TRANSFORMATIVE LEARNING: BECOMING AWARE OF POSSIBLE WORLDS

By

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ABSTRACT

Human learning is a complex multidimensional phenomenon many aspects of which continue to elude understanding and explanation. One facet of the learning puzzle that has not been adequately explored is the role that individual consciousness plays in human learning. Adult education has been instrumental in shifting the focus in studies of learning from an emphasis on the material to be learned to an emphasis on the experience of the individual in the learning transaction. This shift in focus has brought more attention to the processes of individual consciousness as a critical factor in the learning process. In adult education a sense of urgency about the importance of broadening the concept of learning, and a growing awareness of the importance of consciousness, and changes or transformations in consciousness as aspects of a more comprehensive concept of learning, are beginning to merge.

The course of human history and culture speaks eloquently of the transformative powers of the human mind to amplify and extend knowledge by transcending what is already known. While current learning literature stresses learning as the process of facilitating changes in behaviour or the acquisition, organization, retention and retrieval of knowledge, little attention has been given to learning as a process of creative transformation of knowledge. This study arose out of a desire
to explore the ramifications of transformations within the consciousness of the individual as a major aspect of learning, and to integrate literature on this topic as a means of extending understanding of learning as a transformative process.

The study began with explorations in two directions stimulated and directed by the qualitative method of constant comparative analysis. One was the development of the case study of Sara which supplied a slice of experiential data. Sara's case illustrates learning experiences from a personal point of view which emphasizes changes in consciousness as a central dynamic of those experiences. The second direction for exploration was a search of the literature for sources which might account for this type of learning. An analysis and integration of the writings of selected authors supplied the foundation for the development of a model of transformative learning. Finally, this model was applied to Sara's case as a means of clarifying her personal learning experience and illustrating the usefulness of the model as a tool for understanding learning as a process of creative transformation of consciousness.
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TRANSFORMATIVE LEARNING: BECOMING AWARE OF POSSIBLE WORLDS

I. BACKGROUND TO THE STUDY

A. INTRODUCTION

The learning society is growing because it must...the world changes faster than the generations, and individuals must live in several different worlds during their lifetimes (Cross, 1980, p.1).

In our world human affairs are beset by rapidly accelerating social change and complexity which are ranging far beyond our individual and social capacity to cope (Toffler, 1979). On every level of existence increasing evidence attests to the fact that traditional methods of dealing with problems are ineffective and inadequate. This evidence manifests itself in many ways: in personal confusion, inter-personal and cultural alienation and aggression, the increasing and irreversible destruction of the natural environment, and the daily reality of the possibility of global nuclear destruction.

The response, in education as in other areas of human endeavour, has been inadequate because of the heavy reliance on the quick technological fix, a short-sighted reactive response to current crisis. Slowly it is being realized that conventional solutions will not solve the new complex problems inherent in the "world problematique" (Botkin, Elmandjra & Malitza, 1979, p.1).

In spite of the gravity of the human situation many people feel that this moment in history offers unprecedented opportunity for the development of a new humane world order.
The challenges are great but humankind has a history of meeting challenge successfully through the process of personal growth and learning. Because learning is central to the mandate of education, the field of adult education has a unique opportunity to contribute to the solution of the problems presented by the world problematique by contributing to a greater understanding of the process of learning.

Meeting the challenge of the world problematique calls for reassessment of conventional responses and development of new perspectives and techniques in every area of human endeavour. In answer to this challenge there is an increasing recognition within adult education that a reassessment and extension of the traditional conception of learning is essential. The current attention focused on learning is resulting in the view that learning is much more comprehensive, wide-ranging, and inclusive of human experience than has been previously acknowledged; learning is being redefined as a global phenomenon. An increased interest in exploring conscious awareness and changes in consciousness as integral to human learning derives impetus from viewing learning as a global phenomenon. An examination of the meaning of "global" learning will provide context for an understanding of how the study of learning involving changes in consciousness relates to a more inclusive conception of learning and how this broadened conception of learning may contribute to the solution of the world problematique.
Thomas (1985) points out three senses in which learning may be thought of as global. The conception of learning may be global in the sense of recognizing learning as a world-wide and pan-cultural phenomenon. The whole world in its cultural, racial, political, and social diversity must be seen as the context for learning. In a second sense "global" applies to "the intellectual dimensions of learning considered in all its possible aspects" (Ibid, p.x). Thirdly, "global" is used in the sense of McLuhan's "global village," in the recognition of the various understandings of what learning means in different cultures, and the problems involved in importing or exporting a particular conception of learning in a particular culture.

There are several other important ways in which the term "global" may be applied to learning. An understanding of global learning may include the concept of learning as a pervasive life-long process in the life of each individual which occurs, as a process independent of formal educational influence, whether or not it is recognized as such. In addition, this widening of the concept of learning encourages a view of learning which is "life-deep" as well as "life-long". In this respect "global" may be associated with attempts to extend the definition of learning to include not just our intellectual and physical capacities but the whole spectrum of personal experience within the individual, particularly the experience of our own consciousness, an area in which little is known about the capacity for learning.
Finally, the integration of multiple perspectives in a comprehensive interdisciplinary study of the phenomena of learning would assist in the development of the concept of global learning. Botkin et al. (1979) note that the world problematique is mirrored in the specialization and disciplinary fragmentation evident in theory-building and research about learning. Major schools of thought such as the formal, mathematical, and cybernetic approaches, the biological, physiological, and neurological approaches, and the psychological approaches each pursue their own interests with virtual disregard for each other's results. In effect, each of these schools is reductionist in that the complexity of the human being in his/her totality, involving issues such as values and motives, contexts and frames of reference, and the centrality of consciousness in human experience, is not addressed. An interdisciplinary drive towards integration and synthesis would help us gain a more global understanding of learning with the complexity of the human being at its centre (Botkin et al., 1979, p. 135).

An over-all perspective of the importance of the concept of global learning in all of its aspects, as a means of contributing to the solution of the problems of the world problematique, is important only as background for this paper. The primary purpose here is to explore in depth one aspect of global learning, that is, the role of consciousness, or conscious awareness, and changes in consciousness, in
learning. Attempting to extend the definition of learning to incorporate the importance of consciousness and its transformative powers in the learning process challenges not only previous conceptions of learning but the boundaries of the predominant scientific world view within which educational research proceeds.

In Western society the accepted world view and model of humankind have been dominated by a reductionist, mechanistic, scientific paradigm which has been extremely successful in assisting in the exploration of the natural world as well as the furthest reaches of space and the secrets of the atom. The concept of learning within this scientific perspective has been restricted primarily to a study of the observable, quantifiable, measurable aspects of learning behaviour. The psychological study of learning, although briefly focused on the phenomenological aspects at the turn of the century, came to be dominated by the Behaviorists who concentrated on the environmental control of overt human behaviour, and since the mid-1960s has been dominated by the Cognitivists who broadened the concept of learning to include the strategies and processes of learning as they are operationalized within the individual. The machine metaphor of the Behaviorists was extended by the computer metaphor of the Cognitivists who visualized the electronic computer as the most viable model of how the human mind functions. Although the computer metaphor attempted to achieve a deeper understanding of learning than
was possible with the machine metaphor, by focusing on the processes of learning within the individual, both metaphors are inadequate to the task of explaining the complexity of human learning, essentially because the complexity of the human being is not acknowledged within the learning models which these metaphors generate.

While the Cognitive Revolution has spoken out for the necessity of studying mental representations within the human mind, rigid limitations have been placed on how those mental representations have been conceived. Faithful adherence to the computer metaphor has produced a view of learning which emphasises the mechanical acquisition, organization, retention, and retrieval of knowledge. While this view has been extremely useful in extending the understanding of human learning as a process which occurs within the individual, it does not emphasize sufficiently aspects of learning which go beyond the mechanical. This perspective does not encourage the exploration of the strong creative factor in human learning, the ability that humans have to create something new and unique that transcends present knowledge, the ability to change, transmute or transform knowledge, that has been the lifespring of the development of human culture. In addition, the Cognitive Revolution limits the consideration of other factors integral to human learning. Factors such as the experience of consciousness and "the influence of affective factors or emotions, the contribution of historical and
cultural factors, and the role of the background context in which particular actions and thoughts occur" (Gardener, 1985, p. 6) are deliberately de-emphasized as being "unnecessarily complicating to the cognitive-scientific enterprise" (Ibid, p. 6). In the light of disciplinary studies such as philosophy, psychology, linguistics, anthropology, and neuroscience, which ironically Gardener hopes will meld eventually into a "single, unified cognitive science," (Ibid, p. 7) it is becoming increasingly clear that these "de-emphasized factors" are of crucial importance in the study of human learning. These factors are of crucial importance because they play a central role in understanding human behaviour, and in understanding learning, as a core ingredient in human behaviour. At present the Cognitive Revolution is not pressing forward in directions which take into account the complexity of human beings and their learning behaviour.

Further development of the concept of learning depends on the discovery of new and powerful metaphors which would help to extend understanding towards a more inclusive, holistic model of humanity and facilitate the exploration of the full range of human learning capacities. Those characteristics which rank among the most uniquely human, namely, the creative and transformative powers of the mind and consciousness, and their relationship to the individual and social context in which they develop, have not been given adequate attention in the study of learning. Science has successfully enabled us to
explore nature and outer space but now the urgency of the world problematique is forcing us to realize that it is in the virtually uncharted territory of inner space within ourselves, within our own consciousness, that we must explore for new solutions.

Recently some conceptualizations of learning have emphasized conscious awareness and changes in consciousness as integral to the process of learning. Although a common, workable definition of "consciousness" is elusive, several authors have created theoretical structures based on their observation of, and participation in, practical adult learning situations, which credit the transformative power of changes in consciousness as being central to the learning process, particularly the learning process of the adult. This paper seeks to analyze and integrate the literature which explores learning as a transformative process and consciousness, and changes in consciousness, as integral aspects of transformative learning.

B. STATEMENT OF THE PROBLEM

In spite of decades of research there are still many facets of the complex multidimensional phenomenon, learning, that are not understood. The limited reductionist scientific paradigm which has dominated our exploration of learning has virtually ignored many of the most uniquely human qualities in an attempt to solve the learning equation. The pervasive
influence of consciousness in learning has been taken for granted or discounted because consciousness is so difficult to define and measure. As Cross (1981) notes "Most existing learning theories are more easily applied to what is learned than to who is doing the learning" (p.233).

Adult education has been instrumental in shifting the focus to the individual learner as paramount in the learning transaction (e.g., Knowles, 1980; Brookfield, 1986). In the process of highlighting the individual, adult educators became aware of consciousness as a critical factor in the individual's learning experience. This focus on the learner has encouraged some theorists to broaden their concept of learning to include consciousness as a major factor in their formulations about the learning process (e.g., Freire, 1970; Mezirow, 1981). Other educational thinkers draw attention to the world's desperate need for extending the concept of learning to include intentional consciousness changes, and also call for an extensive international, interdisciplinary research program designed to improve our understanding and facilitation of the learning process within the sphere of this extended concept of learning (Botkin et al., 1979). Still others attest to the fact that throughout history, and particularly recently, many people confirm that they have experienced personal transformation and learning involving some type of change in consciousness (Ferguson, 1980). There is a growing body of evidence which attests to the importance
of learning involving changes in consciousness in the ordinary experience of individuals as well as in the academic literature.

It is difficult to develop an overview of the area of transformative learning involving changes in consciousness because there have been few evident attempts to organize and integrate literature in this area. Although the amount of literature that deals specifically with learning involving changes in consciousness is limited, there are sources which approach the topic in an implicit way and various disciplines which approach the topic from different perspectives. There is confusion in terminology as different writers use different definitions of learning, consciousness, and changes in consciousness. At this juncture it is important to assess the literature to determine whether an integrated foundation can be laid for the further development of theory, research, and practice in the area of transformative learning involving changes in consciousness. This thesis aims to explore this issue and in so doing extend understanding of the concept of learning.

C. PURPOSE OF THE STUDY

In literature on learning there has been little emphasis placed on the role of consciousness and changes in consciousness in the learning process. In spite of the difficulties inherent in attempting to understand the
complexities of human consciousness and its role in human learning, the centrality of consciousness in the learning experience of the individual demands that the attempt be made. The progress of human history speaks to the transformative powers of the human mind to amplify and extend knowledge by transcending what is already known. An attempt to understand the creative transformation of knowledge within the consciousness of the individual is a step towards understanding learning as a global phenomenon within a holistic conception of humanity.

This paper presents a critical analysis of authors' work selected on the basis of its ability to contribute to the understanding of learning involving changes in consciousness as it is exemplified in a case study of a personal learning experience. The analysis is being undertaken for the purpose of identifying similarities, or clarifying common ground, among formulations of learning which illuminate learning involving changes in consciousness; it is hoped that an integration of the literature will stimulate and assist in the development of a more global concept of learning which recognizes consciousness and changes in consciousness as integral to learning and transformation as an essential learning process.

D. DEFINITIONS
Although a clearer understanding of the concepts of consciousness and changes in consciousness in relation to learning is one of the aims of this paper, a baseline definition of each is offered as a starting point for reaching a common understanding of these terms.

It must be understood that a clear definition of what "consciousness" is has been historically a will'o the wisp as elusive as "electricity". As with the concept of electricity, this does not have to preclude attempts to understand the phenomenon and to achieve some mastery regarding its use in terms of discovering what it does. Therefore, for the purposes of this paper consciousness is assumed to exist as a matter of common human experience; however, in seeking a clearer understanding of consciousness, the focus will be on what it does, how it operates, and how we may make use of it in conceptualizing learning. With this caveat in mind the following working definitions are offered:

Consciousness is the state or faculty of being mentally conscious or aware of anything; it is the internal knowledge, perception or awareness of one's own existence, feelings and thoughts.

Change is the fact of something becoming other than it was; it is the act of altering the state or quality of anything; it is the process of turning something into something else. To change is to become different; to pass from one condition or state to another; transmutation;
transformation.

Changes in consciousness are, therefore, transformations, or alterations in the state, quality or condition of human awareness.

Transformation is the process of altering or changing the form, shape, appearance, quality or condition of something; transmutation; metamorphosis.

Learning, in the traditional sense, has been defined as the acquisition, retention, organization, and retrieval of knowledge or the modification of behaviour. In contrast to the traditional conception of learning, for the purposes of this paper primary emphasis will be given to learning as the transformation of knowledge (All definitions are adapted from the Oxford English Dictionary, 1933).

E. METHODOLOGY

1. Introduction

This study began with the nagging hunch that there was more to learning than was accounted for in the current formulations which stress either changes in behaviour, or the acquisition, organization, retention and retrieval of knowledge. The basic premise that led to the development of this paper was that learning was a much broader phenomena, more inclusive of human experience, than is generally realized. The transformative powers of human learning and the involvement of consciousness in those powers were areas in the
learning domain that had received little attention. How could these missing aspects be tracked down and examined?

2. Adaption of constant comparative method

In examining various methods of approach to the problem grounded theory's constant comparative analysis (Glaser & Strauss, 1967; Glaser, 1978; Strauss, 1987) suggested itself as an appropriate strategy for a qualitative approach to this research project. Constant comparative method is well suited to flexible research explorations using data from disparate sources to discover underlying patterns in territory needing clarification and definition.

This study was informed from the beginning by constant comparative method but this method has been adapted to meet the study's specific purposes, the exploration and understanding of transformative learning. For purposes of grounded theory (Glaser & Strauss, 1967; Glaser, 1978; Strauss, 1987), constant comparative method is a method of analysis designed specifically for the generation and testing of theory. For purposes of this study, the emphasis on theory generation is tempered by an equally important emphasis on description of the phenomenon under study. Since there has been little attention directly focused on learning as a transformative process, as thorough a description of the area as possible is deemed appropriate as a starting point for the development of theory. The scope of this study does not allow
for the generation of an integrated theory, but it endeavors to build a foundation on which a fully integrated theory of transformative learning might be constructed through a more comprehensive application of constant comparative method. That being said, it must be understood that, with that change in emphasis, the grounded theory style of approach to qualitative analysis through constant comparative method as described by Glaser and Strauss (1967, 1978, 1987) is the basis for the methodology used here. The interaction patterns of continual theoretical sampling, coding (developing categories) and memoing which form the heart of constant comparative analysis, determined the study's direction and development. An overview of the process is well described by the following:

...the (developing) theory is rooted in data not an existing body of theory. Later as the generating continues, comparisons with extant theory may link it to a number of diverse theories which touch upon various aspects and levels of the emerging theory. This linkage, at minimum, can place the generated theory within a body of existing theories. More often, as we have said, it transcends part of it while integrating several extant theories. It may shed new perspectives and understandings on other theories and highlight their process. Other theories are neither proved or disproved, they are placed, extended and broadened (Glaser, 1978, p.38).

It should be noted that technically all of the source materials are not formal theories, but throughout the study the designation "theory" is often applied, as being more convenient and more conducive to understanding than other descriptions such as "learning formulations" or "work", when
referring to these materials. In the case of the quote above, "theory" stands for the general body of material selected from each author included in the literature review, whether it is a formal theory or not.

Be that as it may, an overview of the progress of research in this study shows how the process described in the above quote was actualized through constant comparative method.

The over-riding influence of constant comparative method is evident in the construction of this study as it evolved over time. From the first hunch about the existence and nature of transformative learning until the concluding paragraphs of the study, the development of ideas sprang from the process of constantly comparing the data at hand and reaching out for more data through theoretical sampling as ideas developed and demanded more source material for clarification and grounding. There was constant doubling movement back and forth between data sources throughout the study as themes were pursued, categories developed, connections and relationships between themes and categories realized and a clearer picture of transformative learning evolved.

3. Application of constant comparative method

The study germinated with a hunch that current formulations of learning theory are inadequate to explain certain aspects of learning, particularly learning in which
changes in consciousness appear to be a central factor. The personal experience of the author and of others with this type of learning led to explorations in two directions.

One was the development of the case study of Sara. This slice of experiential data from the "real world" supplied a close-up of learning from a personal point of view which emphasized changes in consciousness as a major aspect of a learning experience. The type of learning Sara described had elements that could not be accounted for by usual approaches to learning. Search began to zero in on what it was in her description that was different.

Two prominent ideas, elements or themes in Sara's account provided the kernel around which the idea of transformative learning as a distinct aspect of learning coalesced. One was the description of the experience of learning as experience of some sort of radical change, a leap, shift, or transition. The second was a strong sense of the importance of the quality of personal awareness, particularly changes in awareness, of self in relation to the world, as integral to the radical change or transition. These ideas, out of which the study germinated, provided the essence for the development of possible categories.

These ideas generated many questions. What where the distinguishing features of the type of learning that Sara described? What process and product aspects of learning in her account were different and how could these be explained or
accounted for? The formulation of tentative answers to these questions provided a basis for attempting exploration in a second direction, the literature search, where further questions developed. Where there any sources in the literature that could account for this type of learning? What were its essential elements? What might an analysis of this type of learning add to our conception of learning?

Beginning forays into the literature produced contact with the writings of Freire and Mezirow which highlighted changes in consciousness as integral to particular types of learning. The dramatic similarities in underlying themes in these data sources, Sara's "slice of life" and the Freire and Mezirow's theorizing, whose authors were so distant from each other in space, time, and experience, appeared to confirm their grounding in common human experience and affirmed the direction of the study.

At this point the introductory chapter was written and its development and themes reflected the concerns and the rudimentary nature of the categories at the beginning of the study.

At the same time the literature search continued, directed by the nature of the tentative themes and categories that continued to develop in regard to transformative learning. The search ranged over a broad spectrum of literature dealing with the evolution of the human mind, the structure and processes of both conscious and unconscious
aspects of mind, and learning theory in relation to these conscious and unconscious aspects, with the goal of finding any information which might relate to, confirm or describe transformative learning. There was a gradual centering on formulations that emphasized the transformative nature of learning and the role of consciousness, or awareness, and changes in consciousness in learning. Ultimately, literature for treatment was selected on the basis of its ability to speak directly to Sara's case.

Constant comparative method also informed the orchestration of the literature review. The flexibility of the method allowed the inclusion of disparate materials and the individual treatment of these materials in accordance with the guidelines of theoretical sampling techniques. Once again, the evolving categories governed the selection, organization, and treatment of the materials within the review.

The analysis of the literature proceeded under the continuing guidance of the constant comparative method. In this phase stronger emphasis was placed on theory generation rather than description. The rudimentary categories for analysis derived from the case study, had been evolving as the literature search and literature review progressed and now they were reapplied with renewed vigour to the theories and case study. Each theory was constantly and continually compared to each of the other theories, and to the case study, in an effort to clarify similarities and differences, and
discover common elements or dimensions which might account for, describe, provide background for, or clarify learning that is transformative in nature.

It must be understood that under the guidance of constant comparative method the processes of theoretical sampling, category coding and memoing were completely interactive and continuous. As the categories emerged more clearly throughout the analysis they produced the need to return to the literature for further theoretical sampling of the authors works, which in turn produced new material or revisions to be considered for the literature review.

