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A STUDY OF CREATIVITY IN COLLEGE FOREIGN-LANGUAGE
AND ENGLISH-AS-A-SECOND-LANGUAGE CLASSES

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

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* * * * *

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Department of Humanities Education
To my parents

Mary Lewis (1912-1958)

Clark Schnurr (1909-1966)
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CHAPTER I

INTRODUCTION

In recent years methods and techniques for teaching and learning a foreign language have proliferated with concern for the student's personal learning strategies and the development of his ability to communicate in the language of study. Interests and styles of learning have been accommodated through a variety of means and procedures. Reinert (1976) identified four learning styles; Hosenfeld (1977) investigated student approaches to learning exercises; problems of individualized instruction were discussed (Grittner and LaLeike, 1973); and a profile of the good language learner was drawn (Naiman, Frohlich, Stern, and Todesco, 1978). Other efforts have included examinations of career education (Grittner, 1974), humanistic, person-centered, or affective education (Christensen, 1975; Moskowitz, 1978; Wilson and Wattenmaker, 1973) and the problems of understanding and appreciating cultural similarities
and differences (Grittner, 1974; Jarvis, 1977; Lafayette, 1975). Undoubtedly, all of these endeavors have contributed not only to more interesting classes and more motivated students, but also to increased opportunities for the "real" use of the target language and the growth of each individual's communicative competence.

To promote the exchange of information, personal opinions and feelings in a warm, accepting climate is a laudable pursuit, for language is indeed a tool for understanding oneself and others. Yet, merely exchanging information of a factual or emotional nature does not account for some other real uses of language. While extending classroom practices beyond drill, we may still be restricting the means by which we arrive at communicative competence and the breadth and depth of the communicative experience because we are all too often not attending to the phenomenon known as creativity.

In teaching language, we should not forget about the creative ways in which we use it. We can and do play with language: creating puns, double meanings and plays on words. We invent alliterative phrases; play
with the world and with ideas through language; toy with other interpretations of life, things, and relationships; lift ourselves from the day-to-day and from the expected by juxtaposing perceptions and images in surprising, amusing or elevated ways. We devise novel, yet meaningful, situations and problems. That is, we interpret experience. Sometimes the opportunity to develop and communicate such perceptions finds its way into foreign language classrooms, but in a peripheral manner. It may be that such opportunities are receiving less attention than they are due. This dissertation confronts relationships of creativity and the language learner so that the creative process might be most advantageously utilized during the language learning experience.

In an article outlining creativity and its adaptation to the foreign language class, Birckbihler (1977) points out that "the vital connection between creativity and communication adds a new dimension to the second language classroom, enhancing our already rich materials and techniques designed to further the development of communicative competence" (p. 88).
This "vital connection" brings us to a more fundamental problem with which all educators should be concerned: that of creative thinking. When we are thinking creatively, we can express ourselves creatively, and this is a vital link to today's realities. In a dynamic, fast-changing world, teaching communicative competence through a humanistic filter is not enough. Foreign language study can foster intellectual growth and offer practice in developing divergent ways of thinking. Mary Finnocchiaro (1977) presents the challenge this way:

I should like to submit that communicative competence and truth may not be enough. Understanding and speaking a common language or stating the truth as one sees it do not necessarily lead to true communication. We have ample evidence of this incontrovertible fact throughout history in civil wars and in the irrational persecutions of one's countrymen.

We must have the courage . . . to help our students from their earliest years to listen to each other with attention and with interest, to appreciate differing points of view, to respect diversity, and to question their own values. (p. 19)

It may be argued that we are already providing these opportunities to our students through humanistic and cultural approaches to instruction. But it can also
be argued that we can tend to such desirable goals by directly nurturing those intellectual skills which demand openness to the new and the different.

Creativity also has an appropriate and long-honored place in the liberal arts. As Delattre (1978) reminds us, "Liberal arts were once called liberating arts, not only because 'the truth shall make us free,' but also because no one is ever free to do anything that he cannot think of" (p. 7). If, however, "The Humanities Can Irrigate Deserts," as Delattre's title asserts, we must first cultivate the creative aspects of the mind.

In our zeal to develop communicative skills and establish humanistic climates, we may have unfortunately neglected our contribution to the growth of mental powers. In "an appeal for a careful examination of our values" Jarvis (1975) states that he is "advocating that we ourselves recognize all the outcomes of language study" (pp. 104-5), including "its richness in the development of intellectual skills" (p. 107). More specifically, he hypothesizes that "foreign language study prepares a student in the best manner that schools can for the
phenomenon we have come to call 'future shock'. When we examine future shock, we find the essence of it is a lack of familiar cues: the known and the comfortable are gone. We must cope rather abruptly with the unexpected, with change" (p. 106). We cope, of course, by releasing ourselves from habitual patterns of thinking and acting and employing divergent strategies and tactics.

Creativity lies in the divergent domain of intellectual skills, and seems a natural accompaniment to the learning of a foreign language. The very act of expressing oneself through a foreign medium is a novel situation for many learners, and "novel is the sine qua non of creativity" (Guilford, 1975, p. 107). Landry (1973) has indeed found that elementary children exposed to foreign language study scored significantly higher in figural fluency and flexibility than did children from a non-FLES school. Although he simplifies the term "creativity" to the term "divergent thinking," he recognizes that "the child who has had a variety of experience develops a set to seek new experiences" (p. 112). Rather than relegate creative thinking to an incidental
place in foreign language learning, however, we should seek to encourage its development through creative use of language, creative problem-solving situations, and activities designed to promote cooperation between the right and left hemispheres of the brain (another view of creativity).

Those involved in the movement for creativity training in the schools have long recognized the importance of deliberate attempts to develop creativity. Carl Rogers (1962) stated the matter succinctly:

In a time when knowledge, constructive and destructive, is advancing by the most incredible leaps and bounds into a fantastic atomic age, genuinely creative adaptation seems to represent the only possibility that man can keep abreast of the kaleidoscopic chang in the world . . . . "[I]t would seem to me that investigations of the process of creativity, the conditions under which this process occurs, and the ways in which it may be facilitated are of the utmost importance. (p. 64)

If we recognize the importance of such a basic factor in education today, we should certainly stress the contribution of foreign language study to adaptation and to alien experience.

Research and development of activities to enhance creativity have been extensive since Guilford's land-
mark speech in 1950 and the appearance of his Structure-of-Intellect model which includes a divergent category of intellectual processes. Yet reference to the construct in foreign language education has been rather scattered and sketchy. Birckbichler's previously mentioned article is the most thorough examination of the subject for foreign language educators thus far, but others have recognized its value as well.

Allen (1978) has reminded us of the creative factor in foreign language learning and has suggested creative activities for language classrooms. Stanislawczyk and Yavener (1976) have authored a book to provide ideas for creative activities. Others have emphasized the importance of the teacher's role. Kealey (1976) argues for the development of the creative abilities of teacher trainees. Lafayette (1973) asks us "to consider creativity as the ability to produce or bring about an atmosphere where students have countless opportunities to create real language" (p. 3). Strasheim (1971) says that "creativity does not lend itself to guidelines or methods", but that "creativity can only be reported after the fact"
(p. 341) and admonishes that "we judge creativity by what the teacher makes it possible for the student to do" (p. 345).

It is true that we must provide the climate and the activities to elicit creative products from students, but it is also true that we can plan for creative results from our efforts before the fact. Numerous creativity training programs attest to that (Osborne, 1953; Parnes and Noble, 1960; Williams, 1972). Torrance (1972) also gives a summary of programs and research pointing out that:

it does indeed seem possible to teach children to think creatively. The most successful approaches seem to be those that involve both cognitive and emotional functioning; provide adequate structure and motivation; and give opportunities for involvement, practice and interaction with teachers and other children. Motivating and facilitating conditions certainly make a difference in creative functioning, but differences seem to be greatest and most predictable when deliberate teaching is involved. (p. 132)

It appears, then, that a climate for creativity, an understanding of creative processes and a structured approach produce the most advantageous setting for the promotion of divergent and creative thinking. Although
the humanistic atmosphere of many foreign language classrooms is conducive to creativity, the other two necessary conditions are lacking. As Ostijic (1975) has observed:

Creative teaching in a foreign language is an area that has been neglected up to now. It is not directed by conscious and systematic work, but left to the intuition of each teacher. The absence of new goals and adequate programmes and techniques or work leads the teacher to teach in a more or less conventional and traditional framework. (p. 318)

The Problem and the Purpose of the Study

Creative teaching, in the present view, means providing a climate for creativity and opportunities for students to develop their creative abilities in the language classroom through a comprehensive, systematic approach based on what we know about both the creative and the language learning processes. The problem can be stated in the following manner:

1. How can we best include and develop the creative aspects of the cognitive domain in the teaching and learning of foreign languages?
2. Can we systematically encourage the development of this dimension of the mind through a coherent organized framework to facilitate and promote creative thinking through the use of a foreign language?

The objectives of the study are:

1. to explore the construct of creativity and its relation to foreign language learning;

2. to construct a conceptual model for systematically generating creative production;

3. to provide examples of techniques in each of the conceptualized categories and how to use them;

4. to reword a measure for use in creativity research for a heterogeneous college English-as-a-Second-Language student population.

Overview and Implications for the Model

The concept of creativity has a rich and varied literature, making it at once a fertile field of study and a difficult one. One of the greatest problems is the range of approaches toward it. To illustrate this range three different groupings of creativity categories can be cited. Five classifications of the research on
creativity were made by Gowan (Khatena, 1976). They are creativity as:

1. cognitive, rational and semantic;
2. personal and environmental relative to child rearing practices;
3. a high degree of mental health;
4. Freudian;
5. Psychedelic.

Bloomberg (1973) divides the approaches into:

1. psychoanalytic;
2. humanistic;
3. environmental;
4. associative;
5. factorial;
6. cognitive-developmental;
7. holistic.

Another classification made by Roweton (1976) views creativity from two perspectives: as a process and a product. Emphasizing the process are four subdivisions: definitional, dispositional, psychoanalytic, and humanistic. The product is represented by behavioristic
and operational approaches. This dissertation explores the phenomenon of creativity using Roweton's categories as a framework. In addition, it presents pertinent findings from neurophysiological studies concerning left-right brain lateralization wherein right brain activities are generally termed "creative" (Bogen and Bogen, 1969).

Current hypotheses concerning processes in second language learning are discussed, giving rise to a model for creativity in language learning. From it are derived techniques for the productive skills (speaking and writing) and the receptive skills (listening and reading) which purport to develop a disposition for creative attitudes and the use of creative abilities. These techniques, used in college Intermediate English-as-a-Second-Language classes, demonstrate the possibilities of the model for generating activities for language learning and creativity development.

The model identifies three modes of creative processing—verbal, visuo-spatial, and auditory—and four aspects, or kinds of products labelled in the field
of creativity as fluency, elaboration, flexibility, and originality. Also encompassed by the model is a context conducive to creativity, one characterized by an openness and sensitivity to experience. Sensitivity is a disposition toward awareness and curiosity. Openness is a flexibility-of-mind inviting varied ways of encountering knowledge and experience. Openmindedness has been defined and measured by the Dogmatism, or "D" Scale (Rokeach, 1960). Because this construct may be useful in further studies of creativity and language learning, a linguistically-revised version suitable for English language students, and procedures for its revision, are included.

Chapter One deals with the rationale, the problem and purposes of the study, and a general overview of the study, with its limitations and implications. The second chapter consists of a review of pertinent literature from the psychology of creativity, neurophysiological research on the brain hemispheres, and foreign language learning in light of these two fields of study. Chapter Three presents and explains the resultant model of creativity
for the foreign language classroom. In Chapter Four activities categorized according to the model and developed in Intermediate English-as-a-Second-Language college classes are elucidated with selected results. Chapter Five discusses the place and importance of creativity in the foreign language classroom, implications of the model, limitations of the study, and recommendations for further research. The appendix contains a rationale for the use of the Dogmatism Scale in foreign language and creativity research, procedures used for administering it, and its revised version.

**Limitations and Implications of the Study**

This study provides a structure for the promotion of creative endeavor in the form of a model containing essential variables for developing creativity in a language learning context, variables which theoretically play a role in second language learning and in creative activity. The model's successful application, as evidenced by student responses, shows that creative techniques are possible within a limited language situation. Although the study offers no statistical data that
creativity or language learning were enhanced, it draws relationships between creativity, language learning processes and openmindedness, uncovering questions to be investigated under controlled conditions. It also offers a research instrument that can include English language students as well as English-speaking foreign language students in subsequent research.

Creativity, it must be stated, is inherently neither good nor bad. After all, the same creative processes presumably accompanied the development of nuclear weapons as well as the discovery of a polio vaccine. Nevertheless, the ability to be flexible, original, and openminded in a shrinking, changing world is recognized as a vital orientation for dealing with contemporary problems. This study brings to our attention some of the possibilities for creative potential proffered by foreign language study and offers a way for foreign language educators to meet the important challenge of developing curious and flexible minds.
CHAPTER II
REVIEW OF THE LITERATURE

Creativity has been studied from a number of perspectives since 1950, when J. P. Guilford, in his celebrated speech to the American Psychological Association, decried the dearth of studies in the area of creativity during the first half of the century and "lit the fuse for the explosion of knowledge and research in the area of creativity" (Khatena, 1976, p. 1). In the fifties numerous research centers devoted to creativity sprang up and Alex Osborne's book, *Applied Imagination*, gave rise to the *Journal of Creative Behavior*, a scholarly endeavor aimed solely at this research. Guilford (1970) pointed this growth out and optimistically stated that, in that year, 1.4 percent of the entries in *Psychological Abstracts* were concerned essentially with creative studies, testimony to a decided rise in interest from the two-tenths of one percent he cited in 1950 (p. 157).

In another arena, that of neurophysiological research in the 1960's, attempts to control severe epilepsy through
surgical separation of the two halves of the brain opened the way to new understandings of the roles played by each hemisphere with distinct implications for education. The right hemisphere, which appears to perform the"creative," visuo-spatial, non-linear operations of the mind, has been neglected in our verbal, linear, and analytic educational system (The Human Brain, 1977).

Both neurophysiological and psychological insights into the nature of creativity are useful in this study, and will be discussed in this chapter along with pertinent aspects of scholarship in foreign language learning.

The Psychology of Creativity

In spite of a proliferation of research in creativity, no complete theoretical statement about it exists (Freeman, 1971; Roweton, 1976). This lack probably stems from the numerous ways in which it is conceptualized and tested, as was pointed out in the first chapter. The classification that provides the framework for this study is that of Roweton (1976) who divides his two approaches into two orientations: the traditional study of creativity "as a cognitive process or as a product which reflects the
underlying creative process" (p. 228). He sees definitional, dispositional, psychoanalytic, and humanistic approaches centering on the process, and behavioristic and operational approaches tending toward the product.

The definitional approach simply consists of "scores" of definitions which can lend themselves to the discovery of testable hypotheses, but which also indicate the complexity of the subject. He selected nine categories of definitions which seemingly correspond to most of the types of creativity being discussed and investigated. Roweton's definition categories follow along with samples of the many definitions that he cited.

1. Sensitivity: 'Creativity is the encounter of the intensely conscious human being with his world'--[Rollo] May (Kaiser Aluminum News, 1968, p. 3);

2. Originality: 'Creative ability appears simply to be a special class of psychological activity characterized by novelty'--Newell, Shaw and Simon (Kaiser Aluminum News, p. 3);

3. Practicality: 'Creativity is the disposition to make and to recognize valuable innovations'--Lasswell (Kaiser Aluminum News, 1968, p. 3);

4. Originality and Practicality: 'Creativeness, in the best sense of the word, requires two things: an original concept, or 'idea,' and a benefit to someone'--(Mason, 1960, p. 16);
5. **Product**: 'It would seem, then, that there is no unique entity identifiable as the creative process. All we can identify is the product. And it is from the product that we infer the existence of a process'—Fox (Kaiser Aluminum News, 1968, p. 20);

6. **Product and Process**: 'The product and the process are both important. Without the process there would be no product. Without the product . . . there might not be more than fantasy'—Brunelle (Kaiser Aluminum News, 1968, p. 20);

7. **Synthesis**: 'Creativity is the production of meaning by synthesis'—Allen (Kaiser Aluminum News, 1968, p. 3);

8. **Combinations**: 'Creativity is a marvellous capacity to grasp two mutually distinct realities without going beyond the field of our experience and to draw a spark from their juxtaposition'—Preface to Max Ernst Exhibitions by André Breton, 1920 (Kaiser Aluminum News, 1968, p. 6);

9. **Scientific Method**: 'Creative thinking . . . takes place in the process of sensing difficulties, problems, gaps in information, missing elements; making guesses or formulating hypotheses about these deficiencies; testing these guesses and possibly revising and retesting them; and finally in communicating the results'—(Torrance, 1965, p. 8). (Roweton, pp. 229-30)

Taken together, these definitions point out three basic concepts associated with creativity: openness, novelty, and utility. The first emphasizes the need for awareness, for sensitivity to different modes of knowing, for a flexible and perspicacious posture as one observes
himself and the world. This orientation can lead to the second concept, that of new ideas, or originality, or a novel integration of disparate phenomena. The third serves to distinguish stability from instability. These three notions recur in the literature and underlie this investigator's view of creativity.

Dispositional investigations have been concerned with the study of the creative personality. Much of this work has been done by inquiring into the mental processes of persons considered to be creative. In 1869 Galton published Hereditary Genius, which Vernon considers as the first empirical work on human abilities (p. 10). It traced family lines of eminent persons in a variety of fields in an effort to show genetic influence on extraordinary gifts of ability. Since then, letters, memoirs, and interviews have been published from a number of highly regarded artists, scientists, musicians, mathematicians and others with a view to understanding the creative process and identifying the characteristics of the creative personality (Ghiselin, 1952; Koestler, 1964; Rosner and Abt, 1970; Rugg, 1963; Vernon, 1970). If we
can list attributes of the creative personality and
delineate what it does, then we can identify others
among us who possess creative talent and encourage its
growth. These studies further the belief that all indi-
viduals have some creative capacity and that it should
be fostered (Anderson, 1959; Guilford, 1968, 1975;
found among a select population can be illustrated through
the findings of a classic study of the creative personality.

D. W. MacKinnon and his associates at the Institute
for Personality Assessment and Research at the University
of California studied a number of successful scientists
and other professionals. In one study (Vernon, 1970)
architects were chosen as subjects under the assumption
that their field required them to be both artist and
scientist (p. 289). The 124 architects selected by
university professors of architecture and from the 1955
Directory of Architects were ranked by staff members on
the Gough Adjective Check list, given the task of making
a mosaic, and given a number of other personality and
other types of tests during a week-end at the institute.
The creative traits found in this study were consistent with those found in others cited by Freeman (1971, p. 15). These characteristics are generalized as: "high level of effective intelligence, openness to experience, freedom from petty restraints and impoverishing inhibitions, esthetic sensitivity, cognitive flexibility, independence in thought and action, high level of energy, unquestioning commitment to creative endeavor and unceasing striving for creative solutions to the evermore difficult architectural problems which he constantly sets for himself" (MacKinnon, p. 310).

In similar studies by Frank Barron (1968) other personality correlates to originality were also found. One such was the complexity-simplicity dimension. Artists preferred complex and asymmetrical drawings to simple ones. This distinction was also found among Ph. D students and air force officers who demonstrated originality on other measures (p. 207).

Eisenman and Robinson (1967) found that high school students, on a personality measure which included 6 items each on tolerance of complexity, tolerance of ambiguity,
scanning, independence of judgement, and regression in service of the ego, had related scores on the personality tests and preference for complex polygons, although the five measures of creativity were not significantly related to each other (p. 334).

Another attribute of the creative personality may be field-independence (Noppe and Gallagher, 1977; Spotts and Mackler, 1967). Field-independent cognitive style is a construct based on the idea that one's perceptual orientation in space is related to many areas of one's cognitive life. Witkin pioneered in this research, according to Spotts and Mackler, by using the Body-adjustment Test (BAT), the Rod-and-Frame Test (RFT), and the Embedded-figures Test (EFT). These tests require a subject to keep an item "(his body, a luminous rod, a geometric design)" separate from its context, or "field." A field-independent subject makes this distinction. A field-dependent subject is unable to do this, showing "submission to the dominant organization of the field" (p. 241). In this article Spotts and Mackler report their own study in which field-independent college males were more creative than field-dependent males. Scores
for these cognitive styles were obtained from the short form of the Embedded Figures Test. Creativity was derived from a battery of creativity tests. Field-independents were described as having "a highly developed sense of their own self-identity, able to organize ambiguous stimuli, detached, impersonal and highly sensitive to their environment and nonconforming" (p. 244). The field-dependent person was seen as 'victimized' by his environment, finding "difficulty in structuring his experiences into meaningfully organized patterns or part-whole relationships . . . . lack[ing] the capacity to organize and integrate effectively both inner experiences and environmental events" (p. 243).

In their comparison of the field-dependent-independent cognitive styles and the creative personality, they also note that "openness to the world" is characteristic of both styles but that "sensitivity to the world of objects and other people is, in itself, insufficient to generate and 'carry' highly creative behavior" (p. 261). A sense of intellectual detachment seems to be a discerning point of the field-independent learner.
Bloomberg (1967) suggests another possible distinction—that field-independent subjects who are creative may be open-minded whereas field-independent low creative subjects may be closed-minded. The open-minded group would tend to be able to shift from inferential-conceptual responses (associated with high intelligent but low creatives) to relational responses (associated with low intelligent, low creatives). That is, they would be persons who had reached a level of hierarchic integration, an ability to be involved and detached at the same time. As he states, "shifts between an analytical and a global approach facilitate creative activity, with each perceptual mode making a vital contribution" (p. 133). Levy and Rokeach (1960) remark that "it might . . . be fruitful to try to reconsider and reformulate the nature of 'field-dependence' and 'field-independence' so that it will include synthesis as well as analysis. For it is reasonable to suppose that a person who is really 'field-independent' is a person who is not only able to 'separate item from field' but to 'reorganize old fields into new ones'" (p. 269). The latter statement refers to one of
the qualities of open-mindedness as measured by Rokeach's Dogmatism Scale (1960).

