediary language process. Communication may be operationally defined as a process whereby person A attempts to send a meaningful message to person B. This approach involves an extension of Claude E. Shannon's interest and a restriction of Warren Weaver's broad application of the term "communication."[2]

Shannon was primarily concerned with the mathematical and engineering problems involved in communication. He explicitly declined to deal with the semantic aspects of messages and their

transmission. However, since this study concerns itself with human communication and its behavioral aspects, the meaning of messages assumes a central importance. The Weaver model isolates three problem areas, the technical, semantic, and effectiveness, which determine the clarity of a message undergoing transmission from A to B. The *technical* problem, a rule-bound variable, is defined in terms of grammaticality (conformance to the rules of grammar) and clarity of articulation. The *semantic* problem is controlled by the accuracy of the message in terms of the meaning to be conveyed. A message is *effective* to the extent that the received meaning affects conduct in the desired way.

On the basis of the three problem areas isolated by Weaver it is evident that two people attempting meaningful communication have different external areas of information as frames of reference and different internal conditions that affect perception. Thus, a completely meaningful message from A to B is a myth and we label the terms of interference, "noise."[3] Through an awareness of the intricacies involved in the process of communication the student is brought to an awareness of the importance of precise communication, and to a recognition of the importance of minimizing the noise which distorts the message undergoing transmission and determines the unique frame of reference for both transmitter and receiver at a given place at a particular time. The emphasis on the student's role as generator and communicator also yields one reasonable perspective through which the student might be introduced to the author as creator and communicator of fictional or poetic worlds.

This study, then, focuses upon man in two primary aspects. It concerns itself with man as he seeks first to formulate and then to communicate his knowledge, feelings, thoughts, values and commitments in "real life." It then attempts in a meaningful way to relate these life experiences of communication with the communications attempted by authors through their imaginative constructions. The English program based on the proposed framework, before it can focus on the latter of these concerns,

must promote an understanding of man as a being who is constantly responding to his environment and patterning his experiential data into a system which he can call "self" and communicate to the world as "I."

The insights derived from Piaget's developmental processes and our own observations of the junior high school student would lead us to assume that the young adolescent is searching for a relatively stable and satisfactory concept of "self." He has no stable social role and will act now as a child, now as an adult, in his state of uncertainty. In his search for the power and tools to deal with a myriad of new experiences, cognitive, affective, and physical, he will sometimes withdraw behind the boundaries which have "worked" for him in childhood. If he chooses to confront a novel experience, to break through the childhood boundaries, his struggle is in a no-man's land and he is alone. It is a difficult time, this struggle with his own biography. He is beginning to shoulder the burden of understanding which Susanne Langer described both as the burden and the glory of man. She says:

> For good or evil, man has the power of symbolic envisagement, which puts on him a burden that purely alert realistic creatures do not bear—the burden of understanding. He lives not only in a place, but in space; not only at a time but in History. So he must conceive a world and a law of the world, a pattern of life, and a way of meeting death. All these things he knows, and he has to make some adaptation to their reality.[4]

Junior high school English teachers have a responsibility to these students which can be fulfilled by a careful consideration of the kinds of learning experiences and the specific subject matter which will have value and meaning to the students. Recognizing the student's need for a holistic world view in which the "I" is compatible with the environment, we must recognize the importance of giving the ideas we discuss a location, a holistic framework, in which the students can become involved. Through the kinds of classroom activities we choose, we can supply the

student with situations involving problem-solving experiences. Through our use of certain literary works we can expose the student to alternative ways of dealing with the world and the problems it poses for the "man-in-process." Since the student at this age is prone to identify with "heroes" we can offer him works of literature which promote identification, works like *The Red Badge of Courage,* which seem so real to our own students' questioning their courage, strength, and potentialities.

The junior high school student must be brought to an awareness of himself in his role as a "man-in-process," as a unique being in time and space who shares certain basic characteristics with all other men. He must recognize himself as a model-maker engaged with all other men in the imposition of spatial, temporal, conceptual, and technological boundaries in an effort to shape and, therefore, comprehend both his internal and external worlds. Spatially, his external world is bounded by the limitations of his movements; he must choose to accept these boundaries together with the behavioral requirements attendant to his acceptance, or he must reject them and seek alternatives. There are numerous possibilities open to him; he might seek a spatial boundary which contains behavioral mores which are congenial to his personal judgments and commitments; he might set himself the task of altering the requirements within his own spatial framework; or he might build "castles in the sky," utopias in imagination, in which spatial boundaries may be removed or reconstructed at will. Temporally, his world is bounded by the day, month, and year of birth and will finally be bound by the hour of his death. Within these temporal boundaries, however, his actions are to some extent determined by his place on the continuum of his own and his world's lifespan; that is, if he reaches adolescence in 1975, his actions in 1975 will to some extent be determined by the norms established for his age group according to the requirements of the technological and ideological status of his community in 1975. He may, as he did with his spatial boundary, choose to accept the requirements concommittent to his temporal bonds or reject these, as Peter Pan did, in fa-

vor of time, and imagination or fact, which he may regulate at will. Conceptually, his world is bounded by the pattern proffered to him in time and space, the pattern he receives from parents and teachers, or he may grow and change as he seeks to develop his cognitive powers through the acquisition and processing of data in the learning process. Technologically, his world is bounded, as McLuhan suggests, by those machines which function to extend the bounds of human capabilities, as the typewriter extends the possibilities of the fingers and the car increases the capabilities of the legs.[5] Technologically, as spatially, temporally, and conceptually, each individual must choose among the alternatives presented to him and accept boundaries for purposes of definition or reject them in the process of redefinition.

The student must be aware of himself as a unique personality constantly undergoing further redefinition as his boundaries change and as he continues to limit and pattern the superfluities of his environment. He can then begin to see himself as the interpreter of his unique environment for others through the use of language. He can begin to understand the process of literary creation in which an author defines and patterns a fictional world, and manipulates language in order that we may enter, understand, and respond to the very unique world his imagination has constructed. The boundary, then, between the real world and the author-devised, representational world of a story or poem, or for that matter, of a painting or musical composition, will seem less formidable to the beginning student of literature. We will have prepared the student to approach his future literature courses with some knowledge, perhaps without fear, and maybe even with interest. While recognizing that the literary artist represents subjects and experiences rather than objects and experiences themselves,[6] the student may, nevertheless, approach the theme of a work of art, not now in a vacuum, but as an embodiment of another human being's response to and judgment of *his* unique vision of life. He can understand the process of literary composition in which an author imparts life and substance to his ideational world by placing it within a certain

spatial and temporal context and by peopling it with characters which function within the totality to convey the desired idea and/or effect. For example, Ernest Hemingway, searching for a mode in which to portray the quality of strength which he perceived in certain animals and men and for which he held deep respect chose, in *The Old Man and the Sea*, a setting, a character, and an animal antagonist whose mortal confrontation yielded the desired effect. In the world of that novel, three vital forces, the sea, the marlin, and the man, each one possessing a potential superiority over the other two, are combined to present Hemingway's vision of the glory of struggle and of the heights to which a strong man may rise according to the demands of the conflict. Hemingway has thus given life and substance to his ideational world in order that, while being pleased by his total fantasy, we may also better understand his ideas as they unfold before us. Aware of the author as the communicator of his own personal ideas and ideals through the mask of a carefully structured, representational world, the student is then ready to assume his role as receiver, decoder and judge of the ideas or ideals communicated through the literary work.

Throughout this study, as with *The Old Man and the Sea*, examples from literature which are illustrative of the concepts or propositions under investigation will be presented. This is not to suggest that junior high school English is a literature course; this is merely suggesting ways in which the student might be introduced in a reasonable way to so rich a part of his heritage. The aim is to *prepare* our students for their future studies in literature. The literary examples which are used seem appropriate for use in the junior high school classroom. You may disagree and choose others. You may choose to excerpt passages from any number of suitable works. Only you can determine how best to assess the capability and maturity of the unique human beings before you in the classroom. Your task demands insight, effort, search, and imagination. There are sections of *The Old Man and the Sea*, for example, which are possibly beyond the level of maturity of many junior high students. This fact should not cause us

to dismiss the work in its entirety. With insight, imagination and reasonable judgment we can extract for our students' consideration passages which seem meaningful in the present classroom context. If you have been speaking of an author's representation of an idea by giving it a spatial and temporal environment, you might use Hemingway's idea of strength as portrayed in *The Old Man and the Sea* as an illustration. You might extract the following for consideration. Of the strong and noble fish, the old man says, "How many people will he feed? . . . But are they worthy to eat him? No, of course not. There is no one worthy of eating him from the manner of his behavior and great dignity." To this fish he says, "You are killing me, fish . . . But you have a right. Never have I seen a greater, or more beautiful, or a calmer or a more noble thing than you brother. Come on and kill me. I do not care who kills who." His strength taxed by the encounter, he says, "Pull hands . . . Hold up, legs. Last for me, head. Keep your head clear and know how to suffer like a man. Or a fish. . . . Fish, you are going to have to die anyway. Do you have to kill me too?" he cries.[7] Hemingway has used this situation and these two noble forces to communicate to us his respect for the nobility and strength of all living things.

Since man, author or student, is constantly involved in the process of selection and patterning the data he perceives, in attempting to understand personal boundaries in order that he might adapt to, alter or break those boundaries, his life might be seen as a series of choices or alternatives which to a great extent determine his unique identity or model at a particular moment in time. It is this view of man as a model-maker, transformer, and generator of ideas, whether the model he organizes be that of self or of a literary work, which inspired this work and the specific problem-solving activities within it. This position is based on the belief that thinking and learning are vastly more complex processes than stimulus-response "learning theory" would suggest. At this time it seems productive to focus attention on the intervening variable which connects stimulus

and response. Let us assume that the intervening variable between S-R is the formation and manipulation of ideas. Man is the only creature capable of generating ideas. Man possesses reason and emotion, therefore, the ideas he generates must have intellectual and emotional dimensions which determine his response to a given stimulus. Within this framework, a stimulus does not cause a response; rather, it *prepares* man to respond and limits the range of choices or alternatives appropriate to the specific area of consideration. Because of the complexity of the learning *process*, of that variable *between* stimulus and response, this study includes problem-solving activities which encourage the student to describe, explain, and predict, rather than activities which promote stimulus-response-reinforcement patterns. It is maintained that change in the student's behavior is due to internal changes, and not solely environmental changes, and that each student has the capacity to form, generate, and transform an infinite variety of data.

There are innumerable possibilities for choice of specific subject matter within the proposed framework. You might choose, for example, to read Sandburg's "Chicago," as one man's attempt to record for all times what it *felt* like to live in that bustling, growing city in 1914. When the student has been introduced to Sandburg's or any other author's response to a given place and time, he might then be encouraged to attempt a characterization of his own spatial and temporal world, the world of his home and family, of his neighborhood, city, state, or nation. He might begin with concrete description and be encouraged to attempt a more abstract or symbolic representation of his own spatial and temporal environment.

Stories of "man-in-process," of man attempting to formulate a life style, are also well-suited to the suggested approach. *Huckleberry Finn*, for example, again presenting the particular flavor of a given time and place, can be approached in the classroom as the record of a child's attempts both to cope with his physical environment and to form reasonable and meaningful judgments

on the basis of ever-increasing information about his society. The students can follow young Huck as he "tried on" various personal roles, as he changes from make-believe robber to "pretend" pirate, and attempts to define his own commitments in a society which does not always recognize the dignity of each individual man.

*The Story of My Life* by Helen Keller can likewise be approached as a story of growth, of an attempt, this time without the usual sensory capabilities, to understand the world about and reach certain conclusions and judgments on the basis of that which has been perceived. Ann Sullivan's dedicated guidance and Helen's own growing will to reach out, to touch, name, and comprehend her world and finally to communicate her observations to others leads the student to an awareness of his own normal process of search and communication. It might also lead to a discussion of "noise" in the communication channels, "noise" which always impedes one hundred percent transmission between sender and receiver. Such discussion should lead to a recognition of the importance of precision in the use of language in order that normal communication channels might remain open and functioning. At the same time, the story might lead us, as teachers, toward an increased recognition of our students' innate capacities. When we recognize the existence of innate capacities such as seeing, hearing, loving, hoping, and creating within each of the students before us, we approach a crucial definition and, possibly, redefinition of our own role in the classroom. Aware of the possibility that certain innate human capacities may remain latent if experiences are lacking to evoke them and enlarge them, we, in turn, become aware of the crucial importance of our role as teachers in the selection of subject matter.[8]

The body of subject matter consistent with the proposed framework is extensive. The more specific proposal which follows will include *some* alternatives, there are many, many more. An attempt has been made to present some organizing principles which might be used for teacher planning. You might use this

proposal as a frame of reference from which to create dialogue between and among teachers in articulating reasonable alternatives in planning; alternative ways of forming and ordering, ways of determining priorities and ways of arranging these priorities.

## NOTES

[1]Dolores Silva, "Theoretical Orientation of the Future Schools Study Project," *Samplings*, No. 1 (August, 1967), 3-13.

[2]Claude E. Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Urbana, Illinois: The University of Illinois Press, 1949), 3.

[3]For a further discussion of knowledge and communication see Dolores Silva, "Theoretical Orientation of the Future Schools Study Project," *Samplings*, No. 1 (August, 1967), 11-12.

[4]Susanne K. Langer, *Philosophy in a New Key* (Cambridge: Harvard University Press, 1951), 287.

[5]Marshall McLuhan, *Understanding Media* (New York: Signet Books, 1966), 227-232, 194-201.

[6]A more detailed explanation of this idea may be found in Wylie Sypher, *Four Stages of Renaissance Style* (New York: Doubleday and Company, Inc., 1955), 7-8.

[7]Ernest Hemingway, *The Old Man and The Sea* (New York: Scribner, 1962).

[8]"The educational system should focus on the innate, creative capacities of each individual." Dolores Silva, "Theoretical Orientation of the Future Schools Study Project," *Samplings*, No. 1 (August, 1967), 6.

# Of Many, One

Before the novice student of literature can begin to find his way through the labyrinthian complexities inherent in the world of the literary work, he must first be able to organize and interpret, to pattern and shape, what he perceives in his own world of everyday experience. This process of organizing and interpreting a chaos of perceptions into a cohesive pattern consists, to a great extent, of the discrete yet integrated acts of *isolation, definition, accomodation,* and *assimilation.* It enables the student to assign a form and a function within his total conceptual frame of reference to each aspect of the world which he perceives and conceives. This process is substantially the same whether it is employed by a junior high scnool student synthesizing the world around him or by a serious artist synthesizing and communicating the world within him. Thus when the student first understands and can manipulate an ordering process he can then begin to understand and participate in the re-creation of the artist's vision. And, in turn, through this creative interaction of artist and audience, the student's understanding of his own world is deepened. Thus the synthesizing or ordering process expands cyclically with every new, meaningful, aesthetic experience.

Far too often, when we teach literature, we begin our analyses with such concerns as patterns, themes, and symbols; and we forget that the ideas themselves, whether as fundamental as the concepts represented by a particular idea or as complex as a sym-

bolic rhythm surging through the entire work, may be little more than unintelligible abstractions for our students. We forget that the learning of concept, like the learning of vocabulary, is not simply a process of rote memorization. Rote learning breeds familiarity, but rarely does it breed understanding. As David P. Ausubel suggests, the student must "manifest . . . a disposition to relate the new material non-arbitrarily and substantively . . . to his structure of knowledge . . ."[1] He must, in other words, have a suitable frame of reference before he can assimilate new knowledge.

Thus an idea must have meaning that is relatable to the student's already established body of knowledge; it must arise in large part from the student's own experience rather than from the disjointed context of the lecture or the dictionary. While we begin our study by delving into the meanings of basic concepts, the ordering process we teach will provide the student with one useful approach both in his study of the macrocosmic world of experience and the microcosmic world of the author.