Eventually through this in-depth search between and among the selected literature items, through constant rereading and reanalyzing, the tentative categories became more and more distinct and eventually formed the structure for organizing the analysis.

The model of transformative learning that emerged from the analysis was used to reinterpret Sara's case and thus reground the understanding of transformative learning as a distinct form of learning.

It is obvious that Sara's case study was crucial to the direction of the study as a whole. Originally, it was the source for generating rudimentary categories and themes which gave direction to the literature search and the selection of literature for treatment. Then it guided the selection of areas of theorizing within the selected literature which spoke
most directly to the process of transformative learning. Eventually, it provided a central touchstone for the constant comparative analysis between and among the theories and itself. Finally, the case study became the basis for developing the categories which could be used to understand the case study's own dynamics in more general theoretical terms and thus contribute to an understanding of transformative learning involving changes in consciousness as a distinct mode of learning.

The methodology of this paper reflects its development in the style of grounded theory, the method of constant comparative analysis, and the spirit of exploration which acknowledges research as a journey, a constant process of discovery. The growth and maturation of this research project, under the direction of constant comparative method, is evident in the construction of the study itself as it evolved over time.

F. RESEARCH QUESTIONS

The central question of focus for this study was:

As a means of laying a foundation for the understanding of learning as a transformative process involving changes in consciousness, what similarities, or common ground can be found among formulations which address this type of learning? Questions of interest which pertain to the central question are:
Are there common, key factors integral to descriptions of learning involving changes in consciousness and if so, what are they?

What conclusions can be drawn about learning involving changes in consciousness in the following areas:
- The learning environment or the context for learning
- The teacher-learner relationship
- Process or structure of learning
- Results or products of learning
- Supporting assumptions, both explicit and implicit
- Implications for learning theory in general

G. SIGNIFICANCE OF THE STUDY

The centrality of the individual learner, lifelong learning, the democratization of learning, and the international thrust for the universal "right to learn" (Paris Conference, 1985) are themes integral to adult education. By developing and supporting these themes the field of adult education has made a significant contribution towards extending the concept of learning beyond its traditional bounds, towards a concept which may truly be termed global learning. Adult education has provided for the adult's learning needs across a much wider spectrum of human experience than has traditional, school-oriented education. In taking up the challenge of extending learning theory to include a conception of learning as a transformative process,
and to focus on exploring the specific role which consciousness and changes in consciousness play in transformative learning, adult education can take a giant step towards realizing learning as:

...a lifelong process beginning at birth and ending only with death, a process related at all points to the life experiences of the individual, a process full of meaning and reality to the learner, a process in which the student is active participant rather than passive recipient (Leigh, 1930, p.123 in Cross, 1981, p.255).

In addition, adult education, as a relatively young field of study, has urgently sought to discern patterns that are unique to adult learning as a means of defining, clarifying, and justifying theory and practice within its domain. Some writers claim that learning involving changes in consciousness is a unique form of adult learning (e.g., Mezirow, 1981; Allman, 1983). Supporting theory and research would indeed strengthen adult education's stance as a unique discipline and therefore, this claim deserves serious consideration by adult educators.

Adult education is in a unique position, with its international and interdisciplinary connections, to spearhead a collaborative approach to the understanding and implementation of global learning, in its fullest sense, with research into the role of changes in consciousness in learning as a small but important part of that endeavour.

In general, research efforts in the areas of consciousness and learning are reminiscent of the man who admitted that he had lost his keys inside the house, but he
was found searching for them under the lamp post outside because the light was much better there (Ornstein, 1972, p.207 for story). Much current research into learning is being conducted outside under the lamppost. If a serious search for the keys to an understanding of the role of consciousness and changes in consciousness in learning is to be undertaken it is time to begin the complexity of a search within the darkened house. Finding these keys will not be an easy task, but it is hoped that this thesis will light one small candle to help illuminate the dark.
II. AN INDIVIDUAL'S PERCEPTION OF HER OWN
LEARNING EXPERIENCE: THE CASE HISTORY OF SARA

A. INTRODUCTION

For the purposes of this paper a case history will be presented as a contextual scenario which will assist in the introduction of the concept of transformative learning involving changes in consciousness. It will also serve as a touchstone for the selection, analysis and integration of theories which specifically address learning as a transformative process involving changes in consciousness. The following is the case history of Sara.

B. BACKGROUND TO THE CASE STUDY

Sara is an adult learner who agreed to explore her perceptions of her own learning experiences resulting from participation in a series of personal development courses. She was asked to write an informal account describing her learning experience using the following combination of directions and questions as a guideline:

Write an informal account of your learning experience in these courses, including enough information about their general organization, objectives and methods to create a sense of the environment in which you were learning, but concentrating primarily on describing as clearly as possible your perceptions of your own learning experiences in this environment. Include some description of the following
factors, as well as any other factors that you consider to be important to an understanding of your learning experience.

1. What factors prompted your participation in this learning experience? Why did you decide to take these courses?

2. What did the learning process involve in terms of your own participation? Explain in detail the ways in which the learning process involved your intellectual, emotional, and/or active physical participation. Describe as fully as possible how you experienced your participation during the learning process. Were there learning stages or different types of learning that you could identify? Explain fully.


4. In what ways, if any, was this learning experience particularly unique or meaningful for you? If your learning was particularly unique or meaningful, what do you consider to be the factors that contributed to that uniqueness and/or meaningfulness?

5. What effect, if any, has this learning experience had in your life? Does what you learned still have impact on your life, or are the effects fading?

The questions were designed carefully to elicit as detailed a description of Sara's perception of her learning experience without drawing particular attention to the concept of transformational learning involving changes in consciousness. The following is Sara's description of her learning experience. Sub-headings have been added by the
author as a means of clarifying Sara's account.

C. SARA'S ACCOUNT OF HER PERSONAL LEARNING EXPERIENCE

1. Introduction

When I decided to go to the personal development course my life was a mess. My husband had left a month ago saying that he did not think we had enough in common to keep us together. I had just started to try to recycle my career by going back to study at university. I had been a high school teacher, but that was nine years ago, before my second child had arrived and I had become a stay-at-home mother. Many teachers were out of work so it was not likely that I would find a job even if I wanted to go back to teaching. Luckily, my husband had agreed to let me keep the house and support me while I went back to school so I did have some time to reorganize my life. But in spite of that advantage I was feeling pretty desolate. I was dragging myself through the days wondering where I would find the strength to cope with the next hour. It was horribly difficult trying to give my nine and ten year old daughters the extra love and reassurance they needed without letting them know how afraid, angry, grief-stricken and empty I was feeling. At this point my good friend Carol said "Look, I took a course last month that I know you would enjoy. It gave me a lift, and I think it would make you feel better about things too." I laughingly asked her if she would win a toaster by signing me up, but I decided I
would give it a try. What did I have to lose?

In the end I did take all three courses in the series; I will describe each in turn.

2. The first course

The brochures for the first course said that it could be considered to be a sales or management training, a relationships seminar or a leadership program—a fairly all-purpose personal development course. I felt I could use all the help I could get. The course ran for five consecutive days, three evenings plus two very full days on the weekend. It was held in a seminar room at a local hotel. When I arrived the first evening I found I was one of sixty-some people ranging in age from late teens to early seventies. No one seemed to look as apprehensive or anxious as I was feeling. Soon the course began and I no longer had time to worry about what was going to happen. I was already involved.

I have never lived through five such lively, entertaining and exhausting days in my life. I didn't know so much information and activity could be crammed into such a short time. I have never felt so totally involved in learning—so challenged, so encouraged, so supported in the risky business of trying out new ideas. I have never worked so hard or felt so light and exhilarated afterwards. The hours flew by and when it was over I was eager to learn more.

I should tell you something about how the course was
organized so that you will have some idea of how it worked. A facilitator managed and guided the flow of events. A group of volunteers acted as assistants in all sorts of ways. Their assistance was so low key that I was not very much aware of how much they were helping participants until near the end of the program. The course was basically set up on a module system which kept us really active. The facilitator would give a short lecturette and then get us involved in one or two small group exercises which would help us explore the topic that had been discussed in the lecturette. The small group exercises were super because we could begin immediately to explore just how we might apply the concepts presented in the lecturette in our own lives. Some of the things I learned came as quite a shock, some were quite confusing, but I will tell you more about those later. I sure learned a lot in a hurry when I was encouraged to think and act out immediately how each idea might fit into my own life. Each small group exercise was always followed by a full group discussion or question and answer period with the facilitator and that really helped too. Those discussions were often pretty lively but it was a great way to get problems clarified, and some of the insights or ideas that people shared about their experiences in the exercises were really helpful. And we did a lot of laughing too. Some things were incredibly funny.

At first I was hesitant about participating in the exercises and discussions. I was feeling quite shy and afraid.
But as other people showed that they were willing to share their experiences, their hopes and uncertainties, I began to feel free to share mine. There was no pressure to participate, but it soon became evident that participation was the key if I really wanted to learn. And I really wanted to learn.

At the beginning of the workshop we were asked to pick an area of our lives in which we wanted to experience greater success as a point of focus for our work in the various activities. Where could I find one point of focus in my life? It was coming apart at the seams! It was difficult to choose one area, but I finally settled on two that I felt were most crucial, my career options, and my relationship with my husband. I guess I picked them because they were the ones that terrified me most. I thought I might as well go for broke and deal with the tough ones.

Of course I did not piece this all together until later but the basic idea behind the lecturettes and the activities was that they were structured so that we would gradually become aware of the attitudes and beliefs that each of us used to guide our personal approaches to life, and the positive or negative effects that these belief systems had on our lives. Eventually we were also given methods of rooting out those that were ineffective and destructive, and methods of choosing and incorporating alternative attitudes and beliefs that would lead to more satisfaction and success in our lives.

I suppose that how the course was planned to work all
sounds very simple and sensible, but in practice that process of becoming aware was one of the most painful, as well as one of the most exhilarating, experiences of my whole life. It was not easy for me to look closely at myself and be honest. Especially when it was becoming increasingly clear to me that what I had to be honest about was all the devious ways I had chosen for sabotaging my own life. I resisted looking closely at myself because I was afraid of all the terrible things I might find. I also wondered if there was much hope that I could change anything even if I did find out what was wrong. I did not want just to end up making things worse for myself, if that were possible. As I remember agonizing to one person "What good is it going to be for me to open the closet and let all the old bones and garbage come out? What guarantee is there that I will be able to do anything to clean up the mess? I feel a lot safer just keeping the door closed as tightly as possible and going ahead with my life as best I can from day to day." It was fortunate for me that volunteer (I did not know he was a volunteer at the time) was very supportive and encouraged me to go ahead with my closet cleaning in spite of my fear (and my distaste for house cleaning!).

So now you are wondering what I found in that closet. I wasn't very proud of what I found. A whole bunch of garbage that really needed to be tossed out. But I am proud of the progress I've made in cleaning up the mess. And that left a lot of room for me to consider new challenges and
possibilities.

I had always seen myself as a good person—supportive, loving, sensitive. I thought of myself as someone who always did her best to help others and smooth out the rough places in life. I liked the praise I got for being an enthusiastic and energetic worker, a fine teacher, a successful student, a loyal friend, a good daughter, a loving mother and wife. I was proud of my good humour, my calm exterior, my reputation for being the person who is always smiling and cheerful and ready to help others. As one of my friends used to say, "Dinner for forty tomorrow? Of course, Sara will be happy to prepare it."

I found on closer examination that the calm and cheerful exterior covered a caldron of seething anger and resentment, a deep-seated fear of rejection and being unloved, a desperate and constant attempt to be worthy in other people's estimation in hopes that I might feel worthy within myself, and an overwhelming fear of the consequences of expressing my true feelings and needs. My general philosophy seemed to be that if I was just good, patient and understanding enough to everyone around me that eventually I would be noticed and my needs fulfilled. Slowly, as the course progressed I began to see how damaging many of my basic attitudes to life were. I cringed with distaste to find out what a victim and martyr I had become. I was centering the problems I was having "out there," with my fate as a poor child who mourned for a father who had died when she was very young, a step-father who had always
kept me at arm’s length, and a husband who did not want to be
with me any more. Life was handing me a difficult role, but
compared with the major problems that other people in the
world were experiencing, such as war, famine, and disease, my
problems seemed minuscule. Therefore, my attitude was that I
must just do what I could to cope with my present problems and
be thankful for the positive things that came my way. I was
going through the motions of life while the big, aching, empty
space inside got bigger and I felt increasingly helpless and sad.

The course helped me to see that there were other
perspectives, other possible ways of looking at my life, that
promised to be far more productive. To begin with I became
aware that working on my relationship to myself was far more
crucial than working on my relationship to other people or
career search. I came to see that the success of all other
relationships in my life, whether with people or with non-
human aspects of the world such as career, time, and money,
flowed from my success in my relationship with myself. The way
I thought, felt and acted towards myself was mirrored in my
other relationships. This change in the way I was seeing
myself was a major revelation, a major shift in my whole
approach to life. I had always thought that considerations of
self should come last. The idea of putting myself first
completely changed my point of view of how the world worked. I
seemed to be looking at everything with new eyes.
I also became conscious of my own power to take control of various aspects of my own life. All of a sudden I realized that I could have avoided so much of the frustration, anger and sadness in my past life if I had been aware of my own power to choose! People and events "out there" did not have the total power I had given them to make me feel, think, or act as I did. I had the power to choose how I would feel, think, and act given my life circumstances, and those circumstances that seemed so immutable could be changed by my willingness to risk participation and commitment in my own life.

Becoming aware of my power to choose gave me such an entirely new sense of freedom and excitement about my own potential. I could see my life now as a river of possibilities which I could master by being a creative navigator. I no longer had to be a cork bobbing along in the stream and feeling hard done by when I got dunked and ran into snags. I could use my experiences to learn and to chart my course on the stream deliberately. There would always be unexpected eddies, but the best chance of getting safely to harbour was in having a vision of the harbour I was seeking and steering a course that I plotted continuously according to my current knowledge. Looking behind me to the past only hampered my progress downstream. Being presently aware and conscious of my power to make choices about my progress was the best way to ensure the success of my adventure towards my envisioned
harbour.

It is very simple to look back and see how well things all turned out, but at the time this type of learning was not easy for me. Making changes in my outlook was a very difficult, terrifying, and confusing process. Each structured activity and lecturette brought its own new ideas for me to apply to my life and I struggled to make some personal sense out of them and incorporate them into my old ideas about myself and my life. Some of the most difficult times were those when I realized that I could not incorporate the new ideas into the old established patterns. Those were times of major decision and change. I would either have to cling to the old ways, even though I could now see how they were hurting me, or let the whole set of old ways of thinking go and trust in an entirely new way of thinking which would demand that I make major readjustments in my life. That was really scary because it meant that I would have to risk to find out if the new ways might work for me. What would happen to the relationships that counted if I changed my ways of thinking and being? Would those that I cared about accept my changes? And there were ideas that I felt I could not give up—especially those that anchored my anger and resentment. Acute surprise and anguish often punctuated those moments when I suddenly realized that old ideas were not working for me the way I thought they would. To let go of those familiar ideas that I had held as true meant that I would have to make a leap
across what seemed like a giant chasm to the unknown territory of a whole new way of looking at things. I often questioned my courage and my desire to make that leap. There is a comfort in the familiar even if its negative qualities are recognized. As a result I often swung wildly from feeling very low and incapable of the effort required to explore further, to feeling very high and excited about new possibilities that I could see for myself that would result from changing the way that I was thinking.

I was used to learning which required thinking; having my emotions as well as my thoughts so totally involved in the learning process was a new experience for me. I did a lot of crying both at home between sessions and during the course. The force of my own anger, fear, grief, remorse and joy surprised me with their intensity as I let go of my analyzing, calm exterior and began to let my feelings flow.

I don't want to leave you with the impression that the course was designed as a way of releasing a free-for-all of the emotions. Everyone in the course participated in a way that was important to them individually. For many it was a much more even and confirming experience. I just found that what I had come to learn demanded that I let go of a lot of things that I had been holding onto very tightly so that I could let more positive things come into my life. That very process of letting go and accepting new perspectives on my life was by its very nature a very emotional experience.
And I don't want you to think that the course was all serious, sad and difficult. It was also a lot of fun. We laughed a lot and many of us rediscovered latent childlike joy and freedom in a spirit of playfulness that many of us had almost forgotten. There are definitely many more funny and joyful things to remember about the experience than there are sad or upsetting ones.

The relationships that formed between people at the course were special. The facilitator set the tone for an atmosphere that was always positive, encouraging and supportive. We got to know and trust everyone involved very quickly because we all knew we were there to learn, and that we could help each other by being supportive and non-judgmental. The facilitator and the volunteers made it clear that they were there to assist people to discover their own way to move toward their own goals. There was never any feeling of being pressured or personally attacked, only of being challenged to consider alternate points of view or frames of reference which might be more productive and satisfying.

At the end of the course I knew I wanted to consolidate all that I had learned and reach for broader awareness so I immediately signed up for the second course in the series of three that were available. It began during the following week and I had just enough time to get organized to go. I felt very excited about what I had learned in the first course but I
knew that I had just scratched the surface. I felt very strongly that I was on the edge of discovering all sorts of things about myself that would really help me face all the challenges I had ahead of me.

3. The second course

The second course was a much more intense and concentrated five day residential retreat. The purpose of this course was to create an island in time in which individuals are given the rare opportunity to focus as completely as possible on the enhancement of their relationship with themselves. Every aspect of the course was designed with this purpose in mind. The residential centre created a simplified camp-like atmosphere in the heart of beautiful, peaceful natural surroundings. It was a perfect setting for reflection and introspection. Group work involving lecturettes and discussions, guided by a facilitator with assistance from volunteers, was still a major part of the program, but all participants were given much more quality time on their own, relative to the preceding course, to work on the assigned activities. The group sessions provided direction and clarification of activities but individual effort to discover unique meaning and purpose within our own lives was the central focus.

I had rated the first course a great success because of the amount that I learned, but I had no idea how much more
potent a force for change the second course would be. If the first course might be compared to opening the door on a dark closet and beginning a tentative examination of its contents, the second course was like exploring the whole house, deciding on a major renovation project, stripping the building down to its foundations, and beginning a whole new structure. I had never before experienced such a profound and intense period of learning.

The second course focused on encouraging participants to become more self-aware, more conscious of their own mental processes through intense introspection and reflection. This new self-awareness was then to be put to use as a means of healing old wounds and choosing life patterns suitable to the individual. I found concentrating so specifically on my own thoughts, feelings and emotions very difficult. I was used to focusing outward, so focusing inward upon myself so intensely for an extended period was very disturbing at first. I did not know before just how uncomfortable I was with myself, how little I really knew about myself, and how little I trusted and accepted myself. Increasing my self-awareness was not a comfortable process but I had given myself this challenge and I was going to see it through. As I continued with the process I began to see its benefits. Although I was forcing myself to face up to truths about myself that I would rather avoid or deny, I was also realizing how I might deal more constructively with those truths. The process of becoming more
self-aware also put me in touch with positive aspects of myself that had been unrecognized, unexpressed, or underutilized. I was delighted to find that I have strengths that I had never before discovered or acknowledged. I soon realized that I was beginning to know and understand myself much better than I had ever done before and I was slowly learning how I might begin to integrate parts of myself that had been scattered or at war. The result was a much more comfortable, accepting and enlarged sense of myself and an increasing awareness of how I could continue to nurture my own growth.

During the second course I became even more familiar with the process of coming to the decision point at the edge of the giant chasm between old ways of thinking and a totally new way of thinking. The intensity of my experience surrounding the approach to the dizzying edge, the leap of faith across the nothingness, and the incredible newness of the world on the other side is difficult to explain but this type of intense experience was central to my learning during these courses and certainly the most amazing and memorable aspect of those courses from my viewpoint several years later.

The experience at the decision point varied considerably but I soon came to recognize common elements. Sometimes the approach was the result of struggling through a maze of thoughts and experiences in a long slow anguished climb, and sometimes, to my surprise, I was already leaping out beyond my own boundaries before I had time to consider what was
happening. Sometimes I approached the edge several times and
turned back, not feeling ready to leap. Sometimes when I made
the leap the changes on the other side seemed so subtle that I
barely saw any immediate difference in the territory on the
other side, and other times I landed in territory so new and
strange that it took me a while to adjust and get my bearings.
Most of the time I felt that I made a conscious choice to
experience the leap, but sometimes it just seemed to happen.
All of a sudden things would come together in a whole new way
and I would think "Yes, yes! That is the way it is! Why did I
not see it this way before?"

There always seemed to be a sense of wonder or surprise
associated with the leap and the delightful (usually!)
awareness of how new and yet how appropriate the new territory
was. I felt a sudden awareness of things fitting together
differently as if I was seeing them for the first time in a
whole new way. It was like playing with a kaleidoscope and
wondering at how just a subtle shift can make the whole
pattern entirely new. The pieces are all the same old pieces,
but they have been transformed into an entirely new design.