On the Dogmatism Scale (or D Scale) low scorers are open-minded in their belief systems, while high scorers are presumed to be closed-minded. A belief system covers three basic dimensions: belief-disbelief, central-peripheral, and time-perspective (Rokeach, p. 53). The open-minded individual can be said to be able to differentiate items outside his belief system without rejecting them wholesale; can entertain possibilities without relying heavily on authority; and is not preoccupied by the past or the future at the expense of the present. Another way to express this is given by Johnson (1968) who described the open-minded person as more flexible, more tolerant, more trusting and more experimental than the closed-minded person, who is overly loyal to his reference group, authoritarian, rejecting, and conservative (pp. 13-14). His study showed that high school student scores on the D Scale related inversely to creativity as measured by Mednick's Remote Associate Test (RAT) confirming his hypothesis that high scorers
of RAT would be low dogmatism scorers. \( r = -0.29 \)

Jacoby (1967), citing Golann's description of 'tolerance for or seeking of ambiguity, openness to experience . . . internal frames of reference, or independence of judgement' chose to investigate the open-mindedness-creativity relationship by giving Rokeach's D Scale and Mednick's RAT to 24 graduate students in a business administration course at George Washington University. He also found an inverse relationship in the predicted direction, though not significant \( p = 0.12 \) \( r = -0.248 \).

In another study, undertaken to clarify this relationship, Faschingbauer and Eglevsky (1977) found that Dogmatism appeared to be related to a "concrete-abstract dimension of creativity" (p. 391). Using Welch's distinction between the personality dimensions of origence (preferences toward unstructured situations) and intellectance (preferences toward the abstract—not to be confused with intelligence), which they categorized by making 4 typological scales from the Minnesota Multiphasic Personality Inventory (MMPI), they found that origence did not correlate with Dogmatism \( r = 0.02 \) but
that intellectence did \((r = -0.61) (p < 0.01)\). Their grid showing the different personality characteristics of origence and intellectence is reproduced below.

![Grid showing different personality characteristics of origence and intellectence.]

Clearly, the creative personality is not completely described by any of the foregoing categories, but it is revealed in many of its multifaceted aspects. This diversity of qualities is also reflected in creativity tests themselves which often do not interrelate well. In a study of ten different tests of creativity selected for their similarities and differences, Belcher and Rubovits (1977) found that convergent cognitive tests,
such as RAT and Squares, and tests for the creative personality were "not dissimilar, while divergent thinking tests were." They concluded that "single tests of creativity are inadequate to explore the construct" (p. 220).

Rokeach (1965) suggests a "unidimensional character of conformity-independence-creativity" (p. 70). He cites studies which showed closed-minded subjects much more influenced by authority, and making many more mistakes than open-minded subjects when presented with "oddity problems" because they were overly influenced by "arbitrary authority" (p. 72) and unable to discriminate between information and the source of information. The open mind, conversely, has "a psychological freedom from authority which permits one to entertain or to be receptive to new ideas or beliefs and to combine them into new systems or beliefs" (p. 73). Thus, the open mind is a prerequisite to, rather than a description of, the creative mind.

Creativity and conformity have been shown to be inversely related by Allen and Levine (1967). Accepting the idea that "conformity pressure produces ego-involved
motivation detrimental to creativity and that personality characteristics of conformers are inimical to creative thinking," they undertook a study of 164 fifth grade children in Racine, Wisconsin, to see whether "experimentally enhanced creativity produces greater independence in the face of group pressure" (p. 406). Experimental subjects, matched with controls, received four weeks of creativity training. Later, all subjects were given test items under free and group pressure circumstances. Problem solving skills seemed enhanced by creativity training, but subjective items were not affected. They also found that "the creativity training reduced overall conformity for low IQ subjects but not for subjects of average and high IQ levels" (p. 419).

In another study with children Pankove and Kogan (1968) concerned themselves with the more independent mind as risk-taker. They stated that "risk-taking focused on tolerance of error is part of the fabric of creative thought" (p. 421). Boys, but not girls, showed significant relationships in scores between "the number of associates generated to creativity tasks administered
under game-like conditions and the preferred level of risk-taking on a shuffleboard task" (p. 438). Low defensive boys were also significantly freer to take risks than high defensive boys. They found that intelligence did not correlate with risk-taking and concluded that self-confidence may be a "mediating link" between creativity and risk-taking.

Summarizing, it appears that the independent personality, as opposed to the dependent one, is less influenced by authority and less fearful of failure, and consequently more likely to engage in activities in a more non-conformist and risk-taking manner. He can thus be more inclined to be creative, especially when given the opportunity.

In an extensive review of the literature, Stein (1974) culled 19 general characteristics of the creative personality which appear clearly and consistently in the creative individual's profile. The basic list (details are abbreviated here) shows the creative person as:

1. an achieving individual as measured by a number of scales;
2. motivated by a need for order;
3. needing curiosity;

4. self-assertive, dominant, aggressive, self-sufficient . . . leads and possess initiative;

5. rejecting repression, less inhibited, less formal, less conventional, bohemianly unconcerned, radical, low on measures of authoritarian values;

6. persistent of motive, liking and capacity for work, self-discipline, perseverance, high energy output, thorough;

7. independent and autonomous;

8. constructively critical, less contented, dissatisfied;

9. widely informed, with wide-ranging interests, versatile;

10. open to feelings and emotions . . . feeling is more important than thinking; he is more subjective; he possesses vitality and enthusiasm;

11. aesthetic in his judgement and value orientation;

12. low in economic values. (this varies with professions);

13. possessing freer expression of what has been described as feminine interests and lack of masculine aggressiveness;

14. having little interest in interpersonal relationships, not wanting much social interaction, introverted and lower in social values, reserved;

15. emotionally unstable but capable of using his instability effectively; adjusted in the broader sense of being socially useful and happy in his work;
16. seeing himself as creative;
17. intuitive and empathetic;

18. less critical of himself . . . less inclined to use negative and unfavorable adjectives on the Gough adjective check list;

19. having a greater impact on others. (pp. 58-60)

In addition to contributing to an understanding of who the creative person is, these kinds of studies have helped us to theorize what the creative person does in the creative act. Wallas, in his 1926 *Art of Thought* (Vernon, 1970, pp. 91-97), capsulized the process as a four step pattern of (a) preparation, (b) incubation, (c) illumination, and (d) verification. Preparation means that the creative person knows his field. When a particular problem arises for which no immediate solutions appear, he files it away and goes about other things (incubation). Then, in a dream or in a flash of insight at some unpredetermined moment, a solution appears to his conscious mind (illumination). This solution is then tested for truth (verification).

Osborne (1953) concludes that we cannot apply a set formula to the process and that in actual practice we
do not follow the steps of the process in sequence. We also change and vary pace throughout the process. He sees the steps as:

1. Orientation: pointing out the problem.
2. Preparation: gathering pertinent data.
3. Analysis: breaking down the relevant material.
4. Hypotheses: piling up alternatives by way of ideas.
5. Incubation: letting up to invite illumination.
7. Verification: judging the resultant ideas.

(p. 125)

Osborne's approach seems to describe problem solving. Stein (1974), on the other hand, shortens the creative process to (a) hypothesis formation, (b) hypothesis testing, and (c) communication of the results, leaving the preparation stage as preliminary to the actual creative process (p. 6). He explains that he is not describing problem solving. Rather, "problem" stands for "work" of an artist or the "project" of a scientist. He distinguishes the process from problem solving by saying that
"the former results in greater leaps, in giving things more of a twist; and the final result is regarded as much more novel than the result of problem solving. Also there is more of the irrational . . . the mystiques in the creative process than there is in the problem solving process" (p. 17).

Another way of approaching the creative process is in terms of intellectual abilities and operations. Guilford's Structure-of-Intellect contains a number of independent intellectual abilities found through factor analysis. This cognitive view provides a factorial cube which contains five mental operations, at least five kinds of information, or content, and six products. They are, as recorded in a 1975 article, as follows:

Mental operations: Cognition, Memory, Divergent production, Convergent production, Evaluation

Content: Visual-figural, Auditory-figural, Symbolic, Semantic, Behavioral

Products: Units, Classes, Relations, Systems, Transformations, Implications. (p. 109)

Any mental operation applied to a content yields a product. For example, memory applied to semantic gives
a verbal unit, such as "Columbus" in response to "What is the capital of Ohio?" or "Who discovered America?" Creativity is directly concerned with the divergent production category which is "generation of information from given information, where emphasis is on variety and quantity of output from the same source (Guilford and Tenopyr, 1968, p. 28). Creativity here is defined as "any mental process or interrelated set of processes in which an individual generates information he did not have before." Accordingly, if the mental divergent operation is applied to semantic content with a unit product, it might be an original title (a unitary idea) to a story (Guilford, 1975, p. 113). In fact, this particular factor is called "ideational fluency," one of the operational definitions of creativity.

Others which Guilford describes in the 1975 article include associational fluency (the divergent production of semantic relations--or giving synonyms), expressional fluency (the divergent production of semantic systems), which is tested by asking a subject to, given a set of five familiar nouns, write sentences, each containing
three of those words.

Guilford also presents two kinds of flexibility existing independently of other factors. One is "spontaneous flexibility," operationalized by his test of divergent production of semantic classes, or "changing classes of information without directions to do so."

These tests are called "Alternate Uses" or "What to do with it" or "Unusual Uses" (Torrance's term). The testee is to give as many ideas as possible about the uses of a common object. He is scored according to the number of times he changes classes, i.e., a brick as a bed warmer and as a doorstop.

The other is "adaptive flexibility," the divergent production of visual-figural transformations. Given a somewhat complex, geometric-like figure in 50 replications, one is to choose lines from it to form letters (The Children's Hidden Letters Test). A corollary is the Match Test where one has to manipulate matches to make various shapes.

The construct of "originality" is interpreted through tests of divergent production of semantic transformations.
One such test is "Picture Writing." Given a word with several different meanings, i.e., "heavy," the subject is instructed to sketch different figures or designs that might represent the various meanings. For adults this is called "Alternate Signs." Plot titles are often used with adults because they require seeing a story in a new light or they involve punning, but clever titles are difficult to elicit from children.

Tests of divergent production of semantic implications are scored for "elaboration." A picture of a common item, such as a glove, should suggest to the subject different kinds of work or occupations. "Planning Elaboration" is a test on which, given the bare outlines of an organized activity, the subject is to list all the detailed steps necessary to carry out the activity. Divergent production of figural implications involves adding decorations to pictures of items like clothes or furniture. For divergent production of figural classes, one classifies three of a set of eight selected capital letters in varied ways, or one is given five simple geometric forms and asked to construct stated objects.
by combining those forms as needed.

These tests illustrate the meaning of the four most commonly used terms in creativity testing: fluency, flexibility, originality and elaboration. They are four ways of scoring the 24 possible divergent production abilities identified by Guilford (1970, p. 157). Fluency is the number of responses; flexibility, the number of changes in category, or transformations; originality, the number of statistically infrequent responses; and elaboration, the number of added details.

These distinctions, however, cannot give us a total picture of creative activity. Both Torrance and Guilford include sensitivity to problems as another component. In addition, Guilford (1975) points out that divergent production is not synonymous with the term "creativity," and reminds us that convergent production is also useful in creative thinking. Scientists are often looking for the "right" (i.e., convergent) answer (p. 112). He also emphasizes the importance of transformations, which may be "equally important" for creative thinking as divergent production is (p. 116). Transformations involve reor-
ganizing material or seeing it from a new perspective, an idea treated more in depth in connection with associative thinking.

This cognitive approach exploring creativity testing has lead to a controversy in the research literature concerning intelligence and creativity. During the 1950's Anne Roe found that personality differences seemed to be "more crucial than differences in intelligence" among the highly creative scientists she was studying (Freeman, 1971, p. 15). In 1962 Getzels and Jackson studied a restricted range of young people (their average IQ was over 130) using Guilford and Cattel's creativity tests and discovered some who were highly creative and relatively less intelligent, while others were low creative and relatively more highly intelligent (Freeman, p. 10). Wallach and Kogan contested those results in 1965, and decided to change the conditions under which the tests were administered. In a game-like atmosphere, untimed, creativity scores were obtained. Correlation of ten creativity test scores was .4; correlation of ten IQ measures was .5; and the correlation of creativity and intelligence was .1
(Wallach and Kogan, p. 242). Yamamoto found a correlation of .5 between creativity and intelligence in two groups of primary school children in the midwestern United States. He concluded that creativity tests were complementary to and not wholly independent and exclusive of the general factor of intelligence (Freeman, pp. 14-15). Although the controversy continues, a useful admonition for teachers is made by Guilford (1975): "Although creative thinking talent is commonly greatest among children with high IQs, high IQs ARE NOT SUFFICIENT" (p. 108). This distinction may be more relevant to primary and secondary school teachers than to college teachers; yet it behooves all educators to be aware of and to value differing cognitive styles.

The humanistic point of view concerning creativity is well represented by Maslow and Rogers. It recognizes the human being as "self-actualizing," as inherently needing to realize his capabilities and to become that which he seeks to be. This need is a "fundamental characteristic, inherent in human nature" (Maslow, 1959). Rogers specifies the "Inner Conditions of Creativity [as]
A. Openness to experience, B. An internal locus of evaluation, and C. The ability to toy with elements and concepts" (pp. 75-76). Openness is "the opposite of psychological defensiveness . . . lack of rigidity . . . permeability of boundaries in concepts, beliefs, perceptions, and hypotheses . . . . and tolerance for ambiguity where it exists" (p. 76). An internal locus of evaluation means that the individual himself appraises his product and establishes his own personal value for it. Toying is conceived as the ability "to play spontaneously with ideas, colors, shapes, relationships . . . . to juggle elements into impossible juxtapositions, to shape wild hypotheses, to make the given problematic, to express the ridiculous, to translate from one form to another, to transform into improbable equivalents."

For Maslow the qualities of "self-actualizing creativity" are: "boldness, courage, freedom, spontaneity, perspicuity, integration, and self-acceptance" (p. 94). Such individuals are not afraid of the unknown but are "positively attracted by it" (p. 86) and have a childlike freedom of perception. They can perceive visually and
kinesthetically, breaking away from the usual adult conceptions of form and function.

From perceptual studies, according to Stein (1974), this ability is recognized as "physiognomic perception," which precedes concept formation, and "depends on the motor and affective attitude of the person" (p. 197). He has pioneered in this area with a test consisting of two sets of items on a continuum from physiognomic to formal. The first set, "feeling-physiognomic" might give the visual stimulus \( \bigcirc \), formally recognized as a 'circle with a dot in it,' but physiognomically seen as 'a feeling of smallness.' An example of the other set, "thing-physiognomic," is \( \bigcirc \), which in the formal sense is 'two arcs' but physiognomically is 'open mouth' (p. 198).

If a person can regress to this "primitive" mode of perception for constructive reasons, psychoanalysts call it "regression in service of the ego." Ordinary regression is a return to more primitive or developmentally antecedent behavior as "a reaction to some difficulty or as a defense mechanism" (Stein, p. 92). It sometimes reaches the stage of psychosis.
Neither Schactel (1973) nor May (1975) agree with Kris' concern that regression in service of the ego is simply regression to primary process thought. Kris, according to Schactel, sees fantasy as "free-wandering thought processes" as a part of "ego-weakness" until these processes become creative, in which case they are in service to the ego. Schactel states:

What distinguishes the creative process from regression to primary process thought is that the freedom of the approach is due not to a drive discharge function but to the openness in the encounter with the object of the creative labor . . . the sensibilities of the person, his mind and his senses, are more freely receptive, less tied to fixed anticipations and sets, and that the object is approached in different ways, from different angles, and not with any fixed purpose to use it for the satisfaction of a particular need, or the testing of one particular expectation or possibility. (p. 305)

Both Schactel and May see the creative act as an encounter of openness to the object in question and free play of ideas, not that "it is playful rather than serious, but that it is not bound by rigorous rules or by conventional schemata of memory, thought or perception" (Schactel, p. 302). May's encounter is not the fulfillment model expressed by Maslow, but the "conflict model" (Stein, p. 57) from the psychoanalytic school of thought.
May theorizes that "Creativity occurs in an act of encounter and is to be understood with this encounter as its center." (p. 87) and the creative persons are those who are "directly confronting their anxiety" (p. 106). Creativity lies in the "unconscious" which term May uses as a "shorthand" for "the subconscious, preconscious, and other dimensions below awareness" (p. 57). He describes unconscious dimensions as "the potentialities for awareness or action which the individual cannot or will not actualize" (p. 58). When the creative act takes place, the unconscious aspects break through the rigid conscious thought and "the insight is then born with anxiety, guilt, and the joy and gratification that is inseparable from the actualizing of a new idea or vision" (p. 63).

Anxiety is a necessary part of "mature creativity" because "the creative impulse is the speaking of the voice and the expressing of the forms of the preconscious and unconscious, and this is, by its very nature, a threat to rationality and external control" (p. 85). For creative persons, anxiety is a "temporary rootlessness, disorientation; it is the anxiety of nothingness" (p. 107).
For our society, it is the potential destruction of "our nicely ordered systems" (p. 84). He also points out that creative action has not only a regressive side but "an integrative, progressive" side, as well, because the basic characteristic of his view is openness to the encounter for its own sake, not for driving out sublimated feelings, but for being receptive to what is possible.

Humanistic and psychoanalytic approaches also affirm the necessity of discipline and concentration, self-evaluation, verification and presentation of findings to others.

From the foregoing aspects of the literature one can generalize that basic to the creative process is an openness to experience, a flexibility in one's approach to knowing, and a willingness and attraction toward playing with ideas. One has to shed conventional and conformist postures in order to allow the free play of the mind so that it can entertain unlikely or unexpected ideas in order to produce a new and useful idea or approach to living. The creative process arises somewhere in the unconscious mind and produces novel ideas, but it needs
to be primed by an informed open mind. It can also be viewed as a cognitive process which to some degree has not been accounted for by the conventionally understood construct of intelligence. Moreover, all human beings possess the capability of being creative, though to varying degrees. Thus, one can foster creative behavior by promoting appropriate personal and social environments.

The behavioristic approach to the creative process, according to Roweton (1976), uses traditional S-R theory which predicts "that the emission of low dominance (original) ideas should increase with practice and reinforcement" (p. 230). Researchers in this area have used free association training to investigate originality in verbal tasks. Roweton sees Mednick's Remote Associates Test (RAT) as experimentally confronting the idea of "incubation" defined as 'a stage of the process during which no active attempts at solution are being made but which nevertheless results in improvement of performance'" (Roweton, p. 230). RAT gives a series of three words (e.g., rat blue cottage) and the subject must respond with another word associated with all three. (The answer
is "cheese." (Mednick, 1962, p. 227).

In spite of the behavioristic label (which may impart a feeling of disinterest to some), this theory provides an evocative explanation of the creative process. Mednick postulates that creative thinking in associative terms indicates three ways in which creative solutions can be produced: "serendipity, similarity, and mediation" (p. 220). Each of these are "bringing the requisite associative elements together" (p. 221). Serendipity occurs when different elements appear together and evoke a new and useful combination to the person seeking a solution. Mediation occurs when two different elements are brought together by means of a mediating association. This means of association is important in fields where the use of symbols (verbal, mathematical, chemical, etc.) is mandatory (p. 222). Similarity means that the elements or the "stimuli" eliciting them are similar. He gives examples of alliteration, or rhythm or rhyme of words. He also mentions "certain approaches to painting, sculpture, musical composition, and poetry where creative effort . . . [is] less dependent on the manipulation of
Mednick's theory predicts that the creative individual would have a "flat associative hierarchy" (giving many responses to a given stimulus) whereas the less creative individual would have a "steep associative hierarchy" (giving stereotypic responses). In accounting for the "one-shot" novelist, Mednick explains that this person's steep hierarchy may be a deviant one. He also points out the problem of the person who is so well versed in his field that he has amassed a great number of stereotypic or conventional responses to a problem. This individual may miss fresh approaches seen by a beginner.

Another contribution of his theory is the idea of utility. Just because an associative response is novel or unexpected does not mean that it is creative; rather, "the creativeness of a product is some function of the number of requirements that the product meets" (p. 226). One needs a criterion upon which to judge the creativeness of a response. For Mednick the answer to $5 + 5 = 492$ may be original, but not useful. Torrance's and Guilford's creativity tests do not account for utility, relying
instead only on statistical infrequency of responses for originality. The RAT does, although it is faulted in the field of creativity measurement as requiring a convergent, rather than a divergent, response. Nevertheless, without a criterion, the creative product may be justifiably dismissed as the work of a warped, or perhaps, insane mind. As Stein argues concerning the entire creative process, "for completion, the final product must be presented to and accepted by a group of significant others as tenable, useful, or satisfying" (p. 35). This is, however, a difficult problem to reconcile, since often in the real world, the mad scientist or the misfit artist who are producing truly creative works, are initially jeered at, or their products are believed to be unworkable or useless.

In another model of creativity in the associationistic tradition, Hebb explains the chance discovery and the need to forget. He stresses relaxation in an incubation period so that the various ideas "occurring independently and more or less at random can fire and subside, until the crucial combination occurs" (p. 77). This idea reiterates what the reader has encountered before: that
the well-informed mind needs to be flexible, to relax its prejudices and its habitual associations in order to produce a novel idea, be it scientific or poetic.