We use the following work as one of many possible illustrations relevant to the teaching of an ordering process. While "The Pirate" is admittedly not good poetry, it does serve as an effective *organizer*. It seems capable of generating an infinite variety of details which necessitate analysis. Its very simplicity works in its favor by offering a technically uncluttered starting point. The teacher might just as productively use a similar poem, either familiar to him, or, hopefully, composed by him. Such material seems to lead most naturally into an analysis, an organization and interpretation, of the kinds of things that make a man, "of many, one."

### THE PIRATE

I am a daring pirate.
I bow to no foolish king.
I am master of my own fate;
I shape it with my sword.

> My home is the sea,
> A home with no boundaries to enslave me.
> From sea to sea I'm free to roam,
> To sail through blue eternity.

Certainly, in a time such as ours, seemingly devoid of any metaphysical pattern, every man is faced with the question of his own identity: Who am I? Where am I going? What are my capabilities? If he is to have any understanding of self, each man must attempt to discover those characteristics that make him a part of, and those characteristics that make him discrete from, all of the other members of his species.

The thing that interests us about "The Pirate" is what the speaker says that seems to isolate him from every other being in the universe and makes him what he (and we) choose to call a *pirate*. He is not just any man; he is a pirate. Hence, if we understand what it means *to be* a particular pirate, we understand something about what makes the speaker a unique individual.

The dictionary defines "pirate" as "a person engaged in piracy." This definition merely serves to illustrate an inconsistent element in the dictionary. Hypothetically the word itself has no meaning for us; therefore, to define "pirate" in terms of itself tells us nothing of what it means to be a pirate. If we are to understand the meaning of a word, or of a larger concept, it must be defined or explained in terms that we already understand. Thus as we grow in experience, new ideas are incorporated into the body of the old and our ability to understand newer and more complex concepts is expanded. Ideas must be explained in such a way that we can perceive them clearly from our own frame of reference.

At this point, the teacher might ask his class: "What is a pirate?" It is quite possible they will answer that he is someone who steals. In an effort to illustrate inconsistent elements in the students' definition, the teacher might then snatch a pencil from a student's desk and announce, "I have just *stolen* this pencil! Does that make me a pirate?" The students might then suggest

that a pirate is one who lives at sea and steals from ships. At this point the teacher could suggest that the students look up "piracy" in the dictionary. They will probably find that "a person engaged in piracy" is a "robber of ships on the high seas." Thus the students and teacher may arrive at a "non-arbitrary" *common frame of reference* regarding the entity we call "pirate."

We may say that those of us who speak the same language have a potentially common frame of reference with regard to those concepts for which we have collectively assigned a particular meaning. In short, a word is nothing more than a symbol. But while this may be obvious to us, the notion of "symbol" may be somewhat baffling to the junior high school student. If the student doesn't understand this concept in one of its basic forms, he may have insurmountable difficulties attempting to comprehend more complex symbolic forms he will encounter in his future studies in literature.

The teacher might begin a discussion of man's use of symbols by drawing a simple stick figure of a man on the blackboard and asking whether the picture is a *real* pirate. It is possible that if the students don't understand the concept of "symbol," they will answer that the picture is a real pirate because, for various reasons, it looks like one. The teacher might then redraw the picture so that it more closely conforms to the students' criteria for "pirateness" and then repeat the question. If the students state that the picture is now a real pirate, the teacher then might ask such questions as "Does it move?", "Is it alive?", "Does it talk?", "Does it think?" in an effort to indicate that indeed the picture is *not* a real pirate. The picture does not share those aspects of human activity common to all "real" people. The picture may be called a label, a sign, or a symbol. All of these words are, in a sense, synonomous with "picture" and mean a sign that represents the real thing. This *particular* symbol represents a pirate because everyone viewing it has agreed that it does. Everyone in the classroom has acquired a common frame of reference in regard to the meaning of the picture just as everyone in the same language group acquires a common

frame of reference with regard to the meaning of a group of words.

picture
symbol
label
sign

pictorial symbol
↓
common frame
of reference

represents
real
thing
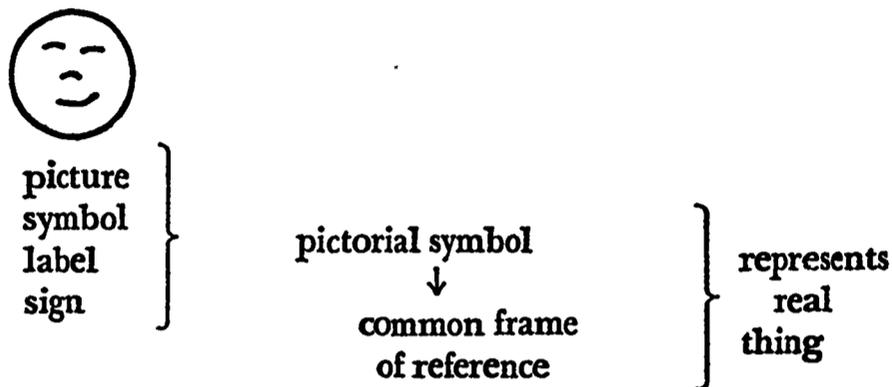
Must a symbol always represent a human being? It may be a flag and represent a country. It may be a colored light and represent a traffic signal. It may be a series of stripes on a uniform and represent rank. But within the context of our discussion, whatever it may represent, a symbol is never the thing itself. A real man can be seen and felt. He can be observed—he can move. In short, he is concrete.

Concrete ——→ real ——→ existing ——→ observable

Take a basket of sand. We can see it. Sand can be many colors. We can feel the sand; we can let it run through our fingers. If we kick the sand, we may hurt our feet; the basket of sand is solid. Sand exists, it is real; and it is concrete. But what about love? Is there anyone who doubts that love exists? But who can bring us a basket of love? Can love be contained in a basket? Can we see love—what color is it? What does love feel like? Can we dribble it through our fingers or squish it between our toes? We can't because while love is real, while it exists, it is not something that can be observed by the five senses. It has meaning but no shape of its own. It is abstract.

We have said that the picture on the blackboard is not a real pirate because it does not share the characteristics of real people. But what are some of these characteristics? We have agreed that a pirate is a person. Our pirate is a man, a human being, a living thing. One may say that there are certain capacities that determine whether a being is human, and very important among

these capacities are *thinking, feeling, responding,* and *interpreting.* Further, we may say that these abilities are *outer* and *inner, observable* and *unobservable.*

thinking, feeling, responding, interpreting
↓
inner and outer
unobservable and observable

We will now attempt to define thinking, feeling, responding, and interpreting, to separate the four artificially, in order that we may increase our understanding of them and build a common frame of reference in regard to them. *Thinking,* when isolated for purposes of definition, may mean using the mind, forming images, figuring something out, defining problems, and/or generating ideas. The thinking process is itself usually unobservable; it usually takes place inside our heads before we speak. When we speak, our conversations are the observable results of the process of thinking that went on inside. When our pirate speaks he allows us to enter his very personal thought world in order that we may understand his unique way of thinking about life, his life style. When Shakespeare uses the soliloquy in his tragedies, he allows his characters to speak their thoughts in order that we may gain insight into their uniqueness.

*Feeling,* like thinking, is often unobservable. We have many thoughts and feelings which are very personal to us, which we find difficult to share with other men. We find it very difficult, for example, to say "These are the things that make me laugh, make me cry, make me happy, make me angry." Although emotions like happiness, sadness, joy, and anger are often internal and private, they become observable when, for example, a "grin from ear to ear" says to a friend, "I'm happy because you are my friend." Our pirate uses language to tell us how he feels. Authors use language to help us understand how their characters feel in certain situations. All human beings in real life as well as in author-structured life may use language to communicate their unique thoughts and feelings to other men.

*Responding* is a reaction to something or someone; like thinking and feeling it can be both inner and outer, observable and unobservable. A person may respond *physically* through some bodily action such as jerking his burned hand from a hot stove. He may respond *emotionally* by feeling happy at a friend's visit and, perhaps, showing his happiness with a wide smile. He may respond *mentally* by performing some action with the use of his mind, by using his mind to solve a problem which confronts him, by deciding, for example, upon his next move in chess. We may say that our pirate responds (reacts) to authority in a certain way because he articulates his response for us in the poem.

*Interpreting* is perhaps one of the most difficult to understand, one of the most difficult to isolate from man's other capacities. It is a kind of response and, like all ideas and explanations, has both intellectual and emotional dimensions. An interpretation is an explanation based on an individual's unique perception of what he views, on his unique frame of reference. In order to clarify this definition, the teacher might show his class a picture and ask the students what they see. If the picture is not completely representational, it will probably evoke a number of different interpretations. Each student will perceive the picture from his own frame of reference and will interpret it on that basis. *Interpretation* then may be explained as the process by which we make sense or order out of what we see, and the students will have been given a concrete example of the way in which different people impose different orders.

When a person interprets what he has seen for another, however, he must try to describe it in such a way as to make what he has observed relatable to the other's frame of reference. When such precision is lacking, there is a mismatch between the frames of reference; and frequently, understanding is impossible. This may be the reason that teenagers frustratedly say to their parents: "That's not what I mean at all. You don't love me! You don't understand me!" The teenager is saying, "Mom and Dad, we don't see eye to eye. We don't look at things in the same way. Our interpretations of things are different."

We have attempted to understand the function of certain hu-

man capacities as they appear both inside and outside our skins. We have sought out some sort of common denominator that would encompass some of man's major capacities. But to completely isolate and to completely understand these capacities is to understand the very 'essence" of a man. A man is a complex and perplexing animal. Man's capacities are so thoroughly inter-related, it becomes difficult to set up artificial boundaries between, for example, thinking and interpreting. What is the dividing line between "figuring something out" and being able to interpret what we see? Trying to make such distinctions is somewhat like trying to dissect a butterfly to find out what makes it beautiful. "What is thought? . . . What is an Emotion as apart from an Idea? When are a Concept and a Feeling identical? Nobody knows—exactly—as yet."[2]

Within this context then, we can say that a human being is composed of *reason-emotion*. Note that we have used a hyphen between the two words and not a comma. This brings up a rather interesting question. Should the words be written "reason, emotion" or "reason-emotion?" Is there a difference in meaning between the two marks of punctuation, or do we choose one or the other on an arbitrary basis? To answer these questions we must know the function of each mark. It is true, we would all agree, that both marks, within the context of the sentence in which they are used, indicate some relationship between the two words. We use a comma to separate words, to make them stand apart from one another. A hyphen, on the other hand, is used to join two words together, to compound their meaning, to show their *inter-dependence*. Reason and emotion are inextricably inter-dependent. For a man to possess reason alone is not enough. A totally reasonable, unemotional man would become cold, calculating, and emotionless—without hate, without sorrow, but also without love and without joy. By the same token, emotion alone is not enough. A totally emotional, unreasonable man would become a bundle of nervous energy without aim, without purpose, engaged in random action, action without direction. Thus, the hyphen would seem to indicate such necessary interdependence more effectively than the comma would.

From examples such as this which seem to rise naturally from the ideas to be interpreted, grammar can be taught as part of man's attempt to logically convey his ideas without being misunderstood.

In an attempt to understand our pirate, we have been attempting to describe man by indicating those characteristics shared by all men. In attempting to assign preliminary order to these things or ideas we have involved ourselves in the process of *classification*. We have attempted to place things with which we are unfamiliar meaningfully within the realm of things with which we are familiar. Only after this is done; only after we've classified the man, can we clothe him in the garb of the pirate. We are attempting to assign preliminary order. How then might we classify ourselves? We might call ourselves mammals; we might call ourselves human beings; we might call ourselves young or old adults; we might call ourselves students. If we schematize our description and classification, if we represent it through an orderly pattern of pictorial and word symbols, it might be done this way:

*Classification Process*
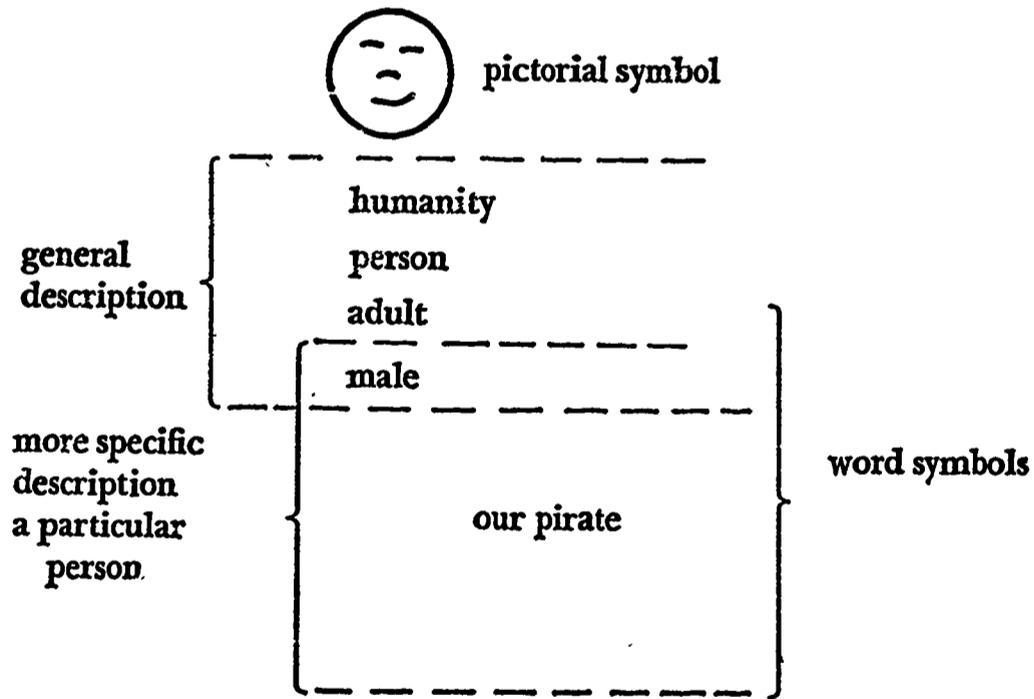
We begin the process of classification at the most general level. Our symbol represents a person who is also an adult, a male, and, in this case, our pirate. But our pirate shares characteristics common to all men. For example, we have said that all men think, feel, respond and interpret; and that these capacities are interrelated. Let's see what we have said so far.

| Pictorial symbol | String of visual letters | Thinks-feels-responds-interprets |
|---|---|---|



| abstract representation of concrete entity | word symbol | word symbols |
|---|---|---|
| represents collective men | represents man | represents collective capacities of man |
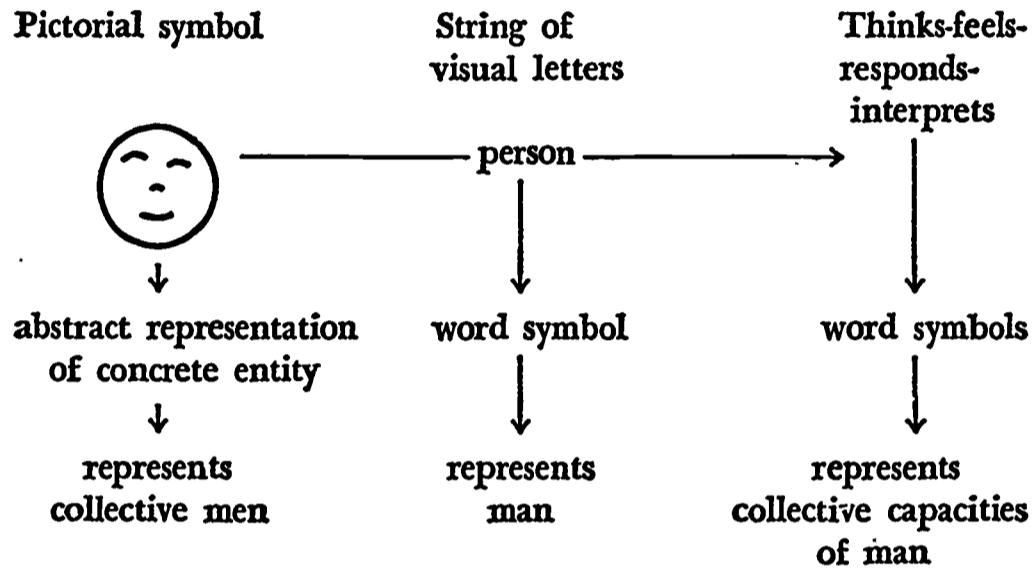
But do *all* men think? Do *all* men feel? Do *all* men respond? Do *all* men interpret? Some do more than others—but they do! When we say that men think, feel, respond, and interpret, we are saying that men are both reasonable and emotional. Sometimes a man may be more emotional; other times he may be more reasonable. Usually, however, he strives to maintain some sort of balance between these two. The particular degrees of reason and emotion that are necessary to achieve balance differ among individuals. These are some of the things that make men different one from another. Is our pirate more reasonable than emotional? Has he maintained a balance between the two?