Once the leap or shift had been made there seemed to be
no going back. I felt a solid sure sense that I "knew" in a
very deep way, on many different levels, that things had
changed and I could not see them in the old ways again even if
I tried. I might try to choose to retreat to old ways but I
would always know the greater truth of the new ways.
When I reached the new territory on the other side of the chasm where things looked so different I also felt a sense of lightness, of release, of letting go of burdens from the past, as if the shift I had made had released a whole new reserve of energy from somewhere deep inside. This energy seemed to be connected to a greater sense of peace within myself, a new sureness about myself and my life, and a rising sense of excitement about new possibilities just over the horizon.

What are some examples of these leaps towards a new way of thinking and knowing? I came to know that my love and acceptance of myself is central to my capacity to love and accept others, that I am accountable for my experience in my life, that I can continuously choose, in each moment that passes, the way in which I will experience my life, and that I can experience and control only my own life, but not the lives of others. These statements sound very simple but the new awareness that I have of my own experience, these new ways of seeing, knowing and thinking, have had profound effects on my life.

Some of these effects were dramatically evident in others as well as myself even before we completed the courses. I had enjoyed watching others grow and change in individual ways during the first course, as I grew and changed, but the transformation in myself and others during the second course was so obvious and exciting that it was difficult to assimilate just how far we had come in that few days. In
particular I noticed remarkable changes in people's facial expressions as well as in the way that they moved and carried themselves. Hunched backs straightened, drooping heads became alert and proud, and rigid, leaden bodies lightened and relaxed. And the faces! I will never forget the changed faces! Faces that were cold to begin with were warm and open, faces that were closed and suspicious or angry were animated with good feelings, faces that were sad and overburdened were alive with joy. These blossoming faces were sufficient proof to me, notwithstanding all the other evidence, that true transformation affecting body, mind, and spirit had taken place. It shone in each face like a new light from within. I could feel it shining in mine.

4. The third course

The third course was not as dramatic for me as the first two, although for others it was. (We all seemed to march to different drummers and everyone had a different opinion about which course was the most important and effective phase of the program). But even though the third course did not contain high drama for me it reinforced what I had learned in the previous courses and it continued to support me in the learning path I had chosen to follow.

The format of the course consisted of daily contact with a "support partner" chosen by mutual consent from among fellow participants from the first two courses, and regular weekly
meetings with a large group consisting primarily of fellow participants with the addition of a few new people who had taken the first two courses at other times. The primary purpose of the third course was to support participants in their efforts to integrate what they had learned in the first two courses into their current life style.

Believe me. The support was necessary. I came out of the first two courses feeling alive and excited about new possibilities for my life but about as steady as a new colt struggling to control those impossibly long spindly legs. The desire to explore the big new wide wonderful world out there was strong but figuring out how I was going to tackle it personally was a different matter. It was truth time; time to prove all my fine promises to myself with action and I felt not just a little shaky and scared—quite frankly I was terrified—but determined.

I know you can't rebuild a life in a day, but I wanted to. There was so much to learn, so many plans to be made, so many new ways of thinking and behaving that I wanted to try out and refine. The learning process did not stop. I found myself awash in new ideas to explore and I kept having to tell myself that I could not change everything I wanted to change in just a few days. Although I was seeing things in my life in a different light, it was difficult figuring out the practical application of my new vision. Even though the whole picture of what I wanted had changed within me, I knew that I had to
prioritize and focus my energy in work on one or two small areas of change at a time. Once movement and change began in small areas of my life it was easier to keep up the momentum and widen the area of focus.

The implementation of ideas was not easy. I knew so clearly now what I wanted, but sometimes what I had learned seemed so slippery, and all my old patterns of behaviour were waiting there so smugly and confidently, knowing how easy I would find it to fall back into relying on them. Working towards my new vision meant breaking a lot of old and comfortable bonds and putting incredible effort into forming new patterns and behaviours.

My friends, family and associates were a little hesitant around me for a while. I was amazed at their response to me. They recognized changes in me that I did not even know were noticeable; subtle things like an increase in my energy level, a different quality of serenity and confidence about me, the fact that did not dissolve at the first sign of criticism, the irrepressibility of my smile. Others experienced more directly my new found ability to speak clearly and convincingly about what I wanted, my determination to stick up for myself in a conflict situation, and my willingness to tackle old problems from completely different angles of attack.

There were lots of times when I held my breath as I consciously went into a situation knowing that I was about to put into practice a way of behaving that was uncustomary for
me. Sometimes I was not able to accomplish what I wanted and I felt discouraged; at other times I was successful beyond my wildest imaginings. But always I felt committed to the new vision of my life that I had created and I knew that if I kept working towards it I would reach my goal.

Having a support partner was an invaluable asset. We checked in with each other by phone every day and talked very specifically about our current successes and failures, our action plan for the next day, our feelings about our progress, and always about the plans we were forming for the future and how the small steps we were taking daily fit into the pattern of helping us reach our future goals. It was much easier to tackle difficult tasks knowing that that support was there.

The weekly large group meetings were also a great help. They were organized around exercises and discussions, much as the first course had been, with lots of time to work out in a group setting the problems or confusions that had arisen in the past week and personal action plans for the coming week.

We were so comfortable with each other within the group, and knew each other so well, that we were able to give each other invaluable feedback and encouragement on a ongoing basis. And of course, although we now felt more and more confident in being able to keep working towards our goals on the individual paths we had set for ourselves, the facilitator helped us to stay focused on our commitment to our own lives. It felt marvelous going back to the group where we all felt so
safe, and yet at the same time so challenged, to move forward with our individual plans. Seeing how other people were changing and developing, following their successes and failures so regularly and closely, and feeling their genuine support for my endeavours was an invaluable source of inspiration, energy and courage for me.

I was surprised to find how often I came to blocks in my path and the realization that to get rid of them I would have to work out a shift in the way I was seeing the problem. Obviously, although I had made major changes in the way I was thinking about my life there were still changes to be made. Again I would find myself in that now familiar struggle leading up to a leap across the void towards a new way of seeing things. The process was not any easier, but at least it was familiar and I knew from experience that the results I could create by going through with the process were very worthwhile. I was feeling a growing confidence in my ability to learn in this way, and I knew that when the courses were over I would be able to continue to learn and grow on my own, knowing that help from other people would always be there if I needed it.

5. Conclusion

I do not think that making a leap to a whole new way of knowing or seeing is something that we do easily or naturally. I do not think that I would have been able to learn in this
way, or at least not as effectively, or in such a short period of time, if I had not been guided in the experience of these two courses. The new self-awareness that I achieved ushered in a major period of change and learning in my life. I had not realized before that important learning can take place through changes in my awareness of myself, other people and situations in my life. During these courses I experienced several major leaps across the void towards new perspectives, or major shifts in my ways of seeing and thinking about myself and my relationships to the people and events in my life. The major learning shift that I made was in realizing the power of my own awareness and my ability to make shifts or changes in that awareness. I learned to experience changes in my awareness, to recognize familiar features of the process of these changes as they took place, and to some extent actively control the process of changes in my awareness as a means towards finding meaning and fulfillment in my own life. Knowing what an important part my own awareness plays in my learning has had, and will continue to have, a strong influence on how I choose to live my life.

D. NOTES ON SARA'S CASE IN RELATION TO THE CONCEPT OF LEARNING INVOLVING CHANGES IN CONSCIOUSNESS

An analysis of Sara's account of her learning experience quickly reveals that in this learning situation traditional ideas about learning as the acquisition, retention, organization, and recollection of knowledge do not adequately
explain the type of learning that Sara describes. She speaks of "the experience at the decision point" preceding "leaps or shifts to new territory," pieces (of knowledge) "transformed into an entirely new design," "the process of becoming more self-aware," and the "sudden awareness of things fitting together differently as if I was seeing them for the first time in a whole new way." Sara's account of her learning experience supports the concept of learning as a creative, transformative process which involves changes, transformation, or transmutations of acquired knowledge into entirely new patterns or states fueled in some way by changes in awareness or consciousness. This personal account which emphasises the primacy of transformative learning involving changes in consciousness provides a rationale for the pursuit of further understanding of this type of learning.

A search of literature regarding learning for an explanation of this type of transformative learning involving changes in consciousness produced few learning formulations which address this type of learning directly. There were, however, a few theorists whose work appeared to relate to this type of learning and their work was selected for review and critical analysis on the basis of the following criteria:

The ability of the learning formulation to:

1. apply directly to the concept of transformative learning involving changes in consciousness.

2. clarify the individual learning case study.
3. to bring meaning to, or explain, learning as a transformative process involving changes in consciousness.

Using these criteria the theoretical learning formulations selected for treatment included the work of Bruner, Freire, Kelly, Mezirow, and Nichol. The work of these writers will thus form the basis for a literature review and a constant comparative critical analysis of the concept of transformative learning involving changes in consciousness.
III. LITERATURE REVIEW

A. INTRODUCTION

This literature review differs somewhat from the traditional conception of the literature review in terms of general attitude toward source materials and their selection and treatment. This attitude is based on criteria discussed in the Methodology section, in accordance with theoretical sampling procedures of grounded theory's constant comparative method. On the basis of those criteria the work of Bruner, Freire, Kelly, Mezirow and Nichol were selected over time, and the treatment of each author's works was individualized according to the unique contribution that each was perceived to be able to make towards the needs of the emerging categories guiding the study.

The review of each author contains only the material that contributes most strongly to the identification and description of transformative learning, organized in the manner which seems most appropriate to its contribution. In Bruner's case, although his work does not approach the topic in any direct way, a comprehensive analysis based primarily on two of his recent works, provides a rich theoretical background for the consideration of learning as a transformative process. Freire's theory of conscientization and its philosophic underpinnings were winnowed from his extensive writings as evidence in support of transformative learning. The philosophic ideas behind Kelly's personal
construct theory, his discussions of the practical applications of his theory, as well as the theory itself, speak eloquently of the transformative powers of the human mind; the ideas that contribute most strongly to a conception of learning as a transformative process were extracted from Kelly's work. Mezirow's theorizes directly about perspective transformation, a form of change in consciousness, as a distinct form of learning; his explanation of perspective transformation and its theoretical antecedents were reviewed. While Nichol's description of paradigm transition learning is drawn only from several unpublished papers, in contrast to the more substantial materials available from the other authors, it supplies a unique view of learning as a transformative process in a practical learning situation and supports it with yet another theoretical line of thought. Although other materials from each author might have been included, these were judged to be most relevant to the emerging categories.

Although analysis is usually interpreted to be a function of the literature review, in this case analysis proceeds only in a limited sense. Although the work of the authors represented has been analyzed to glean material which may help to explicate transformative learning, and reanalyzed as the emerging categories demanded during the course of the study, the prime purposes here were to present the material descriptively and to develop some of its implications, as they appeared to be pertinent to the emerging categories during the
course of the literature review. Further analysis in this section is unnecessary in that further intense analysis will take place in the following chapter.

This review also differs from the conventional concept of a literature review in that it critiques the authors only in relation to what their material may offer to an understanding of the topic of the study. Since none of them specifically intended to explicate transformative learning, none should be taken to task for what they did not accomplish in that direction. Any appearance of critique is offered in terms of extending and building on the unique contribution of each source of material in comparison with all of the others in the spirit of constant comparative method.

It should be remembered, as noted in the methodology section that technically all of these source materials are not theories, but from time to time the designation "theory" may be applied as being more convenient than other descriptions such as "learning formulations" or "work" when referring to these materials.

It should also be noted that Sara's case study is a most important part of the literature under review but it is placed in its own separate chapter to emphasize and facilitate its multi-faceted function within this study.

This chapter will proceed with the presentation of theoretical formulations relating to transformative learning involving changes in consciousness as they have been gleaned
from the works of Bruner, Freire, Kelly, Mezirow and Nichol.

B. BRUNER: CONTEXTUAL BACKGROUND FOR AN UNDERSTANDING OF TRANSFORMATIVE LEARNING

1. Introduction

The life work of Jerome Bruner, the eminent American psychologist, epitomizes the shift from behaviorist dominated psychology to cognitive psychology, and more recently the effort to push our conceptions of human mind and consciousness beyond the narrow computer model which has been predominant in cognitive psychology during the last thirty years. Throughout his career Bruner has been a trail blazer in the study of cognition, perception, and the nature of knowing and his work has had a major effect on the course of psychology and education in the United States and elsewhere. He has always attempted to expand the limits: although he is known as one of the instigators, if not the founder of the "cognitive revolution", he is constantly concerned about the negative narrowing effect of the tendency toward specialization, which has limited the scope of inquiry in psychology as well as in other disciplines (Bruner, 1983, p.280). In his most recent works (1979, 1983, 1986) his wide-ranging intellect has striven towards bridging the gap between science and the humanities, and towards embedding psychology in a matrix of interrelated disciplines that study the capability of the human mind and consciousness, as steps towards a deeper
understanding the human condition. His comprehensive perspective, inclusive of the historical development of ideas in many disciplines, provides a rich context for the understanding of learning as a transformative process involving changes in consciousness.

Although Bruner does not address adult learning directly, his developing conception of the nature of knowing and human development are increasingly applicable to formulations of adult learning involving changes in consciousness; the emphasis of his work moves steadily in the direction of recognizing consciousness and transformation of consciousness as central to the process of learning. Bruner indicates that the theme that has dominated his working life is "a conviction that one could study mind by examining how it expressed itself in achieving, storing and transforming knowledge of the world" (Bruner, 1983, p.274). Bruner's early work concentrated on the mechanisms for the achievement and storage of knowledge, the focus that expressed the core concerns of the "cognitive revolution". His later works (1979, 1983, 1986) integrate ideas from the growing edge, in fields as diverse as psychology, anthropology, sociology, linguistics, education, philosophy, and literary criticism, to portray a constructivist stance towards human development and learning which highlights the transformative powers of the mind and consciousness, and the active, creative part that individuals play in their own construction of reality. As his work
progresses he places increasing emphasis on learning as a transformative process in which consciousness and changes in consciousness play a central role.

Bruner's current explorations beyond the strict limitations of cognitivism towards a comprehensive, multi-discipline based understanding of the nature of human thought and human development form a convincing context for integrating and understanding theories specific to adult learning which stress learning as a transformative process involving changes in consciousness. An overview of Bruner's current thinking, and the implications for adult learning involving changes in consciousness which can be drawn from his thought, will form the backdrop for a comparative analysis of learning formulations which deal specifically with learning as a transformational process involving consciousness and changes in consciousness.

2. Mind and consciousness

Bruner believes his life's interest in the human mind and its knowledge processes reflects the growth of a significant modern theme which has arisen as an inevitable consequence of the growing complexity of the world in which we live. "You cannot properly conceive of managing a complex world of information without a workable concept of mind" (Ibid., 1983, p.63). He regards this theme as a reflection of the "zeitgeist", the spirit of the times, and the emerging society
in which the generation and management of knowledge are increasingly regarded as primary keys to economic and social power and progress (Ibid., p.274). The "cognitive revolution" arose in response to the needs of this society, but its focus became too narrow and the "heart of psychology—the study of the powers of mind and their enablement—fell neglected... (Ibid., 1983, p.63). Bruner (1979, 1983, 1986) aspires to restore that heart.

Bruner defines mind as "a concept, an idea we construct in order to house the remarkable accomplishments that make it possible for human beings (and other creatures, who knows?) to go beyond the information given" (Ibid., 1983, p.201). Every human being and every society has its own conception of mind which fits that person's or society's ideology about the worth of human beings and their relationship to the surrounding world (Ibid., p.201).

"Consciousness is an instrument of mind, whatever you may take mind to be" (Ibid., p.201). The concept of consciousness is narrower than mind because part of mind is understood to be unconscious (Aristotle, Wundt, Freud). Bruner considers consciousness to be a form of private display, "the output of some sort of device for creating a "here and now" in an accentuated way": "an extraordinary way of highlighting the immediate" (Ibid., p.201).

Bruner acknowledges the age-old struggle to define consciousness and its function and suggests that historically
there are two implicit theories of consciousness, the Trouble Theory and the Zest Theory. The Trouble Theory suggests that consciousness is a tool for dealing with difficult choices and troubles. The Zest Theory suggests that consciousness is an ornament arising out of playfulness and disengagement (Ibid., p.202). Bruner suggests that the ornaments of consciousness are also tools and this idea will be clarified as this discussion continues.

3. Modes of thought

Bruner proposes that there are two complementary modes of cognitive functioning, "two modes of thought, each providing distinctive ways of ordering experience, of constructing reality" (Bruner, 1986, p.11). The first mode, the paradigmatic, is formal, logical, explanatory, and cause-and-effect oriented. It's function is easily understood. It is:

...the most powerful practical tool in man's possession (which) converts what one knows into an abstract propositional form and then manipulates the propositions formally rather than pushing the "real" world around empirically to see how it works. It is Vygotsky's "scientific thinking", Piaget's "formal operations," James Mark Baldwin's "propositional mode" (Ibid.,1983, p.204).

It is the mode usually equated with science and human power over nature. The paradigmatic ways of knowing seek to transcend the particular by reaching for abstraction, and their goal is to establish truth. Until recently it was thought that the formal, paradigmatic mode dealt with realities that are independent of the observer, but modern
physics would deny the independence of the knower from the known (Ibid., p.205).

The second mode of thought, the narrative mode, tells a story; it is textual rather than logical (Ibid., p.204). The narrative mode, typically associated with the arts and humanities, is concerned with the human condition; it seeks to endow human experience with meaning. Psychic reality, the landscapes of human action and consciousness, are its domain. It seeks lifelikeness or verisimilitude rather than objective truth (Bruner, 1986, pp.12-14).

Instead of striving for the independence of the observer, the narrative mode seeks to make sense of the relation of the observer to what is being recounted; it includes a point of view, an evaluation, however implicit (Ibid., 1983, p.205). Meaning is inherently derived from the discovery of relationship:

...the meaning of anything inheres in its relation to other things—historical, causal, inclusive, scalar, spatial, affective, or whatever relation one can imagine....the meaning of any unit...lies in its use (Ibid., p.206)....meaning depended not on anything intrinsic in the world but upon the use to which knowledge was put (Ibid., p.278).

Human problems are concerned almost exclusively with meaning and do not yield easily to formal logical solution; they are constant predicaments with which we live. Bruner believes that the power of the narrative mode is in its ability to give meaning to human experience or predicaments:

Tales, myths, drama, the diverse forms of art provide the natural mode for depicting human predicaments—how they
are managed and mismanaged, how laughed at or held at arm's length or succumbed to. Human culture (whatever else it is) is a stock of "forms" for giving structure and meaning to human predicaments....(Recognition must be given to) the importance of the "mythologically instructed community"—the power of the culture's stock to render meaningful and communal the predicaments of its adherents (Ibid., pp.206-207).

Therefore, both the paradigmatic mode and the narrative mode function as tools for understanding. The paradigmatic mode of consciousness permits humans to understand much of the physical world. The narrative mode permits humans to understand themselves in relation to the physical world and the worlds they create through language and culture. The narrative mode "reflects our use of language and the manner in which it operates "constitutively"... to create a conscious reality of its own. Narrative explanation fills in the gaps and yields "meaning" (Ibid., 1983, p.215).

Bruner hypothesizes about the nature of consciousness, in the light of the function of the narrative mode as a "connection-maker" and filler-of-gaps," that:

If there is any purpose to consciousness, beyond its being an instrument for the analysis of necessity and trouble, it must surely be to provide us with a vehicle for making present the absent, making visible the unseen, making possible the unimagined (Ibid., p.215).

The narrative mode is more than an ornament that delights us with stories; the narrative mode is a tool the human mind can use, not only to create meaning within the present life space, but to leap the boundaries of time and space, and to transcend and transform current reality. The human mind, in the narrative mode of consciousness, can reach into the past and
into the future to create new options for the present.

The recognition of the paradigmatic and narrative modes as distinctive ways of knowing, and their importance to our conception of human mind and consciousness and the way they operate in learning, arose out of Bruner's studies in many areas including human development, and the nature of the relationship between culture and the self in that development. Those areas will now be explored.

4. Human development

Bruner's primary interest in the development of the mind took him in many directions in the study of human development. As Bruner studied child development in the 1960s and 1970s he came to the conclusion that the development of mind from childhood to adulthood could not take place without:

...the aid of the ready-made tools of a culture and its language, that mental growth comes as much from the outside in as from the inside out....culturally provided prosthetic devices (that) make it possible for the human mind to vault beyond itself (Ibid., p.278).

This conclusion further aroused Bruner's interest in the nature of art and science, and the "disciplines of knowledge" as ways of knowing and experiencing. As a result he began to see the study of human development as:

...not only part of the natural science of maturation and learning, but also one of the sciences of the artificial. We were, after all, a species that created itself by the constitutive power of our symbol-making, our institution-creating, our very culture-creating. Whatever you might say about the growth of mind, you could never say it without specifying the devices and tools (such as language and education) that made it possible (Ibid.,
Bruner thus became an educational theorist who advocated "the understanding of knowledge as a prosthetic device" (Ibid., p. 279), a tool that permitted us to grasp, retain and transform the world in a generative way, and a developmental linguist who studied how people acquire the social and intellectual uses of language (Ibid., p.279).