Arthur Koestler (1964) has coined the term "bisoociation" to describe the act of breaking normal associations. He states that "the creative act ... uncovers, selects, reshuffles, combines, synthesizes already existing facts, ideas, faculties and skills" (p. 120). He gives two illustrations of how this is done which recall May's two-fold encounter and receptivity. George Bernard Shaw described the process as "90% perspiration, 10% inspiration," while Picasso expressed it as 'Je ne cherche pas, je trouve!' (I don't look; I find) (p. 120). Neither, however, confines himself to a defined, limited matrix of thought. Their universe of discourse is open-ended.

Matrices of thought are associative contexts for Koestler. A matrix is "any ability, habit or skill, any pattern of ordered behavior governed by a 'code' of fixed rules." This code "sets limits in flexibility," but the "skill can be adapted to environment" (p. 38). In fact,
the creative act must "disrupt rigid patterns of mental organization to achieve the new synthesis" (p. 104). When one combines two previously unrelated frames of reference, one has produced something novel. Links between matrices can be verbal or visual, but they become links only when stereotyped behavior has not been ingrained in the individual. "When the same task is encountered under relatively unchanging conditions in a monotonous environment, the responses will become stereotyped, flexible skills will degenerate into rigid patterns, and the person will more and more resemble an automaton, governed by fixed habits, whose actions and ideas move in narrow grooves" (p. 119). According to his view, then, although the creative personality may resist constricted thought processes, it may be possible to force an individual into limited strategies of thinking and behavior. Conditions for creativity are important.

One way to foster flexibility and develop an ability to make transformations of thought is to recognize and utilize Koestler's insight that "all patterns of creative activity are trivalent: they can enter the service of
humour, discovery, or art" depending upon the emotional climate of the individual which "changes by gradual transitions from aggressive to neutral to sympathetic and identificatory . . . . from an absurd through an abstract to a tragic or lyric view of existence" (p. 27). For example, if one were to think of "Hamlet getting the hiccoughs" (p. 47), what would the reaction be? Which reaction we have depends on the convergence or "biso- ciation" of perception and reason. How we feel will make us laugh, cry or search for a solution. This tryptich, in Koestler's view, derives from the individual's purely rational and emotionally distant point of view (laughter), his empathy (tears), or his curiosity (intellectual challenge). One can consciously attack a problem from all three vantage points, letting associations develop within and across categories, thus cultivating flexible strategies of thinking and establishing one condition for creativity.

The promotion of creative thinking has been undertaken in both industrial and educational settings. Several techniques are well-known and have been incorporated into many creativity training programs.
One of the best known is called brainstorming and originated with Alex Osborne, whose first such "group-thinking" sessions took place in business in 1939. His guided for these informal thinking sessions published in his 1953 book is as follows:

1. Judicial judgement is ruled out. Criticism of ideas must be withheld until later.

2. 'Freewheeling' is welcomed. The wilder the idea, the better; it is easier to tame down than to think up.

3. Quantity is wanted. The greater the number of ideas, the more likelihood of winners.

4. Combination and improvement are sought. In addition to contributing ideas of their own, participants should suggest how ideas of others can be turned into better ideas; or how two or more ideas can be joined into still another idea. (pp. 300-301)

Another approach, also used in business, was developed by William J. J. Gordon (1961). Group members come from different areas of specialization and develop ideas through metaphorical and analogical thinking. This method, called synectics, means "the joining together of different and apparently irrelevant elements—diverse individuals in a problem stating, problem solving group" (p. 3). The synectic process involves two aspects:
(a) making the strange familiar (analytical) and (b) making the familiar strange (distorted) (p. 33.) The four mechanisms by which the familiar is made strange are analogies of personal, direct, symbolic or fantasy orientation. The personal is "empathetic personalized identification--I am a dancing molecule. How do I feel?"
The direct is "actual comparison of parallel facts, knowledge or technology; of which the richest source is biology. Einstein called this 'combinatory play'" (p. 41). The symbolic is quantitatively different from the other two and involves objective and impersonal images to describe the problem. The image may be "technologically inaccurate, aesthetically satisfying" (p. 44). He also emphasizes that the process itself must give pleasure.
"In play and art, pleasure is not dependent upon the purpose of the activity. Expanding this axiom, to include all creative activity implies that in play and in all creative activity the process itself is satisfying. . . . [however] synectics theory implies that not all play is creative but that all creativity contains play" (p. 119).
Khatena (1972) tested the use of analogy in the product of original verbal images by selecting 141 college subjects from among 1000 from six states. Those he chose had high scores in originality on the Adult Version of Onomatopoeia and Images, Forms I or II. He found the simple image, direct analogy as the "significant thinking operation used to make the familiar strange" (p. 212). As an example of this type of response, he cites two interpretations of the word "murmur:" "an ant walking on the icing of a cake" . . . the essence of soul."

Morphological analysis, developed by Dr. Fritz Zwicky, consists of the following procedure (Arnold, 1962):

The statement of the problem should be as broad and general as possible and then all of the independent variables must be defined as broadly and completely as possible. Each one of these independent variables becomes an axis on the morphological chart, and if there are "n" independent variables, we will have a chart of "n" dimensions. Each of the independent variables can probably be expressed a number of different ways; and these are laid out with unit dimensions on each of the "n" axes. (pp. 255-256)

An example of this approach is provided by Whiting (Stein, p. 211) who set up a problem for finding a new
way to package milk. "The three variables are size, shape and material. The variable would be divided into all sizes (pint, quart, etc.) to be considered; the shape variable would consist of the different possible shapes; and the material variable would consist of different materials, such as glass, metal, plastic, paper and cellophane." Whiting set up 225 possible solutions, thinking of each cube of variables as a small drawer in a box.

Roweton (p. 238) presents Allen's technique which is named morphological synthesis. One identifies two or more characteristics or dimensions of a problem, and then lists specific values for each. Then one tries matching each value on one dimension with each value of the other dimensions, finding as many combinations as possible. Roweton sees this technique as a rich possible source of new ideas, but sees a problem in that having identified a way to change a given, one may completely overlook some other item which was never contemplated as a given. In addition, one can generate so many variables that the number of possible combinations can become unwieldy or even overwhelming.
Another way to proceed is to use attribute listing or check lists. Attribute listing sensitizes the individual to the problem and gives him an opportunity to recombine attributes to produce a more effective product. Check lists remind a person of all the ways in which he can approach a problem. Arnold (1962) states that one can make up his own check list rather than relying on published ones. His own is simply to (a) question, (b) observe, (c) associate, (d) predict (p. 254). One experimental observation of the use of short check lists, morphological synthesis, and Osborne's 73 idea-spurring questions plus a control group was reported by Roweton (1976, p. 239). It indicated that a short checklist and morphological analysis groups "produced the greatest total number of ideas and the greatest number of high quality ideas."

Classroom training procedures and programs have been developed for elementary through college groups. The Purdue Creativity Program (Feldhusen, Treffinger, and Bahlke, 1970) for elementary school children consists of 28 audio-tapes and sets of printed exercises designed to
provide practice in originality, flexibility, fluency, and elaboration. It also calls for nonverbal responses, such as drawing pictures. It is an effort to influence creative thinking through "systematic instructional efforts" (p. 90).

The Williams Creativity Program (Cole and Parsons, 1974) attempts to provide creative thinking for the entire elementary curriculum. Williams' teacher education program in five volumes entitled A Total Creativity Program for Individualizing and Humanizing the Learning Process, tries to help teachers "effectively recognize, arrange for and reward vital but usually ignored components of behavior in their students" (p. 187). His Cognitive-Affective Interaction Model (CAI) consists of three dimensions: (a) typical subject matter, (b) teaching strategies or 'modes of teaching,' (c) "the eight thinking and feeling skills or processes which are the performance objectives underlying the entire program" (p. 199). The cognitive or intellective behaviors are fluent, flexible, original and elaborative thinking. The affective or feeling variables are curiosity (willingness), risk-taking.
(courage), complexity (challenge), and imagination (intuition) (p. 189). The model gives 864 possible interactions of processes, strategies, and content for generating instructional activities and materials.

At the University of Sweden in the Malmö School (Bjerstedt, 1976), a project has been conceived to (a) construct, adapt and try out certain tests for measuring creativity and to study the relation between these tests and variations in age, intelligence and personality variables, (b) explore teacher opinions and classroom observations of teachers and student behaviors that can potentially influence creativity, and (c) design examples of exercise materials aimed at stimulating creativity and to study certain effects of these (p. 6).

The study materials investigation included 24 classes in Swedish, math and social sciences with special materials, and a fourth group with no special materials. The strongest effects were in the math group and in the group that used creativity exercises within all three subject matter areas. Emphasis on creativity materials had not made the learning of basic knowledge more difficult; in
fact, it improved; and teacher and student reactions to
the program were positive. The investigators attributed
better learning to the divergent and active approaches
to subject matter and emphasized the benefit of creativity
materials developed especially for content fields.

The best-known creativity program, perhaps, on the
college level, is that of Parnes and Noble at the Uni-
versity of Buffalo. The content of the course is creative
thinking. "Perceptual, emotional, and cultural blocks to
creative thinking are demonstrated and discussed in the
course." Students are taught the "deferred judgement
principle," are given practice in attribute listing, the
use of check lists, "forced relationship techniques,"--
which try to bring about associations of unrelated ideas--
the importance of keeping complete records of ideas, the
setting of deadlines and quotas and setting a time and
place for deliberate idea production, and deliberate
practice in solving many kinds of problems (Parnes, 1962,
p. 308).

The results of the two-year program were extensively
analysed (Parnes and Noller, 1972). They found that the
150 experimentals compared to the 150 controls (all wanted the program but were randomly assigned to two groups) showed several significant differences. The experimentals were better able to:

cope with real-life situational tests, including not only the production of ideas, but also their evaluation and development . . . ; apply their creative abilities in special tests in English courses. . . . [and they performed] significantly better than the comparable controls on the semantic and behavioral half of Guilford's S-O-I model, including three of five of his mental operations—cognition, divergent production and convergent production; they show no significant accomplishment over the controls in the symbolic and figural half of Guilford's model, nor in his memory of evaluation operations. (p. 165)

Students also felt that they were more creative in their other courses and in their daily living. Personal reports showed that even if students felt frustrated about the course at the beginning, they felt that the rewards in stimulation of the mind leading to better management of their lives was worth it.

Another program, Cort, or Cognitive Research Trust Programme, has been utilized in many areas, including English-as-a-Second Language (deBono, 1976, p. 157). Useful across age levels, it is a program of six sections,
each containing ten lessons designed to teach thinking as a skill. Cort IV is the section of "lateral thinking," a "neutral label" that deBono uses to avoid the value-laden word, creativity (p. 8). He explains that "lateral thinking is a generative type of thinking" (deBono, 1969, p. 237) which serves to break down normal patterns of thinking and shift attention so that new and better patterns can come to light. He states that there are basically three kinds of problems:

1. Problems that require the processing of available information or the collection of more information.

2. The problem of no problem--where the acceptance of an adequate state of affairs precludes consideration of a change to a better state.

3. Problems that are solved by a restructuring of the information that has already been processed into a pattern. (1969, pp. 228-229)

The first type can be dealt with by logical or mathematical thinking, or gathering more information, but the last two need lateral thinking according to deBono. To use this type of thinking one needs "an awareness of the limitations of ordinary information processing" and to implement "simple fixed techniques" (p. 236) including:
**Random Input:** Open a dictionary at random, choose a word and "oscillate" from the problem to the random input until a "linking pattern" emerges to help reentry to the problem from a new entry point.

**Quota:** Set up a fixed quota of alternate approaches. Do not follow any one approach until the quota is filled.

**Rotation of Attention:** Divide the situation into parts, centering attention on each so that one avoids paying attention only to the dominant features.

**Reversal:** Turn the problem up-side-down; follow opposite directions.

**Cross-Fertilization:** Provide a formal opportunity for different minds to interact so that differences in thinking about a subject act as outside influences to change the established patterns of each mind.

Other aids to lateral thinking are consciously to seek alternatives even if an adequate solution seems to have been reached; to avoid sequential thinking: try going backwards or jumping around: try impossible solutions as a starting point; write notes in a spatial pattern rather than linearly. DeBono also advises that
conscious attention be paid to the thinking technique along with the content of the problem. In his 1976 book he reports on a number of experiments done in grade and high schools in England where students using his entire Cort system produced a dramatically high number of differentiated ideas and solutions to problems. DeBono's emphasis on awareness of attention-focus promotes the importance of a conscious attempt to bring about insightful learning.

In 1972 Torrance reviewed 142 studies of helping children to think creatively, which he organized into nine categories. The most often used approaches were complex packaged materials or other "disciplined approaches" (p. 118). These have also seemed to produce the best experimental results. Other categories are the arts as vehicles, media and reading programs, curricular and administrative arrangements, teacher-classroom variables, motivation, reward and competition, and testing conditions (p. 117). The poorest "batting averages" concerned curricular and administrative arrangements and teacher-classroom variables (p. 120).
Besides the packaged materials already mentioned in this dissertation, Torrance lists Covington, Crutcher, and Davies' (1966) Productive Thinking Program in which fifth and sixth grade pupils solve mysteries, the five Myers and Torrance Idea Books (1964, 1965, 1966), and Davis and Houton's creative thinking program for seventh and eighth grade students, Thinking Creatively: A Guide to Training Imagination (1968).

In order to use any of the techniques successfully, one must provide the proper environment (sometimes called the "press") for creative thinking. Torrance (1973) generalizes according to experimental findings that "many things can be learned more economically in a creative situation than in an authoritarian one and that some people who learn little by authority can learn much creatively" (p. 53).

Klein (1975) investigated the hypothesis that "a permissive, open classroom can selectively enhance creative abilities in children with low levels of anxiety and hinder those same abilities in children with high levels of anxiety (p. 286). In open and closed third
classrooms she gave Torrance's Form D for fluency and originality. She found that children with low levels of anxiety in the open classes were significantly \((p < .01)\) more creative than high anxious children in the same class, and the low anxious children in the first class were also more creative than low anxious children in the structured class \((p < .01)\). At the \((p < .05)\) significance level she found that low anxiety children in the structured class were not more creative than the high anxious children in the same class. She concluded that "anxious children do not benefit significantly from an open environment and that high anxiety children can use structure to be more creative" (p. 288). Wallach and Kogan (1965) also found that moderate anxiety led to better creative performance by children on creative thinking tasks.

In a review by Freeman (1971) of two large-scale studies which lend support to the claim that progressive, or informal, classrooms are better places in which to develop creative thinking than authoritarian, or formal classes, he concludes that "it would seem that it is not the degree of permissiveness but rather the attitude of
the teacher, the emphasis upon self-initiated learning, the freedom of access, often unsupervised, to school libraries. relatively less use of class teaching and the relaxed, friendly atmosphere" (p. 106).

Frost (1976) studied the effects of cooperation and competition on the creative expression of college students. She found that scores of fluency, flexibility and originality increased when students were given instructions to cooperate rather than compete. Torrance (1977) discovered that children, if they were instructed to read with a creative, constructive attitude came up with more original and a larger quantity of solutions than those who were to assume a critical attitude (as in identifying defects) (p. 27).

Goodale (1970) notes that "a major step in encouraging creativity is the support of activities which increase the student's self-confidence and persistence, and the toleration by teachers of student behaviors currently seen as 'unpleasant--i.e., non-teacher directed'" (p. 94).
Specific teaching approaches can also make a difference in learning outcomes. Practice rather than lecture was found to increase creativity scores of university students on three of four Torrance tests (Rosenthal, Morrison, and Perry, 1977, p. 226). Karlins (1968) recognized an inductive teaching program to be effective in "elucidating the differential performance of individuals on measures of information-seeking behaviour that are associated with certain levels of creativity and these differences are revealed in problem-solving tasks of the programme" (Freeman, p. 113). Freeman (1971) also reports on a study by Weisberg and Sals (1969) who found, in the solution to a candle problem, that those undergraduates who actually made a candle holder made more box solutions on a paper-pencil test than subjects who had undergone two other learning conditions without making the candle holder (p. 113).

In spite of all the concern for developing creativity in schools, it should be noted that creative behaviors are not necessarily those attached to the "ideal" pupil. In 1963 Torrance found that "adult concepts of ideal behaviors
of children and behaviors which were found to be characteristic of creative persons" differed considerably (Bachtold, 1974, p. 47). In readministering Torrance's checklist of 62 characteristics to 146 elementary and junior high school students enrolled in enrichment programs in two middle class school districts, and to 98 teachers and parents, Bachtold received some rather less-than-exciting responses.

In answering the question "What kind of person would you like to be?" (or "What kind of person would you like your child to be?") , "not one" of the top ten characteristics named by all groups was among the traits given to the creative personality. Teachers named only two creative characteristics: "independent in thinking" and "curiosity." Elementary children chose "independent in thinking," but junior high students chose no creative qualities. Bachtold concludes that "the profile which emerges bears very little resemblance to the courageous, risk-taking and intuitively creative personality" (p. 54).

Apparently the creative personality is not responded to very well in higher education, either. Findings of
several research reports from the Center for Study of Higher Education showed that in seven "quite dissimilar institutions . . . the proportions of identified creatives withdrawing [from school] . . . ranged from approximately 50 per cent to 80 per cent" (Freeman, p. 43).

The breadth and quantity of creativity studies lend credence to the observation that creative thinking can be fostered in the educational environment under the proper conditions and with deliberate teaching efforts. A review of what the literature has to say about creative thinking can include the following observations.

Creativity calls for reverting to primitive or primary thought processes. Non-conformity is a positive attribute. Guessing is a positive thinking strategy. Not knowing and being puzzled are commendable. Wild, logically impossible ideas are desirable. Playing with ideas and objects and avoiding normal thought patterns are appropriate, while finding the quickest logical solution is not. Suspension of judgement is necessary; there are no wrong answers.
The above statements are clearly contrary to what is expected in the normal, everyday classroom, and they are generally behaviors in which children, not adults, are allowed to indulge. Adults, including high school students, need to be apprised of how and why such strategies can help their perceptual powers and aid in more fruitful thinking.

The following section further clarifies the importance of being open to non-analytical, nonverbal, and global perceptions along with the physical manipulation of things and physical remolding of ideas in order to enhance knowing and take advantage of alternate modes of learning and knowing without dismissing them as simply childish.

Neurophysiological Studies and Creativity

This avenue leading to an understanding of creativity directs us toward the study of the human brain and the role of its two hemispheres. In the 1960's split-brain research was conducted in an effort to control severe epilepsy. This research, which involved cutting the connections between the two halves of the brain, not only
controlled the epilepsy, but also revealed specialized functions of each hemisphere. For most people the left hemisphere does the analytic, verbal and linear work; the right performs visual-spatial, tactile and synthetic tasks. Present educational practices tend to develop left brain capacities, while ignoring the right. Consequently, as Gazzaniga (1977) puts it, the "verbally-dull" person, who may be "spatially-bright," is discriminated against in favor of the "verbally-bright" individual (p. 95). Furthermore, Bogen and Bogen (1969) suggest that creativity is dependent in part, on "interhemispheric exchange [and that] . . . artistic creativity in general benefits from interhemispheric collaboration" (p. 102).

Thus, to accommodate creative expression, educational experiences should incorporate different modes of learning so that different ways of knowing can be developed.

Foreign language experiences, in particular, must afford such opportunities, since, according to Albert and Obler (1978), "it seems that the right hemisphere plays a major role in the learning of a second language." They even suggest that "it might be useful to develop a
program of second language teaching that emphasizes so-called 'right-hemisphere' strategies" (p. 254).

The brain is made up of two hemispheres connected by the corpus collossum, a bundle of fibers which "allows the two halves of the cerebral cortex to communicate with one another" (The Human Brain, 1977, p. 191). The right hemisphere controls the left side of the body, while the left controls the right side. If a person receives injury to the right side of his brain, spatial disorientation will result; if injury is to the left side, speech difficulty will follow.

This asymmetry of the human brain functions has long been known, but 19th Century scientists ascribed only primitive functions to the right hemisphere, calling it the minor hemisphere believing that the left, or major hemisphere performed all cognitive functions. Through the years, however, reports of right brain-damaged patients showed consistent losses of certain cognitive functions, and in the 1940's, multifactor theories of intelligence led to the development of nonverbal tests which shed light on the operations of the right side of
the brain (Nebes, 1977, p. 98). These two concerns led to investigations for understanding the specialization, or lateralization, of the functions of the two sides of the brain. Some of the most dramatic findings have come from split-brain studies.

In 1960, Dr. Joseph Bogen, after careful study of previous surgical treatment of patients with brain injury, proposed that commissurotomy (the surgical cutting of the corpus collosum and the anterior commissure of the fore-brain) (The Human Brain, p. 191) be performed to stop the spread of epilepsy. It worked. Dr. Michael Gazzaniga and Roger Sperry devised psychological tests which were given to many patients with the same results. One such test clearly reveals the specialized roles of the two sides of the brain. It is lucidly recorded by Betty Edwards (1978):

In one test, two different pictures were flashed for an instant on a screen, with a split-brain patient's eyes fixed on a midpoint so that scanning both images was prevented. Each hemisphere, then, received different pictures. A picture of a spoon on the left side of the screen went to the right brain; a picture of a knife on the right side of the screen went to the verbal left brain . . . . When questioned, the patient gave different responses. If asked to name what had been flashed
on the screen, the confidently articulate left hemisphere caused the patient to say, "knife." Then the patient was asked to reach behind a curtain with his left hand (right hemisphere) and pick out what had been flashed on the screen. The patient then picked out a spoon from a group of objects that included a spoon and a knife. If the experimenter asked the patient to identify what he held in his hand behind the curtain, the patient might look confused for a moment and then say, "a knife." The right hemisphere, knowing that the answer was wrong but not having sufficient words to correct the articulate left hemisphere, continued the dialogue by causing the patient to mutely shake his head. At that, the verbal left hemisphere wondered aloud, "Why am I shaking my head?" (pp. 30-31)

Such studies have convinced many professionals in the field of neurophysiology that both hemispheres perform important tasks and that they represent two ways of knowing. Edwards states, "A creative person is one who can process in new ways the information directly at hand . . . intuitively sees possibilities for transforming ordinary data into a new creation, transcendant over the mere raw materials . . . and has recognized the differences between the two processes of gathering data and transforming those data creatively" (p. 26).