Man is engaged in the process of living which entails constant use of reason-emotion to interpret the world around him. But what is life? Certainly the biologist, the theologian, and the philosopher might each define it differently. It is almost impossible to say that one definition is right to the exclusion of all others. All that we can attempt to do here is to arrive at one common

frame of reference from which to describe life within the context of *this* classroom discussion. For our purposes then, we will define life as *a series of problems that man meets and attempts to solve.* But what do we mean by "problems?" Might we say that a problem is a concrete or abstract barrier to the achievement of a goal that necessitates the generation of effective plans if the barrier is to be successfully overcome? An effective plan requires that the planner, who has *sensed* the problem, *break* it down *into* its *component parts.* Once the components of the problem have been isolated, the planner may *gather data* about the problem, *observe the conditions* under which it has arisen, and then *pattern* this information into an *organized body of knowledge* about the problem. He may then use this knowledge to *generate alternative conclusions* and from these *choose* what seems to be the *most reasonable alternatives for implementation.* Thus, a person direc*t*s his energy, creates a force for understanding and overcoming his problems, for reaching certain goals. Life is a continuous process of directing energy toward the resolution of dichotomies within a given boundary, toward the recognition of, adjustment to, and solution of problems. We may schematize what we've said as follows:

<div align="center">

**LIFE**

↓

**Force (Directed Energy)**

↓

**Resolution of Dichotomies**
**Compatability of Forces**

↓

**Recognition of, Adjustment to,**
**and**
**Solution of Problems**

</div>
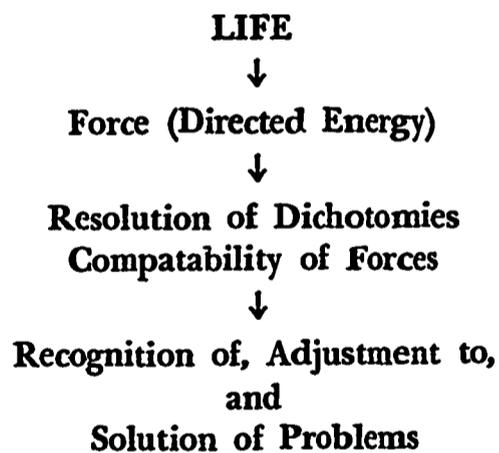
These problems, as we all know, do not present themselves in any orderly pattern. Many of them arise when and where they are least expected. While we do not know how or when particular problems arise, it is possible to categorize some of the general types we may encounter. What types of problems might we have?

When the students are asked this sort of question, they will undoubtedly suggest many examples. One student may say that he knows a boy who broke his arm and could not play on the football team. We might say that this boy has a *physical* problem. Another student might say that he gets his allowance on Friday but usually runs out of money by Wednesday. This person has an *economic* problem. Problems may be cultural, social, emotional, and intellectual. There are many problems that a person may have to face, and these may arise either in isolation or in combination. For example, a person may have a cultural problem with its basis in economic problems. All people, because of their unique frames of reference, respond differently to the problems they encounter. Thus, to know how a person responds to the problems of life is to know something of what makes him the unique individual he is.

Keeping all that we've said in mind, let's now go back and see what we've learned about our pirate. What do we know about him so far, and how do we know it? We know that he is a pirate; he tells us so himself. A pirate, we have agreed, is a robber of ships on the high seas. We know that our pirate is a man; he is a human being. By this, we mean that our pirate, like all men, can think, feel, respond, and interpret; and that, like all others engaged in the process of living, he is confronted with problematic situations. We have been classifying our pirate as part of the human race, sharing many characteristics with others of his species. We may learn something about the pirate as an individual if we examine the implications of what he is telling us about himself in the poem. Even the words he chooses may imply something about his life style.

What sorts of patterns do we find in the poem as a whole? A pattern may be defined as a repetition of words, ideas, sentence or paragraph (stanzaic) constructions, or even marks of punctuation. While it is true that the stanzaic pattern is of two units of four lines each, and while most of the lines end with a period, the most meaningful pattern consists of the predominance of the personal pronouns "I," "my," and "I'm." Perhaps if we knew the function of these words, we would know why the pirate uses

them. The dictionary defines personal pronoun as that pronoun concerned with a particular person. In this case "I" and "my" refer to the first person, the pirate himself. Many people, when talking about their own beliefs, talk about them as abstract entities apart from their relation to a particular person—but not our pirate. He seems incapable of talking about anything, except in terms of himself.

What might we call this type of person? We could say that this sort of person is "ego-centric" or self-centered. We can assume that "centric" has to do with the center of some bounded territory, but what does the prefix "ego" mean? It may be helpful to know the meaning of a prefix, because if we know what the prefix means, it helps us to understand the word of which it is a part. *Ego* is the Latin word for "I" or "self." Thus, "egocentric" means "centered around oneself." We can agree then that evidence of egocentricity exists in the predominance of the personal pronouns, but is there more evidence of such self-centeredness? Let's examine the poem and see what other clues our pirate gives us concerning his life style.

He tells us: *"I am a daring pirate."* What does this sentence tell us? Which words are absolutely *necessary* for a basic understanding of the sentence? If we are to get the "sense" of the sentence we need only three words: *I am pirate*. Personal pronouns are words that take the place of nouns and usually refer to particular entities or groups of entities. "I" then represents something concrete; it represents a living, breathing man, someone who thinks-feels-responds-interprets. For the speaker, "I" is a concrete entity—one that can be touched—one that can be counted—one that has numerical value—he is "of many, *one*." There is only *one* "I" speaking—"I" is singular. If a word represents something that has numerical value, we may call that word a *concrete noun*. Are there any other concrete nouns in the sentence?

"Pirate" is also a concrete noun. We may touch pirates. We may count them. They have numerical value. But why is "pirate" one of the *necessary* words in the sentence? Let's look at the other two necessary words in isolation for a moment: "I am."

"Am" is one form of the verb "to be." What are some of the
other forms of "to be"? "Are," "is," "was," "were," and "be"
are also forms of "to be;" they *all* tell us that something exists,
has existed in the past, or will exist in the future. "I am" tells
us that whoever or whatever it is that is speaking exists at this
point in time. "I" is an entity. We can now assume that "I" is a
person because *"I" speaks to us in a language form*. "I" is
bounded. He is limited to the specific boundaries of a human
being's perception and actions, but we still don't know which
"I" the speaker means. To know what the speaker means, we
must be able to limit his "I" to the more specific boundaries of
what he means by "I." Therefore, when he tells us "I am pirate,"
he is really saying "The person *I am is limited* at least to the
specific number of attributes that constitute 'pirateness'!" It
is whatever makes me what I am, whatever characterizes my
uniqueness and whatever makes me *"of many, one."* *I am* the
same as whatever we mean by "pirate." The "am" functions in
this sentence as an equal sign ($=$) between two words that stand
for the same entity. "Am" tells us that "I" and "pirate" are one.
When a "to be" verb appears between two nouns, we call the
verb a *linking verb*. It acts like a pair of handcuffs that "links"
together the two words that mean the same entity.

The speaker has allowed us to picture in our mind's eye the
"stuff"—the criteria—that gives us his "pirateness." But what we
now see is a composite picture of *all* the pirates we know any-
thing about. Therefore, the speaker places narrower boundaries,
further restrictions on the picture that he draws with words of
what he is—of what makes him *our* pirate. He tells us that he is
"daring." This restriction further *qualifies* the numerical value
of "I" because it further *describes* "of many, one." Our pirate is
not any pirate, our pirate is only that pirate who is daring. "I
am a daring pirate" tells us that the speaker "I" is the same,
equal to, *one* of only those people who share all of the attributes
of "pirateness," and of those, only the pirates who share all of
the attributes of "daring." Thus, we can see that "pirate," nar-
rows boundaries on "I" until "I" approximates what the speaker
sees in his mind's eye.

We know the speaker's occupation from the title of the poem. But perhaps the fact that he calls himself "daring" will tell us more about the pirate. What are some *synonyms* for daring? What are some *antonyms*? It may be that some students don't know the meanings of synonym or antonym; therefore, it might be appropriate to have them define the two words. The students may define synonym as "one of two or more words (of the same language) having the same or nearly the same meaning," and antonym as "one of two or more words (of the same language) having opposite or nearly opposite meanings." Some synonyms for daring are "brave," "bold," "venturesome," "adventurous," or "loudly unconventional." Some students may observe shades of meanings within this group of words. Investigation of this kind should be encouraged. If "daring" describes behavior that is venturesome but public, then it describes behavior that draws attention to oneself. Our pirate doesn't just tell us his profession; he thrusts his thumbs into his bandoliers, throws back his head and then boastfully informs us of his bravery.

The next line, "I bow to no foolish king," continues the boastful tone of the opening. Notice the word *foolish*. The pirate implies that all kings are foolish. But we must remember that "kings" are seen from the peculiar frame of reference of the pirate. We don't know whether all kings are indeed foolish; we only know that our pirate sees them that way. This particular adjective tells us that the pirate is scornful; however, is he scornful only of kings or might he be using "king" as a symbol for something else? Could he mean not only the government of kings, but also "the government of judges and the government of priests, the government of soldiers and the government of parsons"? Might he be using "king" as a symbol for all authority? What do we mean by "authority"? Authority refers to legal or rightful power of jurisdiction, power due to the esteem of one's fellows, due to position, or to proved ability. If the students are asked who some of the people are who possess authority, they may offer such examples as police, government officials, parents, teachers, and their own student leaders. All of these

people have authority because of proved ability and/or esteem of their peers. These authorities help people to order or structure their lives. Man needs some type of structure for living.

The teacher might offer the following example to his students to demonstrate the necessity for some sort of structure in living. He might ask the students what they would do if forced to come to class each day with no teacher present. Some might answer that they would laugh and play while others might say they would do nothing. Still others might say that they would try to learn on their own. However, if the class would now assume that they had a certain project to be accomplished within a certain period of time, what would they do? They might answer that they would elect leaders who would direct the project and assign tasks. Whatever they would decide to do to complete the project, it is sure that they would *imitate* or *transform* certain imposed conventions. We all accept the necessity for some type of authority, some type of structured living. Thus, the pirate, when he scorns "foolish" kings, scorns any sort of ordered living except for that which he himself imposes. He makes himself, by definition then an *outlaw*, someone outside societal law.

Since our pirate tells us himself that he accepts no authority but his own, then it follows that he would be the "master of his own fate." If fate be considered that which determines the way a man will live his life, then our pirate is telling us that he will tolerate no outside interference.

When he says, "I shape it with my sword," we see another aspect of the pirate's egocentricity. He tells us he will live his life in the manner *he* chooses, and he will force the world to conform to his own model of it, to *his* perception of order. His sword enables him to shape the world in his own image. It gives him the authority to plunder wealthy ships at sea, and he may use it to enforce his authority on board ship. In his egocentricity, he feels it is only right that everything around him be modeled, bent, or broken according to his will.

In the second stanza, our pirate tells us that his "home is the sea—/A home with no boundaries to enslave [him]." The sea, he tells us, is one place where he can be "the master of [his] own

fate," where no boundaries exist to thwart him. Let's examine this statement. Can the pirate really have no boundaries? Does the sea really have no beginning or end? Is he really "free to roam from sea to sea and sail through blue eternity"? But to begin with, what is a boundary? "Boundary" is a difficult concept and may not be understood if it is simply defined by the teacher and memorized by rote. It is important that the students understand the concept now in order that they may use it later in Units II and III. For this reason "boundary" like any difficult idea might productively be approached as a problem to be isolated, possible solutions analyzed and tested and, perhaps, reshaped before the idea is understood.

The teacher might begin such an investigation by asking his students to offer their examples of boundaries. They will probably mention those physical boundaries within their own experience. The teacher might then ask the students to consider the classroom as a boundary. The four walls limit its area. It is measurable; it is describable. It has a finite limit. But the classroom doesn't stand alone. Why not? Could we build fifty classrooms each with four walls and call it a school? Isn't a school more than just a series of classrooms? A school, like the classroom we've talked about, is also a bounded area; it has a finite limit. But is it enough to describe the school only in terms of a limited area, in terms of a particular shape or *form*? Through successive stages of organization and integration, classrooms, administrative offices, cafeteria, gym and many other areas are joined together within the one bounded property we call a school. Isn't the form of this school and the rooms within it to a great extent dependent upon the *function*? For example, the gym and the cafeteria are different in size and shape. Could that be because the gym and cafeteria have different functions?

Now let's look at some larger areas. Is a rural area bounded? Is an urban area bounded? How can we distinguish between the two? Is a village bounded? A town? A city? A metropolis? A megalopolis? What distinguishes one from the other?

We have been discussing *physical* boundaries. Such bound-

aries have dimensions that can be measured, described, and shaped. We can focus attention on a particular physical boundary; we can probe to analyze it, and we can understand it. Once we have understood it, then we can modify, amplify, or even break and recreate it. A bounded area, then, may be considered a self-sufficient entity with no *inherent* relationships between it and other bounded areas. It is man who *imposes* relationships; it is man who incorporates a classroom as part of a school. Man is capable of describing boundaries. He may form boundaries. Man *chooses* to retain, or break and recreate boundaries; and his choices are linked to the *how* and *why* of societal functions. If society is to function effectively and work toward common goals, then we as members of society must generate effective plans to make effective choices.

We have been attempting to understand the concept of "boundary." We have raised several questions about types of boundaries. The teacher might now suggest that the students ask authorities in different fields, like city planning, architecture, anthropology, physics, and sociology, how they might define "boundary." Thus, the class can examine the concept from other points of view, other frames of reference. The students might ask each of these men the same questions they've discussed in the classroom. What *does* distinguish rural from urban? City from metropolis? *How* is the form of a school related to its function?

Now that the students have gathered information about boundaries from many different frames of reference, they can go back and consider again all that has been said about boundaries. They can test the observations they've made. They might modify or amplify their notion of the classroom or village. They might even reject something of what they've said before. Through this process of investigation, the student has been provided with many ways of looking at the concept of "boundary" so that he might organize and pattern these views as he continues to grow in personal knowledge.