Bruner's studies of human development thus led him to view learning from a perspective which highlighted the relationship between the processes of learning and the processes of developing the human mind within the context of culture. This perspective encouraged the evolution of an appreciation for the transformative powers in human learning, those powers which allow the human mind to use current knowledge to make a creative leap beyond what is already known, and particularly, the function of consciousness as the source of these powers. Following Bruner's thinking about the nature of knowledge and learning, the development of Self, the power of language, and the influence of culture will clarify his conception of the development of mind and consciousness and their role in human development and learning.

5. Changing conceptions of learning

Until 1960 a major assumption that guided learning research in psychology was that learning is a unitary process; that basically all learning is alike (Ibid., p.182). Bruner
explores three aspects of the "cognitive revolution" which questioned that assumption and exert a revolutionary effect on approaches to learning and education; a revolutionary effect so strong in Bruner's thinking that it has taken him far beyond the main stream of cognitive psychology. These three aspects are a conception of mind as "method applied to tasks" (Ibid., p.183), a belief that ways of framing ideas are linked to levels of development, and an emphasis on the generativeness of knowledge. Each of these will be examined in turn in the light of what they might add to the conception of transformative learning.

The first aspect is a conception of mind as "method applied to tasks. You don't think about physics, you think physics. Physics is not just a description of the world: it is the way you get to the description" (Ibid., p.183). According to this idea each academic discipline may be perceived as a distinct world view or perspective which both gives access to certain types of perception of experience and limits others.

This conception of mind has major implications for transformative learning, particularly at the adult level. If learner's can be encouraged to a conscious awareness of the systematic perspectives, or world views, with which they guide their lives, and the possibilities and limits which these entail, this can be a first step towards a sense of control and personal choice in their lives and a vision of how those perspectives might be transformed.
The second aspect is a concept, derived from Piaget, that "the child's understanding of any mathematical or scientific idea would be framed by the level of intellectual operations that he had achieved. "There are ways of framing ideas that are appropriate to the level of development or abstraction that the child has reached" (Ibid., p.183).

Although Bruner does not do so, this concept might also be extended to clarify adult ways of framing ideas which reflect various levels of development and abstraction within the adult's consciousness and understanding. Whereas until recently research attention has been focused almost exclusively on child development and learning where progress or change seems most spectacular, obvious and crucial, growing attention is being focused on various levels of adult development and learning, the modes of framing ideas inherent at various levels, and the possibility of changing these ways of framing ideas through learning. The various theoretical attempts to explain learning involving changes in consciousness, discussed in this paper, are intimately involved in this investigation.

The third aspect is an emphasis on "generativeness" as a quality of knowledge:

Knowledge is not a storehouse. You already "know" most of what you "learn" in science and mathematics. "Learning" is, most often, figuring out how to use what you already know in order to go beyond what you currently think. There are many ways of doing that. Some are more intuitive (narrative mode); others are formally derivational (paradigmatic mode). But they all depend on knowing something "structural" about what you are
contemplating how it is put together. Knowing how something is put together is worth a thousand facts about it. It permits you to go beyond it (Ibid., p.183).

This emphasis represents a shift in thinking about knowledge as a static product to be consumed and reproduced through rote learning, to a conception of knowledge as a dynamic product forever in the process of transformation, and learning as a dynamic process of knowledge creation or generation; learning as a transformative process, a constant effort to go beyond the given to new combinations, new understandings and new possibilities.

6. The transactional self

Bruner's studies of language and culture have led him to view human development as a transactional process in contrast to traditional theories which view development as primarily egocentric. Transactions are defined by Bruner as:

...those dealings which are premised on a mutual sharing of assumptions and beliefs about how the world is, how mind works, what we are up to, and how communication should proceed" (Ibid., 1986, p.57).

Transaction implies that learning and development are to some extent social processes which operate through mutual access to other's minds.

The prevailing view of psychological theories of development have portrayed young children as basically egocentric beings who lack transactional skills. It is assumed that these skills must be gradually developed and learned (Ibid., 1986, pp.60-61). Bruner describes the standard view of
egocentrism in terms of four basic premises which he feels are "arbitrary, partial and deeply rooted in the morality of our own culture" (Ibid., 1986, p.61). He claims that their acceptance as universals inhibits the development of workable concepts of the nature of social transaction and the nature of self. Bruner takes issue with each of these premises.

The first premise is that children have an egocentric perspective, that is, that the ability to take the perspective of others is not initially present in children. In contrast to this standard view Bruner proposes that young children often adopt an egocentric framework because they do not have the large collection of scripts, scenarios and event structures that adults use to understand events in their environment. "It is not that the child does not have the capacity to take another's perspective, but rather that he cannot do so without understanding the situation in which he is operating." (Ibid., 1986, p.68).

It may be hypothesized that adults, as well, may retreat to an egocentric perspective in a similar way when they do not have a sufficiently developed mental schema to understand the context in which they are operating. This may be a very important consideration for the understanding of adult learning, particularly in a world that is changing so rapidly and in such complex ways. If adults do not have sufficiently developed mental schema, and have not learned the skills whereby they can consciously develop new mental schema in
response to changes in their environment, they may be at a
distinct disadvantage in their efforts to cope with their
relationships with others and the world.

The second premise is in regard to privacy; the
self is assumed to be inherently individualistic, private, and
beyond culture. In relation to this premise Bruner notes that
ideas about privacy in reference to self are culturally
relative and the idea of a private self "free of cultural
definition" (Ibid., 1986, p.68) is particular to the Western
conception of self. Although Bruner does not elaborate at this
point, if his later discussion of Vygotsky is considered, it
is implicitly clear that the Western idea of a private self
may hamper our understanding of the cultural as well as
individual components of learning in relationship to the
development of the self.

The third premise proposes that learning takes place through
unmediated conceptualism, that is, that the child's knowledge
of the world is achieved principally by direct encounters with
the world. In contrast, Bruner contends that our encounters
with the world are often vicarious and mediated through our
interaction and negotiation with others. Much of our
experience is mediated through our contact with language and
other symbol systems which we share with other people within
our culture. This point also emphasizes the importance of the
relationship of the individual to others and to culture in the
development of self.
Finally, the premise of tripartism suggests that cognition, affect, and action are separate processes that, with time and socialization, come to interact with one another. Or, conversely, that the three stem from a common process which gradually differentiates into autonomous systems. In either case, cognition is slow to develop and is "socially blind." (Ibid., 1986, p.61).

Contrary to the essence of the premise of tripartism Bruner emphasizes the importance of recognizing that cognition, emotion, and action are a mutually interactive, structurally interdependent, unified whole. These components of behaviour are:

...aspects of a larger whole that achieves its integration only within a cultural system. Emotion is not usefully isolated from the knowledge of the situation that arouses it. Cognition is not a form of pure knowing to which emotion is added....And action is a final common path based on what one knows and feels. Indeed, our actions are frequently dedicated to keeping a state of knowledge from being upset...or to the avoidance of situations that are anticipated to be emotion-arousing (Ibid., pp.117-118).

While it may be useful to think of thought, emotion and action separately for some purposes, our understanding of the self as a unified whole may be obscured if we do not recognize their ultimate connectedness. If we abstract them too rigidly:

...we lose sight of the fact that it is one of the functions of a culture to keep them related and together in those images, stories, and the like by which our experience is given coherence and cultural relevance. The scripts and stories...are templates for canonical ways of fusing the three into self-directing patterns-ways of being a Self in transaction" (Ibid., 1986, p.69).

Two important relationships must be noted here. First, the
self develops in transaction with culture, by learning to use culturally transmitted patterns in the service of its own definition and development. Secondly, the development of the transactional self must be understood in terms of the mutual interaction of self and culture monitored through the unity of emotion, cognition, and action. Clearly, our conception of learning, which has heretofore concentrated on the cognition processes of the self alone as the avenue to learning, must take into account the role of the cultural milieu of the learner, and the importance of the integral unity of emotion, cognition and action in human development and learning.

7. Powers of language

Language is our most powerful tool for organizing experience and for constituting "realities" (Bruner, 1986, p.8). Its modes of organizing human knowledge give us some insight into the operation of the human mind and consciousness. Language is a major avenue for facilitating people's processes of transaction, their inner dialogue within themselves and their outer dialogue with the world. The possession of language gives us:

...a highly abstract system for accomplishing communicative functions that are crucial for regulating joint attention and joint action, for creating topics and commenting upon them in a fashion that segments "reality," for forefronting and imposing perspectives on events, for indicating our stance toward the world to which we refer...(Ibid., 1986, p.62).

In addition, "the joint and mutual use of language gives
us a huge step in the direction of understanding other minds" (Ibid., 1986, p.62). We recognize the organization of our own minds and the minds of others in our natural use of the syntactical organization of our language transactions. Language is used to organize experience in ways that we can share.

Language also assists transaction in its power to refer, to direct another's attention to an item of experience. "Reference plays on the shared presuppositions and shared contexts of speakers" (Ibid., 1986, p.63) and allows them to map each others subjective worlds. Bruner concludes that:

...(the) basis upon which linguistic reference itself rests must reflect a natural organization of mind, one into which we grow through experience rather than one we achieve by learning...human beings must come equipped with the means not only to calibrate the working of their minds against one another, but to calibrate the worlds in which they live through the subtle means of reference. In effect, then, this is the means whereby we know Other Minds and their possible worlds (Ibid., 1986, p.64).

Language allows people to create some sense of stability, predictability, continuity and shared experience in their relationships with others.

Language has the power to endow experience with meaning but meaning, by nature, is always underdetermined and ambiguous. People must negotiate common meaning in their transactions with each other. Bruner hypothesizes that humanity has been driven to construct the large scale products of language—drama and science and the disciplines of understanding—as ways of creating new forms in which to
transact and negotiate this effort after meaning (Ibid., 1986, p.64).

Language is also powerful in its constitutiveness, "the capacity of language to create and stipulate realities of its own" (Ibid., 1986, p.64). The hypothetical entities and fictions in science or narrative are given reality through the constitutiveness of language. "Constitutiveness gives an externality and an apparent ontological status to the concepts words embody; for example, the law, gross national product..." (Ibid., 1986, p.64). Constitutiveness entails:

...converting our mental processes into products and endowing them with a reality in some world. The private is rendered public. And thereby, once again, we locate ourselves in a world of shared reality. The constitutiveness of language...creates and transmits culture and locates our place in it...(Ibid., 1986, p.65).

The power of language to "locate our place" must not be overlooked by those who wish to understand learning involving changes in consciousness. Our consciousness of "our place," our stance, has extremely important implications for learning. As Bruner explains, part of the reality that is created and transmitted by language:

...is the stance that the language implies toward knowledge and reflection, and the generalized set of stances one negotiates creates in time a sense of one's self. Reflection and "distancing" are crucial aspects of achieving a sense of the range of possible stances—a metacognitive step of huge import (Ibid., pp.132-133).

One implication for learning arising from this is that as learners become aware of the stance or set of stances which guide and limit their range of view or perspective in life,
they can also become aware of the possibility of changing or transforming that stance or perspective. Intentional learning and intentional assistance of the learning process are thus based on the awareness of alternative possibilities. Consciousness viewed in this way may be recognized as part of both the process and the product of learning.

A second implication is that becoming aware of stance or perspective require learners to be able to distance themselves or stand back from their experience, to reflect back on that experience, or to create space between themselves and their experience, so that they can see themselves and their experience more clearly. Consciousness allows them to distance themselves both in time and space.

A third implication is the importance of awareness of personal stance as integral to the development of a sense of self, which is a sense of personal identity, and a sense of personal control and input into that identity. A strong sense of self is generated parallel to, and dependent upon, a sense of consciousness of the power to create and choose possible alternative stances, perspectives or world views. Learning involving changes in consciousness is thus implied to be a major factor in the development of self.

But all of these implications must be related back to language as an instrument of culture as well as an instrument for the development of the individual.
8. Culture

Bruner notes that in the last decade there has been a revolution in the definition of human culture. There has been a move away from thinking of culture as a structured set of interconnected rules which people use to guide their actions, to the idea of "culture as implicit and only semiconnected knowledge of the world from which, through negotiation, people arrive at satisfactory ways of acting in given contexts" (Ibid., 1986, p.65).

The process of acting in a culture is based on an interpretation of that culture. We interpret the symbolic models of culture through our transactions with their many forms, and the interpretations developed in those transactions are used to organize the activities, responses, perceptions and experiences of the conscious self. Cultural patterns and models provide the template for all human action, growth and understanding. Our "selfhood" arises out of our sense of what constitutes culturally acceptable transactions and our definition of our own scope and possibility in negotiating those transactions. We come to know culture and ourselves through collective stories that suggest the nature of coherence, probability and sense or meaning within our world. We define our own intentions, our history and our projected future in terms of the characteristic cultural dramas in which we play a part (Ibid., pp.66-67):

For stories define the range of canonical characters, the setting in which they operate, the actions that are
permissible and comprehensible. And thereby they provide, so to speak, a map of possible roles and of possible worlds in which action, thought and self-definition are permissible (or desirable) (Ibid., p.66).

Therefore self can never be independent of one's cultural-historical existence, but it can have some effect on the course of that existence.

Bruner acknowledges that it is claimed that self rises out of our capacity to reflect upon our own acts, by the operation of "metacognition" (Ibid., p.67). This claim suggests that changes in consciousness or awareness are closely related to the development of a sense of self. But recent research on metacognition indicates that:

...metacognitive activity (self-monitoring and self-correction) is very unevenly distributed, varies according to cultural background, and...can be taught successfully as a skill...How much and in what form it develops will...depend upon the demands of the culture in which one lives (Ibid., p.67).

So it seems that the development of a strong sense of self, tied as it is to the development of the capacity for conscious reflection, is potentially available in human development, but very unevenly realized according to cultural background. The discovery that metacognitive reflectivity, which implies learning through changes in consciousness, may be able to be taught as a skill is a possibility of immense significance for the development of learning potential, both in individuals and in the cultures in which they live.

Bruner suggests that the narrative mode of consciousness plays a crucial but generally unrecognized role in the
relationship between self and culture. He implies that although recognition is given to the function and importance of the paradigmatic mode of thought, the possible importance of the narrative mode in human development and functioning has not been fully recognized:

Insofar as we account for our own actions and for the human events that occur around us principally in terms of narrative, story, drama, it is conceivable that our sensitivity to narrative provides the major link between our own sense of self and our sense of others in the social world around us. The common coin may be provided by the forms of narrative that the culture offers us. Again, life could be said to imitate art (Ibid., 1986, p.69).

Thus sensitivity to narrative mode within the context of culture enables the process of transaction, the development of self and its capacity for reflective consciousness, and the general development and learning of the individual.

In summary, Bruner views the development of the transactional self within the context of culture as a process in which:

It would seem a warranted conclusion, then, that our "smooth" and easy transactions and the regulatory self that executes them, starting as a biological readiness based on a primitive appreciation of other minds, is then reinforced and enriched by the calibrational power that language bestows, is given a larger-scale map on which to operate by the culture in which transactions take place, and ends by being a reflection of the history of that culture as that history is contained in the culture's images, narratives, and tool kit (Ibid., 1986, p.67).

In Bruner's conception the development of mind and consciousness are inextricably linked to the general human developmental process which evolves in the matrix of the
interacting forces of learning, language, culture, and self.

9. The influence of Vygotsky and Goodman

Bruner acknowledges the primary influence of Vygotsky (1962, 1978) and Goodman (1978, 1984) in his current thinking, which emphasizes the key role that consciousness plays in human development and learning. The ways in which each of these theorists works have contributed to Bruner's conceptions will now be explored.

a. Vygotsky

Bruner acknowledges a debt to Vygotsky for his clarification of the relationship of language and culture to human development, and the role of consciousness in learning. Central to Vygotsky's thinking was the Pavlovian concept of "The Second Signal System", the world processed through language in contrast to the world of the senses. It represents the idea of nature transformed by history and culture through the encoding power of language (Ibid., 1986, pp.70-71). Vygotsky's major premise was the view that man is "subject to the dialectical play between nature and history, between his qualities as a creature of biology and as a product of human culture" (Ibid., 1986, p.71). Language and consciousness are mediating factors in this dialectic. People exhibit unity of perception, speech and action. Thought and speech, as facets of language, function as instruments for the planning
and carrying out of action:

Language is...a way of sorting out one's thoughts about things. Thought is a mode of organizing perception and action. But all of them each in their way, also reflects the tools and aids available in the culture for use in carrying out action (Ibid., 1986, p.72).

These tools and aids made available vary from culture to culture. In every culture "...society provides a tool kit of concepts and ideas and theories that permit one to get to higher ground mentally" (Ibid., 1986, p.73). As new higher concepts are formed, they transform lower concepts. These new concepts give people new vantage points or broader perspectives on their old concepts. They provide a way of turning around on thoughts and seeing them in a new light; a process of mind reflecting on itself; a process of consciousness (Ibid., p.73).

Consciousness, equipped with concepts and the language for forming and transforming them, plays a major role in mediating between the individual and culture. Consciousness or reflection is a means of control which develop within the individual:

Consciousness and control appear only at a late stage in the development of a function, after it has been used and practiced unconsciously and spontaneously. In order to subject a function to intellectual control, we must first possess it (Thought and Language, p.90 in Ibid., p.73).

Bruner points out that "This suggests that prior to the development of self-directed, conscious control, action is, so to speak, a more direct or less mediated response to the world" (Ibid., p.73). Self-directed conscious reflection is
developed as the learner develops the capacity for internal dialogue or thought. Bruner calls thought a continuation of dialogue in agreement with Vygotsky's concept of thought as the internalization of dialogue (Ibid., 1983, pp.215-216). The capacity for thought, and therefore for personal control, is developed as the external learning dialogue through cultural representatives, such as teachers or peers, is internalized.

Although Vygotsky, in the fashion of most learning theorists, concentrates on the child as learner, his learning theory can be fruitfully applied to adult learning as well. Vygotsky says that human learning "presupposes a specific social nature and a process by which children grow into the intellectual life of those around them" (Mind in Society, p.88, in Ibid., 1986, p.73). The Zone of Proximal Development (ZPD), is a Vygotsky concept of major relevance to learning theory. The ZPD is:

...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Mind in Society, p.86, in Ibid., p.73).

It seems reasonable to propose that the ZPD can be extended to account for the way in which the more competent assist the less competent, whatever their age, and whatever the form or mode of learning. The primary importance of the ZPD concept is that it emphasizes the social and developmental nature of human learning.

Vygotsky believed that the modernization of the Russian
peasant could be described in the same way as one describes the mental growth of a child as a creative process of fusing collective action and consciousness. The goal was a conversion of consciousness or the creation of new consciousness:

He believed that the transmission of mind across history is effected by successive mental sharings that assure a passing on of ideas from the more able or advanced to the less so. And the medium in which the transmission occurs is language and its products: literacy, science, technology, literature....Language, whether in art or in science, reflected our lives in history. Yet at the same time it could propel us beyond history (Ibid., pp.74-75).

Bruner explores how this transmission of mind across the ZPD may occur by referring to studies in tutoring and the way in which the tutor acts as "consciousness for two" (Ibid., p.75). He redefines the ZPD as the zone "that exists between what people can recognize or comprehend when present before them, and what they can generate on their own" (Ibid., pp.75-76). In a learning situation the more competent (the tutor) serves as a "vicarious consciousness" for others and makes a "loan of consciousness" to the less competent (the learner) in a dynamic negotiable transaction. Learning is a collaborative enterprise in which the tutor enters into a dialogue with the learner and guides the learning process (Ibid., p. 132). The tutor ideally "remains forever on the growing edge of the child's (learner's) competence" lending consciousness to the learner as a crutch that will enable the learner to achieve his/her own consciousness (Ibid., pp.76-77). Vygotsky reasoned that the acquisition of language is a paradigm case for the explanation of learning in that the "aspirant speaker
must "borrow" the knowledge and consciousness of the tutor to enter a language" (Ibid., p. 76).

It seems implicit here that consciousness is a human capacity which requires assistance from others for its full development and that adults, as well as children, may still need a "loan of consciousness" if they are to achieve their development potential. A new appreciation for, and development of, the capacity for consciousness may be the goal of transformative learning involving changes in consciousness.