These two modes of knowing have been historically recognized in myth and legend, literature and language. Here are a few of these dichotomous terms gathered by
Bogen (1977):

<table>
<thead>
<tr>
<th>Person</th>
<th>Left</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akhilinandi</td>
<td>buddi</td>
<td>manas</td>
</tr>
<tr>
<td>Bruner</td>
<td>rational</td>
<td>metaphoric</td>
</tr>
<tr>
<td>De Bono</td>
<td>vertical</td>
<td>horizontal</td>
</tr>
<tr>
<td>Freud</td>
<td>secondary</td>
<td>primary</td>
</tr>
<tr>
<td>Guilford</td>
<td>convergent</td>
<td>divergent</td>
</tr>
<tr>
<td>W. James</td>
<td>differential</td>
<td>existential</td>
</tr>
<tr>
<td>Levi-Strauss</td>
<td>positive</td>
<td>mythic</td>
</tr>
<tr>
<td>Levy and Sperry</td>
<td>analytic</td>
<td>gestalt</td>
</tr>
<tr>
<td>Maslow</td>
<td>rational</td>
<td>intuitive</td>
</tr>
<tr>
<td>Oppenheimer</td>
<td>historical</td>
<td>timeless</td>
</tr>
<tr>
<td>Ornstein</td>
<td>analytic</td>
<td>holistic</td>
</tr>
<tr>
<td>Schopenhauer</td>
<td>objective</td>
<td>subjective</td>
</tr>
</tbody>
</table>

Ornstein (1977) also points out the Yin-Yang symbolization of man's duality, Yang meaning the masculine (left) side and Yin being feminine and dark (the right side) (p. 83). A left-handed compliment (right hemisphere) is awkward or "gauche," while being correct or having rectitude is being right or lawful,
"le droit" (left hemisphere), as Jerome Bruner has noted (Ornstein, p. 86). The left hand is literally mistrusted in many societies while the right hand pens great ideas and performs mighty deeds. It is little wonder that the left hand, which represents the right hemisphere, has been neglected in formal educational circles.

The creative capacities of the "dark side of the mind" seem to have a physical basis, according to neuro­physiological studies carried out in three basic ways (Nebes, 1977): (a) groups of one-side-brain-damaged patients have been compared, (b) split-brain patients' abilities with each hemisphere have been compared, and (c) normal individuals' abilities within each hemisphere have been compared (p. 99). Results show that the "right hemisphere deals with spatial relations, recognizing faces, perceiving and remembering unfamiliar and complex shapes for which there is no ready name, drawings of objects in which part of the contour is missing, music and other nonverbal sounds . . . . nonverbal visual or tactile stimuli" (p. 101).
The "means of processing sensory input" is also different. "It has been found (Cohen, 1973) that if normal subjects are shown an array of letters and their reaction time for determining whether all the letters are the same is measured, displays falling in the right-half field (left hemisphere) are processed serially, while those in the left-half field (right hemisphere) are processed in parallel" (Nebes, p. 103). This kind of processing is interpreted as showing two ways of dealing with language material. The "left hemisphere goes through and sequentially transforms each letter into an internal acoustic code (i.e., names them); the right hemisphere examines all the letters simultaneously looking for a variation in shape." If a person is processing an image, the left hemisphere seeks meaning by looking for utilitarian properties, whereas the right hemisphere picks out items according to similarities in shape. Given three items—a hat with a brim, a fork, and a cake on a plate—the left associates the first two images, while the right prefers to associate the first and third items (p. 104). (See illustration, next page)
In other words, the left side analyzes while the right synthesizes. A transformation of meaning can occur when one switches from a left to a right side interpretation of the significance of an image.

According to these findings, then, in order to cultivate the creative aspects of the mind, one must utilize visual, tactual, kinesthetic, auditory and olfactory information along with verbal, linear and logical information. In order to do justice to any person in an educational setting, we must ask the left hand to cooperate with the right; we must involve the senses as well as reason; we must open the door to the dark, intuitive mind, and introduce it to its other articulate self.

In a study combining neuroscience techniques and those of psychology, Harnad (1972) used Day's eye-movement laterality index, along with Form 1 of Mednick and Halpern's RAT and creative rating scales to test the hypothesis that left-movers would use more visual imagery and be more aesthetic toward their work and more creative
than right movers. Those individuals whose eyes move to the right (left hemisphere dominant) when asked a question while reflecting seem to produce less imagery than those who look to the left under the same conditions. Harnad tested 10 professors and 24 students of mathematics. Left-movers in the study reported more use of imagery and more outside artistic endeavors than did right-movers (p < .01). Overall creativity ratings of nine professors showed that left-movers (n=6) were rated as more creative than right-movers (n=3). In a later study reported in the same article, 20 college educated persons were given the RAT, tested for eye-movement, and given 28 pieces of prose to rate on an 11 point scale of pleasingness-displeasingness. Left-movers scored higher on the RAT (p < .005) and tended to make fewer neutral responses about the prose (p < .07). Harnad hypothesized that "the nondominant hemisphere has a property by which the activities of that hemisphere are less bound by reality (the data of the senses and reason) than those of the dominant hemisphere" (p. 654). It may be that those who seek information from the right hemisphere have easier access to nonverbal impressions of
the world which they can then translate into either verbal or nonverbal expressions of their consciousness.

The role of these nonverbal impressions (imagery) in creative production depends on a number of variables, including sex differences, personality types, cognitive styles, and kinds of imagery, according to Forisha (1978). Imagery can appear in visual, auditory, sensory or kinesthetic modalities in a weak or vivid form. In addition, imagery is characterized by extremes, such as flexible or rigid (Forisha, pp. 214-215), which may inhibit problem solving and creative expression. It is a healthy balance of personality orientations, cognitive styles, "imagery and words . . . which may bring together the functions of the right and left hemispheres. When such integration of polarities occurs, then . . . we will find that imagery is a necessary and vital aspect of the processes encompassed in creative thought" (p. 233).

Gowan (1978) believes that imaging goes on all the time in the right hemisphere and to gain access to it one has to relax inhibitory processes of the left hemisphere. Keys to this relaxation are "(a) lowering sensory input
and (b) stopping internal verbal chatter" (p. 23). Normal states where this can occur are "daydreaming, fantasy, meditation, creative spells, relaxation, sensory deprivation, and the like, where the ego and full memorability are present" (p. 24). Reynolds and Torrance (1978) documented increases in right hemisphere activity in students who were trained in techniques presumed to emphasize the specialized functions of the right side of the brain.

Neurophysiological research confirms what some psychological creativity literature has already pointed out: that ways of knowing go beyond the kinds of training that the traditional classroom has provided. As Dr. Bogen (1977) remarks:

> We are accustomed to hear, these days, of the culturally disadvantaged, a term which often refers to those persons whose propositional potential has remained underdeveloped for lack of relevant exposure. There is likely a parallel lack of appositional development in persons whose only education consists of the "three Rs." That is, just as the left-hemisphere potential for propositioning may be underdeveloped, so too should we expect that right-hemisphere capacities can suffer educational neglect. (p. 143)

**Second Language Learning and Creativity**

Those few studies which have posited a relationship between creativity and second language learning have
examined the results of that learning and offered some explanations for it.

Some research indicates that second language learning is detrimental to children's creativity. Gowan and Torrance (1965), who found that children in Singapore who were going to English language schools scored lower in ideational fluency than those learning in their own vernacular, suggested that pupils studying English experienced a "strain of competing associations" (p. 14). In a later study, Torrance and Gowan (1970) explained lower fluency and flexibility scores of bilingual children in Singapore as "the competing associations resulting from the acquisition of new associations reduces the availability of associations to recall" (p. 75). In the same inquiry, however, a trend toward their hypothesis that bilingual children would do better on originality and elaboration tasks was attributed to:

The tensions resulting from the competition of new and old associations facilitates originality of thinking and plays important roles in scientific and artistic breakthroughs and "making things fancy" (elaboration) is a way to cope with conflict and uncertainty, experiences that the bilingual
children may have encountered while learning a second language. (p. 75)

A study by Landry (1974) measured the creative abilities of elementary school children in FLES (Foreign Language in the Elementary Schools) and non-FLES schools in a city in New Hampshire. Half the children were studying French; half were not studying a foreign language. For sixth graders, significance at the .05 level was established on all six variables: verbal fluency, flexibility and originality, and figural fluency, flexibility and originality. He concluded that the study of a second language might reduce negative transfer and help the learner "develop a learning set to switch." He states:

If cognitive rigidity is viewed as an inability to overcome interference effects and cognitive flexibility as the ability to overcome them, the proposition becomes that second language learners experience some negative transfer between their two language systems and consequently become more adept at overcoming instances of negative transfer. . . . they develop, in other words, a flexibility set . . . . The second language learner has the advantage of being able to relate widely different looking data and, in fact, of being in a state highly favorable to the appearance of divergent thinking. (pp. 14-15.)
Symbolic flexibility was a significant factor for bilingual children in French-speaking Canada (Peal and Lambert, 1962) and verbal flexibility and originality, and figural originality and fluency distinguished bilingual high school students from Mexico who were Spanish-English speakers (Carringer, 1974). Carringer reasons that bilinguals have greater cognitive flexibility because they have "two terms for one referent and their attention is focused on ideas and not words, on content rather than form, on meaning rather than symbol" (p. 503).

These studies suggest that if "the strain of competing associations" is surmounted, then cognitive rigidity is replaced by cognitive flexibility, an ability exhibited by those who have successfully learned a second language. Thus, language learning is a vehicle for intellectual growth, a way to develop divergent skills which enable a person to free himself from old ways of thinking and to seek alternative strategies and understandings when faced with circumstances or problems not easily dealt with in standard ways. In other words, a rationale for language study is that it orients the student toward
developing greater coping skills in a world of accelerating change and uncertainty.

As the reader may recall, however, flexibility and divergent thinking represent only a small part of the creativity phenomenon. While direct investigations of the creative personality, process and climate in conjunction with the language learner and language learning have not been undertaken, a juxtaposition of salient points from the two literatures reveals some possible relationships.

One trait found in both language learners and creative persons is an ability to be childlike. In psychological terms this is regression in service to the ego, a free reception of the mind and senses toward the object of creative endeavor. Green (1977), who found a "distinctively infantile quality" in French compositions written by her American college students, as compared with their English compositions written on the same subject, theorizes that "the novel and disorienting experience for the adult language learner of a new language may provide the climate that fosters such regression" (p. 182)
(to primary process thought). Her analysis dismisses lack of vocabulary or grammar as contributing factors to this regression. She sees the primitive functioning as possibly provoking anxiety, both conscious and unconscious, and suggests that a teacher should identify and acknowledge the phenomenon and convey his own experience with it in order to reduce adverse effects. Stevick (1974) asserts that, despite the differences in methods, we have four approaches to language learning which emphasize "the absolute necessity of 'regression' or 'surrender' or 'infantilisation'" (p. 382). These methods, widely cited for their apparent success, are Curran's Counseling-Learning/Community Language Learning, Gattegno's The Silent Way, Lozenov's Suggestopedia and the 'dynamic intimidation' of John Rassias of Dartmouth.

In a creative language learning environment, an orientation toward openness rather than surrender, curiosity rather than anxiety, is more appropriate. Regression to primary process thought, a defense mechanism, should be channeled into regression in service to the ego, an openness to the language learning encounter, or a receptivity
to what is possible.

Another kind of openness, or flexibility, cited as a language learning factor is ego permeability, as opposed to ego rigidity. Schumann (1978) writes that "ego permeability is inducible and that perhaps the successful adult second language learner is an individual who has access to more childlike ego states in which greater ego permeability exists" (p. 33). Such an orientation has been induced by the ingestion of alcohol or other drugs and by the use of hypnosis (Schumann, pp. 33-34) resulting in improved pronunciation in the second language. In the classroom, however, other means are needed to establish a climate for this kind of receptivity.

Lack of dogmatism is a gauge of the open mind. Dogmatism, as defined by Rokeach's Dogmatism Scale (1960) does not have a unidimensional character. Kerlinger (1973) maintains that it defies categorization, but that it is extremely important in measuring the openness and closedness of one's belief systems and general intolerance and authoritarianism (p. 501). It has also been shown to relate inversely to creativity (Johnson, 1968; Jacoby,
1967; Uhes and Shaver, 1970). An adapted form of the scale used with a foreign language population (though without considering creativity) lead Lett (1976) to suggest cautiously that foreign language study "may" affect one's closedmindedness (p. 179).

The closed belief system (dogmatism) is one which finds it difficult to distinguish information about the world and information received about the source of the information (Rokeach, 1960, p. 58). This posture may be inhibitory for students who are trying to understand new concepts or different approaches to life embodied in the language or in the use of the language being studied. Cultural messages must be evaluated on their own cultural terms, not interpreted through native cultural norms, or stereotypes, or feelings toward one's teacher of the learning environment.

There are other cognitive and personality indices which may also relate creativity and second language learning. In a recent study from the Ontario Institute for Studies in Education, the "Good Language Learner" was investigated (Naiman, Fröhlich, Stern, and Todesco, 1978).
Among the characteristics of the "good language learner" are a number which have described aspects of the creative personality and which should be considered in describing creativity in language learning. In studying English-speaking students in French classes in grades 8, 10, and 12 the researchers administered several tests, among them, the Hidden Figures Test, for field dependence-independence, and Budner's Intolerance of Ambiguity Scale. These measures, as has been stated earlier, have been useful in investigations of creativity. The Hidden Figures Test was a minor predictor of success for eighth and tenth grade students, but a major predictor for twelfth grade students on scores for listening and speaking in French. These scores were obtained from the IEA receptive tests, made and validated by an international commission, and an imitation task developed by Naiman.

Intolerance of ambiguity was an important predictor in grade eight. The researchers hypothesized that those who could not adapt to ambiguous circumstances probably dropped out of language study, but they also felt that a different scale might be more sensitive to older students'
tolerance of ambiguity.

The team found, however, that if the student was tolerant of ambiguity, he was also more likely to be field independent, insensitive to rejection, not ethnocentric, had a high instrumental orientation to language learning and wanted more French in the classroom (p. 68). An instrumental orientation is usually associated with less successful or limited language learning, since the language is seen as a practical instrument for use in business or research or the like (this may vary with settings—Schumann, 1978, p. 33), whereas an integrative orientation includes a desire to become part of the language group and its culture. However, the former point of view could be linked to another motivational variable: that of intellectual curiosity, also a creative quality. The curious person may be experiencing the language as a novel tool with which to rediscover his thoughts.

The Ontario study also included interviews of the students tested as well as interviews of successful adult language learners. One adult felt that having been bilingual gave him insight into the nature of language and
a general mental flexibility and openmindedness. Another felt that languages had an aesthetic or exotic appeal and gave an opportunity to have different ways of perceiving reality. Whether these attitudes and abilities are outcomes of foreign language learning or apriori traits which help one learn a language, they might contribute to language learning if utilized in the classroom.

Rubin's list of strategies of the good language learner (Naiman, et.al. p. 105) annotated in light of Stein's list of creative personality traits (see pp. 32-34 of this work), gives a synopsis of the kinds of opportunities, expectations and attitudes which may be of importance in experiencing a new language.

1. The good language learner is a willing and accurate guesser.

(He is willing to take risks, needing order and uninhibited. Curiosity, a high tolerance for error, and self-assertiveness make it easier for him to guess. Accuracy reflects a sensitivity to patterns (a basic problem in language learning), thoroughness and perseverance.)

2. The good language learner has a strong drive to communicate, or to learn from communication. He is willing to do many things to get his message across.

(He is less inhibited, unconcerned with what others
might think, less conventional, and versatile. He may need to provide initiative and be self-assertive in order to get or receive a message. Communication is an integral part of the creative process. The creative person needs the significant other to whom he presents his product.)

3. The good language learner is often not inhibited. He is willing to appear foolish if reasonable communication results. He is willing to make mistakes in order to learn and to communicate. He is willing to live with a certain amount of vagueness.

(He takes risks, is tolerant of error and ambiguity, less inhibited, bohemianly unconcerned, persistent, less contented and dissatisfied. He is moved to find order. He is constructively critical.)

4. In addition to focussing on communication, the good language learner is prepared to attend to form. The good language learner is constantly looking for patterns in the language.

(He is persistent, thorough and needs order. He is versatile and is sensitive to both form and function.)

5. The good language learner practises.

(He is persistent, has a liking and capacity for work and self-discipline.)

6. The good language learner monitors his own and the speech of others. That is, he is constantly attending to how well his speech is being received and whether his performance meets the standards he has learned.

(He is thorough, persistent, constructively critical, dissatisfied and not content with inaccuracy.)

7. The good language learner attends to meaning. He knows that in order to understand the message, it is not sufficient to pay attention to the grammar of the language
or to the surface form of speech.

(He is self-disciplined and thorough. He is sensitive to the problem of form and meaning.)

Although some of the above qualities may simply be attributed to intelligent awareness, the interpretation in parentheses exposes certain basic similarities between the good language learner and the creative person: both show an affinity for persistence, risk-taking, self-confidence and being uninhibited, a high tolerance for error and ambiguity, creating order and constructive criticism. It is clear that a creative posture can be useful to the language learner.

Neurophysiological research establishes the right hemisphere of the brain as the "creative" side because it is inclined toward performing tasks of a holistic, visuo-spatial and musical nature. Access to the right side of the brain is also necessary in second language learning since some aspects of language learning, intonation, for example, appear to be right hemisphere based. Searleman (1977) presents evidence from a number of sources indicating important right hemisphere processing in speech comprehension. Languis (1979) theorizes
that "all language learning may reflect a right hemisphere base, followed by more linear sequential left hemisphere emphases as verbal fluency emerges" (p. 21). Albert and Obler (1978) contend that "the right hemisphere plays a major role in the learning of a second language" and suggest that "'right hemisphere strategies' (nursery rhymes, music, dance or techniques emphasizing visuo-spatial skills)" should be utilized in language learning (p. 254).

Motor techniques coupled with speech comprehension have shown remarkable results in two language learning methods. Postovsky's (1974) "oral-delay" subjects spent four weeks listening to Russian and responding by writing in the Cyrillic alphabet, necessitating visual and kinesthetic processing. They continued studying for two more weeks with a control group. The experimentals outperformed the control group on tests for not only reading and writing, but also speaking.

In Asher's (1974) "total physical response" experiments, the learner learns by performing commands given in the target language, during which time he does not
speak. Asher found significant transfer to the other skills in comparing his subjects with students enrolled in regular classes who had had more exposure to the target language, but who performed only as well or less well than the experimentals. He attributes this success to body movement "which seems to be a powerful mediator for the understanding, organization, and storage of macro-details of linguistic input" (p. 31).

Although neither of these studies was designed to test right brain activity, their positive effects may be ascribed to an appeal to right hemisphere aptitudes. A creative adaptation of motor techniques may also enrich the language learning experience.

One further entry from language learning literature underlines the intrinsic value of creativity in language learning. Being creative with language does not necessarily mean creating great poetry or prose. Rather, it is a natural part of language use. Stern (1975) notes four characteristics of a native's competence in his own language: form, meaning, communication and creativity. He does not see these as usefully separated stages in
language learning. He writes:

As I see it, the learning of a new language from the start has all the characteristics of full competence: form, meaning, communication and creativeness, except that at first they are possessed in an insecure and rudimentary fashion. . . . The good language learner does not become arrested at a low interlanguage not only because he is more flexible and more persistent, but also because he is prepared to attend to the four areas of competence from the beginning and not to wait for an indefinite future to apply what he has learned. My suspicion is that for good learners the pulling apart of the learning of forms, meanings, communication and creativity in conventional language programs is frustrating rather than productive.

(p. 309)

The creative language classroom supplies all the language learners with opportunities to be creative with or through the foreign language.
CHAPTER III
A MODEL FOR CREATIVITY IN LANGUAGE LEARNING

The basic components of a model for producing creative activity in the language classroom are three-fold:

Creative Orientation: Attitude and Expectations

Creative Processes: Modes

Creative Products: Aspects

A creative orientation includes an attitude of openness, a receptivity to what is possible. It reflects flexibility and curiosity and a willingness to look for problems as well as develop diverse solutions to them. Sensitivity to problems is practiced by examining ideas and objects, naming their attributes and non-attributes, and by valuing constructive criticism as a means of improving on what is known. Creative modes are both verbal
and nonverbal. Nonverbal encompasses auditory, visuospatial and kinesthetic experience, and all of these are stimulated by a search for novel associations, recombinations or conversions which may result in imaginal works. Creative aspects are the traditional categories used to evaluated creative products: fluency, elaboration, flexibility, and originality. Fluency, according to creativity literature, is quantity of ideas; elaboration is adding details; flexibility is transformation of ideas; and originality is the production of infrequently encountered or unique thoughts. All of these combined with fluidity of associations yield an elaborated model:

Creative Orientation:

Openness to Experience

Sensitivity to Problems

Associations

Creative Modes:

Verbal

Auditory

Visuo-spatial

Kinesthetic

Imagery

Creative Aspects:

Fluency

Elaboration

Flexibility

Originality
In order to arrive at a creative orientation, a climate for creativity must first be established. Such a climate may already be present in the foreign language classroom where humanistic and communicative activities are encouraged. More specifically, the climate conducive to creativity includes a friendly, relaxed atmosphere where risk-taking is possible and fear of nonconformity is reduced, where self-directed study along with cooperative efforts invite curiosity and discovery, and where appreciation of diversity brings about respect for others and acceptance of self. This orientation does not rule out a structured environment, however. Rather, it defines a framework within which a great deal of intellectual play and opportunities for self-discipline are granted. Creativity techniques offer both form and flexibility to the learner.