Let's go back and re-examine what we've said about a class-

room. Did we say enough? We spoke of the form of the class-room, but said very little about its function. *Something* happens within those four walls which limit the area; *something* happens within that finite area. What *does* take place within the class-room? What happens in the classroom that makes it a classroom and not any room? Is it learning? Is it intellectual activity? If so, what kind of learning? What kind of intellectual activity? English is taught in this classroom and not home economics. What makes English, English and not home economics? Here's English $\boxed{\text{English}}$. What is it? Is it grammar? Is it poetry? Is it prose? Perhaps, all that we can say is that English is an organized body of knowledge with finite limits. Are these finite limits comprised of statements, definitions, and data that define and describe the body of knowledge we call English? Are these statements, defini-tions, and data generated by man? Does man have a finite capac-ity? Although we cannot completely describe the discipline called English, we can draw a box around it to show that it is in-deed bounded. It is not $\boxed{\text{home economics}}$.

| $\boxed{\text{ENGLISH}}$ | $\boxed{\text{HOME ECONOMICS}}$ |
|---|---|
| Is it grammar? | |
| Is it prose? | |
| Is it poetry? | |
| ↓ | ↓ |
| Organized body of Knowledge | Organized body of Knowledge |
| ↓ | ↓ |
| Statements, definitions, data that define, describe body of knowledge | Statements, definitions, data that define, describe body of knowledge |
| ↓ | ↓ |
| finite boundary | finite boundary |
| ↓ | ↓ |
| generated by man . . . finite knowledge | generated by man . . . finite knowledge |
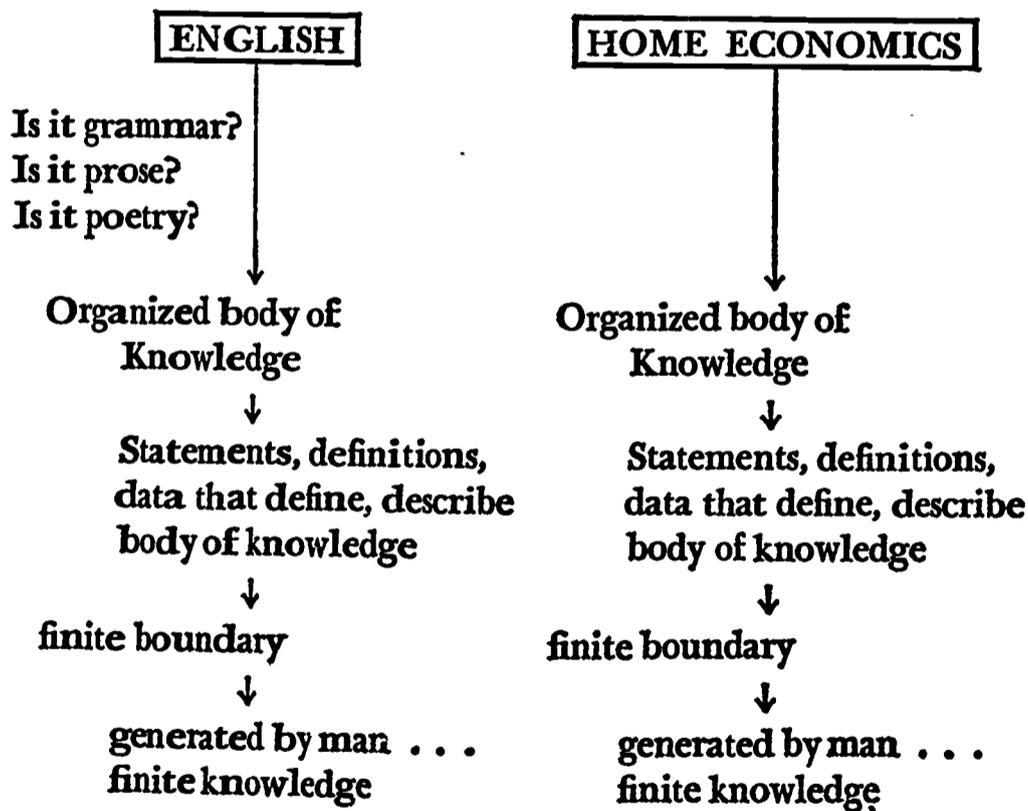
Questions like, "What makes English, English or home economics, home economics?" are difficult if not impossible to answer. The students might decide to invite other English teachers into their classroom in order to investigate their descriptions of English and ask questions about it. These teachers might attempt a team teaching situation in which they exchange their unique points of view for the students to consider. Where do they agree? Where do they disagree? The students might want to speak to professors at the university to see how they define English. The professors might attempt a team teaching situation in which they would exchange their unique points of view. Where do they agree? Where do they disagree? If the high school teachers and university professors would now meet together where might they agree and where might they disagree about the boundary of the organized body of knowledge called "English"? Perhaps, this investigation will interest the student enough that he will want to ask his history teacher what makes history, history and not science. He might ask his science teacher what makes science, science and not mathematics.

Through this process the students have again gathered information, have organized and patterned it, and, thus, have increased their store of personal knowledge. Through successive stages of organization and integration, man grows in personal knowledge; he defines and redefines his conceptual boundaries. *Only man* can generate and transform an infinite variety of ideas as he learns and grows and changes. He can understand dimensions of bodies of knowledge; he can isolate, focus upon, and differentiate between and among bodies of knowledge. He can learn to reshape and rearrange bodies of knowledge. Only man can modify, understand, amplify, or abandon and recreate conceptual frames of reference that enclose his experience about something at a particular time and place. His experience is enclosed at a particular time and place by what he sees, feels, understands, forms, and transforms at that time, in that place. Man's knowledge is finite, but he has the capacity to generate an infinite variety of details that he can order into a personal body of knowledge.

Now that we have investigated the concept of boundary, let's go back to our pirate and examine his statement about boundaries. Can he really have *no* boundaries? Is he really "free to sail through blue eternity"? He seems to feel that he has overcome all of his boundaries, physical and conceptual. But he, like all men, *is* bounded; he has infinite capacities for change and growth *within finite limits.* He may sail only so far north or so far south when the land will get in his way; he is physically bounded. He is also bounded temporally by the moment of his birth and the moment of his death. He is bounded by the laws of many lands. He may not disembark on certain shores for fear of being caught and tried for piracy. Whether he chooses to admit it or not, he cannot move through time or space eternally. Thus, the pirate's final statements indicate a mismatch between the world as it really is and his perception of it. His perception of the world is from the egocentric frame of reference of a man who thinks that *his* personal boundaries encompass all space and all time.

Like all men, the pirate is a "man-in-process." The process of living causes him to enter many new environments, to confront many new problems, and to assimilate new knowledge. As he does so, his frame of reference is expanded and he grows and changes. Could we place the pirate in a new environment and predict his actions on the basis of the information he has given us about himself? If we restructure the boundaries of his experience, his frame of reference will necessarily grow and change. Perhaps, the students could rewrite the poem making the pirate a better person, one who is *progressing.* They might do this by changing his environment, by introducing him to a new problem, by changing his frame of reference. Within this new context, he will be forced to assume a new life style, he will have to *see, form,* and *choose* among new patterns of behavior. Perhaps, the students might again rewrite the poem making the pirate a worse person, a person who is *regressing.*

The students, in the course of creating their own variations of the poem, place the pirate in a new environment. They redefine the spatial, temporal, and conceptual boundaries which

determine his actions and reactions at a given moment in time. The pirate is now forced to assume a new pattern of behavior, a new life style; he *progresses* or *regresses*.

All men, like our pirate, change and grow as they enter new environments and meet new problems. They must continually organize and reorganize knowledge in response to the new environments. They must constantly probe and explore existing boundaries in an effort to answer the questions: Who am I? Where am I going? What are my capabilities? Only when existing boundaries have been probed and understood, can man begin to plan for the future, to plan who he *might* be, where he *might* go, where his capabilities *might* lead. When he understands his existing boundaries, he can then choose to modify, amplify, or abandon and recreate them in the forming of his future plans.

We have said that man is bounded, that he has bounded knowledge, experience, ideas, and feelings that give him his uniqueness at any point in time. The composite of his knowledge, experience, ideas, and feelings at any point in time is the *model* that he calls "myself," the *model* that makes him "of many, one." The word "model" here refers to that entity which has finite limits within which are contained a number of ordered and patterned details. The details and the boundaries themselves do not remain static, but rather grow and change, are reordered, repatterned, reshaped as the individual grows in experience and knowledge.

Through an analysis of our pirate, we have gained some insight into the relationship between man and his environment. We have changed the pirate's environment and have, thereby, changed the man. We have changed his spatial and/or temporal context and have thereby forced a change in his life style, his pattern for living. All men, like our pirate, when faced with new environments must attempt to organize and control those environments by imposing *explanatory ordering schemes*. Without the ordering process which includes isolation, definition, assimilation, and accomodation, man's inner and outer environments would include a chaos of unrelated and disjointed knowledge,

ideas, feelings, and experiences. He would have little under-standing of "I" and of the outer environment in which the "I" must act and react. He would have no *model* of self.

As man learns and grows and changes, he has language to help him articulate what he perceives and conceives. Through lan-guage he can communicate his knowledge, his thoughts, feel-ings, and responses to other men and learn from the exchange. We may say then that *language is an attribute of man's model-making power.* Without it, his experience, ideas, frame of refer-ence, and store of knowledge might not be articulated and subject to growth. With it, experience begets experience, ideas grow and change and produce other ideas, one frame of reference grows into another frame of reference, knowledge begets more knowl-edge.

We make no claim that we can describe the process of model-making either in "real" or author-structured life. We have no mechanical analog which duplicates mind-like behavior. We can merely "hunch out" for descriptive purposes something of what is involved in the model-making process. Let us say that an individual man has been confronted with a body of knowl-edge totally unfamiliar to him. He begins with no command of the new body of knowledge. He does not comprehend the bound-aries or constraints which give the new area its integrity. He observes, senses, an infinite variety of details within the new body of knowledge, but the details have no obvious pattern or design. He must probe the boundary, sift and sort out the de-tails, as he attempts to conceptualize this new area of his ex-perience. Language will help him to model or shape the new body of knowledge, to probe the boundaries which enclose it, to understand and begin to arrange the variety of details within it. We may say that this man is at a stage of generalized under-standing. He is as we are in our first attempts to understand English, when we said that English seemed to be a body of knowledge with finite limits, but could not define those limits or order the details within them.

As the man confronted with a new body of knowledge con-

tinues to probe its boundaries, to sift and sort the details within those boundaries, he moves toward greater *specialization* of his knowledge. He is continuously observing, sensing, probing. He begins to understand the constraints of his new area of experience, to see and form a holistic picture, a model, of that unfamiliar world which has confronted him. He can begin to describe and explain what was before a chaos of details within only vaguely perceived limits. He has organized and established a unique framework, a unique pattern of meaning which he can share with other men and, thereby, test and verify the ordering scheme which he has detected or imposed. Language allows him to "try out" his conclusions on others so that he might consider the information he receives in return (feedback).

As this man continues to observe, sense, and form, as he continues to share his established pattern of meaning with other men in communication, he also continues to amplify, modify, or even, perhaps, abandon his present design in the recreation of an alternative design. At some point in the process, perhaps after repeated generalization and specialization, after repeated reshapings, the man is able to build in *miniature*, the model of that body of knowledge which was once unfamiliar to him. He is able to abstract, and encapsulate those concepts and propositions which give integrity to the body of knowledge, those organizing principles which, for example, make English, English and not home economics. He is able to make responsible, informed choices with a high level of competency.

As man learns and grows and changes, as he constructs a conceptual model of his experiential world, he moves through stages of *generalization, specialization,* and *miniaturization.* Without language and the communication it permits, man's model might remain at the most general level and would be comprised of vague constraints and unpatterned details. As man learns and grows and changes, his language must keep pace with his development. At his period of generalization, his language, too, is *general.* He may use vague and general ideas to articulate what he perceives and conceives. As his knowledge becomes

more specific, his language becomes *specialized* and possibly more precise. It allows him to articulate the minute distinctions which he is beginning to perceive. Throughout the process of model-making, of *generalization, specialization, miniaturization,* old language produces new language, experiences lead to other experiences, ideas beget other ideas and bodies of knowledge generate new bodies of knowledge.

## NOTES

[1]David P. Ausubel, "Some Psychological Aspects of Curriculum Theory," *Samplings*, No. 1 (April, 1968), 14.

[2]Carl Sandburg, *Complete Poems* (New York: Harcourt, Brace & World, Inc., 1950), xxvii.

# Man as Model-Maker

Language is an attribute which man has developed and modified as his experience has widened and he has needed more and more words with ever more precise meanings in order to express his world's complexity. As one student, Phil Marshall, had said, man needs "wanting words and giving words, happy words, glad words, sad words, quivering words." We have reached the point in our century at which man has created new languages—the languages of science, psychology, sociology—because he has needed a tool with which to express all of the new things he has learned. As man grows in knowledge, his language must keep pace with that development.[1]

The focus in this unit is on man as model-maker as he uses his language to contact, teach, and learn from others, both his contemporaries and those who have lived in temporal worlds previous to his. In the act of teaching and learning, in the act of exchanging ideas and thoughts, and feelings, he does, in a very real sense, undergo constant recreation. His ideas, beliefs, values, and feelings, the unique complex he calls "self" grows and changes as he receives new information from his senses and attempts to interpret the new information on the basis of his already established opinions and ideas.

As he grows through the use of language in communication, his world becomes wider and wider as his conceptual boundaries change and expand. From *imitation* of the actions and beliefs of others, he moves into a period in which he can understand

and then *transform* received information and, by means of the transformation, *generate* what is new and uniquely his own. It is in the sense of a builder and organizer of a unique conceptual framework which produces a model of self at a given point in time that we refer to man as model-maker and investigate the use of language in the formation and alteration of that model.

In the organization and planning of this unit attention will be given to the original premise that each one of the students we contact has a capacity for creative thought and expression. Each student can generate ideas which are new and uniquely his own. In this unit ways are presented in which the student might be guided to an understanding and appreciation of his most important expressive and creative attribute, the language he speaks. If he first recognizes the power of language, of communication, to open new and inviting worlds, to bring growth and change, he will *want* to use powerful language skills. Language learning, then, does not become an end in itself, but remains, as it should be, a means that will help our students in the development of their cognitive and affective capacities, and allow them to grow and change through communication with other men.

In the investigation of the use of language as an attribute of model-making, we will focus our attention first on what we will call *inner-language,* a language whether of words, pictures, or symbols, which aids man in formulating and ordering ideas, thoughts, and feelings *before* these are articulated for other men's consideration. From here we will move to an investigation of man's *outer language,* sounds, words, and sentences as they are articulated between and among men in order that they may learn, grow and change.

Man's *inner language,* his unarticulated thoughts, feelings, and ideas, is essential to him if he is to function as one man among many. If this silent formation and ordering did not precede the spoken word, if the spoken word did not reflect that which was formulated internally, man's communications, his messages, would be random and unpatterned. His communication problems which will be discussed later in this unit could not

be controlled. The "noise" created by them could not be maintained at a level conducive to meaningf... ...ommunication, to understanding between speaker and liste... ...uthor and reader. Inner language first gives shape and form... ...eelings, ideas and uniqueness of self, first patterns data received through the senses into a coherent model, a coherent whole, and then clothes the naked model in words and ideas so that other man may hear and understand.

Man's inner language is dependent, like his outer language, on certain physical mechanisms, as well as mental and perceptual capacities. His nervous system, comprised of brain and sensory receptors, enables him to receive, arrange, interpret, and interrelate information from the environment. If this system breaks down or is in any way defective, man's model-making power is impaired. He is deprived of the information necessary to the creation of his conceptual model or lacks the ability to order and pattern received information. Helen Keller, for example, who became blind, deaf, and mute early in life, received only limited sensory information; her picture of her world was necessarily incomplete and disordered. Although her mind was alert and strong, her deafness deprived her of the information which would have helped her to order her world, which would have helped her toward an inner, ordering language. Without inner language, she was forced to live in buzzing confusion. It was only after Anne Sullivan had helped her to see, hear and feel the rhythm of living with her hands, feet, and body and had given her a language with which to order and express the things she sensed, that Helen was able to move from a random, disordered world into a goal-directed world of action and productivity. She herself said, "Before my teacher came to me, I did not know that I am. I lived in a world that was a no-world. I cannot hope to describe that unconscious, yet conscious time of nothingness. . . . I never contacted my forehead in the act of thinking. I never viewed anything beforehand or chose it."[2] Without inner language, Helen Keller could not grow or change.

Before discussing the *outer language* which men use in com-

munication in order that their conceptual boundaries may change and grow, let us look for a moment at the physical mechanisms which make outer language possible. Outer language, like inner language, involves activity of the nervous system, comprised of the brain and sensory receptors, as well as of a group of organs which we label an articulating system. Sounds are produced by a moving column of air passing through a narrow orifice in the mouth, nose, and throat. The parts of the articulating system which modify and control the air stream are the lips, jaw, tongue, palate, vocal cords (housed in the larynx), teeth, and pharynx.[3] These organs shape and structure the sounds which are emitted. Each of these must be functioning and all must be *working together* if sounds are eventually to be joined into words which other men will hear and understand; co-ordination of these organs by the brain is essential.