Vygotsky's central contribution was in emphasizing the importance of "understanding man as a product of culture as well as a product of nature" (Ibid., p. 78). "His objective was to explore how human society provided instruments to empower the individual mind" (Ibid., 1983, p. 137). He understood the burden of learning to be divided between the individual and his society in that the learning process took place under adult guidance or in collaboration with more capable peers (Ibid., p. 181). In this way Vygotsky stressed the cultural component and the social nature of learning, in terms of the use of cultural tools such as language, and the collaboration or guidance necessary between the educator and the learner in the learning process. He recognized the importance of language, both as a mediating factor between the individual and culture, and as a reflection of the operation of consciousness, as the key to the understanding of the processes of human consciousness and learning. Thus he
highlighted the social nature of learning, and the central role of the transmission of mind or reflective consciousness in the learning process.

b. Goodman

Bruner conceives reality to be multi-faceted and dynamic, and the individual's experience of various facets of reality as equivalent to the experience of different worlds. The work of Goodman (1978, 1984) helps Bruner explain how different realities or different worlds are created by individuals and cultures. First, Bruner outlines briefly in his own terms the worlds we are all familiar with:

Most of what we deal with in the social world...could not exist but for a symbolic system that brings that world into existence: national or local loyalty, money, memberships, promises, political parties. The same can be said as well, though in somewhat different form, for the world of "nature", for our experience of nature is shaped by conceptions of it formed in discourse with others... the "reality" of most of us is constituted roughly into two spheres: that of nature and that of human affairs, the former more likely to be structured in the paradigmatic mode of logic and science, the latter in the mode of story and narrative. The latter is centered around the drama of human intentions and their vicissitudes: the first around the equally compelling, equally natural idea of causation. The subjective reality that constitutes an individual's sense of his world is roughly divided into a natural and a human one (Ibid., p.88).

In asking what psychological processes account for these two worlds of psychological reality Bruner says "The question is not whether two sets of processes produce two different worlds, but how any processes could produce the world constructions we find" (Ibid., p.89). To answer this question
Bruner turns to the philosophy of Nelson Goodman.

Nelson Goodman (1978, 1984) presents a constructivist philosophy, which is at one stroke a philosophy of science, a philosophy of art, and a philosophy of cognition. He calls it a philosophy of understanding:

Its central thesis "constructivism," is that contrary to common sense there is no unique "real world" that preexists and is independent of human mental activity and human symbolic language; that what we call the world is a product of some mind whose symbolic procedures construct the world (Ibid., p.95).

The world we live in, the world as it appears to us, is "created" by mind. The diverse and complex set of activities which comprise world making involves creating or "making not with hands but with minds, or rather with languages or other symbol systems" (Ways of Worldmaking, p.42 in Ibid., p.96). The worlds that artists, scientists, and ordinary people create are constructed, but always out of other worlds, created by others, which they take as given. We all create world's for various purposes, and we always base our constructed version on a previously constructed world which we have taken as given to suit our purposes (Ibid., p.96). "Any previously constructed world version may be taken as given for subsequent constructions. So, in effect, world making involves the transformation of worlds and world versions already made" (Ibid., p.97).

Bruner recognizes Goodman's work as a rationale for the processes of world making and world transformation which Bruner had come to feel were basic characteristics in the
development of the human mind and consciousness. He links his own ideas about the importance of recognizing the disciplines of science and the humanities as windows on the operations of mind and consciousness to Goodman's conceptions of world making as a way of demonstrating the role of consciousness in human development.

10. Mind, consciousness and world-making

If we take as "given that mind itself constructs scientific theories, historical explanations, or metaphoric renderings of experience by related forms of world making (Ibid., p.44), then our conception of both science and the humanities must be seen in an entirely new light. The significance of both science and the humanities is heightened as both:

...come to be appreciated as artful figments of men's minds as creations produced by different uses of mind. The world of Milton's "Paradise Lost" and the world of Newton's Principia exist not only in the minds of men; each has an existence in an "objective world" of culture—what the philosopher Karl Popper calls world Three. They are both, in the sense of modern modal logic, collections of possible worlds (Ibid., pp.44-45).

Bruner implies that it is of primary importance for humans to be aware of their potential for creating "possible worlds," their role in the construction of the worlds they live in, and their capacity to learn how the process of construction takes place:

...it is far more important, for appreciation the human condition, to understand the ways human beings construct their worlds...than it is to establish the ontological
status of the products of these processes. For my central ontological conviction is that there is no "aboriginal" reality against which one can compare a possible world in order to establish some form of correspondence between it and the real world (Ibid., p. 46).

Exploring the human capacity for world making; exploring how we create products of the mind, the worlds of reality in which we live, how we come to experience them as real, and how we manage to build them into our culture are Bruner's concern. Explicitly, Bruner states that such an exploration will give us a greater understanding of the human condition, and implicitly, he projects that this exploration will also yield understanding of how the human condition can be consciously guided towards constructive individual and cultural change. This section will investigate some of the factors which Bruner feels are the foundations for these explorations.

At the heart of our world making is the process of perception, which must be understood as involving more than a carbon copy of our ordinary sense impressions:

...Perception is to some unspecifiable degree an instrument of the world as we have structured it by our expectancies. Moreover, it is characteristic of complex perceptual processes that they tend where possible to assimilate whatever is seen or heard to what is expected (Ibid., p.47).

Thus perception, and ultimately our thought and language are guided by the worlds, the "models in the head," that we create. In most individuals these models or worlds "appear to be diverse, rich, local, and extraordinarily generative" (Ibid., p.47).

Bruner argues strongly that these "models in the head" are
based on general understanding, from which hypotheses can be generated from the particulars of past experience and then tested against future experience (Ibid., p.184). This idea echoes constructivist ideas of other theorists i.e., Kelly (1955), but Bruner goes on to connect this individual use of mind with its cultural reflections:

The great disciplines like physics or mathematics, or history, or dramatic forms in literature, were, in this view, less repositories of knowledge than of methods for the use of mind. They provided the structure that gave meaning to the particulars. That, after all, was what culture was about. The object of education was to get as swiftly as possible to that structure—to penetrate a subject, not to cover it (Ibid., pp.184-185).

Our personal worlds, our collections of "models in the head," are unique, but through language and culture we are able to some extent to share worlds and come to understand one another. We can understand how this process works by examining the culturally shared worlds of science and the humanities.

Science and the humanities are culturally shared "models in the head" or "possible worlds" which have a major effect on the way we see the world in which we live. They are, in effect, two very different forms of an illusion of reality based primarily on the two major modes of consciousness, the paradigmatic and the narrative modes, which use very different sets of methods to create those realities.

Science, is oriented outward towards an external world while the humanities are oriented inward toward a perspective and a point of view toward the world (Ibid., p.52). This orientation, or stance has a major bearing on the type of
world that is created:

...the humanist deals principally with the world as it changes with the position and stance of the viewer. Science creates a world that has an "existence" linked to the invariance of things and events across transformations in the life conditions of those who seek to understand—though modern physics has shown that this is true within very constrained limits. The humanities seek to understand the world as it reflects the requirements of living in it...(A work in the humanities) achieves universality through context sensitivity, a work of science through context independence (Ibid., p.50).

Bruner implies that the strength and importance of the humanities as methods of world making and consciousness creating lies in their implicit agenda, "the cultivation of hypotheses, the art of hypothesis generation" (Ibid., p.52). It is in hypothesis generation (in contrast to the scientific goal of hypothesis falsification) that "one cultivates multiple perspectives and possible worlds to match the requirements of those perspectives" (Ibid., p. 52). Bruner concludes that the "ornaments" of consciousness, the arts and humanities, are also tools:

For they, the works of art and the canonical cultural forms, are instruments for envisaging possibility communally. They are a means of continuing conversation by social means that can then be internalized in thought, in internal dialogue (Ibid., 1983, p.216).

It follows that the humanities open possibilities both for the individual and for the culture for "the object of understanding human events is to sense the alternativeness of human possibility" (Ibid., 1986, p 53). It is this conscious awareness of the alternativeness of human possibility, the awareness of the human capacity for world making, that may be
hypothesised to be a core concept for the understanding of learning involving changes in consciousness.

But the function of the humanities as tools of consciousness may even go beyond sensing the "alternativeness of human possibility;" the humanities may also be tools for transforming consciousness. Bruner (1979) explores the acts of creation that produce the humanities and the arts, and concludes that the production of "effective surprises" is integral to these acts of creation. "An act that produces effective surprise-this I shall take as the hallmark of a creative enterprise." (Ibid., 1979, p.18). Creation of effective surprise is often the result of connecting of diverse experiences by the mediation of symbol, metaphor and image. "Metaphoric combination leaps beyond systematic placement, explores connections that before were unsuspected" (Ibid., 1979, p.20). Bruner proposes "that all of the forms of effective surprise grow out of combinatorial activity-a placing of things in new perspectives" (Ibid., 1979, p. 20). "The triumph of effective surprise is that it takes one beyond common ways of experiencing the world...Creative products have this power of reordering experience and thought in their image" (Ibid, 1979, p.22).

Although Bruner (1979) does not make an explicit connection between changes in consciousness and the way a work of art creates "effective surprises" and places things in "new perspectives," later Bruner (1983) provides the connecting
link by proposing that "perhaps a work of art creates its magic by providing a vehicle for transforming, transmuting, rearranging consciousness?" (Ibid., 1983, p.203). The humanities and the arts may thus provide a means not only of understanding the processes of individual consciousness in its own right, but also the processes of sharing and transforming consciousness. A careful study of the arts and humanities under the guidance of this perspective may lead to a greater understanding of the individual process of transformative learning involving changes in consciousness. Perhaps it is possible to speculate that as the paradigmatic mode gave humanity power over nature, so too, the narrative mode can give humanity power in its own right, if we are willing to learn from it; the narrative mode may give humanity power over mind.

11. Developmental theory as culture

In what way does Bruner envision the power of the narrative mode to affect our understanding of, and our capacity to influence mind? His method is a parable about theories of human development, past, present, and possible future.

As an example of how created worlds become reality Bruner examines the developmental theories of Freud, Piaget and Vygotsky and their impact on our culture. The view of each theorist expresses a cultural posture:
Freud faces the present from the past: growth is by freeing. Piaget respects the inviolate integrity of the present: growth is the nurturing of intrinsic logic. And Vygotsky turns the cultural past into the generative present by which we reach toward the future: growth is reaching (Ibid., p.145).

Each of these theories was applicable in the culture which generated them. "Theories of human development, once accepted into the prevailing culture...give a social reality to the processes they seek to explicate (Ibid., p.134). Truth is dependent on context, on the reality of a created world, and therefore "...the truths of theories of development are relative to the cultural contexts in which they are applied" (Ibid., p. 135).

Humans develop according to the way in which their genetic inheritance and their cultural inheritance interact. Human culture and the human genome are the two paths on which instructions about how humans should grow are carried from one generation to the next. "Human culture simply provides ways of development among the many that are made possible by our plastic genetic inheritance" (Ibid., p.135).

The plasticity of human genetic endowment and the possibilities of cultural development have a major implication for theories of human development, and theories of learning involving the development of mind and consciousness:

For the impact of ideas about mind does not stem from their truth, but seemingly from the power they exert as possibilities embedded in the practices of a culture.... possibility when widely enough accepted is translated into necessity (Ibid., p.138).

Thus the power of ideas rests in their capacity to create
"possible worlds" which people and cultures may accept as part of their reality or as transformative seeds for the development of a new reality.

Bruner suggests that we need to create new possibilities for human development through the creation of a new breed of developmental theory. He has a vision of a "possible world" for human development and learning:

It will be motivated by the question of how to create a new generation that can prevent the world from dissolving into chaos and destroying itself. I think that its central technical concern will be how to create in the young an appreciation of the fact that many worlds are possible, that meaning and reality are created and not discovered, that negotiation is the art of constructing new meanings by which individuals can regulate their relations with each other. It will not, I think, be an image of human development that locates all of the sources of change inside the individual, the solo child...man, surely, is not "an island, entire of itself" but a part of the culture that he inherits and then recreates. The power to recreate reality, to reinvent culture, we will come to recognize, is where a theory of development must begin its discussion of mind (Ibid., p.149).

Although Bruner applies his vision to the development of the young, this developmental vision must equally be applied to the conception of adult learning. Bright visions of possible worlds can be created by adults who are consciously aware of their capacity to learn to transform their own consciousness and worlds. The process of transition to those worlds can be brought about much more quickly if the adults of a culture and the world first create the vision and the matching possible worlds as a bequest to their young.
12. Conclusion

Although he does not directly offer a theory of learning, the evolution of thought which could be applied to understanding learning as a transformative process is clear and strong in Bruner's work. This exploration of the development of his thought provides a broad theoretical approach to a concept of learning as a transformative process involving consciousness and changes in consciousness.

C. FREIRE: CONSCIENTIZATION

1. Introduction

Freire, a Brazilian philosopher-politician-educator, has developed a complex theoretical approach to learning in which changes of consciousness, and particularly the development of critical consciousness, are a central dynamic. Freire's theory of conscientization and his educational methodology were developed concurrently in his work with adult literacy education in Brazil (1947-1964) and later in Chile and elsewhere in the world.

Freire's life's work has been dedicated to improving the lot of the poor and uneducated by viewing education, primarily literacy education and education for critical consciousness, as a means of initiating social reform. His philosophy and educational theory has been developed out of an attempt to integrate Marxist and Christian principles. His contention is
that through conscientization the exploited and oppressed will become aware of themselves in their own reality and as a result of this awareness they will be able to become active agents in the creation and control of their own future. Freire's theories and methodology, based on this contention, have had world-wide impact on educational practices.

Although Freire formulates his ideas in terms of a philosophy and methodology of education, his conception of learning is clearly implied in these formulations. His ideal educational process reflects the learning process involved. A succinct account of the basic features of Freire's theory of education is not to be found in his writings. One must glean the gist of his thoughts on learning from his theories about the relationship of education and human consciousness, which are his main themes, from his writings as a whole. Even this task is made difficult by the fact that his meaning is often obscured by confusing rhetoric and a "convoluted, dull, overly metaphysical style, devoid of the real human experience which generated such provocative ideas" (Boston, in Grabowski, 1972, p.86). Nevertheless, his ideas about the relationship of learning and changes in consciousness have had powerful practical consequences and deserve close examination. An overview of Freire's ideas about learning in relation to changes in consciousness follows.

2. Philosophical assumptions
Freire's philosophy has been described as relating most closely to pragmatism, in his emphasis on viewing learning from within the perspective of the day-to-day problems of the learners; existentialism, in his view of people as capable of freedom in their encounter with reality; and humanism, in his concern for enabling people to become aware of and use their own power to "break through otherwise oppressive and debilitating barriers to life" (Farmer, in Grabowski, 1972, p.4). These philosophical roots are further augmented by Freire's attempt to integrate Marxist and Christian principles into his education theory and methodology.

Freire feels that the uniqueness of human existence lies in humanity's ability to separate self from the environment, and to communicate and relate across the gap, that the fact of separation creates, between self and others, and self and the world:

To be human is to engage in relationships with others and with the world. It is to experience that world as an objective reality, independent of oneself, capable of being known. Animals, submerged within reality, cannot relate to it; they are creatures of mere contacts. But man's separateness from and openness to the world distinguishes him as a being of relationships. Men, unlike animals, are not only in the world but with the world (Freire, 1973, p.3).

Freire's interpretation of existence is important to an understanding of the importance he gives to relationships in human existence:

As used here to exist is more than to live, because it is more than being in the world; it is to be with the world as well. And this capacity for communication between the being which exists and the objective world gives to
"existing" a quality of critical capacity not present in mere "living." Transcending, discerning, entering into dialogue (communicating and participating) are exclusively attributes of existence. One can only exist in relation to others who also exist, and in communication with them (Ibid., pp.3-4).

Humanity is free to use its power to form relationships in a multiplicity of ways:

...men are not limited to a single reaction pattern. They organize themselves, choose the best response, test themselves, act, and change in the very act of responding. They do all this consciously, as one uses a tool to deal with a problem (Ibid., p.3).

Thus, humanity consciously uses the power to build relationships as a tool in their interactions with the world.

In addition, "men relate to their world in a critical way" (Ibid., p.3). They understand objective reality through reflection and in this act of critical perception discover their own temporality and achieve a sense of their historical nature. "Transcending a single dimension, they reach back to yesterday, recognize today, and come upon tomorrow" (Ibid., p.3). Because humanity has the power to emerge from time, discover temporality, and free themselves from "today," they are able to be active and creative in their relationships with the world:

Because they are not limited to the natural (biological) sphere but participate in the creative dimension as well, men can intervene in reality in order to change it. Inheriting acquired experience, creating and re-creating, integrating themselves into their context, responding to its challenges, objectifying themselves, discerning, transcending, men enter into the domain which is theirs exclusively—that of History and of Culture (Ibid., p.4).

Freire implies two basic human modes of relating to the world,
integration and adaptation:

Integration with one's context, as distinguished from adaptation, is a distinctively human activity. Integration results from the capacity to adapt oneself to reality plus the critical capacity to make choices and to transform that reality...The integrated person is person as Subject. In contrast, the adaptive person is person as object, adaptation representing at most a weak form of self-defense. If man is incapable of changing reality, he adjusts himself instead. Adaptation is behaviors characteristic of the animal sphere; exhibited by man, it is symptomatic of his dehumanization. (Ibid., p. 4).

Throughout history people have struggled to attain their full humanity by working to overcome factors which encourage them to weaken their powers through accommodation and adjustment rather than extend their powers through integration.

As humanity relates to the world by responding to its challenges, they begin "to dynamize, to master, and to humanize reality. They add to it something of their own making, by giving temporal meaning to geographic space, by creating culture" (Ibid., p. 5). In relating with the world and with other humans, people create, re-create, and decide, and in doing so change reality and participate in the development of historical epochs (Ibid., p. 5).

An historical epoch is characterized by a series of values, concerns, attitudes and ways of being and behaving which are reflected in the themes and tasks of that epoch. Epochs are fulfilled to the degree that their themes are grasped and tasks solved and they are superceded when newly emerging concerns arise which demand the creation of new tasks and themes (Ibid., p. 5). Humanity plays a major role in this
Men play a crucial role in the fulfillment and in the superseding of the epochs. Whether or not men can perceive the epochal themes and above all, how they act upon the reality within which these themes are generated will largely determine their humanization or dehumanization, their affirmation as Subjects or their reduction as objects. For only as men grasp the themes can they intervene in reality instead of remaining mere onlookers. And only by developing a permanently critical attitude can men overcome a posture of adjustment in order to become integrated with the spirit of the times (Ibid., pp.5-6).

Freire believes that unfortunately humanity's critical response to the themes of the times are often blocked by the powerful force of myths and organized advertising, ideological or otherwise, that are created to manipulate and control individuals and groups. Individuals become spectators rather than actors; they lose their capacity for choice. "Ordinary men do not perceive the tasks of the time; the latter are interpreted by an "elite" and presented in the form of recipes, of prescriptions" (Ibid., p.6). Individuals who follow prescriptions become adjusted and dehumanized rather than integrated and humanized.

Freire implies that change and movement from one historical epoch to another is inevitable and that the way in which humanity copes with change is crucial to humanization. "If men are unable to perceive critically the themes of their time, and thus to intervene actively in reality, they are carried along in the wake of change" (Ibid., p.7). If individuals are submerged in the change and do not develop a flexible, critical spirit, which is the necessary tool for
participation in the change or transition between epochs, they will not be able to take an active part as society begins moving from one epoch to another:

Lacking such a spirit, men cannot perceive the marked contradictions which occur in society as emerging values in search of affirmation and fulfillment clash with earlier values seeking self-preservation. The time of epochal transition constitutes an historical-cultural "tidal wave." Contradictions increase between the ways of being, understanding, behaving, and valuing which belong to yesterday and other ways of perceiving and valuing which announce the future. As the contradictions deepen, the "tidal wave" becomes stronger and its climate increasingly emotional. This shock between a yesterday which is losing relevance but still seeking to survive, and a tomorrow which is gaining substance, characterizes the phase of transition as a time of announcement and a time of decision. Only, however, to the degree that the choices result from a critical perception of the contradictions are they real and capable of being transformed in action. Choice is illusory to the degree it represents the expectations of others (Ibid., p.7).

"While all transition involves change, not all change results in transition" (Ibid., p.7). Surface changes can occur within a single historical epoch but profound change, when old themes begin to lose their substance and significance and new themes emerge, heralds a transition to a new epoch:

The time of transition involves a rapid movement in search of new themes and new tasks. In such a phase man needs more than ever to be integrated with his reality. If he lacks the capacity to perceive the "mystery" of the changes, he will be a mere pawn at their mercy (Ibid., pp.7-8).

The transition phase is full of confusion and conflict as the new, emerging themes of the future grow in strength and clash with the entrenched, established themes of the old order:

As the link between one epoch in exhaustion and another gaining substance, the transition had aspects of
prolonging and conserving the old society at the same
time that it extended forward into the new society. The
new perceptions did not prevail easily or without
sacrifice: the old themes had to exhaust their validity
before they could give way to the new. Thus the dynamic
of transition involved the confusion of flux and reflux,
advances and retreats....the moment of transition belongs
much more to "tomorrow," to the new time it announces,
than it does to the old (Ibid., p.9).

Thus Freire defines humanity's progress in terms of people's
ability to actively, consciously take part in the creation and
transformation of reality, which he sees primarily in
historical and social terms. In this context humanity's
ability to participate actively in the inevitable transition
between historical epochs is crucial. Freire views the
development critical consciousness as essential to humanity's
ability to cope with transition, and thereby achieve
liberation and humanization. His focus is on the development
of consciousness in social groups involved in historical and
social process rather than individuals, although he recognizes
the importance of the development of individual consciousness
as integral to that process.