They also demand the recognition and management of three critical issues: first, the student should know that the exercise is a challenge for self-expression; competition lies within one's self as to amount or diversity of expression. Second, the teacher should serve
as an immediate language facilitator, or as a guide to alternate sources of information. Neither the teacher nor the student should expect one individual, informed though he may be, to have all the answers in all situations. The third problem is language correction strategies, which should be in harmony with the creative setting. Corrections, oral or written, should be made matter-of-factly, and students should be assured that making mistakes is normal in language learning and can be instructive. Language correction should not detract from pride in one's own ideas and interest in the ideas of others. Once the tone is set for a trusting, open relationship, the exploration of possibilities can begin.

The creative process is not a learning process in the classic sense. Rather, it is the recombination, modification, or transformation of known elements, yielding new information. In Koestler's (1964) words, it "uncovers, selects, re-shuffles, and synthesizes already existing facts, ideas, faculties and skills" (p. 120). In one sense, second language learning involves such processes. The learner has already had experience in communicating
through language. With some education, he has a little knowledge of the mechanisms of language. Faced with the strange tongue, he must let go of the familiar form and rediscover the known elements in their new guise. He must uncover familiar concepts in their altered form and select and shuffle according to the second language code, then unify these components in a coherent whole (synthesis) which results in communication if he has made the right hypotheses about the language. In terms of Gordon's synectics process (Making the familiar strange—see pp. 55-56) the familiar, made strange by the target language, has become familiar through the problem-solving efforts of the learner, and perhaps through the breaking of old associations and the formation of new ones. This is true in the performance of the receptive skills (listening and reading) as well as the productive skills (speaking and writing).

In addition, foreign language learning presents the learner with strange new ideas; he must become familiar with them and be able to accept them as authentic if he wants to communicate within another culture. This learning
can involve the acquisition of new concepts on a unit level, such as identifying a "sarape," and the extension of the understanding to a system level: its function, for whom, when and where. Familiar systems, such as counting, have to be reunderstood within the cultural context, from how one counts with his fingers to street numbering systems.

Basically, of course, the language learner's task is a convergent one: he has to learn the right answers to language problems. The student of French, for example, must learn the meaning of the determiners, "le," "la," and "les," and use them in the right places at the right times. If one looks more closely, however, one sees that the student must also accept that these three forms have only one equivalent in English and that their function differs somewhat from that of their English counterpart, "the." Once again, the individual must approach the language encounter with an open, flexible mind.

Once forms, structures and vocabulary have been introduced and practiced, they should be put together and used in a meaningful way. They can convey a normal
message or a creative insight.

As the model indicates, verbal creativity is only one mode of creative activity feasible for the language classroom. Nonverbal modes can take the form of auditory, visuo-spatial or kinesthetic information. Music, pictures, charades or dance, all can be utilized in the reception—or the conception—of creative behavior. Moreover, the interpretation of sounds and arrangements in space, moving or static, solicit the participation of right hemisphere faculties. The imaginal component, a kind of internal visuo-spatial, or even auditory or motor phenomenon, considered as part of the subconscious right hemisphere, may be stimulated through any or all the senses and stems from past experiences or memory, recreated or embellished upon as the mind desires. Images can express themselves in any or all of the modes. Associations are of the same nature, but may be less complex or less intimately tied to a person's past.

With a creative orientation, the student, by seeking out associations in any or all of the three modes, should be able to arrive at products exhibiting characteristics
of the four aspects, singly or combined in various ways. The products can be in verbal form, oral or written, or they can be in nonverbal form, in response to stimuli in the target language, oral or written. That is, if the student is using the language receptively (listening or reading), his response is in any of the three modes. If he is using the language productively (speaking or writing), his response is always verbal, but the stimuli are in any of the three modes.

Stimuli: Receptive language (Listening and Reading)
Response: verbal auditory visuo-spatial

Stimuli: verbal auditory visuo-spatial
Response: Productive language (Speaking and Writing)

Whether the response is verbal or nonverbal, it can be judged in terms of fluency, elaboration, flexibility, or originality.

To review the three stages, first, the student must be open to a creative experience. This includes freedom to receive childlike insights, lack of dogmatism, an
ability to take risks, and self-confidence. Sensitivity to problems, another part of this stage, refers to curiosity, a desire to examine a problem thoroughly and be flexible in assessments of the problem. It comprises constructive criticism, as well. Constructive criticism is looking at a response in view of its possibilities rather than its inappropriateness or appropriateness; it avoids jumping to conclusions.

Second, the student must be encouraged to think in any of the three modes or to use any of them to arrive at a personally novel idea or image and communicate it to others. He is given situations which require making associations of various sorts. To show verbal flexibility, for example, the student can be asked to write metaphors using vocabulary from a particular unit. (i.e., "Describe a person in this room as a kind of transportation." "My friend is a train . . . . She can carry heavy things and never say that they are heavy because she can keep secrets like the iron that the train is made of." [from a student paragraph]). This technique, as well as others illustrating each mode and aspect, are explained in detail in
Finally, each aspect represents a kind of product considered to be, in creativity literature, evidence of creative activity. Fluency requires quantity of responses, which encourages variety and may even result in an uncommon, original response. Elaboration demands both multiplicity and diversity of response which may also bring about an uncommon object or idea. Flexibility is a change in direction, a transformation which can be realized in some instances by examining fluent or elaborated responses. It may result directly from a set to find relationships in apparently unrelated objects, ideas, situations or events. It can also produce an uncommon, original product. An uncommon response is the definition of originality. It may issue from any of the other three aspects or from a direct effort to think of unusual connections, or simply from an insight. The four aspects are seen here as an intertwining, mutually beneficial hierarchy. Fluency and elaboration can create associations of a humorous, intellectually stimulating, or dramatic nature on one level, while flexibility and originality represent a
higher order of synthesis.

All four aspects can contribute to the solving of a problem which has one right convergent idea, as well. In this case, they are viewed as process responses rather than the ultimately desired creative response. Such responses occur in many games, from word puzzles to charades to the solving of a mystery, and are properly construed as creative activities which can engage the student in the practice of creative behavior.

While the language classroom appears to be ideally suited for development of creative qualities of mind, given the nature of language, language learning, and the good language learner, certain limitations must be noted. Existing creativity techniques assume native, or near-native fluency in a language and must be tailored to student abilities and skills in the language. Even with structured exercises, students will make language errors, often because they forget to monitor themselves in their zeal to be creative. A technique is successful if students find it intrinsically worthwhile and learn something from it.
Some students will be more open to the demands of creative thinking than others, and no matter how well an activity is structured, some may come up with ideas which they think they can express only in their native tongue. It is the teacher's own creativity and ability in the target language which is challenged in this circumstance.

The following chapter gives techniques and activities adapted to and successfully used in college language classes. They have been designed according to the model and present a comprehensive structured approach to facilitate creativity in language learning.
CHAPTER IV

ACTIVITIES FOR THE DEVELOPMENT OF CREATIVITY IN THE LANGUAGE CLASSROOM

The techniques explained here are intended to develop the student's creativity defined as fluency, elaboration, flexibility and originality by means of verbal and nonverbal modes of sensing and thinking. Creativity is brought about by asking the student to look for varied associations and images through the target language utilized as stimulus and/or response, or if one prefers, as input and/or output. That is, if the student is listening to or reading the language, he can respond in verbal or nonverbal ways. However, if he is expected to speak or write in the language being studied, nonverbal modes serve only as stimuli or input.

The exercises which follow demonstrate some of the possibilities which arise from the model in Chapter Three and which have proven successful in several intermediate English-as-a-Second-Language (ESL) college classes.
Some were also tested with students in intermediate French college classes. There are activities scattered through foreign language literature for developing lists (fluency), adding details (elaboration), changing point of view (flexibility), and making odd sentences (originality). (See especially Birckbichler, 1977; Christensen, 1979; and Westphal, 1979.) However, they generally consist of isolated techniques for verbal productivity. Those offered here are original and address both the non-verbal and the verbal modes of perceiving and producing.

These activities can be pictured as extending along a continuum from micro to macro. Micro activities concentrate on one aspect of creativity and on discrete linguistic points. They include promoting creative abilities while developing:

1. pronunciation and sound symbol correspondence
2. meaningful use of grammatical forms
3. correct use of target language syntax
4. vocabulary.

Macro activities tend toward developing synthesizing and problem solving skills while using the language on
more complex levels. They are especially useful in developing:

1. listening skills
2. reading skills
3. oral and written composition skills.

Techniques are presented from simple to more complex first for the productive skills, second for the receptive skills. They are also divided according to verbal and nonverbal input and output.

Activities for the Productive Skills

Verbal input

Pronunciation. Students are asked to generate words containing a problem sound. The teacher has made a list beforehand to stimulate student thought, if necessary. As students call out words, the teacher writes them in columns on the board which reflect the target language word order. For example, oriental students have trouble with the \([l]\) [\(r\)] distinction in English, so they are asked to think of words that begin with the sound \([l]\). The teacher writes them in columns on the board reflecting the syntactic order of the language. The following example
gives predicate order in English—verb/descriptor/noun so that sentences with the subject "I" can be constructed later.

<table>
<thead>
<tr>
<th>like</th>
<th>little</th>
<th>lettuce</th>
</tr>
</thead>
<tbody>
<tr>
<td>light</td>
<td>light</td>
<td>light</td>
</tr>
<tr>
<td>listen</td>
<td>large</td>
<td>library</td>
</tr>
<tr>
<td>learn</td>
<td>lucky</td>
<td>lake</td>
</tr>
<tr>
<td>laugh</td>
<td>lovely</td>
<td>lips</td>
</tr>
</tbody>
</table>

If the student produces \( [r] \), the teacher cheerfully writes the word (or if it is not a word, a sound-alike) on another part of the board, maintaining a gamelike atmosphere. The \( [r] \) word can be used in instruction in articulation, if needed and points out the problem of communicative interference when phonemes are confused. When enough words to make alliterative sentences are on the board, the students are asked to make sentences: "I like a little lettuce." "I listen to the lovely lake." Comments about the meaning of sentences are also welcome since meaning should always be attended to and often sentences have interesting imaginative qualities.
This exercise works well with initial position consonants and with vowels. Final consonant problems are often discovered when vowel sounds are solicited, but it is very hard to get students to think of words ending in certain sounds.

**Sentence completion.** As a follow-up on another day, the teacher can put something like the following on the board: the l____ l____ the l____. Students are given three to five minutes to generate as many sentences as possible in writing, but no one should have time to write more than ten sentences as the activity will become unwieldy. The important consideration is that the students will develop a set to think of as many possibilities in the target language as possible.

When time is up, the teacher asks for the longest list. Since quantity is to be encouraged, the teacher asks, "Who has ten sentences?", although he expects that no one has this many. As the most prolific student reads his list, the teacher writes it on the board or on a transparency while the other students check their own lists to see if they have sentences with none of the
words used by the first student. If so, they can read them to the class. This emphasizes the desireability of being different. As an optional conclusion to the exercise, students can be asked to choose their favorite sentence and tell why they liked it, or they can pick out the funniest, the most serious and the most intellectual sentences.

When grammatical mistakes are made, the teacher simply adds, deletes or asks for clarification, always writing or saying the correct form. If a student offers, "The lion look the lamb.", the teacher asks if he means, "looks at, looks for or looks like" and writes whatever correct form the student chooses.

**Vocabulary Review.** The teacher brings a small box to class and asks, "What could be in the box?" or for beginners, "We don't know what is in the box but maybe there is ____." or for more advanced, "What could I have put in the box?" Students have a time limit to list as many things as they can think of. The longest list is recorded at the board and original ideas not listed are called for. The word least often mentioned is the winner.
At the end of the exercise students want to know what is really in the box and are delighted if one of the items mentioned is there.

Sometimes students want to put an item on their list for which they do not know the target language word. If they can convey what it is by paraphrase, drawing or other means excluding translation, the teacher can give them the word to add to their list. If a student chooses to do this, he shortens his list, but some students prefer to record an original idea rather than concentrate on quantity. This step, however, may have to be omitted with large groups of enthusiastic students.

This exercise, along with helping students recall vocabulary, is useful in practicing count-noncount nouns (or gender or the partitive in French) if the teacher insists that only the words with the proper determiner can be counted. ("A ring" is counted, but "a jewelry" is not.) If students ask for the designation, the teacher should provide it.

Syntax. The teacher gives the students a simple sentence with an intransitive verb for a short exercise
or a transitive verb for a long one: "The student reads." Then he asks the class, "Which student?" They might respond, "The tall student reads." Then the teacher reminds them that in English one can modify a noun with a phrase following the noun and asks, "Which tall student?" "The tall student with the red hair reads." Then the teacher asks "How does he read?", "Where does he read?" and "When does he read?" in that order because that is English syntactic order. On the board one finally has a sentence like: The tall boy with the red hair reads carefully in the library at night. Students are then given slips of paper with skeleton sentences as in the example and are asked to embellish them using as much imagination as they wish. The teacher corrects for form and has students write at the board or collects the papers. In the first instance, students try to discover the original sentence by reading. In the second, they try to discover it by listening to the teacher read. Students may be given sentences for homework, also, and the teacher reads the cleverest ones to the class the next day. In the longer exercise, students must add to a noun
complement as well. (The boy read a book.)

Another important syntactic problem is word order in questions. Students are given a word or a phrase which may have several meanings and are asked to generate questions for which it is the answer. For example, students were given the word, "Columbus." The answer could also be a phrase with "Columbus" in it. Some questions generated are: What is the capital of Ohio? Where do you live? How do you spell "Columbus?" What is your brother's name?

Syntax and vocabulary review. At the end of a unit the teacher writes a key word at the board and asks the students to generate all the words they can think of with some relationship to it. Then they are asked to give antonyms to as many of the words as possible. After this, students are divided into small groups and assigned three words (including one antonym) which they must use in one sentence. For a more complex exercise, students must use five words and write a group paragraph. These efforts can be read to the class and evaluated for originality by the students, or collected and the most
original read by the teacher the next day.

A variation is pulling words at random from several units of work, writing them on slips of paper and having students draw them from a basket. Then in small groups they write a paragraph using all the words they have drawn.

**Metaphor and simile.** Students are asked to describe a thing in terms of a person or a person in terms of a thing. After a unit on transportation, for example, students fill in the blanks: (Someone) is ____ because ____. This sentence can also be expanded into a paragraph. One student wrote: (The teacher) is a boat because when we came here, we were like a person that doesn't know how to swim until a boat appeared like an angel to release us. She is a boat to guide us to the mainland.

In order to prepare students to make such an odd comparison, this exercise must be preceded by (a) a review of the generic vocabulary (here, modes of transportation), (b) a listing of attributes of one of the items, and (c) a trial comparison. The class from which
the above illustration came listed attributes of an airplane: it goes fast; it has wings; it flies high; it can crash, etc. Then they described several persons in terms of those attributes. After that, they wrote their own original comparisons.

Another way to approach this is to ask students for a simile, for example, "People are as ____ as ____." Students fill out the sentence on strips of paper which the teacher then collects. As the teacher reads the similes to the class, students listen, choose their favorite and use it as a topic sentence for a paragraph. One particular favorite, from which issued a number of graceful thoughts was, "People are as alive as green trees."

"How" questions. The old joke, "How do you feed a gorilla?" "Very carefully." is possible because "how" questions can be answered in several ways. Students are directed to answer some how questions in three ways: using (a) with + an instrument, (b) by + an action (verb + -ing), and (c) adverb of manner (-ly)—except for "fast." First they are given an example: How do you read your
mail? (a) with a microscope, (b) by opening it, (c) slowly. Then, after answering a few as a class, students can finish the exercise in small groups or as homework. Some of the more interesting responses have been to these questions: How do you speak English? How do you eat spaghetti? How do you talk to a policeman? How do you pay your bills? How do you ask your parents for money? How do you ask for a date? Students can also be asked to bring their own question to which they think they can get varied responses.

Making the familiar strange. Students list things that are pretty and things that are ugly. When the teacher has written them in two columns on the board (or on a transparency), he asks individuals or small groups to find something pretty about the items in the "ugly" column and something ugly about each item in the "pretty" column. For example, a slum is ugly, but there are children in a slum and they are pretty. Other antonyms, of course, can be utilized.

For composition or group discussion the teacher relates a hypothetical situation (There is no more wood;
life is possible without oxygen; you are going to the moon.) and students try to explain what life would be like or what will happen under these circumstances. It is useful to give the students guiding questions which stimulate thought, provide a variety of vocabulary elements and furnish basic sentence patterns. For example, students practiced the past tense writing about a group nightmare. They were given questions like: When did you have this nightmare? Yesterday? One hundred years ago? Who was with you? the cafeteria manager? a king? ??? Where were you? in class? at the beach? in a tree? ??? etc. The extra question marks emphasize that the guiding questions are only suggestions. The teacher circulates, giving extra vocabulary and grammatical advice. If the teacher has time, or a willing student, the group compositions can be typed and handed out for reading (with language form corrected). When using this exercise in a class where all students speak the same native language, the teacher should give a time limit, explaining that one student should read the questions and the others should give target language
answers or call on the teacher if they have an idea that they cannot express in the target language.

**Brainstorming.** To make this exercise successful, one must explain the guiding rules:

1. Judicial judgement is ruled out. Criticism of ideas must be withheld until later.

2. "Freewheeling" is welcomed. The wilder the idea, the better; it is easier to tame down than to think up.

3. Quantity is wanted. The greater the number of ideas, the more likelihood of winners.

4. Combination and improvement are sought. In addition to contributing ideas of their own, participants should suggest how ideas of others can be turned into better ideas, or how two or more ideas can be joined into still another idea. (Osborne, 1953)

Students are given a problem with which they are familiar (The food in the cafeteria is terrible; residents of the Ohio State University area lose their parking places on football Saturdays) and are asked to generate solutions to the problem. In small groups students appoint a secretary who writes down every idea generated. When they have a number of ideas (usually after fifteen to twenty minutes), they are instructed to choose two of their best ideas and defend them for
the rest of the class.

A variation is to ask students to agree or disagree about some current issue (The city should build bicycle paths.) by a show of hands. The issue should have been read about or discussed earlier so that the teacher knows that there is some dissention. All those who agree go to one side of the room while all those who disagree go to the other. When everyone is in place, the teacher reveals that those who disagree must advance arguments for the proposal while those who agree must rebut them. This is not true brainstorming because criticism is built in, but the investigator has found that ideas not considered previously are brought up. Whether students should be told that they are playing a role is a moot question. Students have become city council members or concerned citizens in this exercise without the teacher's suggesting it.

Auditory input

During the course of study students listen to a variety of culturally authentic music, with or without words. They are instructed to listen in whatever pose
is most comfortable (eyes closed, head on desk, head in hands, etc.) and are not told the title. They are asked to generate adjectives to describe their sensations—feelings, smells, visions, tastes, associations of touch or sound. Examples of what students might expect are explored in advance so that possible vocabulary is available. Students can also be asked to imagine a scene or a story to be described later.

In the former case, adjectives from the class are listed, the title is revealed and students are asked to listen once again, trying to find other associations. In the latter case, students are given ten to twenty minutes to write their composition in silence, or while listening to the music again. If there are words to the song, they can be listened to with a script and students can choose which of their ideas would have made the song better.

In ESL classes music from the various cultures represented should be played; in foreign language classes students should be encouraged to bring tapes or records they can explain which represent other cultures. The
music is played; students listen and record their feelings; the person who supplied the music gives his interpretations.

**Visuo-spatial and kinesthetic input**

*Geometric figures.* Students are given a handout with several groups of varied geometric figures:

1. \[ \begin{array}{c|c|c|c} \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \end{array} \]

2. \[ \begin{array}{c|c|c|c} \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \hline & \hline & \hline \\ \end{array} \]

They are then asked to describe what they see, practicing proper order and form of cardinal and ordinal numbers. At first, students approach the task analytically: the first three lines are vertical; in the second group, the first two lines are vertical and the third is at an angle, etc. The teacher needs to prompt the students to see things or feelings represented by the figures. He could suggest, for example, "What do you think these figures can represent? I see part of a two-lane highway in the first three lines." When students can "see" the highway, they assign meaning to any of the figures they choose, individually or in small groups. When time is up, they share their observations by identifying the
figure and giving the meaning. "In number 2 the second two triangles are swimming fish." As a variation, the student does not identify the figure, letting the others guess which one he has described.

Moving photographs. (The basic idea comes from a colleague, Sue Dechow.) The teacher brings several high quality photographs, the kind that can be found in National Geographic or in collections of famous photographers' works, of anonymous aging people. The pictures must have emotional power. Students are prepared by answering the follow question: What are the identifying characteristics of individuals? If someone asks you who you are, what do you tell them about yourself? When enough attributes are listed, the teacher presents each picture, asking the students to contemplate it and imagine who the person is. After class discussion students write a composition describing the life they imagine for one of the individuals.

The ink blot. The ink blot on the following page is put on a transparency and students are asked what they see. The teacher then turns it sideways and
up-side-down, each time asking students what they see. One or two responses are sufficient for each view so that ideas are not well fixed before the next step. When students have seen a few possibilities, xeroxed copies are handed out and the students write a story about what they see, turning their copy of the ink blot to the view they find most meaningful.