We can look at the production of sound, then, as a kind of activity, a kind of movement, which requires the exertion of *energy*. Further, if the movement is to be directed, co-ordinated, *two* kinds of energy are required: *physical* and *mental*. The activity of sound production demands an exertion of physical energy; this physical energy must be combined with mental energy if the sounds produced are to be clear and meaningful to other men. In other words, we must think before we speak. That is, we must *direct* our physical and mental energy in the act of speaking.

### Kinds of movement

| | |
|---|---|
| I speak. | I think. |
| I exert bodily energy. | I exert mental energy. |
| Bodily energy becomes physical movement. | Mental energy is some kind of activity within my brain. |
| I speak. | I think. |
| I exert physical force. | I exert mental force. |

You might investigate the various functions of each of these physical mechanisms by asking your students to picture a guitar.

Perhaps, one of the students will welcome the chance to expose his musical expertise to a captive classroom audience. Note the vibrations of the strings of the guitar; these are like man's vocal cords which are set in motion by the expulsion of air from the lungs. The base of the guitar, the chamber which regulates depth and richness of the sound produced, is somewhat like man's mouth and throat through which sound is amplified or modulated. The musican's dancing fingers control and shape random sounds into notes and songs in much the same way that the lips, tongue, and teeth help pattern grunts and coughs into meaningful words and sentences. If the musician is careless and his fingers slip, we will not recognize his song; if a speaker does not use his lips, tongue, and teeth to produce clear, precise sounds we may not understand his words and sentences. [Boy] sounds very much like [buoy] if the words are not pronounced with care.[4]

Outer language, then, is composed of words and sentences which are audible and clear if the speaker's physical, sound-producing mechanisms are operating well, with *co-ordinated movement.* Sounds become words, words become sentences, and sentences become whole conversations as man communicates with other men through the use of language. We now know how sound is produced, let us look at the forming of sounds into words. We may say that sounds, the elements of spoken words, may be arranged in three major positions. Those at the beginning of a word are said to be in the *initial* position as the [č] in *ch*air, *ch*oice, the [ɵ] in *th*ank, *th*ought, the [š] in *sh*ell and *sh*ed. These same sounds may appear in the *medial* position, in the middle of the word, and we have such words as ex*ch*ange, mo*th*er, and wor*sh*ip. These same sounds in a *final* position produce, ri*ch*, wi*th*, and bru*sh*. Audible language now becomes like a jigsaw puzzle with sounds which must be placed in special positions in order that they form a total picture, a whole word.

You might ask your students to propose a number of words with a given sound in each of the three positions. Although we, of course, realize that *all* words cannot be divided in this way, the distinction between initial, medial, and final position seems

helpful in a classroom discussion of language. A student having difficulty in pronouncing the [š] in *share*, for example, might be directed to focus his attention on the sound in the initial position. A student unable to understand the word, "inter-relate," might be directed to consider the letters in the initial position, the prefix of the word, in his search for a definition. This analysis seems to function on two levels. It allows the student with problems in pronunciation to focus his attention on the problem area. On another level, it should hopefully engender an appreciation of the complexities of language and of the value of co-ordinated, patterned, ordered movement.

When men agree that certain sounds can be combined to stand for, symbolize, represent some object, quality, situation or living thing, they have agreed to "speak the same language." When everyone agrees that [b] and [oi] combine to form a sound which represents or symbolizes a male child, they are ready to use this sound which now becomes a word in meaningful communication. They reach agreement in this way about many words and begin to articulate an infinite variety of novel sentences on the basis of the *rules* of syntax. Syntax, in other words, designates the way in which words are strung together in order to express thoughts, feelings, ideas, and facts. All languages prossess this rule-bound organization.[5] With this discussion the student should be brought to the realization and appreciation of language as rule-bound behavior. They might come to understand and appreciate the linguist's search for order and pattern in his endeavor to comprehend the structure of language.

With this analysis as a background, the student can begin to investigate the process of communication through the use of language. Although we, of course, recognize the importance of non-verbal communication, let us at first limit our inquiry to those messages comprised of sounds, words, and sentences. We will, thus, at first, define communication as a process of message transmission between human senders and receivers with language as an intermediary process, the medium of the message.

The message may consist of information, opinions, feelings, ideas, or thoughts. We may express this definition diagramatically.



| Expressive Skills | Speaker<br>Sender<br>Encoder<br>Author<br>Dramatist | Listener<br>Receiver<br>Decoder<br>Reader<br>Audience | Receptive Skills |
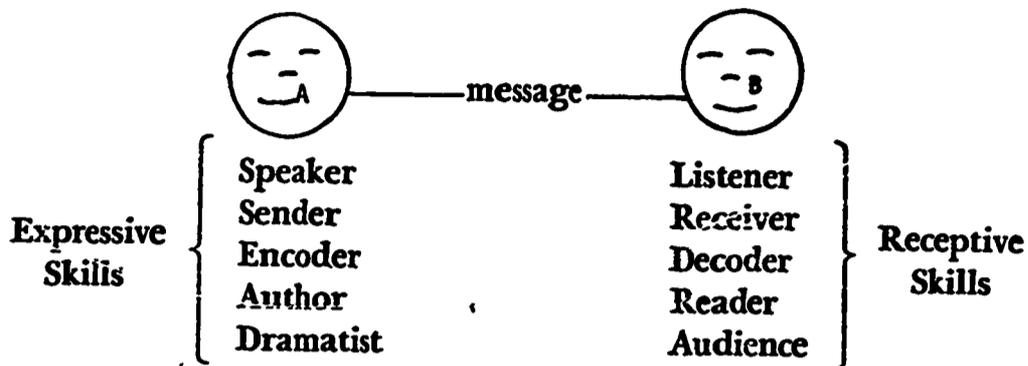
The message made up of words "strung together" according to the *rules* of syntax is being transmitted (passed along) from Person A to Person B. Person A has shaped the message through inner language and is using his expressive skills in order to perform his role as speaker, sender, encoder, author, dramatist. He is the generator of the message. Person B must use his receptive skills in his role as listener, receiver, decoder, reader, audience.

This seems ideal. But this is *not* how it happens among unique human beings with unique frames of reference; this is only an ideal state of affairs which men attempt to achieve but which is *always* just out of their reach. Let us attempt to discover why. We will need a new diagram that expresses more realistically the state of affairs in communication.



| Expressive Skills | Speaker<br>Sender<br>Encoder<br>Author<br>Dramatist | Noise | Listener<br>Receiver<br>Decoder<br>Reader<br>Audience | Receptive Skills |
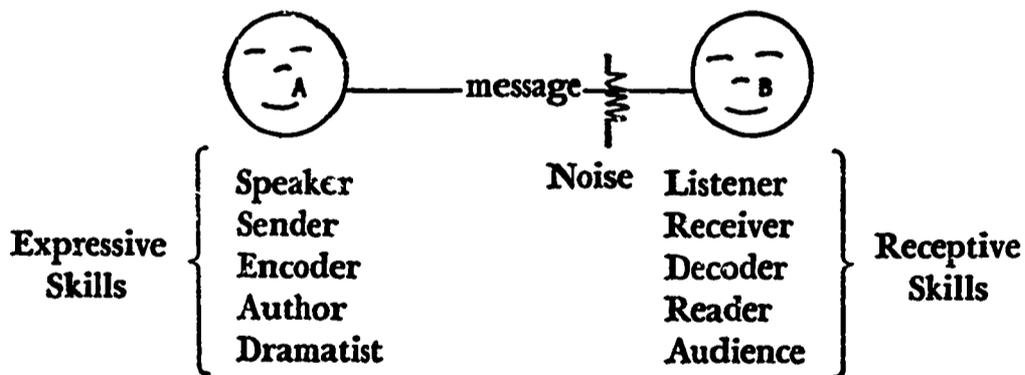
Something has interrupted or distorted the message; there is

a barrier between A and B which makes 100% communication impossible. There is noise in the communication channel which we must try to describe in order that we may minimize the interference with our message. We might call this noise a *physical* barrier and see its influence with Helen Keller who was unable, because of physical defects, to reveal the thoughts and feelings that contributed to her uniqueness. We might also call it a *technical* difficulty, a lack in knowledge of the *rules* of syntax or a lack of clarity in articulation. Perhaps A has not learned how to "string words together" according to the *rules* that govern the language he shares with B. Or, perhaps, A makes an initial [č] sound like an [š], so that B hears [share] when A is offering him a [chair]. These two are having communication problems; we might say that there has been a *communication breakdown*.

We have discovered that noise in the communication channel could be either *physical* or *technical;* it is also *semantic,* because meaning is not subject to precise control.[6] Person A might be using words which person B has never heard or words for which the two have not agreed upon a meaning. Since A and B are unique human beings, they will have had unique experiences which have prepared each of them to perceive situations and ideas in certain unique ways. These perceptions have produced different frames of reference, different degrees of knowledge, and different areas of competence. It is plausible to assume, then, that the clarity of a message from A to B will depend to a great extent upon the minimizing of the *semantic* noise, to the extent to which A and B can agree upon the meanings of the words they use, can understand the shades of meaning of the words they use, and on their success in establishing a common frame of reference. The teacher might indicate to the students how important it was to establish a common frame of reference within the classroom so that when man was discussed all concerned would speak on the basis of a common notion—that man is a thinking, feeling, responding, interpreting being made up of reason-emotion.

We have attempted to name, to classify, the kinds of barriers which might impede human communication between A and B when language serves as an intermediary process, the medium of the message. We have called these problems *physical, technical,* and *semantic* barriers and have tried to describe them and to understand why they exist. For a moment, let us try to review our findings so that we may see where we and our class have been and where we should proceed. Here is the being we have agreed upon as man; he thinks, feels, responds, interprets, is comprised of reason-emotion. In his action of *living,* he *changes* and *grows,* his *conceptual boundaries* expand as his store of knowledge increases. He is a *creative* being, capable not only of *imitation* of received data, but also of *transformation* of that data in the *generation* of something that is new and unique. Language, both inner and outer, is one of his major tools for growth and change. If he understands the process of communication and its problems, he is better able to use his language tool effectively and creatively. Here are the "communication problems" we have investigated thus far. The effectiveness problem is added since all communication problems are problems in effectiveness which will be described in detail later.

| Physical Problem | Technical Problem | Semantic Problem | Effectiveness Problem |
|---|---|---|---|
| ↓ | ↓ | ↓ | ↓ |
| Those involving physical speech mechanisms. | Conformance to *rules* of grammar; Clarity in articulation | Accuracy in terms of meaning to be conveyed (style); A common frame of reference | Change in behavior ↓ Growth in personal knowledge |
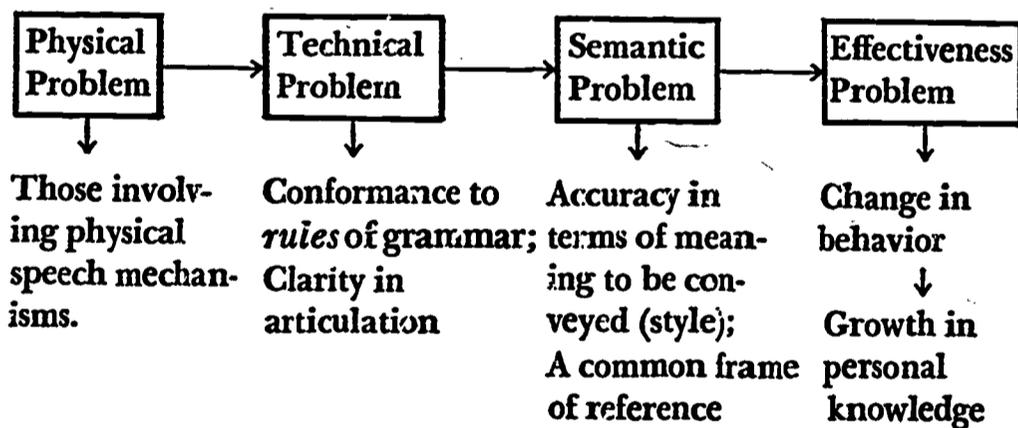
On the basis of our previous analysis, we can now look at communication in a slightly different way. Communication will now be defined as the process by which one mind affects another mind. The medium for the message transmission is not now limited to language; the medium or intermediary process be-

tween encoder and decoder can be gesture, facial expression, music, art, and so forth. Weaver describes the scope of communication in this way:

> The word communication will be used . . . in a very broad sense to include all of the procedures by which one mind may affect another. This, of course, involves not only written and oral speech, but also music, pictorial arts, the theatre, the ballet, and in fact all human behavior.[7]

In the English class we are primarily concerned with those messages which involve an intermediary language process, but we must not limit our students' awareness of the many faculties they possess for creative expression, for meaningful communication.

Defining communication as the process by which one mind affects another mind, we can diagram the process in this way.

Mind                                          Mind

┌─────────┐ ──────────────────────────→ ┌─────────┐
│    A    │ ←────────────────────────── │    B    │
└─────────┘                             └─────────┘
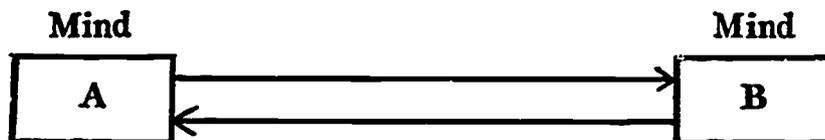
Person A and Person B are attempting meaningful communication in order that each may learn from the exchange, grow in knowledge as a result of the information he receives. Their relationship, as all communication relationships, is somewhat akin to that of student and teacher. But the roles are not fixed; each is at one time a student, at another time a teacher. Each has information which may be valuable to the other in the formation of his thoughts, ideas, feelings, and values, in the transformation of that complex of "stuff" which he calls "myself."

When Mind A attempts to affect Mind B and, in turn, learn from him, there is noise between them which must be minimized if the communication is to be successful.