3. Education and consciousness

Freire feels that education has a crucial role to play in
the transitional phase in society. Freire's educational
methodology is based on his belief that people must learn how
to cope with societal transition if they are to reach toward
their own humanization. Moreover, learning must take the form
of a growing consciousness within individuals of their
potential for active choice within their own reality. Thus, for education, "The important thing is to help men (and nations) help themselves, to place them in consciously critical confrontation with their problems, to make them the agents of their own recuperation" (Ibid., p.16). Freire explains this process further:

What was needed was to go to the people and help them to enter the historical process critically. The prerequisite for this task was a form of education enabling the people to reflect on themselves, their responsibilities, and their role in the new cultural climate--indeed to reflect on their very power of reflection. The resulting development of this power would mean an increased capacity for choice. Such an education would take into the most serious account the various levels at which the Brazilian people perceived their reality as being of the greatest importance for the process of their humanization. Therein lay my own concern to analyze these historically and culturally conditioned levels of understanding (Ibid., pp.16-17).

Freire implies here that the various historically and culturally conditioned levels at which people perceive and understand their reality are variously effective as means of achieving full humanization. Therefore recognizing these levels of consciousness and assisting people to learn to make transitions towards higher levels of consciousness and understanding is education's primary task, the crucial aspect of learning.

4. Levels of consciousness

It is Freire's contention that societies, or rather groups of people within those societies, move through several levels of consciousness in the process of their development.
Freire describes in detail the major features of various levels of consciousness and resulting levels of understanding evident in society. On the first level individuals submerged in the historical process are characterized by a state of "semi-intrasitivity of consciousness." At this level of consciousness individuals "cannot apprehend problems situated outside their sphere of biological necessity. Their interests centre almost totally around survival, and they lack a sense of life on a more historic plane" (Ibid., p.17). The perception of individuals at this level is limited and they are:

...impermeable to challenges situated outside the sphere of biological necessity. In this sense only, semi-intransitivity represents a near disengagement between men and their existence. In this state, discernment is difficult. Men confuse their perceptions of the objects and challenges of the environment, and fall prey to magical explanations because they cannot apprehend true causality (Ibid., p.17).

The next stage in the development of consciousness is an "initial, predominantly naive, stage of transitive consciousness" (Ibid., p.18) called naive transitive consciousness. It is characterized by:

...an over-simplification of problems; by a nostalgia for the past; by underestimation of the common man; by a strong tendency to gregariousness; by a lack of interest in investigation, accompanied by an accentuated taste for fanciful explanations...Although men's horizons have expanded and they respond more openly to stimuli, these responses still have a magical quality. Naive transitivity is the consciousness of men who are still almost part of a mass, in whom the developing capacity for dialogue is still fragile and capable of distortion. If this consciousness does not progress to the stage of critical transitivity, it may be deflected by sectarian irrationality into fanaticism (Ibid., p.18).
Once the process of conscientization has begun, moving through the stage of naive transitive consciousness becomes critical because at this stage movement can "evolve toward critical transitivity, characteristic of a legitimately democratic mentality, or it can be deflected toward the debased, clearly dehumanized, fanaticized consciousness characteristic of massification" (Ibid., p.20). Massification is a state of consciousness in which people follow the prescriptions of others while believing that they are acting from their own choice (Ibid., p.20).

Transitive consciousness develops as individuals become more aware of themselves and their reality and their power to act on it. In the state of transitive consciousness people "amplify their power to perceive and respond to suggestions and questions arising in their context, and increase their capacity to enter into dialogue not only with other men but with their world" (Ibid. p.17). Individuals become permeable or open, and replace their disengagement from existence with almost total engagement. "Existence is a dynamic concept, implying eternal dialogue between man and man, between man and the world, between man and his Creator. It is this dialogue which makes of man an historical being" (Ibid., pp.17-18).

The level of consciousness which is Freire's educational goal is critically transitive consciousness, a state in which individuals recognize and act upon their capacity for genuine choice. Critical transitivity is expressed in "...highly
permeable, interrogative, restless and dialogical forms of life" (Ibid., pp.17-18). Freire describes this level of consciousness in more detail:

The critically transitive consciousness is characterized by depth in the interpretation of problems; by the substitution of causal principles for magical explanations; by the testing of one's "findings" and by openness to revision; by the attempt to avoid distortion when perceiving problems and to avoid preconceived notions when analyzing them; by refusing to transfer responsibility; by rejecting passive positions; by soundness of argumentation; by the practice of dialogue rather than polemics; by receptivity to the new for reasons beyond mere novelty and by the good sense not to reject the old just because it is old—by accepting what is valid in both old and new (Ibid., p.18).

Freire associates the active character of critical consciousness with "authentically democratic regimes" in contrast to the silence and inaction engendered by lower states of consciousness that mark rigid, authoritarian states (Ibid., p.18-19).

5. Consciousness and learning

There has been a gradual shift in Freire's writings in regards to the purposes of learning and education, from emphasis on transformation within to society to an emphasis on the revolutionary reconstruction of society, but common central ground has always been held by the idea of conscientization for critical consciousness, a radical learned change in consciousness.

Freire notes that while a certain amount of awakening of critical awareness is associated with economic progress and
increasingly complex forms of life, true critically transitive consciousness must be intentionally developed by the individual, usually with the aid of education specifically designed for that purpose. Critical consciousness is the:

...authentically critical position which a person must make his own by intervention in and integration with his own context. Conscientizaçao (conscientization) represents the development of the awakening of critical awareness. It will not appear as a natural byproduct of even major economic changes, but must grow out of a critical educational effort based on favorable historical conditions (Ibid., p.19).

Conscientization is the name Freire gives to the process whereby people move from less aware to more aware states of consciousness. Conscientization, "the process in which men, not as recipients, but as knowing subjects, achieve a deepening awareness both of the socio-cultural reality which shapes their lives and of their capacity to transform that reality," is for Freire the central concept in his theory of learning and the centerpiece of his methodology (Ibid., 1970a, p.27). Human consciousness, according to Freire, "stretches forward": it actively expresses intentionality or purpose. Only human beings have the capacity to objectify and reflect, and yet the common habitual human reaction to the world is non-reflective. If people are to fulfill their potential this non-reflective stance must be transcended by the process of conscientization into a state of critical reflective perception or critical consciousness.

Freire stresses the dialectical relationship between consciousness and the world, that is, between man and
the world. Education is never neutral: it either domesticates people, separates them from their world, and negates their power of refection or it liberates and humanizes them by helping them to be aware of their connection to the world and the liberating power of their consciousness to actively discover and invent the world (Freire in *Education on the Move*, 1975, p.75-76).

Learning through conscientization is not a solitary process. Moving towards a critical stance demands that people enter into relationship with others through dialogue to enable them to confront and understand their common reality. In Freire's methodology educators form a partnership with learners in "culture circles" to explore the learners concerns within their community and develop generative themes from the context of their every-day lives. In discussing these generative themes, crucial problems in the lives of the people are identified and clarified. These processes of problem-posing and dialogue promotes movement toward critical consciousness which focuses not only on objective external reality, but also on itself, in a form of self-reflection, becoming a "consciousness of consciousness." Critical consciousness makes it possible for people to become aware of the complexities of their situation, understand their place in it and plan to take action to change it. At this point praxis begins.

Praxis, "the action and refection of men upon their world
in order to transform it" (Ibid., 1970b, p.66) is a continuous
dynamic process based on the interaction of reflection and
action, which allows people to be aware of, understand, and
act upon their reality. Neither reflection or action have
transformative power when pursued on their own.
Conscientization, leading to increased awareness, only has the
power to liberate when coupled with radical and transforming
action on reality. The task of creating and transforming
reality through praxis makes the humanization and liberation
of people an actuality.

6. Conclusion

Freire's contribution to the idea of learning as a
transformative process involving changes in consciousness is
considerable. The relationship of human consciousness to
education and learning are his main themes. His theorizing
about conscientization, the transformation of human
consciousness through learning, is central to his view of
humanity's development towards humanization and liberation.
The creative and transformative power of human consciousness
in dealing with transition as a constant in social and
historical reality is, according to Freire, the key to man's
progress. Although Freire may be criticized for his convoluted
writing style, his work provides a rich and comprehensive fund
of related themes and ideas for those who have the patience to
mine them. All of these major themes contribute to a
conception of learning as a transformative process and these ideas begin to flesh out the categories for analysis in this study very quickly.

Confidence in Freire's theorizing is enhanced because it emerged over many years of experience in literacy education in various countries and therefore is amply grounded in practice.

Freire's conception of transformations in consciousness as central to learning is deeply rooted in an historical and social perspective which provides an excellent foil to more psychologically oriented theories; Freire's perspective emphasizes the importance of social, cultural and historical aspects of human learning in general, and, of transformative learning in particular.

D. KELLY: PERSONAL CONSTRUCT THEORY

1. Introduction

George Kelly was an American psychologist whose personal construct theory (1955) attracted relatively little attention when he first proposed it, but his influence has steadily grown and in recent years there has been a flourish of research activity and a concerted attempt to develop practical applications of his ideas (Bannister & Fransella, 1971, Adams-Weber & Mancuso, 1983, Thomas and Harri-Augstein, 1985). Kelly's personal construct theory is a comprehensive personality theory, in fact, "a theory of man" (Kelly, 1955,
p.182), encompassing all aspects of human psychological functioning. For the purposes of this literature review, Kelly's theory will not be discussed in detail, but the basic outline of the theory will be clarified along with an examination of the philosophical perspective which gives rise to the theory, and a discussion of material which is pertinent to the exploration of the emerging categories descriptive of transformative learning according to Kelly's perspective.

2. The role of learning, transformation, consciousness and changes in consciousness

It must be understood that while Kelly does not structure his theory of personal constructs around concepts labeled "learning" and "transformation" in relation to "consciousness" and "changes in consciousness", concepts of major importance in the emerging concept categories of this study, a strong case can be made for the integral importance of these concepts in the theory's assumptive structure. Although these concept labels are not specifically used by Kelly to explicate his theory, their preeminent presence is assumed or implied, and the theory and its supportive assumptive structure are useful tools for gaining clarity about these concepts. The theory of personal constructs is a comprehensive theory of man's psychological nature and as such can be used to gain a clearer understanding of these aspects of human functioning.

Although Kelly does not use the concept of learning
directly he is specific about the role of learning in the theory of personal constructs:

Learning is assumed to take place. It has been built into the assumptive structure of the system...Learning is not a special class of psychological processes: it is synonymous with any and all psychological processes. It is not something that happens to a person on occasion; it is what makes him a person in the first place (Ibid., p. 75).

And also:

The Experience Corollary has profound implications for our thinking about the topic of learning. When we accept the assumption that a person's construction system varies as he successively construes the replication of events, together with the antecedent assumption that the course of all psychological processes is plotted by one's construction of events, we have pretty well bracketed the topic of learning (Ibid., p. 75).

It is obvious that Kelly views learning as a cornerstone of the assumptive system of the theory of personal constructs. "One's construction of events", the formation of constructs, is assumed to be a learning process, and learning is clearly implicated in the function of construct systems.

Although "transformation" is not specifically mentioned in the theory of personal constructs, as a type of change it is implicit within the theory's assumptions as well:

Another important prior conviction is that the universe can be measured along a dimension of time. This is a way of saying that the universe is continually changing with respect to itself....within our universe something is always going on. In fact, that is the way the universe exists; it exists by happening (Ibid., p. 7).

And later:

...we propose to postulate a process as the point of departure for the formulation of a psychological theory. This the whole controversy as to what prods an inert organism into action becomes a dead issue. Instead, the
organism is delivered fresh into the psychological world alive and struggling (Ibid., p.37).

Therefore, having assumed that "the person is not an object which is temporarily in a moving state but is himself a form of motion" (Ibid., p.48), "transformation", as a type of change, can be considered to be a natural process in man, as characteristic of human consciousness as it is of any other aspect of the universe.

Kelly's intentions in regard to consciousness are less specifically stated, but no less clear: there is strong evidence throughout Kelly's discussion that consciousness, also, is built into the assumptive structure of the theory. In the introduction he notes that "each man contemplates in his own personal way the stream of events upon which he finds himself so swiftly borne" (Ibid., p.3) and further describes this stream in terms of William James' stream of consciousness (Ibid., pp.3-4). Later, he describes constructs as being "explicitly formulated or implicitly acted out, verbally expressed or utterly inarticulate...intellectually reasoned or vegetatively sensed" (Ibid., p. 9), a statement which implies a range, or series of levels, of consciousness within which man construes. In fact, Kelly stresses that the basis of perception in his theory "has been broadened to include "nonconscious" as well as "conscious" processes and the manner of perception has been cast in the form of constructs which include both conscious and nonconscious aspects (Ibid., p.175). "Construing is not to be confounded with verbal
formulation....Construing...is by no means limited to those experiences which people can talk about or those which they can think about privately" (Ibid., p.51). In spite of this recognition of the importance of nonconscious processes Kelly implies that man can learn to amplify the use of consciousness as an important tool for understanding the world:

...man's widening awareness of the universe as an orderly unfolding of events gave him increased capacity to predict and made his world more and more manageable...Man gradually discovered that he could lay a sight on the future through the experience of the past (Ibid., p.75).

And later, the construct system and the stream of consciousness are described in terms of each other, suggesting that they are closely related:

(There is an)...assumed necessity for seeking out the regnant construct system in order to explain the behaviour of men, rather than seeking merely to explain each bit of behaviour as a derivative of its immediately antecedent behaviour. If one is to understand the course of the stream of consciousness, he must do more than chart its headwaters; he must know the terrain through which it runs and the volume of the flood which may cut out new channels or erode old ones (Ibid., p.83).

Throughout Kelly's description of the theory of personal constructs there are many such examples of statements which imply the centrality of consciousness in human experience and in the assumptive structure of the theory of personal constructs. Indeed, in conclusion, he calls his theory "a disciplined psychology of the inner outlook" (Ibid., p.183).

It is clear that "learning", "transformation" and "consciousness" hold a preeminent position in the assumptive structure of the theory of personal constructs and that much
can be learning about these concepts and their relationships by pursuing the implications of Kelly's theory. With this in mind, a general discussion of the philosophical foundation and the assumptive structure of the theory of personal constructs follows.

3. Constructive alternativism

In the introduction to his theory of personal constructs, Kelly notes that while a sharp distinction is usually drawn between forms of thought (philosophy) and the actual thinking behaviour of people (psychology), he proposes a unique combination of both as a fruitful stance. Of his personality theory, the theory of personal constructs, he says: "As a philosophy it is rooted in the psychological observation of man. As a psychology it is concerned with the philosophical outlooks of individual man" (Ibid., p. 16). And he further elaborates:

...we have taken the basic view that whatever is characteristic of thought is descriptive of the thinker; that the essentials of scientific curiosity must underlie human curiosity in general. If we examine a person's philosophy closely, we find ourselves staring at the person himself. If we reach an understanding of how a person behaves, we discover it in the manner in which he represents his circumstances to himself (Ibid., p.16).

Combining these ideas within a historical perspective he sees human progress resulting, in large measure, from what might broadly be labeled "science" (Ibid., p.4) and man's capacity and tendency toward "scientific thought", which seeks to predict and control surrounding events (Ibid., p.43).
model of "man-the-scientist" (Ibid., p.4), as evocative of humanity's means of making progress, is implicitly dependent on humanity's success as "man-the-philosopher" (Ibid., p.16); man's behaviour, and the success of that behaviour as an approach to the world, is dependent on man's thought. On this foundation, a conception of the important interaction of philosophy, history, and psychology in man's development, Kelly builds the philosophical perspective of constructive alternativism as a basis for his theory of personal constructs.

The major tenets of constructive alternativism are the assumptions that in human terms "life involves the representation or construction of reality" (Kelly, 1955, p.8) and that "our present interpretations of the universe are subject to revision or replacement" (Ibid., p.15). In other words, life involves the construction and reconstruction of reality. Kelly best expresses what this stance means to the individual:

We take the stand that there are always some alternative constructions available to choose among in dealing with the world. No one needs to paint himself into a corner; no one needs to be completely hemmed in by circumstances; no one needs to be the victim of his biography. We call this philosophical position constructive alternativism (Ibid. p.15).

Within constructive alternativism Kelly views humanity from a perspective that acknowledges the interplay of historical and personal forces, but which emphasizes most strongly the personal forces, the power of individuals to structure and
restructure their own lives. The personal power of the individual is focused through Kelly's model of man, which is captured in the image of "man-the-scientist", whose ultimate aim is the prediction and control the events of his life (Ibid., pp.4-5). This aim is fulfilled through man's:

...creative capacity...to represent the environment, not merely to respond to it. Because he can represent his environment, he can place alternative constructions upon it and, indeed, do something about it if it doesn't suit him (Ibid. p.8).

Thus, man is conceived as essentially creative, active, and capable of choice in his ability to construct and reconstruct his own reality. Kelly's theory illuminates how man creates reality through the construction and reconstruction of personal constructs and construct systems.

4. A summary of the theory of personal constructs

A brief summary of Kelly's theory of personal constructs will serve as background to a discussion of constructs and construct systems:

a. Fundamental Postulate: A person's processes are psychologically channelized by the ways in which he anticipates events.
b. Construction Corollary: A person anticipates events by construing their replications.
c. Individuality Corollary: Persons differ from each other in their constructions of events.
d. Organization Corollary: Each person characteristically evolves, for his convenience in anticipating events, a construction system embracing ordinal relationships between constructs.
e. Dichotomy Corollary: A person's construction system is composed of a finite number of dichotomous constructs.
f. Choice Corollary: A person chooses for himself that alternative in a dichotomized construct through
which he anticipates the greater possibility for extension and definition of his system.

g. Range Corollary: A construct is convenient for the anticipation of a finite range of events only.

h. Experience Corollary: A person's construction system varies as he successively construes the replications of events.

i. Modulation Corollary: The variation in a person's construction system is limited by the permeability of the constructs within whose ranges of convenience the variants lie.

j. Fragmentation Corollary: A person may successively employ a variety of construction subsystems which are inferentially incompatible with each other.

k. Commonality Corollary: To the extent that one person employs a construction of experience which is similar to that employed by another, his psychological processes are similar to those of the other person.

l. Sociality Corollary: To the extent that one person construes the construction processes of another, he may play a role in a social process involving that other person (Ibid., pp.103-104).

An examination of some of the terms in the fundamental postulate, "a person's processes are psychologically channelized by the ways in which he anticipates events" (Ibid., p.47), and several other major terms from the corollaries, will assist in achieving a more specific understanding of constructs and construct systems.

A person, as a form of motion, is conceived to be constantly in a state of change or process and these processes are guided, controlled or "channelized", that is:

We conceive a person's processes as operating through a network of pathways rather than as fluttering about in a vast emptiness. The network is flexible and is frequently modified, but it is structured and it both facilitates and restricts a person's range of action (Ibid., p.49).

This network of pathways, which both facilitates and inhibits a person's movement, is the construct system.

"Ways" implies that the channels are established as a
means to ends. "They are laid down by the devices which a person invents in order to achieve a purpose" (Ibid., p.49). Thus, the process of forming the construct system is seen as being unique to the purposes of a particular individual.

"He" emphasises that the individual may choose to operate in a certain individualized manner. "Each person may erect and utilize different ways, and it is the way he chooses which channelises his processes" (Ibid., p.49).

"Anticipates" is the word that builds in the predictive and motivational features of the theory:

Like the prototype of the scientist that he is, man seeks prediction. His structured network of pathways leads toward the future so that he may anticipate it. This is the function it serves. Anticipation is both the push and pull of the psychology of personal constructs (Ibid., p.49).

The psychological processes of the individual are tied down, or connected to reality in that "Man ultimately seeks to anticipate real events" (Ibid., p.49):

Anticipation is not merely carried on for its own sake; it is carried on so that future reality may be better represented. It is the future which tantalizes man, not the past. Always he reaches out to the future through the window of the present (Ibid., p.49).

People reach towards the future in ways that reflect the uniqueness of their own construct systems:

In anticipating events "each person attunes his ear to the replicative themes he hears and each attunes his ear in a somewhat different way....it is his seeking to anticipate the whole world of events and thus relate himself to them that best explains his psychological processes. If he acts to preserve the system, it is because the system is an essential chart for his personal adventures ...(Ibid., p.59).
Therefore, individuals relate themselves to reality, to the
world, other people and themselves through the construct
systems they generate or construe. The construct system
becomes a personal chart or map for the anticipation,
exploration and understanding of reality. This construct
system map is realized through the process of construing:

Construing is a way of seeing events that makes them look
regular. By construing events it becomes possible to
anticipate them. To be effective, the construction system
itself must have some regularity. The palpable feature of
regularity is repetition, not mere repetition of
identical events...but repetition of some characteristic
which can be abstracted from each event and carried
intact across the bridge of time and space. To construe
is to hear the whisper of recurrent themes in the
events that reverberate around us (Ibid., p.76).