(Cover design, Rokeach, 1960)
Paper tearing. (illustrated on p. 132) Each student is given a plain sheet of paper. The teacher directs the students in the target language, as he models the activity, to fold the paper in half, then in quarters, then tear out small pieces along the folds. When several have been torn, the teacher opens his paper, holds it up and tells students what he sees in his "picture." Then students look at their own papers and write what their picture is. The parts torn out of the paper can be assigned as homework: the student takes the "holes" home (if different colors of paper are used, he may want to trade with others), makes another picture by gluing the fragments on another sheet of paper, and captions it. It is helpful if the teacher has already made his own to show as an example. He might ask students to give captions to his picture before he reveals his own.

Scribbles. The teacher asks the students if they ever doodle while talking on the telephone or sitting in class. He explains that doodling may be a little more deliberate than scribbling, but that a scribble can sometimes produce an idea. He scribbles on the board or
produces a scribble made on a transparency for which he has already determined a meaning. Students tell what they see and the teachers gives his observation. Students then make their own scribbles, exchange papers, write a sentence about it and return it to its originator.

**Sensing.** The teacher brings a culturally relevant object to class, in this case, a pumpkin. Students are asked to describe its color, size, shape, texture, and after the teacher has cut it open, its smell and taste. Smelling and tasting should be done by having one student come up to the desk and give his impression followed by perhaps one more student. Then the students are asked to relate what the various attributes make them think of. Finally, the teacher gives his own impressions and hands out a composition written about the meaning of the object to him. (The teacher may have an object for which a description has been made by a native writer; if not, his own composition, if he is not a native speaker, should be checked by a native speaker.) The composition serves as a model for the students in writing their own composition about the images that arise from a personally
relevant object. The following composition has been used with ESL students to demonstrate how images can be put into words.

The Pleasant Pumpkin

A symbol is a visible sign of something invisible. It is something which represents something else because of a traditional idea or a personal association. The pumpkin is a symbol of the autumn season for many Americans. For me, it symbolizes a happy time and the beauty of my favorite season.

Its golden color reminds me of the changing leaves of the mountain Aspen in Colorado where I grew up. I can still hear their rustling leaves and see them fluttering against the blue Colorado sky. The round fat shape of the pumpkin reminds me of the busy kitchen and the family reunions at Thanksgiving time. Then, the smells of roast turkey and spicy pies floated through the air and mingled with the pleasant buzz of laughing cousins and chattering adults.

Now, I no longer live in Colorado, and my family is scattered around the world. Still, when I see the yellow pumpkins in October, I remember the warm autumn colors and the happy holidays of my youth.

Students analyse the kinds of sensations the color and the shape evoke. Then they discuss what kinds of associations or images might arise from a sound, a taste, a smell or a texture, one of each being suggested by a class member. Students may want to think of their own symbol for homework, thinking about the different sensations and their possible associations with their symbol.
The teacher can help them with vocabulary the next day.

Activities for the Receptive Skills

Verbal output

What might have been. Students read a story with a strange twist or a tragic ending. (The Lady and the Tiger is a classic in English with no ending.) After studying the story, the students are asked to generate as many alternative actions as possible. What might the main character have done? What might have happened if . . . (As foreign language literature has already mentioned, students can retell the story from a minor character's point of view—Birckbichler, 1977.)

What should be done. The teacher recounts (or if not a native speaker, reads) information about a current problem or provocative issue. Students are instructed beforehand to listen and to think of possible solutions. Individually or in small groups students try to think of as many solutions as possible. The teacher can take these home, choose the most promising (even if they are wierd), put them on a transparency and ask students for clarification the next day. He may have to prepare possible
explanations before class to help students try to explain in the target, not the native, language.

**An original story.** After having read a descriptive or action-packed passage, students underline new vocab­ulary (adjectives or verbs) and write them on slips of paper. The teacher collects them, puts them in a basket, and students draw a word randomly. Then in small groups students use the words to create a new story.

**Auditory output**

Auditory output is any meaningful nonverbal sound elicited from students to interpret a communication made through the target language. A student may be asked to write a song illustrating a story or a poem read in the language, or he may be asked to respond to a message by humming a familiar tune which he associates with it. Auditory output may involve more than music, but the investigator has not thought of those possibilities yet.

**Visuo-spatial and kinesthetic output**

**Calligraphy.** Students take a sentence they have produced or read and use it to make a picture reflecting its meaning.
An illustrated story. Students listen to a paragraph which is illustrated by line drawings on a transparency. When the teacher finishes reading, the students try to match the symbols they have been looking at with the facts in the paragraph. (The paragraph used is reproduced in its original French version (Balas and Rice, 1979) and in English below, along with the symbolic representations.) After this introduction, students are read a folk tale or other story which may lend itself to symbolic representation. Students are directed to make line drawings to illustrate the story. Other students are asked to guess what the drawings refer to.

Introductory exercise:

Il était sept heures du matin. Il faisait froid et la neige tombait. Je suis descendu du lit et me suis habillé à toute vitesse. Maman préparait déjà le petit déjeuner et papa se rasait dans la salle de bains. Lorsque je suis entré dans la cuisine, maman m'a donné une tartine et j'ai bu mon café au lait. Deux minutes plus tard papa est descendu. Il portait son nouveau costume bleu et il sentait très bon. Je me suis demandé: "Où va-t-il ce matin? Ne va-t-il pas travailler?" Je lui ai lancé un regard plein de
curiosité, mais il n'a rien dit. À sept heures trente je suis parti pour le lycée. Je ne savais pas du tout ce qui se passait. (Balas and Rice, 1979, p. 10)

It was seven o'clock in the morning. It was cold and snow was falling. I got out of bed and dressed quickly. Mother was already preparing breakfast and Dad was shaving in the bathroom. When I went into the kitchen, Mother gave me some toast and I drank my coffee. Two minutes later Dad came down. He was wearing his new blue suit and he smelled of cologne. I wondered, "Where is he going this morning? Isn't he going to work?" I gave him a questioning glance, but he didn't say anything. At seven thirty I left for school, but I had no idea what was going on. (My translation)

Students looked at these symbols while they listened.

1. 2. 3. 4.  
5. 6. 7. 8.  

Number 2 and number 5 were not guessed until the teacher moved the transparency to a different position. The answers are: 1. toast, 2. went downstairs, 3. a questioning glance, 4. seven o'clock, 5. the coffee, 6. smelled of cologne, 7. shaving, 8. the snow. Other interpretations by students are worth discussing. One student suggested that number 6 represents the young person's questioning feelings.
When the folk tale is read, students listen, trying to picture persons, places, objects and actions so that they can represent one of these in a symbolic manner. The story (lasting no longer than five minutes) is read from the book in dramatic fashion with gestures and appropriate pauses and intonation. At the end students take a few moments to contemplate their choice and make their drawing. The teacher collects their representations and either shows them to the class for identification in the target language or gives them randomly to small groups which determine a meaning and write it below each drawing. The illustrations can then be shown to the class and the interpretations read. The originator agrees or gives his own idea. For example, the Mikasuki Indian legend, "The Coming of Corn" (Marriot and Rachlin, 1968), read in ESL classes, produced which could represent a fish or an ear of corn.

For homework students are given an edited version (no more than four pages). They can underline phrases and illustrate them in the margin for identification the next day. This can be done in lieu of the above
Guided fantasy. (Samples, 1975, p. 27). This exercise is used almost exactly as Samples presents it. It is special because it asks the student to describe something which is not named. Students relax and listen to this suggestion:

You are taking a walk. It is a beautiful spring day. Now walk straight ahead and you see some bushes. Go over to them and look at them carefully. Now you see a small box. Pick it up and look inside. There are two things in the box that you know about and there is one thing which you have never seen before. Look at each one of them carefully. . . . the first. . . . the second. . . . the third. . . . Now come back and tell us what you saw.

The student can describe two things for which he has a name; the other must presumably come only from the right side of the brain, an unnamed image which he subsequently identifies verbally. The first two images were quite similar for most students: a flower, a bird, a beautiful book, but the third thing was mysterious and often dangerous. One student described a small brown thing that looked like a button, but she dropped it and took the other things. Another student found a small stone which was hurting the soft warm bird that she had
found. Other students avoided trying to name the other object, saying that it was just something they did not know about. Two students found only one thing: a magic box that gave them command of the English language. One of these told of elaborate rules that the box gave as restrictions; the other explained that the box gave no promises for immediate results.

Multi-mode projects. Making pinatas, cooking crepes, learning folk dances have long been honored as, at least, good language club activities. This research suggests that singing, dancing, drawing, or other physical activities designed to elicit novel ideas for original products can effectively engage creative processes. Some procedures can utilize all the senses and modes of creative processing and the four language skills resulting in satisfying experiences and intriguing outcomes.

One such project is a Valentine Day celebration. Students are given a reading on the history and meaning of Valentine Day which is read aloud by the teacher as students follow the text. Comprehension questions are asked on each paragraph and vocabulary is illustrated.
by realia. Candy hearts are then distributed to the students, who read the saying imprinted on top of their heart (Cool Guy, Cute Chick, Be Mine, etc.) The teacher explains them, if necessary. Following this, students look at examples of all kinds of valentines—commercial, home-made, romantic, humorous. The teacher reads the verse from one of each type; then students gather around a display area to examine the numerous and varied valentines there. We offer red Kool-aid and heart-shaped cookies during this stage to add to the atmosphere and to help students be receptive to the next step.

During a second hour students are instructed in the writing of Cinquin poetry and the rewriting possibilities of the familiar English rhyme, "Roses are red," using the handout included here (p. 144). After generating one group poem of each type, students receive red construction paper (pink is also available) and paper doilies. Sharing scissors and glue, they design and make their own valentines to give to a friend or a member of the family. Only one out of over one hundred adults who have participated in this activity has been unreceptive. This young
man objected on the grounds that, by asking him to take part in what was for him a uniquely American custom, we were trying to make him be American.

The preceding activities are not exhaustive. They represent some of the potential for creative endeavor in the foreign language classroom made accessible by the model in Chapter Three. Although not all students manifest novel thinking, as judged by the investigator, in all situations, they are all able to recognize some possibilities for creative approaches, enjoy the creative efforts of their classmates and pursue their learning through meaningful language tasks.
Are you a poet? Maybe you are and don't know it. Here is your chance to try to write a poem in English. We can try it in two ways.

1. A traditional poem:

   Roses are red
   Violets are blue
   Sugar is sweet
   And so are you.

Almost every English-speaking American knows this poem, and sometimes we like to rewrite it. Here are some examples.

   The trees are green
   Robins are red
   The sky is blue
   Bluebirds are blue
   Summer is lovely
   They make me happy
   And so are you.
   And so do you.

Now it's your turn:
1. Describe a subject in three words. (Don't count "a" and "the.")
2. Describe another one with the color "blue."
3. Describe another or make a statement about the first two.
4. Write the last line. And so _____ you. (If the verb in line 3 is "be," use the verb "are." If the verb in line 3 is not "be," write "do."

2. "Cinquin" poetry:

   Hearts
   Big, red
   Feel wonderfully warm
   Happy sweethearts giving gifts
   Valentine's Day
   Snow
   White, cold
   Piles on the ground
   I want to stay home
   Winter

1. State a subject in one word.
2. Describe the subject in two words.
3. State an action in three words.
4. State an emotion in four words.
5. Restate the subject in one word.
CHAPTER V

IMPLICATIONS, LIMITATIONS AND SUGGESTIONS

FOR FURTHER RESEARCH

The creativity model makes available a structured approach for promotion of creative behavior in the foreign language classroom. Activities from the model have proved successful in intermediate ESL and French classes, stimulating thought and insight, and sometimes helping a student produce novel ideas, as judged by others, or personally-satisfying ideas, as judged by the student himself. Even when individuals have not achieved originality in their own work, they have been touched by the humorous, esthetic or intellectually-challenging qualities of their classmates achievements.

Besides the preceding positive results, the model provides for practice in the receptive, as well as the productive, skills in a purposeful and meaningful way. Moreover, it reveals a previously neglected aspect of creativity for foreign language learners, that of nonverbal
modes of perceiving and producing creatively.

The background literature, the foundation of the model, draws parallels between the good language learner and the creative person and between the processes which play a part in creative thinking and language learning. These parallels point to a number of paths leading toward research for better understanding of different kinds of language learners and creative behaviors and procedures which may make their language learning efforts more effective. One particular instrument, the Dogmatism Scale, has been singled out and reworded for use with ESL students in future investigations of creativity and language learning. The scale is included in the appendix, along with the procedures used in its revision.

Techniques themselves have implications for teacher education. The teacher who can use the creative activities and develop new ones from the model is self-confident in his abilities in the target language. If he is not native or near native in fluency, he needs to be exposed to the vocabulary of attributes—size, shape, color, texture, odor, taste, movement—and be made sensitive to nuance of
meaning and various connotations. He should also be acquainted with cliches of metaphor and simile so that he can use them for springboards for original expression. This familiarity can be developed partially in methods courses where future teachers can indulge in creativity exercises. It can also be furthered in literature courses where the expressiveness of form and meanings is stressed.

It should not be construed from this study that creative persons are good language learners or that language learners will become especially creative by using techniques issuing from the model. However, it is clear that the techniques can provoke creative tendencies when students have grasped forms and meanings needed for a given activity.

This work does not give controlled data in the form of statistics to show that the techniques included here do indeed enhance language learning and creativity. Rather, it provides evidence that creativity techniques can effectively be adapted to a language learning situation and that an individual can respond in a creative manner even with limited knowledge of the language, given
the opportunity and the facilitation of encouraging
surroundings and a sensitive teacher.

The activities here are limited to those which
entail the use of easily available, inexpensive, everyday
kinds of instructional materials. Variations with more
sophisticated devices should be explored. For visual
input, for instance, movies with mime or moving lines and
figures without accompanying dialog could stir the imagi-
nation. Student-produced movies, videotapes or slide
projects might also furnish creative outlets for students
in conjunction with their language development.

As this study indicates, inquiries into creativity
and the second-language learning situation have been
relatively few in number and quite limited in scope. One
of the contributions of this investigation is to bring
enough information together to uncover a variety of
questions. The model itself makes it possible to provide
a program of creative techniques which can be evaluated
in terms of its impact on creative growth and language
development. Do students using creative techniques in-
crease their scores on creativity tests? Which scores?
Do they increase their language performance? In which skills? On communication tasks? In retention of discrete items? Are activities in the nonverbal modes more effective for language learning than those in the verbal modes? What is the relationship of exercises in the two modes to creativity scores?

To all of the above questions can be added two more questions: for whom? and under what conditions? A number of learner characteristics can be isolated and explored in relation to language learning and creativity. Among them is closed-mindedness and open-mindedness as measured by the Dogmatism Scale. The reworded version in the appendix can be used with ESL students to discover possible relationships to several variables: rate and amount of language learning, adjustment to American schooling or to aspects of social life in the United States, for example.

There are other language learner qualities which may better predict language learning outcomes or represent confounding variables interacting with creativity techniques. These include field dependence/independence,
the tolerance of ambiguity, introverted or extroverted, integratively or instrumentally oriented language students. How do creative activities influence these types? And what about language aptitude and creativity?

Another major area of concern addressed by this inquiry is the creative environment and the language learner. What kind of learner benefits from a relaxed creativity-conducive environment? What about risk-taking and nonconformity? How are they best approached for language success and creativity? for which learners? What about error correction strategies? Which kind of correction—local, global, immediate, delayed—affects the creative or noncreative, the anxious or aggressive language learner? Which make the less creative more creative? Does more creative performance lead to an increase in language learning ability or in communication?

Beyond these suggestions, further research using neurophysiological techniques to help clarify the functions of the right and left hemisphere in language learning and the impact of creativity techniques upon those functions is recommended.
APPENDIX

THE DOGMATISM SCALE

Use in Creativity and Language Learning Research

Individuals whose Dogmatism scores are low tend to score higher on measures of creativity than those subjects with high Dogmatism scores (Jacoby, 1967; Johnson, 1968). According to Lett (1976) language learning may affect one's open-mindedness (low Dogmatism). The present study considers open-mindedness as a posture conducive to creative production and successful second-language learning. It also notes similarities between some characteristics of the open-minded person and the needs of the second language learner who must adjust to the behaviors, including the language behaviors, of the dominant group around him.

The Dogmatism Scale (the D Scale) is intended to measure general intolerance, authoritarianism and the ability to make distinctions between belief and disbelief systems. Would scores from this instrument yield information leading to a better understanding of a second
language learner's ability or lack of ability to learn the language and cope with the second language environment? A number of possible inquiries are suggested by this question; however, before specific relationships can be explored, a version of the D Scale understandable to ESL students has to be available.

Although the D Scale has been translated into several languages for use in cross-cultural studies (Aviram and Milgram, 1977; Gonzales-Tamayo, 1974; Pirojnikoff, Hadar and Hadar, 1971), the multi-cultural, multi-lingual ESL group is usually so diverse that administration of the scale would be difficult and possibly not reliable or valid if scored as a group. An adapted version of the D Scale made by Figert (1968) for elementary school pupils is not appropriate for adult language learners because it contains simplified concepts and idiomatic language unsuitable for ESL students. Therefore, as a contribution to future research, the D Scale was reworded.

Procedures for Rewording the D Scale

In October of 1979 the D Scale was given to 51 international students at Ohio Dominican College in
Beginning, Intermediate and Advanced ESL classes. All students had an English proficiency of less than 80 on the Michigan Test or less than 500 on the TOEFL test.

For comparison the D Scale was also given during the same week to 77 American students in Beginning and Intermediate Spanish and French classes, and in Beginning German classes. These students were chosen because of easy access to the investigator and because languages are required courses, making the composition of the classes generally representative of the student body. Of the questionnaires returned, 10 from ESL students and five from American students were incomplete and had to be discarded.

American students filled out the questionnaire at the end of one of their language class periods, taking an average of 15 minutes to complete the 60 items. Beginning ESL students took two hours and Intermediate and Advanced classes each took one hour. All ESL students were read each item by their instructor during their regular two-hour class period. The process was tape-recorded so that the rephrasings of the instructor could be used in the
rewording of the D Scale. Students were assured that only the instructor's voice would be recorded. A technical problem resulted in the loss of the recording of the first six items and the last 33 items in the beginning class although the instructor was able to recall some of the expressions used for the first six.

Because ESL students in general are not familiar with opinion polls, they were prepared about a week before the administration of the D Scale by being given a questionnaire with the same forced-choice format as that of the D Scale on a topic of general interest to the students. This was scored and the results were used to stimulate discussion during one class hour. The discussion was intended to help students understand that their own opinions and the meaning of the survey depended on individual responses, not on group consensus.

In the actual administration of the D Scale, the instructor read each item on the questionnaire and gave explanations when requested so that each student could understand the meaning of each of the items and respond according to his own beliefs.
It was assumed that once the ESL students understood the meaning and function of the survey they would score similarly to the American students. The null hypothesis tested was: there will be no significant differences between the means of American students and international students on the Dogmatism Scale. Results of a one-way analysis of variance showed this hypothesis to be untenable. An F test revealed that the American mean (159.5) was significantly different from the ESL mean (192.4) at the \( p < .0001 \) level.

### TABLE 1

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of Cases</th>
<th>Mean</th>
<th>SD</th>
<th>Var.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>72</td>
<td>159.53</td>
<td>21.94</td>
<td>481.50</td>
</tr>
<tr>
<td>E</td>
<td>41</td>
<td>192.41</td>
<td>21.05</td>
<td>443.22</td>
</tr>
</tbody>
</table>

### TABLE 2

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (between)</td>
<td>1</td>
<td>54062</td>
<td>54062</td>
<td>223.9918****</td>
</tr>
<tr>
<td>S/A (within)</td>
<td>112</td>
<td>27032</td>
<td>241.357</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>113</td>
<td>81095</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

****\( p < .0001 \)
The size of the difference between means may be due to several kinds of error. Students were not randomly selected because they tend not to appear for extra, voluntary, non-credit class sessions. All language students except those absent on the day of the administration of the scale were invited to participate; none present refused.

The conditions for answering the questionnaires were also different. The scale was simply handed out to American students; it was read and explained to the ESL students. This procedure, though necessary, may have enhanced a desire to please the teacher by giving strong positive responses. Some students may have agreed with statements because of lack of knowledge of and experience with opinion polls.

The adapted scale should be given again to determine the amount of time it takes to administer and the number of explanations to be made. Undoubtedly, in any group, a few individuals will need to be given synonyms for some expressions. On the whole, however, students should be able to read and understand the items with little
difficulty.

It is hoped that this effort will result in future studies which will further understanding of the relationships between creativity, open-mindedness and language learning.
THE DOGMATISM SCALE

ADAPTED FOR ESL STUDENTS
OPINION SURVEY

+1: I AGREE A LITTLE        -1: I DISAGREE A LITTLE
+2: I AGREE ON THE WHOLE    -2: I DISAGREE ON THE WHOLE
+3: I AGREE VERY MUCH       -3: I DISAGREE VERY MUCH

1. People who believe everything they read in the newspapers are stupid.

2. It is OK with me if a member of my family marries someone of a different race, or color, or nationality or religion than ours.

3. It is normal for a person to be a little afraid of the future.

4. We must deal with others the way we want them to deal with us.

5. For a man to arrive at his goal in life, it is sometimes necessary for him to say, "I will do this even if I lose everything."

6. It is normal for me to understand ideas which I agree with better than ideas which I disagree with.

7. Present time is very unhappy; the future is much more important than now.

8. Most of the ideas we read today in newspapers, books and magazines are not very good ideas. The paper that these ideas are written on has more value than the ideas do.