Mind                                          Mind

┌─────────┐ ←──────────┐ ┌──────────→ ┌─────────┐
│    A    │            │ ⌇ │            │    B    │
└─────────┘          Noise            └─────────┘
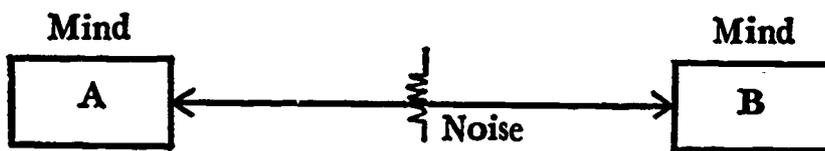
They are confronted, if language is their medium, with one or

more of the physical, technical, or semantic problems that have been discussed previously. No matter what the medium of their message, however, they face an *effectiveness* problem; how successfully can A's message affect B in the way which A intends? It was said earlier that 100% communication between A and B is a myth, an ideal which cannot be realized. A's message cannot be 100% *effective;* his problem is to achieve maximum effectiveness. His task is hard and he must be willing to expend *energy* in the pursuit of his goal. Further, he must know how to *direct* this energy in a productive and effective way.

| Mind A | is attempting to affect | Mind B |; there is a flow of information between them. However, the data transmitted by A are bounded by his unique frame of reference and by the way in which his experience has caused him to perceive and to respond to given ideas. If A and B are to function adequately in communication the mismatch between them, based on the frames of reference which give to each his unique self, must be minimized. A and B must direct their energies toward this resolution. How can they minimize their mismatch? The answer is *feedback;* a flow of information which enables man to study the results of his own operations in order to decide how to operate in the future.

```
┌──────────┐  ───────────────►  ┌──────────┐
│  MIND    │                    │  MIND    │
│   A      │  ◄───────────────  │   B      │
└──────────┘     FEEDBACK       └──────────┘
frame of                        frame of
reference . . .                 reference . . .
bounded                         bounded
experience                      experience
```
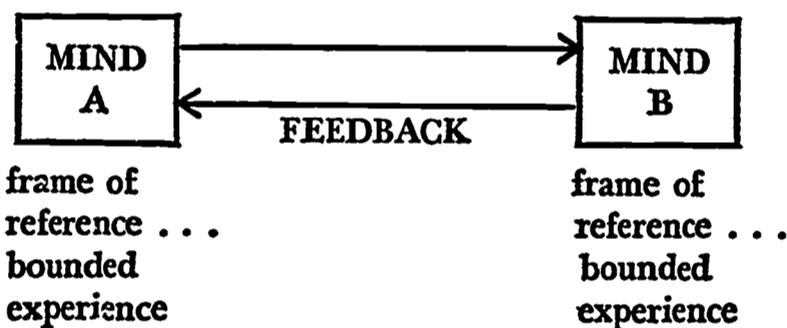
A, the initiator of communication, must study B's response to his transmission, attempt to understand the unique frame of reference which prompted that response, and then alter his message on the basis of that understanding. If A continues to transmit and to alter his message on the basis of his understanding of B's responses, the message will become more *effective.* The

*mismatch* between them will become less and less. They might reach a point where B will say, "I do not agree with the idea you offer," but his decision will have been based on a maximum of understanding between them. Each will have learned from the other and grown in knowledge as a result of the exchange. They have directed their energies in a way which has proven valuable and productive, indeed, creative. Each has become an effective communicator; each has fulfilled the conditions assigned to an effective communicator by Leo Rosten:

> The good communicator is the person who can identify himself with that person or that group with whom he is trying to communciate. He can take pieces of them symbolically or as abstractions, and incorporate them within himself temporarily, to test whether what he says makes sense.[8]

Throughout this program, we have talked of life as a series of problems which men meet and attempt to solve and have attempted to describe some of the problems involved. We have focused attention especially on the problem of communication, because if man cannot surmount the obstacles involved here, he is deprived of the information necessary for consideration of other areas. Communciation is a vital aspect of the life of every member in any human community. Virtually every aspect of human knowledge becomes encoded into messages in human communication. Since we have defined communication as a correlation between transmitted messages and the behavior of the receiver we can say that the widest range of problem-solving techniques and knowledge involved in human life in general is also applicable to communication and the generation of shared human plans.

When confronted with a new problem, man must first define its limits, *isolate* various aspects of it and then begin to *gather* all relevant *information.* He then *orders* the information to develop organized *plans of action.* He *analyzes* the various plans, attempts to project the outcome of each, and chooses for implementation the one he feels will most likely lead to the desired

results. After this plan has been *tested,* he must *review the results* with a view toward *minimizing the mismatch* between the projected goal and the outcome actually achieved. When he evaluates these data, he will go back, gather more information, order it, formulate other plans of action, choose among them, and test the new alternatives. He might go through this process again and again before the mismatch between his projected goal and his actual achievement is eliminated.[9]

Your class will, perhaps, begin to understand the processes involved in plan generation and transformation if we treat the *plan as an object to be analyzed.* Let us assume that we have a task to be accomplished. Almost any task will serve the purpose; we suggest one alternative which might also be useful in Unit III, Author as Model-maker, if the teacher and students choose to work with *Raisin in the Sun.* Let us assume that our class has decided to produce this play. Our problem, like the problem described above when Mind A was attempting to affect Mind B, is one of communication. How *effectively* can we first interpret and then communicate to others the ideas, feelings, and values communicated to us by Lorraine Hansberry, the author of *Raisin in the Sun?* We will first have to direct our receptive skills toward an understanding of the author's ideas and feelings. We might *isolate* various areas for inquiry and divide the *information gathering* task among the members of the class. Some will perhaps investigate the setting and time portrayed in the play; others might seek information about the author's life. When we have gathered various kinds of information, we might share our findings with others in the class and together attempt to use what we have learned to increase our understanding of the play and the particular frame of reference from which it was written.

We might, in our attempt to understand the play, next focus our attention on a single character, *isolate* one character for careful consideration. Let us look at Walter, for example. What *information* do we have about him? What ideas are important to him? How does he respond to and interpret the world around him? He sees the world as divided between the "takers and the

tookens." What are the causes of this point of view? Is there a mismatch between his frame of reference and society as it really is? On the basis of our own unique frames of reference and of our unique perception of the vision presented by the author, each of us might answer these questions differently. We will have to *analyze* the various answers which have been suggested and *test* the validity of each in terms of the play as a whole.

Only after we have *gathered information* and feel we have reached a basic understanding of the play and each of the characters within it, can we begin to formulate plans on which to proceed with our production. Let's diagram our method of proceeding from here.

*Raisin in the Sun*

$$X$$

$$Y^1 \qquad\qquad Y^2 \qquad\qquad Y^3$$
role analysis      rehearsals      the curtain rises

$$Z^1 \qquad Z^2 \qquad Z^3$$
actors  produc-  tech-
        tion crew  nical
                   crew
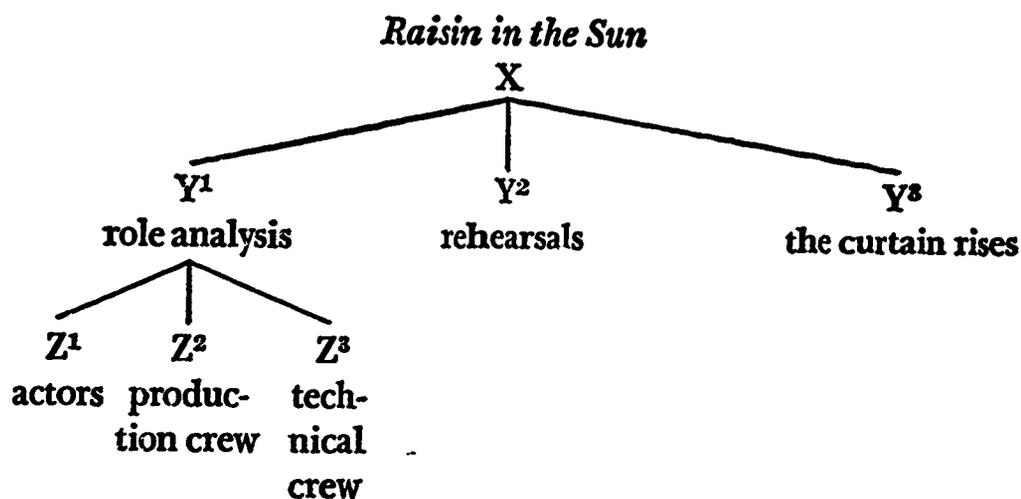
In any complicated human activity, the plans generated to achieve a goal can be characterized by a hierarchical arrangement of goals and subgoals. Our task, $X$, is analyzed into parts $Y^1$, $Y^2$, and $Y^3$ which should, let us assume, be performed in that order. Therefore, $Y^1$ is first singled out for attention while $Y^2$ and $Y^3$ are postponed. To accomplish $Y^1$, it must be analyzed into $Z^1$, $Z^2$, $Z^3$ and these in turn into more detailed parts. We have established our goal ($X$) and the class is working toward that goal. We have divided our goal into certain ordered stages $Y^1$, $Y^2$ and $Y^3$. We have divided the class into actors ($Z^1$), production crew ($Z^2$), and technical crew ($Z^3$) so that we might work efficiently toward our goal.

We must again *isolate* various areas for consideration and *gather* all relevant *information* within each of the areas. We must then *order* the information, decide upon priorities, in order to develop *organized plans of action*. After *analysis* of the various plans, we will *choose* to work with that alternative which we feel will most likely lead to the desired results. As rehearsals continue, we might find it necessary to gather more information, to reorder our store of information, and to generate and analyze new plans of action. Our process is one of continuous testting of plans and formulation of alternatives.

Let us assume that by this time we have in our minds a picture of our ideal *Raisin in the Sun* and that through plan generation and implementation we are moving closer to this ideal. Let us now diagram what we are doing.
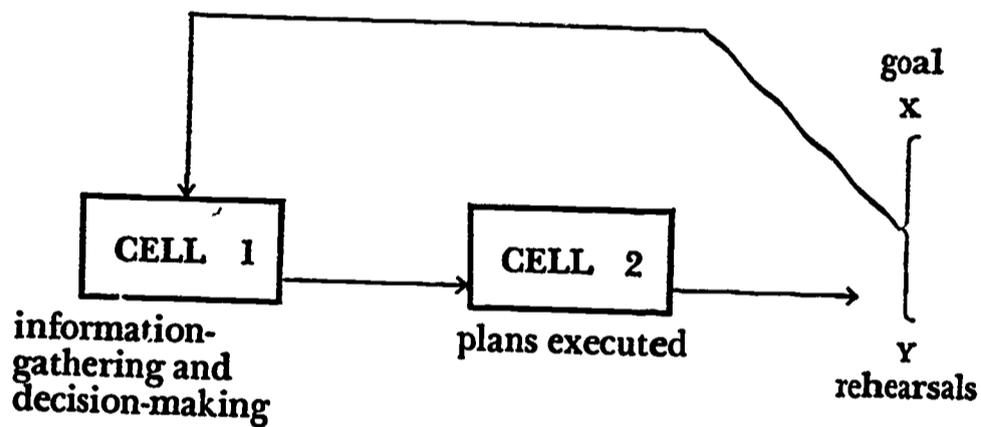


We are constantly comparing our rehearsals (Y) with our ideal *Raisin in the Sun* (X), in order to obtain feedback on which to base new plans.

X and Y represent the stated goal and the actual achievements of the goal-oriented system, respectively. Cell 1 represents information-gathering and decision-making roles whose aims are to generate plans and co-ordinate activities designed to minimize the difference between X and Y. Information regarding these plans is transmitted to Cell 2 where the plans are executed.

When the mismatch between X and Y has been discussed and analyzed, we carry the feedback information into Cell 1 where we gather any new information which is needed and

formulate our plans. The plans are implemented in Cell 2, and we again compare Y with X. We might go through this same process many times before the curtain rises.

The problem described above was one of communication, demanding that we use a range of problem-solving techniques. We first used our receptive skills to understand and appreciate the play itself. We then used our expressive skills to minimize the "noise," which would hinder the audience's reception of our communication. We had to gather information, generate alternative plans, and test the results in an effort to solve our problems and reach our goal.

Let us now apply our problem-solving knowledge to another communication problem. The activity we suggest here will perhaps deepen the student's awareness of the process of communication and its problems. This might enlarge his knowledge of plan generation and implementation, and might help to establish an intellectual-emotional identification with the character of Helen Keller.

Here is the problem. One student is taken out of the classroom, blindfolded, and instructed not to speak during the class. The entire class is instructed to be completely silent. We are trying to simulate the condition of being blind, deaf, and mute. The student is not told what will happen to him. Another student is assigned the task of teaching him to skip, to distinguish sand from salt from sugar, to understand the word, *beauty*.

We have defined the problem; our goal is clear. Now we must gather information, generate plans on the basis of those data, and choose among the various alternatives. Only after we have done this can we test the most probable solution. If the student learns to skip, to distinguish sand from salt from sugar, to understand *beauty*, our *plan will have been effective.* If not, we will have to generate new plans so that our results will more closely approach our intended goal, so that the mismatch may be lessened.

How can one mind affect another mind across such extreme physical barriers? How does it feel to be isolated from other

human beings, without sight, hearing, or the power to speak? Having simulated the condition of being blind and deaf, the student has a picture in his mind of the arrangement of spatial boundaries. He "knows" where the objects and the people are. He knows the situation; he is on familiar ground but perceiving it in a totally different way. Many of the old ways of receiving information are not there to help him—no sight, no sound. Sight and sound are now conceived as boundaries that generate powers of observation, judgement and descrimination. Deprivation of observational techniques have interfered with judgement and descrimination. His perceptual power is impaired and spatial boundaries appear changed. He searches his mind for meaning, trying to contain his diffused power of perception. His uncertainty grows. He is also deprived of the power of speech. Communication of thought is impossible. Without language, his world has lost much of its previous meaning.

Students are now presented with various alternatives. They may choose to use their classmate as a resource person for studying the systems of sight and sound as boundaries that limit, constrain and extend performance. They may ish to pursue the study of the deprivation of sight and sound as a source of noise that distorts communication. In each instant students should be asked to describe the situation, recalling the definition of the problem, the generation of alternative plans, the implementation of that alternative and the evaluation of the results.

### Helen Keller

With this activity, we have introduced the students to the kinds of problems experienced by Helen Keller and have, hopefully, aroused their interest in her. We can now move more meaningfully into a discussion of Keller, her problems and triumphs.

Before Anne Sullivan came to her, Helen, who could not see, hear, or speak, had no *inner language* with which to shape and order experience and no *outer language* with which to send and receive messages. Her movements, emotions, and thoughts were

without direction. Although she possessed a capacity for an ordered, directed life, that capacity was latent, undeveloped. She attempted to use her hands to substitute for her eyes and ears. She walked, rushed, skipped, sat, fought and fell like a normal child, but for Helen these movements were random. She did not know *how* she moved, *why* she moved, or what to call her movements. Helen used her senses of taste, touch and smell to investigate the world around her, but without language she could not order these sensations into a meaningful pattern. She experienced a barrage of sense data that were frightening to her because of its lack of pattern and meaning. Helen cried, laughed, feared, hated, but her emotional life, like her actions, were random. She herself said, "My inner life was a blank without past or present, without hope or anticipation, without wonder or joy or faith."[10]

At this stage in her life, Helen can be characterized as a bundle of violent, stubborn energy, activity, and motion without order. She did, however, possess the ability to develop inner language to order her thoughts, feelings, emotions, and actions because she had the desire to know. Her mental capacities, like her physical and perceptual were latent, waiting for someone like Anne Sullivan to bring order to the chaos through language.

Before Anne Sullivan came to her, Helen experienced isolation from people, objects, and situations because she was unable to communicate. She experienced fear of the unknown, loneliness, and a sense of frustration which often led to anger and rage. But then all this began to change as Anne Sullivan helped Helen to "connect" with others through the process of communication.

Sullivan began by establishing rapport between student and teacher, friend and friend. She often had to act as a disciplinarian, but, at the same time, she offered love, understanding, and patience. Language learning was a slow process for Helen. A normal child learns that things and people have names, perhaps before he is physically capable of articulating the sounds that

combine to produce that name. Helen knew nothing about the name of things. From her first day with Helen, Anne Sullivan tried to indicate to her that things had names. When Helen played with a doll, Anne spelled the letters, d-o-l-l, into her hand. Helen was interested in the strange motions of her teacher's fingers, but recognized no connection between the doll and her teacher's moving fingers. One day at the well-house, the connection was finally established. Anne held Helen's hand under the spout in the pump-house. Helen connected the letters, w-a-t-e-r, with the cool stream, realizing for the first time that things had names and that the manual alphabet was the key to them all. Helen says, "Suddenly I felt . . . a thrill of returning thought; and somehow the mystery of Language was revealed to me."[11] Helen was highly excited all the way back from the pump-house. Now that she realized that she could use a word-symbol to represent or name objects, she could master more and more new words. On the way back from the pump-house, she learned the name of each object she explored on the path. She first learned Anne's name, "Teacher," and within a few hours had mastered thirty words. Anne talked into Helen's listening fingers and Helen ran, skipped and jumped to act out these words. Her actions were no longer random. They had meaning and direction. The little girl who had lived in chaos, in a "no-world," could now begin to set goals and actualize them.