This element of repetition in the form of recurrent themes
contributes to another aspect of the process of construing,
that is, the ability to place an organizing structure or
framework on reality:

By construing we mean "placing an interpretation": a
person places an interpretation upon what is construed.
He erects a structure, within the framework of which the
substance takes shape or assumes meaning. The substance
which he construes does not produce the structure; the
person does....The structure which is erected by
construing is essentially abstractive, though the person
may be so limited in the abstraction that his construing
may, in effect, be relatively concretistic....In
construing, the person notes features in a series of
elements which characterize some of the elements and
are particularly uncharacteristic of others. Thus he
erects constructs of similarity and contrast. Both
the similarity and the contrast are inherent in the same
construct (Ibid., p.50).

This structure or framework which is generated during the
process of construing results in a system of constructs.

A construct is a "way in which some things are construed
as being alike and yet different from others" (Ibid., p.105).
The essence of the construct is formed by noting the relevant similarity and difference to be found within its range of convenience. The elements lying within the range of convenience (relevance) of the construct form its context (Ibid., p.108). In structuring reality in terms of similarities and differences:

Each construct represents a pair of rival hypothesis either of which may be applied to a new element which the person seeks to construe...Just as the experimental scientist designs his experiments around rival hypothesis, so each person designs his daily exploration of life around the rival hypothesis which are suggested by the contrasts in his construction system. Moreover, just as the scientist cannot foresee possibilities that he has not somehow conceptualized in terms of hypothesis so any individual can prove or disprove only that which his construction system tells him are the possible alternatives. Again, the construction system sets the limits beyond which it is impossible for him to perceive. His constructs are controls on his outlook (Ibid., p.129).

But while constructs set up limits and controls they also provide a basis for freedom of movement, choice and creativity:

One way to think of the construct is as a pathway of movement. The two-ended construct provides a person with a dichotomous choice, whether it be a choice in how he will perceive something or a choice in how he will act....The system of constructs which one established for himself represents the network of pathways along which he is free to move...When a person must move he is confronted with a series of dichotomous choices. Each choice is channelized by a construct. As he reconstrues himself he may either rattle around in his old slots or he may construct new pathways across areas which were not previously accessible (Ibid., p.128).

Not only is freedom of movement within the construct system possible, but freedom to reconstrue and create new constructs
in previously unknown territories of reality become possible as well.

It must be noted that this freedom of movement, made possible within and beyond present construct systems, in the construction of new constructs, is also freedom of movement and expression within a holistic view of the individual personality. The generation and operation of construct systems takes place within the realm of the whole individual, not just the intellect:

A large portion of human behaviour follows nameless channels which have no language symbols, nor any kinds of signpost whatsoever....The psychology of personal constructs is built upon an intellectual model, to be sure, but its application is not intended to be limited to that which is ordinarily called intellectual or cognitive. It is also taken to apply to that which is commonly called emotional or affective and to that which has to do with action or conation. The classical threefold division of psychology into cognition, affection, and conation has been completely abandoned in the psychology of personal constructs (Ibid., p.130).

Constructs and construct systems are of use in understanding the essential relationship of all aspects of human functioning, and in developing a perception of people as integrated, whole beings.

Having examined the basic parameters of constructs and construct systems, their inherent function in the lives of individuals will be explored.

5. Constructs and construct systems

Man's creative capacity is manifest in his ability to generate constructs and construct systems as a means of making
sense of his world, and as reference guides for his behaviour. A construct is a "representation of the universe" (the universe being "essentially a course of events") (Ibid., p.12), a recognition of a recurrent theme (Ibid., p.74), "a framework for making predictions" (Ibid., p.163), a "personal version of reality" (Ibid., p.135), or a way of construing the world (Ibid., p.9). The act of construing is an act of interpretation, and the resulting construct is a model, a theory, an interpretation or representation that must be tested against the reality of subsequent events.

Constructs are unique personal tools, created by the individual, and used in his effort to understand the world:

Man creates his own ways of seeing the world in which he lives; the world does not create them for him. He builds constructs and tries them on for size. His constructs are sometimes organized into systems...The same events can often be viewed in the light of two or more systems. Yet the events do not belong to any system. Moreover, man's practical systems have a particular foci and limited ranges of convenience (Ibid., p.12).

The neutrality of events, and the way the same event can be construed differently within different construction systems, can be seen in the variety of perspectives that academic disciplines, that is, shared, public construct systems, may place on the same event (Ibid., p.10). But, as is the case with public construct systems, man's personal construct systems tend to be designed primarily to fit limited realms of events (ranges of convenience), and have a limited application within those realms (foci of convenience) (Ibid., pp.10-12). Truth, the correspondence between the construct system and
reality, can only be established within a limited range which is dependent on the adequacy of the construct system (Ibid., p.11). Some constructs and construct systems are more adequate than others because they "support more precise and more accurate predictions about more events" (Ibid., p.15); that is, they have greater predictive efficiency in enabling man to anticipate events:

Thus construct systems can be considered as a kind of scanning pattern which a person continually projects upon his world. As he sweeps back and forth across his perceptual field he picks up blips of meaning. The more adequate his scanning pattern, the more meaningful his world becomes. The more in tune it is with the scanning patterns used by others, the more blips of meaning he can pick up from their projections. Viewed in this manner the psychology of personal constructs commits us to a projective view of all perception (Ibid., p.147).

The validity of the construct system continues to be tested as it is projected on reality, and changes to the system are considered in relation to their ability to enhance the anticipative capacity of the system. Kelly summarises how constructs are organized and used by the individual in this way:

The constructs which are hierarchically organized into systems are variously subject to test in terms of their usefulness in helping the person anticipate the course of events which make up the universe. The results of the testing of constructs determine the desirability of their temporary retention, their revision, or their immediate replacement. We assume that any system may, in proper time, have to be replaced (Ibid., p.44).

Man-the-scientist uses constructs and construct systems as tools for interpreting and exploring the world. Construct systems function like the scientist's theories, binding
together facts in an organized, comprehensible way which gives man the freedom to be active in testing the theory against the reality of the universe. So construct systems, scientific theories being one type of construct system, act like theories in allowing men "to play active roles in the shaping of events" (Ibid., p.19) in an active universe which is in itself an event.

6. Determinism and freedom

Just how free is man to play an active role in shaping the universe? Kelly's answer is that the extent to which man's actions are determined, and the extent to which he is a free agent, depends on entirely on the type of construct system he has created. Within a construct system, superordinate constructs have a deterministic relationship with subordinate constructs within their realm:

We are left with one important kind of determinism, the control of a superordinate construct over its elements ...an element does not determine the constructs which are used to subsume it...(Ibid., p.21).

Events are in themselves are not determined. Man places constructions on events and their status is determined by that construction. Many different constructions can be placed on the same events. The events do not subordinate our construction of them: "The structure we erect is what rules us" (Ibid., p.20).

...since determinism characterizes the control that a construct exercises over its subordinate elements, freedom characterizes its independence of those
elements...Determinism and freedom are opposite sides of the same coin--two aspects of the same relationship...Ultimately a man sets the measure of his own freedom and his own bondage by the level at which he chooses to establish his conviction (Ibid., pp.21-22).

Thus each individual is ultimately responsible for his own freedom or lack of freedom through his power to create and recreate his own construct system.

Man is free "to the extent that he is able to construe his circumstances, can find for himself freedom from their domination...man can enslave himself with his own ideas and then win his freedom again by reconstruing his life (Ibid., p.21).

7. Reconstruction, transformation, learning and experience

Because Kelly views both the world (the universe is a stream of events), and man (the stream of consciousness), as processes in which change, and transformation as a type of change, is constant, the reconstruction of construct systems is as important as their construction. The flow of changing events demands the constant reevaluation of current constructs and the development of new ones. Kelly outlines why reconstruction is essential:

The universe is real; it is happening all the time; it is integral; and it is open to piecemeal interpretation. Different men construe it in different ways. Since it owes no prior allegiance to any one man's construction system it is always open to reconstruction. Some of the alternative ways of construing are better adapted to man's purposes than are others. Thus, man comes to understand his world through an infinite series of successive approximations. Since man is always faced with constructive alternatives, which he may explore if he wishes, he need not continue indefinitely to be the absolute victim either of his past history or of his present circumstances (Ibid., p.43).
Since change or transformation is a constant in life events, man can best anticipate the world if he is willing to engage in a continuous process of reevaluation and reconstruction of his current construct system. Understanding, control, and richness in life experience result from the process of creating, and choosing from among alternative constructions.

In Kelly's view the act of creative reconstruction, learning and experience are very closely related, if not synonymous:

Things happen to us personally only when we behave in relation to them. But we have already committed ourselves to the position that psychological response is initially and basically the outcome of a construing act. Experience, therefore, in this system, must be defined as the compass of fact which has fallen within a man's purview. It is a set of personally construed events. To study a man's experience, then is to have a look at that upon which, rightly or wrongly, he has placed some construction....Experience is the extent of what we know--up to now. It is not necessarily valid....Knowing things is a way of letting them happen to us (Ibid., p.171).

Experience thus depends on man's continuous, active, creative efforts towards the reconstruction of his construct system; there is no human experience without the act of reconstruing. Kelly emphasizes this point:

Experience is made up of the successive construing of events...It is not what happens around him that makes a man experienced: it is the successive construing and reconstruing of what happens, as it happens, that enriches the experience of his life (Ibid., p.73).

And later he enlarges on the same idea:

...our experience is that portion of the universe which is happening to us--that is, which is successively construed by us--and the increase of experience is a function, not of the hodgepodge of events which we
have construed, or of the time spent in being aware of them, but of the successive revision of our construct system in the general direction of increased validity (Ibid., p.172).

Thus, an increase in experience results from a revision, change or transformation in the construct system, a process of reconstruction. A failure in the process of reconstruction by the individual is also a failure to increase experience and a failure to learn:

If he fails to reconstrue events, even though they keep repeating themselves, he minimizes his experience. The person who takes events for granted and who does not seek new light to throw upon them, adds very little to his store of experience as the years go on. Sometimes it is said that a person learns from experience. From the standpoint of the psychology of personal constructs, however, it is the learning which constitutes experience (Ibid., p.172).

Thus learning and experience are essentially connected; one defines the other, and both are realized through the process of reconstruction, which is essentially a process of change or transformation. Therefore, learning, experience and reconstruction are aspects of the same creative process of construing and reconstruing whereby man comes to know the world in which he lives.

8. Facilitating reconstruction

Kelly believed that the therapist's role was centered in trying to understand people's ways of viewing the world so that they could be helped to work out alternative ways of relating to others and their environment. He saw the therapist-client relationship as a partnership, the purpose of
which was to liberate clients by enabling them to escape from the imprisoning contradictions of their own views of life through the re-invention or reconstruction of their construct systems. He outlined this partnership in this way:

We see him (the client) approaching reality in the same ways that all of us have to approach it if we are to get anywhere. The methods range all the way from those of the artist to those of the scientist. Like them both and all the people in between, the client needs to assume that something can be created that is not already known or is not already there. In this undertaking the fortunate client has a partner, the psychotherapist. But the psychotherapist does not know the final answer either-so they face the problem together. Under the circumstances there is nothing for them to do except for both to inquire and both to risk occasional mistakes....(It is a) genuinely co-operative effort...a partnership. (Kelly, 1969, p.228).

In his role as partner Kelly helped people become aware of the structure of their construct systems and helped them to restructure dysfunctional or inadequate constructs; he devised several methods for facilitating this process. Two of these techniques were repertory grid technique and fixed role therapy.

Repertory grid technique was developed by Kelly as a flexible tool for measuring or assessing the unique dimensions of a person's construct system and the patterns of relationship between the constructs within it. The form and content of the repertory grid changed and developed as needed in its use as a mapping device to explore the unique psychological space of the individual. Its basic purpose was bringing into awareness the unique features and parameters of the individual's construct system.
Fixed role therapy was a method devised to allow clients to try out new constructs in a spirit of personal exploration and experiment. First, the therapist asked a client to write a self-characterization, a character sketch of himself written from the viewpoint of an intimate outsider, in order to find out how he viewed himself and his world. Next, the therapist examined the self-characterization and devised a fixed role sketch, a portrait of a person who was different in some limited desirable way from the self-characterization, as a means of developing new dimensions along which the client might see and be in his life. The client was asked to attempt to be, for a short period, the person in the fixed role sketch. The role became a hypothesis for the client to experiment with in consultation with the therapist, a possibility for him to experience, and a means of becoming aware that man is self-inventing and not necessarily trapped forever inside his own customary thought and behaviour (Bannister & Fransella, 1971, pp.133-134).

With the assistance of such techniques as the repertory grid and fixed role therapy Kelly helped people to become self-aware, that is, to be aware of their construct systems, and to learn to reconstruct them.

Kelly views reconstruction in terms of at least two processes, a shift in the elements of a construct within the context of that construct, a contextual shift, or building a new set of constructs to replace the old altogether, as in the
process of fixed role therapy (Ibid., p.150).

He describes the client as experiencing an initial "lift" as a result of the freeing effect of a contextual shift followed by possible confusion or a feeling of insecurity because "This is a freedom which he cannot use until he has a construction within which it (the shift) can operate in a way which will give him some preview of life" (Ibid., p.149). Obviously, the process of reconstruction, whether it be a contextual shift in a single construct or the building of a new set of constructs, requires the support of specific conditions for its success.

9. Conditions favorable to the formation of new constructs

Kelly advocated the introduction of fresh elements, an experimental atmosphere, and the availability of validating data as key issues in creating conditions favorable to the emergence of new constructs.

He felt that the formation of new constructs should be attempted from within the context of an insular, protected environment, not threateningly different from the person's usual life, but lacking that world's familiar complexities:

The (new) elements being relatively unbound by old constructs which would be seen as being incompatible with the new construct, do not involve the person with the old constructs until he has brought the new into a state of usefulness (Kelly, 1955, p.161).

This protected environment is necessary for the development, maturation, or "fleshing out" of new constructs; in such a
supportive atmosphere new constructs have a better opportunity
to gain the strength and definition necessary to achieve
integration into the construct system of the person.

Kelly also recommends the use of new verbal elements, for
example, in the form of stories, and the playing out of
artificial roles:

...as elements upon which to create new constructs which
in turn are later to have more vital meanings...The
patent artificiality of the role is the very feature
which prevents the tender shoots of new ideas from being
trampled in the frantic rush to maintain oneself in his
previous role (Ibid., p.162).

Kelly viewed an atmosphere of experimentation as
extremely important to the formation of new constructs:

...this means the shifting of construct grounds upon
which predictions are based and the checking of
validating experiences to see which anticipations have
corresponded to actual outcomes...It means that the
constructs are tried out in relative isolation from each
other: this corresponds to the scientist's use of
experimental controls....The atmosphere
of experimentation is one in which the consequences of one's
experimental acts are seen as limited. One does not
"play for keeps." Constructs in the true scientific
tradition are seen as "being tried on for size." They
are seen propositionally. In fact, the seeing of
constructs as proposed representations of reality rather
than the reality itself is propaedeutic to
experimentation (Ibid., p.163).

The client who was to form new constructs was encouraged
to try out new behaviors or to explore within a controlled
situation tentative constructions on an experimental basis.
The atmosphere for this exploration was also enhanced because the
"psychotherapy room is a protected laboratory where
hypotheses can be formulated, test-tube sized experiments can
be performed, field trials planned, and outcomes evaluated.
The availability of validating data is also an important condition for the formation of new concepts according to Kelly:

A construct is a framework for making predictions. If it does not work, there is a tendency to alter it—within the more permeable aspects of the construction system of course. If returns on the prediction are unavailable or unduly delayed one is likely to postpone changing the construct under which the prediction was made (Kelly, 1955, p.163).

Kelly points out that the saying "knowledge of results facilitates learning" must be carefully interpreted because the experimenter and the subject in the learning experiment may not see the same things as results (Ibid., p.163).

Rather than throwing the emphasis upon knowledge of preconceived results, we have chosen to throw the emphasis upon availability of results in general as a facilitating condition for the formation of new constructs. In this manner the subject is permitted to phase his experience in different ways (Ibid., p.164).

The therapist must skillfully monitor the learning process and respond to the individual's need for validating data:

The clinician needs to be continually alert as to what constructs are being "tried on" and try to govern the availability of data in terms of what is relevant to the construct actually being used (Ibid., p.164).

Kelly felt that role-playing was also effective because it was an excellent way of enabling the client to try out new constructs while having immediate access to validating material. Role-playing could be used to rehearse ways of being and receive a preliminary round of validating data before
trying those ways of being in other less controlled situations (Ibid., p. 165).

The advantage of the therapeutic situation was that the client could be given an opportunity, which is not normally available, to receive validating data in response to a wide variety of experimental constructions, and in this way the capacity to learn through the incorporation of new constructs was greatly enhanced. The therapeutic situation:

...involves a careful prior analysis of the client's personal constructs and an opportunity for him to work them out in explicit forms. Again, it must be a way of giving the right answers to the right questions rather than the literal answers to the wrong questions (Ibid., p. 165).

10. Conditions unfavorable to formation of new constructs

Conditions of threat, preoccupation with old material and lack of a "laboratory" in which to experiment are conditions that inhibit the formation of new constructs according to Kelly. If individuals feel highly threatened it is unlikely that they can form new constructs. A new construct is threatening in relation to the higher constructs within the system in which it is to be incorporated. The interpretation within the individual construct system which makes a new construct threatening may not appear serious to someone else but "Its mere incompatibility with the construction system upon which one leans heavily in any way may make its elements threatening" (Ibid., p. 167).

When people are insistent on constructing elements in
such a way as to make them threatening they do so because of the inherent nature of constructs themselves:

One maintains his construct system by clarifying it...This means...that one controls his system by maintaining a clear identification of the elements which the system excludes as well as those which it includes. The moment one finds himself becoming involved in any way with the excluded elements of his system, he becomes aware of the onset of incompatibility and sees these new clutching associations as threats. Like a wounded animal, he keeps facing his enemy (Ibid., p.167).

Severe threat may traumatize or immobilize individuals, freezing them in ineffective modes of behaviour or throwing them back upon older and more infantile construction of life; in such situations individuals may also find proof of those primitive constructions in the experience (Ibid., p.168).

Preoccupation with old material can also hamper the development of new constructs. Old or familiar material:

...tends to be fixed in place by old and childlike constructs: it is only as we let the client interweave it with new and adult material that he starts bringing his constructs up to date. The interlarding of new material with the old calls for new sorting of old material into new categories that will fit both the old and the new material (Ibid., p.168).

Old material in the form of a habit, "a construct in a state of inoperative impermeability" (Ibid., p. 168), can free individuals to try new ways of being, by anchoring them in the familiar and giving them a margin of safety, but habit may also freeze the construct system and prevent the incorporation of new constructs:

A habit may be considered as a convenient kind of stupidity which leaves a person free to act intelligently elsewhere. Whether he takes advantage of the opportunity or not is another question. Some people fail to seize the
advantages offered them by their stupidity (Ibid., p.169).

Kelly also emphasizes that new constructs are not formed when one lacks a laboratory in which to try them out:

A laboratory is a situation in which there is present for the person to re-sort, a sufficient amount of the stuff out of which new constructs can be formed. (For instance) It is difficult to form new social concepts out of situations which are barren of social relationships (Ibid., p.169).

A laboratory also provides convenient insulation from other variables, the complexities of which might swamp or overwhelm the person who is trying to form new constructs; "...a person who is completely and continually involved in the ultimate consequences of his acts is in no position to experiment with new ideas" (Ibid., p.170). "A laboratory...permits a person to explore in a limited sphere. The bang that results from some of his inadvertent mixtures need not blow up his world" (Ibid., p.170).

11. Barriers to reconstruction

In spite of Kelly's optimistic outlook on man's capabilities in the construction and reconstruction of reality, there are many barriers to the full development of these capabilities in the individual. In a sense, personal construct theory is a recognition of the problematic nature of the processes of construction and reconstruction and an attempt to understand these processes well enough to attempt to remove the barriers which hamper the development of
individuals to their full potential:

The focus of convenience which we have chosen for our own theory-building efforts is the psychological reconstruction of life. We are concerned with finding better ways to help a person reconstrue his life so that he need not be the victim of his past (Ibid., p.23).

Many of these barriers arise from the essential nature of the construct system and the construing process. Constructs and construct systems are real and they are real in their effects. "Man looks at his world through transparent patterns or templets which he created and then attempts to fit over the realities of which the world is composed" (Ibid., p.9). These constructs (patterns or templets) limit the field of vision and if they do not adequately fit reality they may block the progress of the individual. The adequacy of constructs and construct systems depends in part on characteristics such as comprehensiveness, structural integration, range and flexibility. Especially important for purposes of reconstruction is their relative degree of permeability or impermeability. Permeability refers to the capacity of a construct or construct system to embrace new elements (Ibid., p.80). Permeability is the quality of plasticity, resiliency or adaptability which allows for ease in the process of change, whether modification or transformation, within a construct system:

A person who approaches his world with a repertory of impermeable constructs is likely to find his system unworkable through the wider expanses of events. He will, therefore, tend to constrict his experience to the narrower ranges which he is prepared to understand. On
the other hand, if he is prepared to perceive events in new ways, he may accumulate experience rapidly. It is this adaptability which provides a more direct measure of the growing validity of a man's construct system than does the amount of time he consumes in swatting at the events which buzz around his ears (Ibid., p.172).