9. The United States and Russia are almost completely different. They are not at all alike.
10. People who want the government to own all of the business and industry in a nation are people who just want to make trouble.

11. Books have many different kinds of ideas. Young people should not try to read the books which might confuse them. Older people should not give young people books which they can't or won't understand.

12. Black people and white people can't really get along. They shouldn't be together.

13. It's too bad, but a lot of people with whom I have discussed social problems don't really understand what is happening.

14. The most important thing in life is for a person to want to do something that is important.

15. In a discussion with others who speak my language, I often have to repeat myself many times to make sure that the others understand.

16. On earth everything has happened before. There is nothing really new in the world.

17. It is only when a person gives himself completely to a high idea or special goal that his life is really very important.

18. Basically the world we live in is a lonely place.

19. I get very angry inside when a person is wrong and he won't say he is wrong and I know he is wrong.
+1: I AGREE A LITTLE     -1: I DISAGREE A LITTLE
+2: I AGREE ON THE WHOLE -2: I DISAGREE ON THE WHOLE
+3: I AGREE VERY MUCH   -3: I DISAGREE VERY MUCH

20. It is not a good idea for people to ask government to help religion.

21. A person who thinks mostly of his own happiness is so bad that I can't even hate him. He is too terrible for me to think about.

22. When we have a very strong discussion and I get very excited about it, I can't stop talking.

23. When we have differences in religion, we must be careful not to try to believe the ideas of people who believe in a different way. We should not change our religious ideas, not even a little bit.

24. There are many people whom I have learned to hate because of the things that they believe.

25. If a group of people permits too many differences of opinion, the group cannot live very long.

26. The world is difficult to understand today. The only way to know what is happening is to depend on our leaders and on people who have studied a lot.

27. It is very true that the rich are getting richer and the poor are getting poorer.

28. If I had the opportunity, I would do something very special to help the world.

29. A man who does not believe in some great high idea has not really had a complete life.
30. It is not a good idea for women to be directors and leaders over men.

31. There are many different ideas about life and living in the world, but there is probably only one which is correct.

32. The best way to be safe and free from worry and fear is for the government to promise you a job.

33. In today's world it is often necessary to be more careful about ideas of people in your group than about ideas of people in another group.

34. I don't like to say it, but my secret goal in life is to be a great person, like Einstein, or Beethoven, or Shakespeare.

35. When there is a serious problem, it is better to stay and die than to run away because you are afraid.

36. In the history of people there have probably been just a few really great thinkers.

37. Freedom of speech is a good idea, but we have to limit the freedom of some political groups.

38. In a strong discussion, I am so interested in what I want to say that I forget to listen to the other people.

39. The most terrible crime a person can do is to say bad things in public about people who believe in the same things he believes in.
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+1: I AGREE A LITTLE
+2: I AGREE ON THE WHOLE
+3: I AGREE VERY MUCH
-1: I DISAGREE A LITTLE
-2: I DISAGREE ON THE WHOLE
-3: I DISAGREE VERY MUCH

40. There are two kinds of people in the world: those who are for the truth and those who are against the truth.

41. A person alone--without others--is helpless and a lost living thing.

42. Some people don't like other people just because they belong to a different race or religion. It is clear that we can stop this kind of thinking by education, not by making laws.

43. In times like these times, a person is probably very selfish if he thinks first about his own happiness.

44. Most people just don't care at all about other people.

45. It is often a good idea to talk to someone you respect before you decide what you think about what is happening.

46. I would like it if I could find someone who would tell me how to solve my personal problems.

47. The way to solve money problems is to have higher taxes for the rich.

48. A person must be very stupid if he still believes in differences between the races of people.

49. We should do more to help criminals and not just put them away in jail.
50. Things will be better for you now and in the future if you choose friends and people to work with who prefer the same beliefs and experiences as you do.

51. Most people just don't know what is good for them.

52. I would like to have a close personal friend who is not from my country.

53. When people with different political ideas try to solve a problem together, they should not try to agree by changing some of their ideas because that is dangerous for other people on their side.

54. A person who is very excited about many different ideas is probably a person who can't decide about anything.

55. You have to feel sorry for people who believe that the world could be here without someone or something like God to make it.

56. The person who says that he loves his country—and then tells government secrets to another country—should be killed.

57. There are many things to do, but we don't have much time to do them in.

58. It's clear that the United Nations is not successful.

59. I am always polite, even to people who are not polite.

60. The highest form of government is a democracy. The highest form of democracy is a government whose leaders are the most intelligent people in the country.
Americans like to take surveys (or "polls") about people's opinions about many different ideas. One interesting idea is about family life. Here is a survey about our own opinions of family life.

Decide your opinion about each of the following statements. Choose the number which you prefer and write it in the blank beside each statement.

+1: I agree a little  -1: I disagree a little
+2: I agree on the whole -2: I disagree on the whole
+3: I agree very much -3: I disagree very much

1. It's OK for children to live with their parents after they are married.
2. It is better for children to grow up on a farm or a ranch than to grow up in a city.
3. Mothers of small children should not work, even if the family needs more money.
4. It's a good idea for parents to live with their children after the parents retire.
5. Married women should work at home, not outside the home.
6. When children get married, they should not ask their parents for money.
7. Children should leave home when they can find work or when they are eighteen.
8. People should not get married if they don't know each other well.
9. Divorce is a problem in the United States.
10. Divorce is not a problem in most countries.
OPINION SURVEY

Instructions to Foreign Language Students

You have been invited to take part in an opinion survey, and your instructor has very graciously allowed this class time to give you the opportunity to express your opinions. The survey is part of some research from the College of Education at the Ohio State University. It is not a test and it is not part of your work for this course. You have been invited to help with the survey, but you do not have to do so. However, the researchers would be very happy if you would like to help. Many people have given their opinions about these statements and have found the statements very interesting. The researchers hope that you will be interested in them, too. They are about how you feel about man and society, and they take about twenty minutes to answer. All opinions are strictly confidential.

If you are not interested in taking part in the research, you may leave now, or if you take a questionnaire and do not wish to finish it, you may return it and leave at any time. The researchers would appreciate your finishing it, however, since all of your opinions are important. They thank you for your time and consideration.
Instructions to International Students

You have been invited to take part in an opinion survey. A survey asks a lot of people the same questions to understand how many different people feel about the same problems or ideas. This survey is part of some research from the College of Education at the Ohio State University. It is not a test and it is not part of your work for this course. Your teachers have given you this time so that you can give your opinions, but you do not have to do so. However, the researchers would be very happy if you would like to help. Many people have given their opinions about these statements, but no one has asked the international students to give their opinions. The researchers would like to give you that opportunity. The statements are about how you feel about man and society. No one will know what your feelings are because you will not put your name on the paper.

There are sixty statements to answer, but some of the sentences or the vocabulary may be difficult. The researchers would like to tape-record your teacher, who
will read each statement and give you different vocabulary and sentences when you don't understand. No one except the researchers will listen to the tape. They will listen to the tape so that they can make the survey easier for other international students to take.

If you are not interested in taking part in the research, you may leave now, or if you take a paper and do not wish to finish it, you may return it and leave at any time. The researchers hope that you will finish it, however, since all of your opinions are important. The researchers thank you for your time and consideration.
ROKEACH'S DOGMATISM SCALE, FORM E

(as given to foreign language and ESL students)
This is a survey of the opinions of college students about a number of social and personal questions. Of course there are many different answers. The best answer to each statement is your personal opinion. We have tried to make statements about many different ideas. It is possible that you will agree very much with some of the statements, or disagree very much about other statements, or you might be uncertain about other statements. Whether you agree or disagree with any statement, you can be sure that many other people feel the same as you do.

Mark each statement on your answer sheet according to how much you agree or disagree with it. Please mark every one, even if you have never really thought about the statement before. Just give your first idea. Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

+1: I AGREE A LITTLE  -1: I DISAGREE A LITTLE
+2: I AGREE ON THE WHOLE  -2: I DISAGREE ON THE WHOLE
+3: I AGREE VERY MUCH  -3: I DISAGREE VERY MUCH

Here is an example:

My college teachers are friendlier than my high school teachers.

Of course the best answer to this statement is your personal opinion. There will be many different answers for this statement because each person has his own feelings about it. Please answer each of the statements on the opinion survey according to your own personal opinion. Please answer all of the statements because each of your opinions is important. No one will know your answers because you are not asked to give your name.

The opinion survey begins on the next page. If you do not wish to fill it out, you may leave, but please return the survey to your teacher first. Thank you.
OPINION SURVEY

+1: I AGREE A LITTLE
+2: I AGREE ON THE WHOLE
+3: I AGREE VERY MUCH
-1: I DISAGREE A LITTLE
-2: I DISAGREE ON THE WHOLE
-3: I DISAGREE VERY MUCH

1. People who believe everything they read in the newspapers are stupid.

2. It is OK with me if a member of my family marries someone of a different ethnic group than our own.

3. It is only natural for a person to be rather fearful of the future.

4. We must always treat others the way we want them to treat us.

5. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."

6. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.

7. The present is all too full of unhappiness. It is only the future that counts.

8. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.

9. The United States and Russia have just about nothing in common.

10. It is only trouble-makers who want to nationalize private industries.

11. Young people should not have too easy access to books which might confuse them.
12. Blacks and Whites just don't mix.

13. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.

14. The main thing in life is for a person to want to do something important.

15. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

16. There is really nothing new under the sun.

17. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

18. Fundamentally, the world we live in is a pretty lonesome place.

19. My blood boils whenever a person stubbornly refuses to admit he's wrong.

20. It is very foolish to advocate government support of religion.

21. A person who thinks primarily of his own happiness is beneath contempt.

22. Once I get wound up in a heated discussion I just can't stop.
23. When it comes to differences in religion we must be careful not to compromise with those who believe differently from the way we do.

24. There are a number of people I have come to hate because of the things they stand for.

25. A group which tolerates too much difference of opinion among its own members cannot exist for long.

26. In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.

27. It is very true that the rich are getting richer and the poor are getting poorer.

28. If given the chance I would do something of great benefit to the world.

29. A man who does not believe in some great cause has not really lived.

30. It is a mistake to have women as foremen and leaders over men.

31. Of all the different philosophies which exist in this world there is probably only one which is correct.

32. The best way to receive security is for the government to guarantee employment.
<table>
<thead>
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<th>I AGREE A LITTLE</th>
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<th>I DISAGREE A LITTLE</th>
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<tr>
<td>+2</td>
<td>I AGREE ON THE WHOLE</td>
<td>-2</td>
<td>I DISAGREE ON THE WHOLE</td>
</tr>
<tr>
<td>+3</td>
<td>I AGREE VERY MUCH</td>
<td>-3</td>
<td>I DISAGREE VERY MUCH</td>
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</table>

33. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.

34. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.

35. It is better to be a dead hero than a live coward.

36. In the history of mankind there have probably been just a handful of really great thinkers.

37. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

38. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what others are saying.

39. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

40. There are two kinds of people in this world: Those who are for the truth and those who are against the truth.

41. Man on his own is a helpless and miserable creature.

42. Plain common sense tells you that prejudice can be removed by education, not legislation.
<table>
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<tr>
<th>#</th>
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<tr>
<td>43</td>
<td>In times like these, a person must be pretty selfish if he considers primarily his own happiness.</td>
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<tr>
<td>44</td>
<td>Most people just don't give a &quot;damn&quot; for others.</td>
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<tr>
<td>45</td>
<td>It is often desirable to reserve judgement about what's going on until one has had a chance to hear the opinions of those one respects.</td>
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<td>46</td>
<td>I'd like it if I could find someone who would tell me how to solve my personal problems.</td>
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<td>47</td>
<td>The way to solve our financial problems is to have higher taxes for the rich.</td>
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<td>48</td>
<td>A person must be pretty stupid if he still believes in differences between the races.</td>
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<td>49</td>
<td>We should do more to help criminals and not just put them away in jail.</td>
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<tr>
<td>50</td>
<td>In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.</td>
</tr>
<tr>
<td>51</td>
<td>Most people just don't know what's good for them.</td>
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<tr>
<td>52</td>
<td>I would like to have a close friend who is not from my country.</td>
</tr>
<tr>
<td>53</td>
<td>To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.</td>
</tr>
</tbody>
</table>
1. I AGREE A LITTLE  -1: I DISAGREE A LITTLE
2. I AGREE ON THE WHOLE  -2: I DISAGREE ON THE WHOLE
3. I AGREE VERY MUCH  -3: I DISAGREE VERY MUCH

54. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.

55. You have to feel sorry for people who believe that the world could exist without a Creator.

56. Traitors to the country should be executed.

57. There is so much to be done and so little time to do it in.

58. It's clear that the United Nations is a failure.

59. I am always polite, even to people who are unpleasant.

60. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.

Please note:

Students in other language classes may take this survey at a different time. Please do not discuss it with them until they have taken it. This is so that they will have the opportunity to give their opinions and not be influenced by your opinions. After everyone has taken it, it will be perfectly fine to compare ideas. You will have the opportunity to find out more about the survey later, if you are interested.
TAPE TRANSCRIPTS

Data Used To Reword the Dogmatism Scale

The following pages contain the transcripts of tapes made during the administration of Rokeach's Dogmatism Scale to Beginning, Intermediate and Advanced ESL classes at Ohio Dominican College in October of 1979. The transcripts include the words of each instructor for each item that needed clarification. The number preceding each entry corresponds to the number of the item on the D Scale (pp. 169-176). The rewording given by the instructors was used to compose the adapted D Scale (pp. 158-164), an instrument suitable for ESL students. Unfortunately, because of technical difficulties, only items 7-26 were available for transcription from the Beginning ESL tape.

Rephrasings are the words of the instructor of each class: Beginning ESL, Sue Dechow; Intermediate ESL, Carolann DeSelms; Advanced ESL, Patricia Weiland.
Beginning ESL Tape Transcript

7. The present is unhappiness, not happy. The future is what is important. It is only the future that is important because the present is unhappy. The present is unhappy; it is the future that is important.

8. Printed, that means in a newspaper, or magazine, or in books. They aren't as valuable as the paper they are printed on. To get printed means to be put into newspapers, to be put into magazines, to be put into books. Most of the ideas that are in newspapers and magazines and books today are not worth as much as the paper they print them on. If I have a diamond ring, it's worth money. This is saying that most of the ideas in magazines, newspapers and books are not as valuable. They're not as good. They're not worth as much as the paper they put them on. The paper the ideas are printed on is more valuable than the ideas. Gold is more valuable than silver. This says that the paper that the ideas are printed on is more valuable than the ideas.

9. The United States and Russia are not anything alike--alike, similar. The United States and Russia have almost nothing that is similar. They have almost nothing in common. They are very different. The United States and Russia are very different. Common means alike. The United States and Russia have just about nothing alike. If you like flowers and I like flowers, we have something in common. We have something alike.

11. That means young people should not have in their hands, easily, books which might confuse them—that they wouldn't understand. Young people should not be able to easily get books which might confuse their thinking. If you are confused, you don't understand. Young people should not be given books which they wouldn't understand. Young people shouldn't be given books which they won't or can't understand.
12. Black people and white people just don't mix. They don't mix with each other. People mix—they talk to each other—they work with each other. They live with each other. They go places together.

13. Unfortunately means it's too bad. A good many people, a lot of people, don't really understand what's going on--don't really understand them. They don't understand the problems. Unfortunately, a good many people that I have discussed important social problems with don't really understand them. It's too bad, but a lot of people that I have discussed important problems with don't understand them. Social problems—problems of society, of people. It's too bad—I'm sorry—but a lot of people that I've discussed important problems that are social problems, society's problems—I've discussed it and these people do not understand these problems.

14. The main thing—that means the most important thing. Everyone wants to do something important. That's the most important thing. The most important thing in life is to do something important with your life.

15. In a discussion—means when I am talking to someone else—when I'm discussing things—when I'm talking to people—(the "I" means you)—to make sure that other people understand me. In a discussion you're talking to other people. When I'm talking to others I often have to say it again, and again, and again to make sure that the other person understands me.

16. There's really nothing new in the world. Everything is the same.

17. Devotes—gives himself completely. It is only when a person gives himself completely to some ideal or cause that his life is meaningful—that his life is important—that his life has meaning—is important. "Ideal," is high idea. If you say everyone in the world should have food to eat—everyone in the world should never go to bed hungry—that is a high idea;
that is an ideal. It's only when a person gives himself to a high idea or a cause that his own life is important—that his own life has meaning—meaning for himself. Meaningful means important. He gives his life to some cause, to some idea, to some high ideal. Some people have an idea that they say, "When I grow up, I want to help the poor, hungry people in the world.

18. Fundamentally means basically; lonesome means lonely. The world we live in is a lonely place. Pretty does not mean nice here; pretty means mostly. In general, the world we live in is a lonely place. Leave the word pretty out. Just forget that it's there. Normally, the world we live in is a lonely place.

19. I get angry inside when a person is wrong and he won't say he's wrong. He's wrong and he won't say it. I know he's wrong. He knows he's wrong and he won't say, "I'm wrong." He and I are having a problem. I know he's wrong. He knows he's wrong, but he won't say, "I'm sorry, I'm wrong." I get angry inside when he won't say he's wrong when he knows he's wrong, and I know he's wrong.

20. It's a silly idea—it's a foolish idea for a government to say what religion a country should be or what religion people should be. It's crazy—it's not a good idea for the government to say, "This is the religion that people should be"—for the government to give money to religion.

21. A person who thinks only about himself is below hating—my hating him. Hate, opposite of love. A person who thinks only of his own happiness is lower than—is beneath my not liking him or hating him. I can't hate a person who thinks only of his own happiness because he's lower than the people I hate. I like some people. I don't like other people. Some people I hate. I don't like them at all, and there are other people that are even lower than the people that I hate and the people I don't like. They are
beneath my hating them. A person who thinks only of himself is so low that I can't even hate him. He's so bad I can't hate him.

22. Once I get excited about a discussion— we're talking and we're talking and it's exciting and I get all excited about it because it's an interesting subject— I just can't stop. The day we were talking about time, it was the neatest discussion— people were excited. They were getting up and running to the blackboard and drawing. And they wanted to continue the discussion— to keep it going. Once I'm excited about a conversation, I don't want to stop. If we have an interesting topic to talk about, I don't want to stop talking. I want to keep on talking.

23. If you and I have differences in religion— you have one religion; I have another religion— you believe one way; I believe another way— we must be careful not to give up part of our belief. If you believe one way and I believe another way, and we talk religion day after day after day, you tell me about Islam and I tell you about Christianity. They are different religions and you begin to give up— to not be as strong in your religion because of your discussions with me— and I begin to be more like a Muslim and a little bit less like a Christian. I give up some of my beliefs. I'm a little less Christian; you're a little less Muslim. We must be careful that this doesn't happen. If we are of different religions and we discuss them, we must be careful not to give up part of our religion. Let me show you the meaning for compromise. If you think we should go on a picnic and I think we should go to the movies, we have a difference of opinion— you believe one thing; I believe the other. If we compromise, we meet in the middle. We'll say, "OK, we'll go on a picnic and then we'll go to the movie." That's a compromise. This says that if we have differences in religion, we must be careful not to give up, or not to meet in the middle with those who are different. I must keep my religion and hold on to
it tightly. You must keep your religion and hold on to it tightly. We must be careful not to give up a part of our religion.

24. Because of the things they stand for means because of the things they believe in. There are a number of people I hate, that I don't like at all, because of what they believe in. There are a number of people that I don't like because of their beliefs. There are some people that I hate because of what they believe.

25. Tolerate means allows; exist—live. A group which allows many differences of opinion between the members of the group—the people in the group—that group cannot live for long. If we are a group of people, a society of people, a country of people, and those people had many different opinions and we allow people to have different opinions, our society—our group—cannot live for long. A group which has lots of differences of opinions cannot live for long.

26. Complicated—not simple, not easy to understand, difficult to understand. In this world of ours, which is difficult to understand, the only way we can know what's happening is to listen to our leaders or experts—people who know what's happening—to listen to experts we can trust—that we know are honest. Our world is difficult to understand. The only way that we can know what is happening in our world today is to listen to our leaders or people who know what's going on—that we know we can trust—that we know they are honest and they will tell us the truth. We need to listen to our leaders, to those who know what's happening or who are experts—people we know we can trust in order to know what's going on in our world today.
Intermediate ESL Tape Transcript

2. Ethnic is Persian, German, French; your background.

3. Fearful means afraid; natural means normal.

4. Means how you act towards another person. If he is nice—if he is not nice, we still, if we want him to be nice to us, then we are nice. Even if the person is not nice to me, I will still be nice to him. I will treat other people the way I want them to treat me. Treat means how you behave to another person. So to deal with—I will deal with other people the way I want them to deal with me.

5. Mission is his goal, his aim. Gamble is to bet on the future. To gamble everything you have or nothing. So if you want to be successful, sometimes you have to do something very drastic—weigh—say, well, I'm going to do this even if I lose everything. I will do this even if I lose everything—because that's the way I can be successful.

6. It's normal for a person to know his own ideas from his culture better than—or from his family point of view—better than ideas from somebody else's different point of view. Even in your own culture there are different ideas. This says it is normal for me to understand ideas I agree with better than I can understand ideas I disagree with. So, if I disagree with an idea, then I know I won't understand that as well as an idea I agree with.

7. Now—everyone—there are a lot of unhappy people. It is only the future that we can think of because now is unhappy. Or it is best to think of the future.

8. That is, most ideas you see in a newspaper or a magazine are no good. They're not worth even paper. They don't have any value.