Through language, Sullivan now had a way to know and to teach Helen. In a letter written to a friend, Anne said, "I never taught language for the *purpose* of teaching it; but invariably used language as a medium for the communication of *thought;* the learning of language was *coincident* with the acquisition of knowledge."[12] Language allowed Helen Keller to give responsible direction to her formerly random movements; it allowed her to control her formerly random sensory investigation with a view toward increasing her knowledge of things and people around her. She no longer was frustrated to the point of rage; she still cried, laughed, and feared, but now could understand

the connection between these responses and the events which caused or motivated them. Her alert mind could now use *inner language* to form ideas, to pattern perceptions, to draw distinctions, and express interconnections. Objects, thoughts, and feelings had word symbols and could thus be communicated to other men. Through language Helen could learn how other men acted, thought, and felt, and could use this information in the formation of her own goals, values, and commitments, in the increase in her own personal store of knowledge, in the generation of new and unique ideas.

At this point in her life, Helen was just beginning to approach the questions: Who am I? Where am I going? What are my capabilities? Helen was just beginning to realize that these questions were important to her as a unique human being. Anne had the task of helping Helen to know herself. Helen writes, "When I learned the meaning of 'I' and 'me' and found out that I was something, I began to think. [This consciousness of self] rendered my senses their value, their cognizance of objects, names, qualities, and properties."[13] Anne provided Helen with opportunities to know self, people, objects, and situations in order to enlarge Helen's experience and knowledge of her world. She was helping Helen to form a conceptual framework which would aid her in her formation of a concept of her unique self.

Helen, like all growing, changing human beings, encountered many problems as she began to develop her unique self. At first, she could only *imitate* the movements spelled into her listening hand. Her ideational world was limited to the concepts and thoughts received from her teacher; she could generate no new ideas or plans. As Helen continued to develop inner language, however, she began to be able to *transform* received ideas into ideas that were uniquely her own. Helen could *isolate, combine, analyze, transform* received information in order to generate a variety of new and unique ideas that became part of her unique self. She slowly acquired the knowledge necessary to handle new situations and the problems created by them. She was still some-

times confused, disturbed, and uncertain in an unfamiliar situation. However, to the confusion and fear she was able to bring order and, from the order, a direction, a purpose. She was able, like the pirate and like all of us, to conceptualize alternatives, measure the value of each plan, put the best one into action, evaluate the results, and form new plans on the basis of the evalution. She could choose to *pursue* her present course, *reverse* the course, *abandon* the course, *remold* the situation, or *modify* her plans.

We can now characterize Keller as an actor, a doer, involved in a life of curiosity and direction. She said, "Life is either a daring adventure or nothing," and she shaped her own life into one of great adventure as she continued to grow, change, increase her store of personal knowledge, and help others to do the same. She encouraged others with physical handicaps to overcome them; her example gave them strength.

She was in vaudeville in the old Palace in Chicago when Carl Sandburg saw her and wrote:

> Of the woman born deaf, blind and dumb, the vaudeville audience asked questions; And the woman enjoyed answering these questions from people born with sight and hearing: 'I liked it. I liked to feel the warm tide of human life pulsing round and round me.' 'How do you know when we applaud you?' they asked. And she answered the vibrations in the boards of the stage floor under her feet told her of every shading of applause.[14]

The audience asked those questions because they thought that Helen was different from other people. She answered them with delight because she understood their perception of her. She, like any other human being, had the ability to think, feel, respond, and interpret, and she had developed those powers which had once been latent. She could now transform a variety of data and generate new and unique thoughts, ideas, and actions. She could communicate her uniqueness to others through dialogue, con-

versation, and eventually, books. From a real-life creator of a personal world, she became an author-creator, a molder of a literary world which we can enjoy and from which we may learn.

Consideration will be given to author as model-maker in Unit III. It is not a new area of concern, however, because we have been talking since the beginning about man as he orders his world and then communicates this order to other men. In preparation for our investigation of one particular kind of ordered world, that of a literary work, and one particular kind of model-maker, the author, let us for a moment review what has been said about all men.

Life is not static. It is a process in which men meet many kinds of problems and attempt to solve them. Life changes. Man is not static. Man changes, too. Language is not static. Language changes to meet man's needs. Man uses language to learn from other men, to grow and change from the exchange of ideas, thoughts, and feelings in communication. The complex of these ideas, thoughts, and feelings, the whole of all past experience, defines the unique human being at any single point in time. Man is engaged in a continuous process of growth, involving everything he knows and feels. His experience changes; new problems arise depending on the environment and the situation in which his experience occurs. Without language, his knowledge of this environment is confined to what his senses show him—language will help him to order and, therefore, to understand what his senses reveal. Language helps him to articulate his sense world. Through the use of language, he is able to accumulate and transmit knowledge from generation to generation, environment to environment, and situation to situation. Thus, it is possible for the individual to solve problems, and to learn and change in the process. He constantly generates new plans and treats them as objects to be analyzed, synthesized and manipulated until meaningfulness is established. It is through problem-solving, plan generation, and the use of communication in these processes, that man constructs the conceptual world which he calls "myself" and that the author calls "my book."

## NOTES

[1]Elizabeth Steiner Maccia discusses the necessity for a symbolic and axiomatic language to express the present state of affairs in curriculum theory and development in "Development of Theory in the Curriculum Field," *Samplings*, No. 3 (April, 1968), 8-10.

[2]Helen Keller, *The World I Live In* (New York: The Century Company, 1908), 113-114.

[3]For a further discussion of the physical mechanisms of speech see Kenneth L. Pike, *Phonemics: A Technique for Reducing Language to Writing* (Ann Arbor: The University of Michigan Press, 1947), 3-11.

[4]The phonetic transcription used in this program is based on the system proposed by Kenneth L. Pike in *Phonemics: A Technique for Reducing Language to Writing* (Ann Arbor: The University of Michigan Press, 1947).

[5]Charles E. Cairns and Dolores Silva, "Linguistics: What Is It? Where Is It Going?" *Samplings*, No. 2 (October, 1967), 16-28.

[6]Harold D. Laswell, "The Structure and Function of Communication in Society," *The Communication of Ideas*, ed. Lyman Bryson (New York: Harper and Brothers, 1948), 37.

[7]Claude E. Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Urbana: The University of Illinois Press, 1949), 3.

[8]Leo Rosten, "Some Aspects of Communication," *College Composition and Communciation*, VII (October, 1956), 174.

[9]Adapted from Dolores Silva, "Toward an Analysis of Role Performance," *Samplings*, No. 1 (August, 1967), 49-55.

[10]Helen Keller, *The Story of My Life* (New York: Grosset and Dunlap, 1904), 375.

[11]Helen Keller, *The Story of My Life* (New York: Doubleday and Company, Inc., 1954), 36.

[12]*Ibid.*, 317.

[13]Helen Keller, *The World I Live In* (New York: The Century Company, 1908), 117.

[14]Carl Sandburg, *Complete Poems* (New York: Harcourt, Brace and World, Inc., 1950), 495-496.

# Author as Model-Maker

There are many ways of giving form and shape to feelings and ideas. As language helps in the imposition of a coherent structure, so artistic creation submits the chaos of experience to the ordering principles of style and artistic form. The artist responds to objects, situations, environments, issues, and people, and represents them through a particular medium—painting, sculpture, music, dance, architecture, drama, prose, photography, and poetry. The author as artist chooses the medium of written language to describe thoughts, emotions, responses, and explanations of the uniqueness of self. Thus he combines imposition of structure and revelation of intrinsic style and form. He makes a model, and the language he uses is thus an attribute of his model-making process.

Language is a system with unbounded innovative and expressive potentialities. Language can be viewed as a finite system with infinite possibilities for thought, expression and imagination. As the author begins to formulate and articulate his ideas, he is constrained only by the rules of concept formation and sentence formation.[1] As the author continues to organize and regulate inner and outer environments, he imposes explanatory ordering styles as he creates abstract and conceptual boundaries. The power of his creation—his bounded design can be described, explained, understood, tested, and verified for its organizing power.

The notion of boundaries provides one reasonable and seemingly productive alternative as a point of reference, an organizer, through which to approach "Author as Model-Maker." The

author has the unique capacity to represent a particular temporal and spatial contextual setting that can be probed, analyzed and understood. In the author's representation, he generates a set of determined meanings by organizing and manipulating information-bearing symbols. It seems that all men participate in the imposition of or adaptation to numerous boundaries as they seek to define self and pattern a holistic world view. Since all men ask the question: "Who am I? Where am I going? What are my capabilities?" and, as the answer seems to involve the confrontation of numerous boundaries, the student might, as he begins his exploration of the author as model-maker, be introduced to certain works of literature which, more than others, emphasize a human situation or human condition within definite spatial, temporal, conceptual, or technological boundaries. Through such study the student will, hopefully, reach an understanding of the shaping forces of environment, of physical and conceptual boundaries, both on life style and on modes of artistic expression.

All human beings are creative in that they possess the ability to arrange words and ideas in an infinite variety of ways. When we acquire and process information in the learning experience, we are in a sense participating in an act of creation. Whenever we use language, whether oral or written, to communicate our unique thoughts and feelings to other men, we are engaged in a creative endeavor. When we listen to others' ideas we are creating new personal knowledge as we decode, order, pattern, and internalize and transform the messages received.

We can say, then, that each person has a creative capacity. Each man structures his life partly through the use of internal and external language; an author creates and structures a book through the use of language. There are, of course, major differences between the two. Although we can alter our spatial boundaries by choosing among numerous cities and nations in our selection of a place of residence, we are born into a specific time, place, and language. The author, on the other hand, can choose among an infinite variety of places, times, characters, and

situations in the creation of his thought world. The novel, play or poem thus becomes an extension of the human mind, the human eye, and the human environment, just as McLuhan's typewriter is an extension of the human fingers. Language becomes a medium for the transmission of written and spoken ideas between and among men, who listen and read, respond to and interpret their meanings. They then judge and pattern messages received in the act of incorporating them into their own personal model.

The work of art, by presenting the author-structured world in stasis, allows us to savor each isolated moment, to move through the piece at our own speed of comprehension, to read and reread, until we have recognized the uniqueness of each situation, each environment, each self. Through the author's ordering vision, a chaos of stimuli is patterned and modified, connections and relationships are articulated, so that we may enter into the world of the novel, play or poem and analyze the process and the action of living contained within it. Through the author's insight, we may, perhaps, be brought to a deeper understanding of certain people or situations which we encounter in our own process of living; through this method, we may, perhaps, become aware of new alternatives for the articulation of our own thoughts and feelings.

Within this context, one might begin the consideration of "Author as Model-Maker" with a portion of Sandburg's The People, Yes, "A Fence," and/or "Choose." These works offer wide possibilities for amplification and further exploration of ideas and concepts introduced earlier. In The People, Yes Sandburg asks the people: "Who do you think you are/and where do you think you came from?" "Why should everyman be lost for words?" he asks those who have learned the "few great signs and pass words" but have forgotten their meanings and, therefore, have lost the ability to use these words and the ideas they represent in meaningful communication. Later in the poem, Sandburg speaks of "The endless yearning of man for the beyond," and focuses again on man as a "being-in-process." In

short, Sandburg's poem represents *collective* man, as "The Pirate" represented individual man, as a thinking, feeling, creating being who faces both abstract and concrete boundaries, problems of communication and of identity.

"A Fence," likewise, considers human boundaries, this time in the guise of the author's response to that man who would erect physical barriers between himself and those who need his aid, "the hungry men" and "wandering children." This poem is useful as an illustration of the way in which a writer communicates his attitude toward a given situation by using concrete images.

Student analysis should be directed toward an investigation of alternative ways of observing, experiencing, and processing explanations. The emphasis here is on the improvement in skills of observation and discrimination which show promise for explanation. In "Choose," for example, the student may impose a style of explanation for "the clenched fist" or "the open asking hand" from an artistic, mythological or poetic style of explanation. The student, like the author, is selecting particular observations and ignoring others. The emphasis is on providing a range of intellectual awarenesses in observing, experiencing and processing explanations.

As the student develops the language tools with which to express the new concepts and styles of explanation he has learned, he should be encouraged to use them in the process of written communication. The analysis of *The People, Yes* might lead to an assignment in paragraph construction which would place the student in the role of model-maker. Let us assume that the class has constructed a bulletin board that focuses on aspects of the human condition. *The Family of Man*[2] provides one very useful source of such material. Each student might be asked to select one photograph as the basis of his paragraph. He should first be encouraged to see and form patterns, then isolate those particular observations that will serve as a source of his analysis.

During the class period in which he begins his paragraph, the student should be reminded of the pirate who was revealing his thoughts and feelings through his poem, who was asking himself:

Who am I? Where am I going? What are my capabilities? He should be reminded of Sandburg looking at the people, responding to them, and articulating his response.

The instructor is encouraged to select a series of photographs that focus on human situations or human conditions. He may then select one or several of these as a basis for analysis. The instructor might begin by demonstrating the processes he uses for sifting, sorting, and selecting features of the photograph that will be explained. He may further articulate his response of what he sees and forms in a written paragraph. The instructor might write the following three paragraphs on the board and invite the student to analyze them.

A. This hand does not belong in a photograph. This hand belongs on the handles of a plow in a crooked, furrowed pasture in Georgia. This hand belongs tightly gripped around the hand of a shovel in a muddy irrigation ditch in New Mexico. This hand belongs in the earth around a delicate plant in a flower garden in California. Strong, broad-fingered, mud-caked hand of America. This hand belongs.

B. Here is a pattern of hunger. The woman's brown eyes, sunk deep in dark sockets that accentuate high cheekbones, stare at her world. The eyes are dull, without interest, without hope as they sweep over the hard, dry earth where a field of wheat should be. A gust of wind makes her sway slightly as her thin hand unconsciously reaches for a piece of coarse, sandy cornbread. It is dry and sticks in her throat as she methodically chews and swallows.

C. The people laughing is a good sound. The day's work is over. The plow was left in the middle of the field waiting for tomorrow's sun. The dough was left neatly arranged in patterned freshness, a worn white towel carefully laid on top, waiting for tomorrow's baking. The last bucket of water was brought in, the calves have been fed and the last haystack has been played in. The evening is a coolness sweeping over the Colorado prairie and the sound of people laughing.

## Student Restructure

If the students are reluctant to begin, they might be asked to look at the photograph which inspired the first paragraph and to decide why the writer feels that the hand does not belong in a photograph. The level of inquiry should first be directed toward the intellectual and organizing power of explaining a delicate hand, a course hand, a bleeding hand, a suffering hand, and a courageous hand. The students should be encouraged to use language independent of immediate stimulation. They might be asked to describe the hand and to create settings for it other than those the writer suggests—a mining town in Pennsylvania, a frontier farm in the Old West. The hand is timeless, and they might see it take shape as a *symbol* of all men who have worked in all ages.

At another level, the instructor may point out the constant repetition of prepositional phases, such as *in* Georgia, *in* a crooked furrow, *on* the handles *of* a plow, etc. The repetition causes the sentences to be weak because the reader's attention is deflected from the content of the paragraph onto the form in which it is expressed. At still another level, "strong, broad-fingered, mud-caked hand of America" may be studied from the point of view that language has an inner and outer aspect. Noam Chomsky reminds us that "a sentence can be studied from the point of view of how it expresses a thought or from the point of view of its physical shape, that is, from the point of view of either semantic interpretation or phonetic interpretation."[3] At another level of inquiry, students might be asked if a verb would add meaning to the description. What would happen if you were to drop the comma after "strong" and add "is the"? The sentence would then read, "Strong is the broad-fingered, mud-caked hand of America." Students may object to the constant repetition of "this hand." The instructor may explain that repetition, in some instances, is useful in establishing emphasis and a definite meaning and order. They might be reminded of the pirate's repeated use of the personal pronouns "I" and "my."

The same approach or variations of this approach might be

used with each of the other suggested paragraphs or with any other paragraphs which the instructor might choose. It is important only that the photographs chosen as a basis for the student's paragraphs, as well as the paragraphs to be analyzed, represent a holistic pattern—parts that may be analyzed and shaped into a whole. The instructor might decide, as an alternative assignment, to present the class with three photographs, one of a person (e.g., an old peasant woman), one of a setting (e.g., a barren field), one of an object (e.g., a broken plow), and ask them to structure, pattern, shape the three into *a unified pattern*. Since man and author are being discussed as model-makers, the assignment which requires patterning and integration seems particularly suitable to the present proposal.

The hand is timeless and can take shape as the symbol of men who have worked in all ages. The strong, mud-caked hand of America might be extended to include a study of the human hand and arm that was threatened by the machine during the Industrial Revolution. The function of the hand and arm focused on toil and the sweat of the brow. The coordinated design of hand, arms, and mind and body were not seen or understood in relation to man's total creative planning capacities. The form of the machine threatened man. Its function was seen in relation to deprivation and displacement of work activity. The bounded machine was not seen as a design of parts and whole that was an extension of the arm, hand and mind-like activity.

Some students might be introduced to some key concepts developed by Norbert Weiner. They might be encouraged to investigate some basic mechanical principles that led to designing tools to make tools. Others might be encouraged to examine a bounded machine in relation to the isolated parts that led to total design. The emphasis here is on the notion that a machine is an object that is amenable to analysis and synthesis. For example, students might wish to compare man to machine in terms of energy source. Man is able to move by his own power. A machine is moved by the power of another. A bicycle, for example, must be propelled by man. Still other students may be

led to investigate the literature for mechanical analogs that represent mind-like behavior. Students may discover that machines do not act from knowledge. A machine cannot operate within a range of environments which can vary infinitely in detail. Man and machine can solve problems and answer questions. Only man can state a problem or ask a question. They might learn, for example, that man will always be different from a machine because of man's power to use language creatively and because of his ability to perform an infinite variety of human actions. That is to say, that the essential difference between man and machine is clearly demonstrated by human language. Man has the ability to form new statements which express new ideas and which are appropriate to a variety of new situations.

At another level, the university community may provide resource persons in the form of an anthropologist, historian, sociologist and psychologist. These experts might pool their competencies in the form of explanations of the painful definition and redefinition of the human conditions since the Industrial Revolution. This may lead to an invitation of specialists from Urban Renewal and Model Cities programs who might be asked to place into perspective the rationale that led to their creation. Insights that are derived from these dialogues might be compared and contrasted with Carl Sandburg's vision of Industrialized America. In Kahlil Gibran's *The Prophet* "work is love made visible" may provide one unifying theme throughout these diversified learning activities.

Carl Sandburg's poetry is representative of an America which has crossed a major technological boundary. He recognized the potential power for change in thought and practice inherent in the new industrialization. He helped make the skyscraper, steel, the worker take the place of the countryside as poetic symbols of the new America. In his poem, "The Windy City," he records his vision of the birth of a metropolis, with emphasis on the human hands which shaped it and the human spirit whose breath gave it life. He gives the city life, personifies it, because the city, like the men within it, is ever-changing, ever-assuming

new identities. He makes the city, suffering the "growing pains" of industrialization, like the men within it, ask, "Who am I? . . . what is my name?" In "Chicago," written in 1914, Sandburg records the identity of that city as it appeared to him when its infant uncertainties had turned into the "brawling laughter of youth." Again, the city is personified, is given qualities of wickedness and brutality on the one hand, and on the other, a fierce pride "to be alive and coarse and strong and cunning." In both "The Windy City" and "Chicago," Sandburg has given form and shape to the world he perceived. Language thus became an attribute of his model-making process.

A "cunning" city, a "laughing" city—a unit composed of steel and concrete—Sandburg has given it life; he has observed the climbing skyscrapers, the towering patchworks of steel, the workers within them, and has said, "Yes, *this* is the new America; *these* are the symbols of my land." When the student has been introduced to "Chicago," as Sandburg's response to a particular place at a particular time, he might be asked to attempt a characterization of his own unique spatial and temporal world, the world of his home and family, of his neighborhood, city, state, or nation. He might begin with concrete description and then be encouraged to attempt a more abstract or symbolic representation.

If Sandburg has been used as one major thematic approach throughout this unit, the junior high school youngster will most probably want to know more about this human being with whom he has become acquainted. The introduction to *Complete Poems* by Carl Sandburg contains informal chatter about his boyhood, adolescence and life as a writer.[4] He tells us, "At the age of six, as my fingers found how to shape the alphabet, I decided to become a person of letters." Speaking of a plight close to the concerns of our students, he says, "At twenty-one I went to West Point, being a classmate of Douglas MacArthur and Ulysses S. Grant III for two weeks—returning home after passing in spelling, geography, history, failing in arithmetic and

grammar." Of writing, he maintained, "I am still studying verbs
and the mystery of how they connect nouns. I am more sus-
picious of adjectives than any other time in all my born days."
Later he says, "I should like to think that as I go on writing
there will be sentences truly alive, with verbs quivering, with
nouns giving color and echoes." Sandburg continues:

> I have written by different methods and in a wide miscellany
> of moods and have seldom been afraid to travel in lands and
> seas where I met fresh scenes and new songs. All my life I
> have been trying to learn to read, to see and hear, and to
> write. I am still traveling, still a seeker.[5]

Harry Golden, in his book *Carl Sandburg*, records an anecdote
about a woman who asked Sandburg to explain how he wrote
his poetry. Sandburg explained that one day when he felt very
lonely, he decided to be a writer in order to alleviate his loneli-
ness. First, he set out in search of verbs; then, as he says:

> I came back to the house with these verbs and found they
> looked so terribly lonely I knew they needed nouns to con-
> nect. So I went out of the house again and came back with a
> lot of nouns. I had done a few sentences, coupling nouns and
> verbs and I said, 'I know what it is I need, a few adjectives,
> not many, but a few.' So I went down to the cellar and in a
> big barrel in a corner I found it was full of adjectives, enough
> to last a life time. Then I went upstairs and began writing
> and have been writing ever since.[6]

Sandburg speaks of the necessity of coupling nouns and verbs.
He reminds us that adjectives have a restrictive function in
that they delimit symbols that have referential functions. If we
were to extend Sandburg's argument, we could say that un-
restricted use of adjectives cause misunderstanding in economic,
religious, educational, sociological and political systems. In the
American Civil War, for example, the passionate disparity be-
tween North and South contributed to a communication break-
down between men who had, less than a hundred years before,
been united against a common foe.

*Land of Promise and Strife*

In *Storm Over the Land,* Sandburg uses a language of vision and poetry. "It was sunset and dawn," he says "moonrise and noon, dying time and birthing hour, dry leaves of the last of autumn and springtime blossom roots. . . . Nobody knows, everybody guesses."[7]

On June 16, 1858, Abraham Lincoln delivered what has become known as the "House Divided" speech. He said, "I believe this government cannot endure, permanently half *slave* and half *free.* I do not expect the Union to be dissolved—I do not expect the house to *fall*—but I *do* expect it will cease to be divided. It will become *all* one thing, or *all* the other." America, as well as each individual American, was faced with two alternatives: was the American style of life to be slavery or freedom? Was the boundary between North and South to be erased? Each man found himself at the crossroads asking: Who am I? What are my beliefs? What commitments to action do my beliefs demand? The answers to these questions divided families as well as the nation.

Projecting himself backward across the temporal boundaries of decades, Carl Sandburg attempted to recreate, to communicate to his contemporaries and to men of the future, the strife-torn world in which Lincoln dreamed of a house united. To his task as author, model-maker, he brought both the objectivity of a historian and the subjectivity, the unique frame of reference, the unique sympathies, which had been shaped in him as a thinking, feeling, responding, interpreting being in the early twentieth century. His America, the America of steel, skyscrapers, and factory workers, the America that his poetry celebrates, helped to shape the frame of reference, the unique pattern of conceptualizations, through which he viewed the facts of history. His dreams for the future of industrialized America, an America, much like the one Lincoln knew, in its search for order amidst growing uncertainties, influenced his interpretation of, his response to, Lincoln's dream and were, in turn, influenced by that interpretation.

In attempting to warn us of the great problems ahead, for example, he reached back to Lincoln—*his* Lincoln—and tried to tell us that we could still, even in the midst of the tremendous upsurges and divisions to come, we could still hold and cherish that dream for the future. His city laughed—but it laughed "under the terrible burden of destiny"; it laughed "even as an ignorant fighter laughs who has never lost a battle." Did he see a time when that fighter would become punch-drunk with cauliflower ears? Sandburg saw Lincoln's America and recast Lincoln's dream in light of his own vision, his own knowledge, his own experience. He looked backward and recorded his vision of the Great American Division, and looked forward to record his fears and hopes for a still divided America. While many men were proudly celebrating the unity and equality of our nation, Sandburg's voice was raised in warning, a warning to heed the signs of civil strife.

Sandburg had been born in the North; his view of history and his hopes for the future were influenced by the Northern urban environment. Lillian Smith, author of *Killers of the Dream*, who was born in the South, saw how a dream, like Lincoln's for a united America, can be distorted. She recognized that men with creative capacity can, sometimes through ignorance, sometimes deliberately, be killers of a dream rather than creators of dreams. She was able to understand some of the boundaries that limited her life and consequently the lives of many of her contemporaries. She realized that to chain one human being means that someone else must be on the other end of the chain—and that both have lost their freedom. As she became older, she looked back and asked herself, and through her book asked the nation as well, WHY? Why have we placed ourselves in a position where we cannot function as free and reasonable human beings? Where does it begin and where does it end? Langston Hughes lived in one of Sandburg's punch-drunk cities; he, too, was acquainted with the killers of dreams and cried out—What *happens* to a dream deferred? Where does it go? He spoke of his country's dream. Will it fester like a sore? Dry up like a raisin in

the sun? Explode?[8] Lorraine Hansberry in *Raisin in the Sun* also saw the effects of a dream distorted, its way of filtering even into the family.

The boundaries between North and South were not eliminated at Appomattox Court House, nor were the human boundaries implied by the terms "slave" and "free" erased there. They remain as *internal* obstructions to the equality and dignity men like Lincoln and Sandburg had dreamed of in America's future. Lillian Smith in *Killers of the Dream* records for us a child's experiences with these internally constructed boundaries which the Southern child, white and Negro, was forced to accept, but could not understand. Miss Smith observes, "There is something wrong with a world that tells you that love is good and people are important and then forces you to deny love and to humiliate people."[9]

In Chapter II of *Killers of the Dream*, Miss Smith presents the Southern paradox between custom and conscience in a moving and, indeed, frightening account of a children's play at a Southern summer camp. The children had finished reading Antoine de Saint Exupery's *Little Prince* and had decided to make a play about Every Child who, in order to grow, must leave the planet of his birth and travel throughout the galaxy. The first planet of his visit the campers labelled "Your Own Family" and, here, the child joined his first traveling companion, Conscience. As the journey began and the little traveler pantomimed events of childhood, the off-stage campers decided that he needed other companions on his journey. Southern Tradition, Science, and Religion must accompany him. The children decided that Southern Tradition might remain on the stage, but that Religion and Science must be relegated to the balcony areas.

The logistics of the journey settled, the play began again. But this time a more serious problem presented itself. If Every Child were to grow, he should experience play "with all the earth's children." "We can't play with all children! It will ruin our play. We can't have a happy ending if we do that," responded

one camper. "Let him play with the French or somebody safe," was offered as an alternative. "That wouldn't be honest! If he plays with children he must play with those in mill town and colored ones, too, right here in Georgia." This was, indeed, a dilemma for the children who so wanted a happy journey and a happy ending as well as an honest play.

When the children met the next day, the traveling companions had their say. Conscience avoided the issue saying, "When race is the issue I always refer you to Southern Tradition." Tradition was adamant, "If you try what you propose, we will hurt you." Religion quoted the Sermon on the Mount, "Suffer little children to come unto me." Conscience replied, "I never listen to Religion where segregation is involved. No one does, down here." Every Child began to run; at every turn the eight who represented Southern Tradition blocked his way. "The Little Prince can never grow up," a camper in the audience said softly.

The play had to be mended and Miss Smith entered the discussion. She told them that things were as their actors had said but that things need not be that way. "A day would come soon when Every Child could play with all the earth's children." In the play which followed, now placed safely in the future, Religion and Science came down from their balconies and drove Southern Tradition into the wings of the stage and turned on Conscience calling her a coward and demanding that she learn from Religion and Science. The children had made an honest play, but their journey could not be happy.

## Traveling Companions

The children at Miss Smith's summer camp were attempting to understand "the old troubled story of man's progress." They were attempting to isolate, define and redefine the forces in their lives—Conscience, Southern Tradition, Religion and Science—which bound and directed their actions.

Students may now be taught to use the tools of a historian and invited to research how Every Child was affected in the North—how might Every Child in the North characterize his traveling

companions? Could they produce a happy journey, happy end- ing and an honest play? Could they define and redefine the forces that shaped their lives? Could they dream and hope?

At another level of inquiry, students might attempt to char- acterize America. What forces shape America today? Students might begin to formulate a characterization of Every Teenager based on twentieth century America. What companions should accompany Every Teenager on his journey? In the guise of jour- ney, it asks the students: Who am I? What experiences will help me grow? What are the forces that direct my life? Which of these forces should have priority? Which can I accept as reasonable and honest? The journey offers exciting and challenging possi- bilities for student and teacher alike, as they focus and shape alternatives for the creation of Every Teenager. Senior high students might be asked to help junior high students formulate a characterization of Every Teenager. They may formulate their own journey and compare their creations. They might then be encouraged to formulate an alternative characterization of Ev- ery Teenager based on the insights they have gained from each other. Where does their characterization fit in the social world? Into the vocational world? Into the spiritual world? Into the political world? Where do I belong? Do I have the intellectual strength to confront social values and maintain my integrity?

These activities make it possible for the student to define and locate self as well as to define and edit experiences as he tests his own choice-making power. As he moves away from a depen- dence upon what can be perceived in the immediate environ- ment, he begins to sense gaps, uncertainties, and problems as he tests reality against potential reality. Choices can remain at a random level if he is not taught to engage in problem finding. Students should continuously learn to locate problem areas where trial-and-error strategies are encouraged and where error is acceptable. As the student begins to isolate individual vari- ables and to test combinations, he is beginning to hypothesize and to test hypotheses.

In an effort to encourage problem location and formation,

students may be taught to isolate, to stop one moment, one bit of time in twentieth century America. Students might test their explanatory and predictive powers by comparing Lyndon B. Johnson's speech delivered on March 31, 1968 to Lincoln's House Divided speech of June 16, 1858. Is it possible to locate commonalities? Can a house divided against itself by the spirit of party, of region, of race long endure? What happens to a dream deferred? Students may now wish to understand the context of Martin Luther King's "I have a Dream" speech in relation to Lorraine Hansberry's play, *A Raisin in the Sun*. At another level of inquiry, Edward Kennedy's eulogy to Robert Kennedy may be examined within the context of the visions articulated by Langston Hughes. What happens to a dream deferred? Is it an impossible dream? "Does it dry up like a raisin in the sun?/Or fester like a sore—/And then run?/. . . Maybe it just sags / like a heavy load/ *or does it explode?*"[10]

## NOTES

[1]Noam Chomsky, *Cartesian Linquistics* (New York: Harper and Row, 1966), 29.

[2]*The Family of Man*, created by Edward Steichen (New York: Museum of Modern Art, 1955).

[3]Chomsky, *op. cit.*, 32-33.

[4]Carl Sandburg, *Complete Poems* (New York: Harcourt, Brace and World, Inc., 1950), xxviii-xxix.

[5]*Ibid.*, xxix.

[6]Harry Golden, *Carl Sandburg* (Cleveland: The World Publishing Company, 1961, 152.

[7]Carl Sandburg, *Storm Over the Land* (New York: Harcourt, Brace and Company, 1939), 12.

[8]Langston Hughes, "Montage of a Dream Deferred," in Lorraine Hansberry's *A Raisin in the Sun* (New York: Signet Books, 1966), vii.

[9]Lillian Smith, *Killers of the Dream* (New York: W. W. Norton and Company, Inc., 1961), 39.

[10]Hughes, *loc. cit.*