9. That means they're almost completely different. Nothing in common means they're almost completely different.
10. Troublemakers—people who are always making trouble. They make trouble for others and this says—number ten—nationalize means to make the government the owner of private industries—like oil companies in the United States are private industries. This says that people who want the government to own all industries are troublemakers. They're trying to make trouble. That's what they're saying. But any industry, oil industry, IBM, Ford Motor Company, any company—if they want to have the government own it, they are making trouble; they're not being helpful.

11. Easy access means to be able to get something easily. Just go into a store and buy it very easily. Says young people should not be able to get books easily which might confuse them—like college books or books with different ideas in them. They should not be easily given to young people.

12. That means people—black people and white people. Mix means like mix a cake—go together.

13. Unfortunately or unhappily. The people—that means the people I talk with about social problems and moral problems. Moral problem is like: Should people who are not married have sex? Should you drink alcohol? Those are moral problems. The people I discussed these with don't really understand what's happening. Your opinion.

14. The main thing is the principle thing. The most important thing in life is for a person to want to do something that is important.

15. That doesn't mean in English. In your native language when you're talking with other people who speak your own language. I often find it necessary to repeat myself several times to make sure I am being understood. That they understand my ideas when we're discussing in our own language—my friends, in my language, and they don't know what I mean. We're discussing a problem and they don't
understand me, so I have to say it again. They just don't seem to understand me, so I have to say it again when we're discussing whatever it might be--be, some problem.

16. That means on earth everything has happened before. Nothing is new really. This idea is that we have wars, there have been wars before. People have disagreed, that's happened before. Everything has already happened; there is nothing new in the world.

17. When a person does only one thing, he says, "I believe in this thing and I will do this all of my life." Other things are not important. An ideal could be a religious ideal, a political ideal, any kind of high ideal, a special purpose in life, a special reason for your life. A cause is, well, uh, all right, Fidel Castro has a cause for his country; Khomeni has a cause for his country and these people have devoted themselves to that cause. Now, it doesn't have to be that cause at all. The nuns, the Sisters here at Ohio Dominican, have devoted themselves to educating young people and not being married and living only for God and for people. So that's what it means. That is when life is meaningful, full of importance--when you devote yourself.

18. Pretty means quite a little. Basically the world we live in is lonesome or lonely. In general, people have a lonely life. We are lonely.

19. My blood boils means I get hot like I was boiling water on the stove. I get very, very angry when a person stubbornly refuses to admit he's wrong. If I tell him something, I say, "You're wrong." He says, "No, I'm not wrong." And I say, "Yes, you are wrong."--"NO!" and you give him all kinds of statistics and evidence and you say, "See, you're wrong." and he says, "Nope." He won't listen to you so this one says I get very angry when a person refuses to say, "OK, I'm wrong."
20. Foolish means silly, stupid, ridiculous. To advocate means to want—to want and to ask and to try to get other people to believe this, to persuade other people about government support of religion. Now, support means that the government will help a religion. So this says it is stupid to ask people to get government to help religion.

21. Beneath contempt means he is so terrible that I don't even want to talk about it. The person who thinks mostly of his own personal happiness—I don't even want to say hello to him. He's just not worth anything. He has no value, that kind of person.

22. That means once I get started, I start a very strong discussion that everybody has their opinions and it's a very hot discussion. Everybody wants to talk. I can't stop talking. I can't stop when we have an interesting discussion like this. I don't want to go to class. I don't want to go to dinner. I want to finish the discussion.

23. When we have differences in religion—like we talked about sects. Even in Islam there are different sects of Islam, different opinions in the religion and in Christianity, too. When we have differences, we must be careful not to try to believe a little bit what the other people believe. Compromise means to say, "Well, OK, maybe you're right. I'll agree with you." So we must be careful not to say, "Maybe you're right." to the person who has a different belief.

24. That means there are several people who I hate now because of the things they believe in. For example, an American can say, "I hate Nixon because of the things he believes in," or "I hate Carter because of the things he believes in." or "I hate Kennedy because he believes in National Health Insurance." Hate is a strong word. I don't like him at all. I hate him! It's a very strong word because of the things they believe in.
25. To tolerate means to allow difference of opinion. You let people have different opinions. If you do this in your group, your group will not exist very long.

26. Complicated is complex. So many things, troubles, going on—so many things to think about. The only way we can know what's going on is to depend on—to depend on our leaders or on experts--people who have studied a lot, that we can trust.

28. That means if I had the opportunity, I would do something very good. Of great benefit means it will help people. I would do something very good for the world if I had the opportunity.

29. A great cause is a great idea—a great political, religious. Humanity—about human beings.

30. A foreman is the person who directs the workers. He's the boss. In a factory he says, "OK, you work from seven to ten today and he is going to work from eight to five." He directs the people who work. The foreman is the director. So, it says it is a mistake to have women as leaders or directors over men.

31. Philosophy is the ideas about life. Ideas about living and life. This says there are many different ideas about living and life, but there is probably only one which is correct.

32. Security is knowing that you will eat tomorrow, knowing that you will have a place to live tomorrow, knowing that your family loves you. This is security. Now, it says the best way to receive security is for the government to guarantee employment. That means the government will say if you want a job, you will have a job. You won't have to say, "I can't find a job." We will get you a job.

33. This one means you have to be careful about the ideas of your group of people and you have to be more
careful of your own people's ideas than of people who have different ideas. You must be careful of the people in your own group even more than of the people in somebody else's group--their ideas. You can't trust people in your own group even more than people in the other group.

34. That means I don't want to say it. That I don't even want to say it to myself--my secret goal in life. So, while I don't like to say this even to myself, in private, my secret goal in life--my secret aim in life--is to become a great person like Einstein, Beethoven or Shakespeare.

35. A dead hero is a person who is dead and everyone loves him, like George Washington. One who lived but is dead, but everyone loves him for what he did. A coward is a person who's afraid. He's afraid to do something. He will run away or hide when a problem comes. If there is a serious problem, it is better to stay and die than to run away.

36. My hand--if I fill it, I have a handful. There have probably only been just a few like I could put in my hand--the number of great thinkers in the world.

37. Worthwhile--it is OK. Being able to speak what you want is OK, but sometimes we have to stop some people from talking, some political groups. It's fine to have free speech but some people, some political groups, you have to stop them.

38. A heated discussion is a really interesting one where everybody wants to talk and they have real opinions about the idea. When I'm in one of those discussions, I think so much about what I want to say that I forget to listen to the other people. I'm thinking about what I want to say, and I don't listen to the others because I'm thinking about my ideas, so I forget to listen.
39. It's a terrible thing to disagree with a person in public when you agree with him usually. If I agree with Kennedy, but I say something bad about him in public, that's a terrible thing to do. I agree with him in general, but then I disagree with him in public, that's a terrible thing to do—the worst crime.

40. Truth—what is really true, like God and all truth.

41. On his own—man without other people, without ideas, without truth, without other things or maybe even God. Miserable means very, very unhappy, lost—a lost person.

42. You know what is right and what is wrong. And your ordinary ideas of that tell you that. Prejudice means looking at a person and saying, "I don't like him," or "I don't like him because he's black," or "I don't like him because he's Persian," or "I don't like him because he's tall," or "I don't like him because he's blond." That's prejudice. We can stop this kind of thinking by education, not by laws from the government.

43. Pretty: quite a little. Primarily: mostly. Selfish: he likes himself and doesn't think of others.

44. A "damn" is a strong word. I don't care at all about you. This says that most people don't care at all about others, "Give a damn" is an expression.

45. This means it's a good idea to not judge right away what's happening until you hear somebody else's opinion like somebody you respect like your father. When something is happening in the world, you don't say, "Oh, it's good." or "That's bad." You talk to someone you respect like your mother or your father first. You listen to their opinions or your teachers.

47. Financial problems—money problems. We all know taxes—money you give to the government—you have to
give to the government.

48. Pretty means quite a little. Races are black, white, Indian and Asian.

49. A criminal is a person who steals, breaks the law, does something wrong. We should try to help them and not just put them in jail. We should try to help them and not just put them in jail. When somebody steals something, we put him in jail, but we should talk to him and try to help him understand why he did that. We should maybe send him to school. We should have him talk with religious people. We should do something more that just put him in jail.

50. That means not just for today but for the best life in the future, too. In the long run, the best way to live is to choose friends and associates (associates are the people you work with) to choose those people whose tastes and beliefs are like yours. They are like yours—they are the same. Your tastes are dancing, or going to the movies, or serious discussions, or whatever.

52. A close friend is someone I can tell my personal ideas to, and we can do many things together. We can have serious conversations.

53. To compromise is to say, "Well, OK." You let them persuade you. Well, OK, I think maybe that's a good idea. All right. To compromise with our political opponents—that's a person who opposes us—the opposite political party. This is dangerous because it will lead to the loss of our own side. I say, "Well, OK." to the other political party, then I am telling my own friends—I am telling them they're no good. I am giving them to the other side. Betrayal means I give my friends to the other side and they didn't expect that.

54. Enthusiastic means Oh—heyyy—oh, this is great! I love it! Wonderful! Fantastic! That's an
enthusiastic person. Now, if he's enthusiastic about
about everything—he's enthusiastic about this and
that, that, that, that; well, then he really doesn't
think very much. "Wishy-washy" means, I say, "Oh,
Americans are wonderful." And he says, "Yeah, Amer­
icans are wonderful." Then I say, "Americans are
terrible." And he says, "Yeah, Americans are ter­
rrible." That's a wishy-washy who can't decide.

55. A creator is God, or we don't have to call him God.
Something or someone who made the world and the stars
and the planets and all of it. You have to feel sorry
for a person who believes—that the world—that
there is no God. You have to feel sorry for that
person. He believes that there is no God.

56. A traitor is the person who says, "Yes, I love my
country; I love my government." and then he says--
he does things against his country and against his
government, He tells everybody he loves his country.
He's like a spy. He's secret. He's not for his
government. He tells everybody yeah. It's like an
American who's working with the Russians. We had this
problem in the fifties. We were all worried about
people working for Russia and saying they loved
America, but they didn't really love America. They
tried to change the government, That's a traitor.
He does it in secret. He says one thing but does
another thing about the country. He should be
executed—means killed.

57. In general, in my mind I have so many things to do,
but life is so short that maybe I won't have time
to do everything. There are many things to do, but
life is very short.

58. That means it's not successful—United Nations is not
successful. It is not working.

59. So I am always nice to people even if they are not
very nice. If they're not nice, then I'm still
pleasant—still nice.
60. This means I agree with democracy. It's the best kind of government but democracy works only if the most intelligent people are the head of the democracy. Not just any democracy but democracy with the most intelligent people at the top as leaders.

Review remarks: no item numbers recorded:

I think this means that if a person likes to do many, many, many things, then he can't make decisions. If he likes everything, he can't make decisions. He's too busy.

I'm talking with somebody who has the opposite idea from me, right? OK. I have one political idea and he has the other. It might be a Republican and Democrat in the United States. Now, for me to agree with him about something—not everything—but for me to agree with him is going to hurt my side. It's going to hurt my group if I agree with him on just one or two things. It will hurt my group. It doesn't mean I'll agree with everything, but if I say OK on a few things, it's going to hurt my group.

Sixty means that democracy—government of the people. People choosing the government is the best, but the best, you must have the most intelligent, not just anybody.

I don't like to even say to myself or to anyone else but in secret, in my private mind, I want to be a great person.

Most people just don't give a damn for others—Most people don't really care about other people, what happens to them or how they feel or anything. Probably more concerned about themselves.
2. Ethnic means race. It's a combination of race and nation. U.S. and Canada are different nations but the same ethnic group. Speak the same language, same ancestors, similar customs. America and Canada are really the same ethnic group. Now, when you get to France and Italy, they're very different; coloring's different, culture's different. Your brother walks in and says, "Here's my fiancee." If his fiancee were not the right color or the right religion—if she was different in some way—how would you feel? What would make your mother faint across the dining room table?


4. It's your responsibility to be nice to people if you want them to be nice to you. And if you're rotten to people, you can expect them to be rotten to you.

5. Gambling—a bet. You gamble when you play cards and you put down five dollars and say, "My cards are better than yours. Maybe you win 25 dollars. Maybe you lose everything. This is gambling. It's risk losing something on the chance that you might win something. Gambling is taking a risk. Take everything you have and say, "I'm going to put this down and say that this will work." Maybe you'll wind up a millionaire. Maybe you'll wind up a scientist. Maybe you'll wind up broke.

6. Acquaintance—knowledge or understanding of ideas. Opposes—to be against something. I don't like that or I oppose that. If you believe in something, it's only natural that you understand that better than something else you don't believe in. Do you understand your religion better than someone else's? Do you think it's natural that you should understand yours better?
7. The present, today, right now, my life right now, is all too full—very full—of unhappiness. The present is no fun. It's unhappy. Don't live for today; live for what is going to be. Count here means important.

8. Most of the ideas which get printed in magazines, books and newspapers nowadays—now, in the seventies, in the series of two or three years. Is paper expensive? This paper is cheap. The sheet of paper like this costs a fraction of one penny. And if I say the ideas that are printed on the paper are not worth as much as the paper, then I'm saying, "I'll give you 1/10th of one cent for your ideas. It's not very good. They're cheap. They're unoriginal.

9. They don't have anything in common.

10. Industry—business: making cars, making paper, making clothes—this is all industry. It's a business that produces something. You have a private industry—the Ford Company is owned by the Ford family and a few million Americans that have shares. If you nationalize a business, you take it away from individuals—the people who own it—and you give it to the government and the government runs it. A trouble-maker—a person who likes to make trouble.

11. Access—the ability to get something. I have access to a stereo. I've got one or I know someone. I have access to a station wagon. I have access to my office. I have the key that opens the door. I have access to some private government information. I know someone in the FBI. A way of getting something. You ought to make it difficult for young people to get—for instance, in this country, Marxist writings, the writings of Karl Marx. A lot of people think that young people should not read that because it confuses them. So that means in the library you take Karl Marx and put it over in books marked for adults only.

12. They don't get along. They shouldn't be together.
14. Not that he does something important, but that he wants to do it.

16. New under the sun—a common phrase—something new, nothing new, the earth. There's really nothing new on this earth, in this world. You get what you think are new ideas, but they're just old ideas that have come around again.


19. My blood boils—get really angry—turn red. He's wrong—he knows it; I know it, but he won't say it. He won't say, "I'm sorry, I'm wrong."

20. Advocate—to call for something, to go out and say, OK, let's have the government support religion; to call for something, to come out publicly and say, "I approve of this, I think it's good. I'm for it." To advocate something means to be for it as opposed to—against—it. It's really dumb, really stupid, to say that you think the government should support religion. Only idiots do or say this. If you agree, then you're saying yes, government support of religion is stupid. If you disagree, then you're saying it's not foolish, it's a good idea.

21. Primarily—first. Beneath—under. contempt—hatred, dislike for someone. If you have contempt for someone, you dislike them because he's dishonest, because he's not a good person. It's not disliking someone because he's better looking or tall or has a nicer car. It's disliking someone because he's not a good person. It's a particular kind of hatred. Someone who thinks first of his own happiness is just dirt. Someone you would really dislike, someone who is lower than low. Someone who thinks of his own happiness first is someone you would hate, someone you would not like.

22. Wound up in—involved in. Heated discussion—anything hot indicates anger or action, when people start
hitting each other. If I get involved in a really intense discussion, I can't stop myself from getting into it and jumping up and down and screaming and going on with whatever, can't stop getting involved, can't get out of it. Once I'm in, I can't get out.

23. Compromise—Religion A believes this and Religion B believes this and they're trying to get together on something, but they can't. So Religion A says, "Well, maybe we can change our beliefs this much," and Religion B goes, "Well, we'll change ours this much." Then they get along fine. But they change. They have changed a little bit. They have each given up a little bit. That's a compromise. You always give up something when you compromise. If you this, then it has to be that way all the time. You cannot change your beliefs—not to change. If you believe it, then that's the way it is and there's no reason for you to change your beliefs, even if it could result in something good. When it comes to religion, you must not change your religious beliefs. You believe in a religion and that's it. You shouldn't change for anything.

24. The things they believe in, the things they represent. This is hitting a person not for personal reasons, but because of his politics, because of his religion, because he's a socialist, or a communist, or a capitalist. Hating a person not on a personal level, but because of what he stands for, something very general.

25. Tolerates—accepts. If you have too many different opinions in a group, the group is not going to last.

26. To rely—to depend. Do we have to depend on our leader or can you know it yourself?

29. You have to believe in some great cause. Has not really lived—they mean this figuratively—he's not had a full life. Yes, he's been here; he's been alive, but he's not had a full life unless he believes
in some great cause.

30. A foreman is a kind of supervisor for a manual laborer. In a factory you have the workers and then over the workers you have a foreman. He himself is a worker. He's not an executive. He's a manual laborer, but he's got authority over them. He reports to a director. Mistake—not a good idea.

31. Philosophy—of religion, of the ideas of society, capitalism, communism, what you believe in, not just as far as God is concerned, but as far as people. There are hundreds of philosophies. They're meaning there is one true philosophy. Out of all those hundreds there is one which is correct and the rest of them are wrong.

32. When the government guarantees employment, the government says, "We promise you. You will have a job always. Lose your job; we get you another one. We promise you this." To guarantee employment is to promise you that you will have a job. The government takes care of it. If you lose your job, the government finds you another one. Is that the best kind of security?

33. By camp here they mean your own group—the group that believes in what you believe in. In times like these—in today's society. To be on guard against ideas—to be distrustful, to be very careful, to be very wary. In other words, if you're a socialist, is it more important for you to be careful of what other socialists say than what the capitalists say? If you're a Democrat—normally Democrats worry about the Republicans—but maybe today the Democrats should worry more about the other Democrats. In other words, the people who say they believe what you believe are really more dangerous than the enemy.

35. Coward—a chicken, someone who is not brave, someone who is not courageous. Someone who is very frightened
is a coward. It's the opposite of hero.

36. In the whole history of mankind there have probably been just a few really great thinkers. Handful means just a little bit.

37. Worthwhile goal—a good goal. They qualify the statement. Freedom of speech for everyone is a wonderful idea, but unfortunately, we have to limit freedom of certain political groups. Everyone ought to have freedom of speech, but we can't let those political parties have it. Your introductory statement is saying it's a good idea, but what you're answering is the second clause. You have to limit the freedom of certain political groups.

38. So absorbed—so interested or involved, so busy with what I'm going to say I forget to listen to other people. You sit there and think about "What can I say?" and you don't even hear what's going on.

39. Attack publicly—an example might be the Russian dissidents; some of the intellectuals in Russia who write books against the government and maybe they believe in communism, but they come out and they attack the government—to write a book, to go on television, to put something in the newspaper, to say these people are wrong even though you're one of them. This is the problem we hit last year when there were a lot of Iranian demonstrations going on. And a lot of the Iranian students took part in the demonstrations, but some of them didn't. And the ones who didn't had problems with their friends.

41. Man—a human being. A human being on his own—all alone, with no one else. A creature is just a living thing.

42. Prejudice—pre-judge. If you're prejudiced, you don't like black people. I don't like him because he's black. I don't know him. I never met him. I have no reason to dislike him, but I don't like
him because he's black. Legislation is laws. Right now, in Columbus, they have passed a law that there has to be so many white students and so many black students in every school. That's a law—they have to do it. Common sense says that prejudice can be removed by education, not by laws, not by making people do things.

43. Selfish—egotistical; for me—I'm the important thing. Primarily—first.

44. To give a "damn"—is to care about people. I don't give a damn: I don't care at all—just care about whether that person is happy or healthy or cold or hungry. I just don't care. I don't give a damn. It doesn't concern me.

45. Desirable—something you want, something good. Very often it's good if you hear about a new idea—it's good to wait—don't make any decisions—don't say, "I like that." or "I don't like it." Wait until you can talk to someone you really respect. Listen to what he or she has to say and then decide. Very often it is good to wait before you make a judgement. Talk to someone you respect.

48. Races of people—Caucasian, Orientals, Indians.

50. In the long run—in your whole life, in a period of years, not just this year, but consider your life, your whole life in front of you. Things will be better for you if you pick friends and associates—business partners—whose tastes and beliefs are the same as yours.

53. To betray someone is when you've been working together with a person and you turn him over to the police or you turn him over to the enemy—you turn him over to someone who's going to punish him for what he is doing. If you give in a little bit as far as politics is concerned—to compromise—you are usually going to hurt someone who has worked with you.
You're going to hurt someone who believes in what you believe in. If you compromise with your political opponents, it usually results in someone on your side being hurt in some way.

54. "Wishy-washy"—someone who cannot make up his mind or someone who cannot take a stand and stand firm—someone who cannot say, "I believe in this and that's it." Someone who's wishy-washy says, "Well, yeah, I guess you've got a point, but, you know, well, we'll do it this way." And someone comes along and says, "This is better," And he says, "Well, yeah, I guess you're right. We'll do it this way." He cannot be firm in one belief. Enthusiastic—excited, someone who gets enthusiastic, who becomes interested in a lot of causes—someone who becomes interested in a lot of different ideas or groups is likely to be, most probably is, wishy-washy. A good word for wishy-washy is flexible. Flexible's a good word. Wishy-washy is an awful phrase. Same meaning; different connotations.

55. You have to feel sorry for atheists. You have to feel sorry for people who don't believe in God, that they're missing something—that atheists miss something.

56. Executed—killed, shot, hung. To be executed is to be killed. Traitor—opposite of patriot. In a war the traitor is the American who goes over to the Germans or the Japanese who goes over to the Americans. He's a traitor. He's turned his back on his country and gone to the enemy. You can only be a traitor to your country in time of war or if you take national secrets and go running off to another country and say, "Here, you can have these." Traitor and spy are similar. A traitor is someone who works for another country—not his own country.

58. Failure—the opposite of success. It has not succeeded; it has failed. Noun of fail—failure.

60. They make two points; there are two things to deal with.


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