Therefore, the quality of the construct system has a major bearing on the possibility for, and the success of, the process of reconstruction.

Reconstruction can be hampered in other ways as well. A major barrier to reconstruction may be the fact that man is not necessarily aware of, or "articulate about the constructions he places upon his world....Thus, in studying the psychology of man-the-philosopher we must take into account his subverbal patterns of representation and construction" (Ibid., p.16). The implication here is that awareness of the structure and contents of the individual construct system can be of immense value for the process of reconstruction; awareness allows for planned, consistent effort in a chosen direction rather than a haphazard natural process which may or may not be consistent with individual goals.

Furthermore, a person may be reluctant to express or test his constructs (Ibid., p.14). Testing and reconstruction of a construct or construct system is not without risk, which an individual may not be prepared to accept:

In seeking improvement he is repeatedly halted by the damage to the system that apparently will result from the alteration of a subordinate construct. Frequently his personal investment in the larger system, or his personal dependence upon it, is so great that he will forego the
adoption of a more precise construct in the substructure. It may take a major act of psycho-therapy or experience to get him to adjust his construction system to the point where the new and more precise construct can be incorporated (Ibid., p.9).

Furthermore, the framework provided by an individual's construct system may not be adequate to the task of further development in particular ways, at a particular time:

Our position is that even the changes which a person attempts within himself must be construed by him. The new outlook which a person gains from experience is itself an event; and, being an event in his life, it needs to be construed by him if he is to make any sense out of it. Indeed, he cannot even attain the new outlook in the first place unless there is some comprehensive overview within which it can be construed....one does not learn certain things merely from the nature of the stimuli which play upon him; he learns only what his framework is designed to permit him to see in the stimuli (Ibid., p.79).

This passage has extremely important implications for the educator. It implies that individuals must pass through some sort of developmental stages or phases in the construction of their construct systems before certain types of experience, learning and restructuring are possible; the limits of narrow construct systems must be pushed back to allow for positive growth and change. It also implies that individuals may not be capable of pushing back these limits without assistance from someone who is able to help them become aware of their own construct systems, and their own power to take some sort of conscious control of their development. It is here that the educator, as well as the therapist, must recognize the challenge and the invitation offered by Kelly's theory of personal constructs.
In the light of the barriers to reconstruction which have been discussed it is possible to criticize Kelly for being too optimistic about man's potential for prediction and control of the events of his life. Kelly's optimism about man's potential is expressed in the belief that:

The direction of his movement, hence his motivation, is toward better understanding of what will happen...our lives are wholly oriented toward the anticipation of events. The person moves out toward making more and more of the world predictable and not ordinarily does he withdraw more and more into a predictable world (Ibid., p.157).

It can be argued that Kelly's own evidence about the barriers to reconstruction would refute the claim that man does not "ordinarily" retreat into a predictable world. Nevertheless, he makes a strong case for the advantages for man in being willing to take the risk of moving out towards a better understanding of his world. As man-the-scientist is willing to engage in the recreation of his construct systems, his theories of the world, he gains freedom and control.

Theories are the thinking of men who seek freedom amid swirling events. The theories comprise prior assumptions about certain realms of these events. To the extent that the events may, from these prior assumptions, be construed, predicted, and their relative courses charted, men may exercise control, and gain freedom for themselves in the process (Ibid., p.22).

In taking that risk man is likely to be able to create for himself a construct system which becomes increasingly useful:

The man whose prior convictions encompass a broad perspective, and are cast in terms of principles rather than rules, has a much better chance of discovering those alternatives which will lead eventually to his emancipation (Ibid., p.22).
Kelly would say that success and fulfillment for humanity, both individually and collectively, rests on the willingness of individuals to continue to take that risk.

12. Conclusion

Kelly's theory of personal constructs is a well developed and carefully integrated theory which unfolds at a high level of abstraction. He writes with clarity and style about its application and relevance to the understanding of both the everyday life of ordinary people and the progress of humanity. His work has inspired research and the practical application of his ideas in many different areas of human endeavour. Above all, his emphasis on the transformative powers of the human mind in the construction and reconstruction of construct systems, and the importance of self-awareness in developing those powers, make his writings a prolific source of ideas related to the conception of transformative learning.

E. MEZIROW: PERSPECTIVE TRANSFORMATION

1. Introduction

Perspective transformation, a form of change in consciousness, is the core concept around which Mezirow (1978, 1981, 1985a, 1985b, 1988) has organized his view of adult development and adult learning. It is the heart of his
critical theory of adult learning and education. In his early formulation of the concept (1978), the work of Kuhn (1962), Freire (1970), consciousness raising phenomena in social action movements such as the women's movement and the civil rights movement, and his own research with women in college re-entry programs (Mezirow, 1975) were strong influences. Later, (1981, 1985a, 1985b, 1985c, 1986, 1988) psychologists such as Kelly (1955), Rogers (1978), and Bruner (1973), sociologists such as Berger and Luckmann (1966) and European critical social theorists, particularly Jurgen Habermas (1971), have had increasing influence on the development of his thought. His theorizing, thus grounded in his own research program and a broad spectrum of current thought in the social sciences, both European and North American, is fertile ground for the exploration of the emerging categories centering on learning involving changes in consciousness; an overview of his thought in relation to this growing understanding of transformative learning follows.

2. Meaning schemes and perspectives in relation to human development

During the course of their development children are socialized into ways of perceiving reality through meaning schemes and perspectives (cognitive structures) that are uncritically assimilated from people who are significant in their lives. These meaning schemes and perspectives are
influenced by a psychological force-field, which includes all the unique features of biography, culture, language, and historical time and place, in which these children live. Therefore, the way people come to construe themselves and their reality as adults depends on the psycho-cultural force-field in which they grew up (Mezirow, 1985c, pp. 1-2).

These uncritically acquired meaning schemes operate unconsciously, outside awareness, to determine how people perceive and what they perceive:

We use our repertoire of meaning schemes to classify objects and events so that what comes into awareness is, in reality, only a selectively interpreted version of what we perceive (Ibid., p.2).

Meaning schemes organize and control peoples' anticipations or expectations and these "tend to become self-fulfilling prophesies" (Ibid., p.4). People's experience tends to match what they anticipate and expect because new experience is interpreted in the context of their existing meaning schemes; "Meaning schemes and perspectives are structures of psycho-cultural assumptions within which our past experience assimilates and transforms new experience" (Ibid., p.4). Thus, the way in which people experience reality in the present is controlled by their particular structure of meaning schemes and perspectives, which are a reflection of how they have experienced reality in the past.

People undergo developmental transformations in their cognitive structures as they acquire new meaning schemes and differentiate and extend old ones. In childhood, these
developmental transformations usually progress unconsciously, outside of awareness, under the influence of physical maturation and the socialization process (Ibid., p.5). Because these meaning structures are assimilated and developmentally transformed unconsciously and uncritically, they may be untrustworthy, distorted, limited and dysfunctional depending on the individual's particular history and biography.

In adulthood, the capability to bring these unconsciously assimilated structures into consciousness, examine them critically, and transform them, can be developed:

In adulthood, a new dimension of development makes it possible for us to extend our understanding and sense of agency by bringing into awareness the meaning schemes and perspectives uncritically acquired in childhood in order to critically analyze and validate them. This is what is unique about adult learning and therefore of central significance for adult education (Ibid., pp.5-6).

This unique adult learning process is called perspective transformation. To understand the concept of perspective transformation Mezirow's general approach to learning must be understood.

3. Learning domains and learning processes
   a. Learning domains

   Mezirow encourages a multi-dimensional conception of learning. Basing his ideas on Habermas'(1971) theory of knowledge development, he theorizes that there are three distinct but interrelated learning domains. Habermas suggests that knowledge is developed according to three primary
cognitive interests, the technical, the practical and the emancipatory, which are grounded in three different aspects of social existence—work, interaction and power (Mezirow, 1981, p.4). These knowledge generating areas of human interest:

...are "knowledge constitutive" because they determine categories relevant to what we interpret as knowledge. They also determine the mode of discovering knowledge and for establishing whether knowledge claims are warranted (Ibid., pp.4-5).

These three modes of knowing suggest that there are three different domains of learning, each with its own appropriate mode of inquiry, educational strategy and learning goals.

The first learning domain deals with technical interests grounded in the world of work and involves instrumental action for the prediction, control and manipulation of the environment through the empirical-analytic sciences. The second domain deals with practical interests grounded in social and communicative interaction and explored through the historical-hermeneutic sciences, the sciences of interpretation and explanation, with the goal of learning for interpersonal understanding. The third domain deals with emancipatory interests grounded in power relationships, explored through the critical social sciences with the goal of learning for perspective transformation:

This involves an interest in self-knowledge, that is the knowledge of self-reflection, including interest in the way one's history and biography has expressed itself in the way one sees oneself, one's roles and social expectations. Emancipation is from libidinal, institutional or environmental forces which limit our options and rational control over our lives but have been taken for granted as beyond human control.
Insights gained through critical self-awareness are emancipatory in the sense that at least one can recognize the correct reasons for his or her problems (Ibid., p.5).

The mode of inquiry inherent in the critical social sciences is critique. This critique is focused on ideologies, the belief systems that shape a group's interpretation of reality and are used to justify and legitimize action:

Critical theorists hold, with Marx, that one must become critically conscious of how an ideology reflects and distorts moral, social and political reality and what material and psychological factors influence and sustain the false consciousness which it represents—especially reified powers of domination (Ibid., p.6).

Nonreflective or false consciousness must be transformed into critical consciousness for emancipation to take place. Mezirow believes that critical consciousness or awareness makes dramatic personal and social change possible, but not inevitable; transformed consciousness does not automatically lead to action based on that consciousness. Rather, learning for emancipatory action serves the purpose of providing learners with clear understanding of their historical situation, whether or not they choose or are able to act on that understanding. Mezirow equates emancipatory learning with his own concept of perspective transformation (Ibid., p.6).

b. Learning processes

Mezirow describes three learning processes which each operate in all three learning domains. The first is learning within meaning schemes by differentiation and elaboration of knowledge. The second process involves the incorporation of
new meaning schemes which are "sufficiently consistent and compatible with existing meaning schemes to complement them within a prevailing or emerging meaning perspective (Ibid., 1985c, p.11). The third process is learning through meaning transformation, that is, becoming aware of specific assumptions upon which a meaning scheme is based and through a reorganization or reframing of meaning achieving a new synthesis, a transformation. (Ibid., pp.11-12).

4. Meaning schemes and meaning perspectives: Definition and development

a. Definition

To understand the process of learning through perspective transformation one must understand a web of interrelated concepts, the most central being the concepts of meaning scheme and meaning perspective. According to Mezirow (1988) meaning schemes and meaning perspectives are the "boundary structures" which selectively order and delimit our learning by setting up habits of expectation which control our perceiving, comprehending and remembering. Meaning is created as experience is construed through these culturally assimilated meaning schemes and perspectives that constitute our "horizons of expectation" (p.223).

Although meaning perspective is the broader term used throughout his writing; Mezirow conceives of meaning schemes as smaller sub-sets of related expectations within a meaning
perspective. Meaning schemes are "rules and principles of strategy" or "sets of related and habitual expectations governing if-then, cause-effect and category relationships as well as event sequences, goal orientations and prototypes" (Ibid., 1988, p.226).

Mezirow defines meaning perspectives in several different but related ways. He claims that a meaning perspective is not simply a cognitive structure (Ibid., 1985c, p.4) but "an integrated psychological structure with dimensions of thought, feeling and will" (Ibid., 1978, p.108). Mezirow defines meaning perspective as "an orienting frame of reference made up of sets of schemes, theories, propositions, beliefs and evaluations" (Ibid., 1988, p.223), or "the structure of psycho-cultural assumptions within which new experience is assimilated and transformed by one's past experience" (Ibid., 1981, p.6), or "a form of consciousness involving a particular constellation of beliefs, attitudes, dispositions, etc." (Ibid., 1985b, p.145). Our meaning perspective is a personal paradigm that positions us for action, defines our expectations, and selectively orders what we learn and the way we learn it (Ibid., 1985a, p.22). Our meaning perspective is thus the meaning structure or meaning system which provides a consistent, coherent pattern on which we base our approach to life.

b. Development

Mezirow calls on evidence from the work of Bruner and
Kelly to confirm his conception of several factors as being essential to the understanding of the development of perspectives. He agrees that perspectives are constitutive of experience; that is, they create or generate experience. Human experience is brought into being through language which builds up linguistically circumscribed or organized areas of meaning, that is, meaning perspectives (Ibid., 1981, p.14).

Reality is constructive in nature and people attempt to improve their ability to anticipate reality by developing personal category systems which influence their perceptions. "We construct a model of the world with our system of categories, come to expect certain relationships and behaviors to occur and then experience our categories (Ibid., p.15).

Personal category systems, perspectives, depend heavily on symbolic representation, primarily language, for their development. In the course of human intellectual development, the emergence of the capacity for symbolic representation permitted:

...representations not only of what is but also of what is not and what might be. This requires the development of self-consciousness which permits one to make the crucial distinction between one's own psychological reactions and external events. This self-awareness is a precondition for developing the capacity to categorize the same stimuli according to several different criteria or points of view. Through symbolic representation one can dialogue with oneself, and, in imagination, construct the perspective of the other person. Perspective taking then becomes an indispensable heuristic for higher level cognitive and personality development (Ibid., p.15).

This being so, Mezirow is concerned that although culture can either inhibit or facilitate the development of self-
consciousness and ability to make symbolic representations, frequently cultures have a negative effect on the development of these abilities and thus on general human development (Ibid., p.15).

Cultures vary in the degree to which they encourage the cultivation of individual subjectivity, self-conscious, or self-awareness. Self-awareness is necessary to the development of the ability to decentrate (to analyze things in the world from a perspective other than one's personal or local perspective), and decontextualize (to conceive of information as independent of the speaker's point of view), which are essential to perspective taking (Ibid., 1981, pp.15-16). Perspective taking, taking the perspective of others "is the mechanism by which transformation occurs" (Ibid., 1978, p.104). Perspective taking is more than role taking; it also implies "a conscious recognition of the difference between one's old viewpoint and the new one and a decision to appropriate the newer perspective as being of more value" (Ibid., p.105). Although Mezirow does not make the connections directly, this implies two things: that the ability for perspective taking is not universally developed and that the capacity for perspective taking is essential to perspective transformation; one cannot transform a perspective easily if one is not aware of taking a perspective.

Mezirow is also concerned about the limiting nature of perspectives, which he defines in terms of Kelly's (1955)
constructs:

Constructs control one's outlook. Kelly believes that even human behaviour which has no language symbols nevertheless is psychologically channeled. Perspectives are systems of such constructs involving what Polanyi refers to as "tacit knowing," unformulated knowledge such as that we have of a problem we are attempting to solve as distinct from explicity formulated knowledge of which we can become critically reflective (Ibid., 1981, p.16).

This acknowledges that much of the meaning system, whether thought of in terms of a construct system or a meaning perspective, operates not only outside language but unconsciously, outside of awareness. Mezirow agrees with Kelly that bringing what is outside awareness into consciousness is important as a means of allowing individuals to gain insight into, and some measure of control over their personal meaning systems.

Mezirow suggests that being aware of the limiting factors inherent in culture and language and in the nature of perspectives themselves, is the first step towards transcending those limits through perspective transformation. According to Mezirow, learning to become aware, that is, learning to access powers of awareness or consciousness, is a matter of developing the capacity for critical reflectivity.

5. Critical reflectivity

Mezirow equates self-consciousness, self-awareness, and reflectivity, and acknowledges their primary role in perspective transformation. He divides self-awareness into two
dimensions, consciousness and critical consciousness, each of which contains several levels of reflectivity.

The first dimension, consciousness, is divided into four levels of reflectivity. The general act of reflectivity is becoming aware of our own specific perception, meaning or behaviour or of our habits of seeing, thinking or acting. Affective reflectivity is becoming aware of how we feel about the way we are perceiving, thinking or acting or about our habits of doing so. Discriminant reflectivity refers to the process of assessing the efficacy of our habits of perceiving, thinking, and acting; identifying immediate causes; recognizing reality contexts (dreaming, awake, watching a play etc.) in which we are functioning and identifying our relationships in the situation. Judgmental reflectivity involves making and becoming aware of our value judgments about our perceptions, thoughts, actions and habits (Ibid., 1981, p.12).

In introducing the second dimension of consciousness, Mezirow points out that perspective transformation goes beyond the concept of "meta-learning" (Maudsley, 1979), which involves becoming aware of, and increasingly in control of habits of perception, thought, and action; he equates this type of awareness with the basic reflectivity of his first dimension of consciousness. Mezirow claims that critical reflectivity, the second dimension of consciousness, goes beyond this basic awareness. Critical reflectivity, which is at the core of
perspective transformation, involves becoming critically aware not only of habits of perception, thought and action but of the reasons why we have these habits, "the cultural assumptions governing these rules, roles, conventions and social expectations which dictate the way we see, think, feel and act" (Mezirow, 1981, p.13).

Critical reflectivity is a special type of self-awareness which plays a crucial role in perspective transformation and therefore in adult learning. It is an "awareness of why we attach the meanings we do to reality" (Ibid., p.11). Critical reflectivity, critical awareness or critical consciousness are all terms Mezirow uses to describe this process of critical self-reflection, that is "becoming aware of our awareness and critiquing it" (Ibid., p.13). These concepts include acts of self-reflection under the categories of conceptual reflectivity (reflection on the adequacy of our concepts), psychic reflectivity (reflection on our habits of thought or conceptualization), and theoretical reflectivity (becoming aware of the reasons for our habits of thought, or for conceptual inadequacy in our set of taken-for-granted cultural or psychological assumptions, and realizing that another perspective with more functional criteria may explain personal experience more satisfactorily) (Ibid., p.13).

The modes of reflectivity, including both consciousness and critical consciousness, are organized so that each level incorporates the preceding levels within its own sphere, with
theoretical reflectivity being the most inclusive and therefore the most powerful. Mezirow believes that the capacity for theoretical reflectivity is not usually developed until adulthood, if at all, but he implies that it is worth achieving, because it endows people with the power to see their world from many different points of view, to be truly aware of context:

In adulthood, the reasons for principles are more likely to be sought through critical examination of broad paradigmatic (instrumental learning), ideological (dialogic learning), or psychodynamic (self-reflective learning) contexts. As we age, we can become more attentive to context and more critically reflective of meanings taken for granted that at an earlier age we perceived as context-independent (Ibid., 1985a, p.25).

Although the degree to which the modes of reflectivity are age-related is unknown, Mezirow claims that:

...critical consciousness—and particularly theoretical reflectivity—represents a uniquely adult capacity and, as such, becomes realized through perspective transformation. Perspective transformation becomes a major learning domain and the uniquely adult learning function (Ibid., 1981, p.13).

6. Perspective transformation

In meeting the changes and challenges of life, meaning schemes, as minor sub-sections of the total meaning structure, are often changed and modified without disturbing or threatening the stability of the all-encompassing meaning structure, the meaning perspective. "Although the transformation of meaning schemes is an everyday occurrence, the transformation of a meaning perspective is not" (Ibid.,
Perspective transformation is a learning process in response to life's challenges which involves a re-framing or metamorphosis of an individual's entire meaning structure. This transformation of the existing meaning perspective which results in a new way of seeing and being in the world, a new sense of reality, a new meaning perspective. Perspective transformation can take place on a personal, group or collective basis (Ibid., p.226) and is defined as:

...the emancipatory process of becoming critically aware of how and why the structure of psycho-cultural assumptions has come to constrain the way we see ourselves and our relationships, reconstituting this structure to permit a more inclusive and discriminating integration of experience and acting upon these new understandings. It is the learning process by which adults come to recognize their culturally induced dependency roles and relationships and the reasons for them and take action to overcome them (Ibid., 1981, pp.6-7).

Mezirow (1981) equates perspective transformation to a personal paradigm transformation, drawing on Kuhn's (1962) concept of "paradigm", Freire's conscientization, and Habermas' learning for emancipatory action (Ibid., 1981, p.7). Emancipatory learning involves an interest in self-knowledge, the knowledge of self-reflection, which is the third area of cognitive interest or learning domain conceptualized by Habermas, and the domain which Mezirow (1981) relates to perspective transformation. Mezirow claims that perspective transformation is a "cardinal dimension of adult development" (Ibid., 1978, p.100), the most distinctively adult domain of
learning, and therefore, must be considered a central function of adult education (Ibid., 1981, p.7).

7. Perspective transformation and adult development

Adults have a natural tendency to become critically conscious of how and why their habits of perception, thought and action have limited their approach to life (Mezirow, 1981, p.7):

The possibilities of learning through transformations in meaning schemes and perspectives become qualitatively different in the adult years, when we move from an awareness of the conceptual and psychic constraints on our learning toward an understanding of the reasons for these constraints (Ibid., 1985a, p.25).

Cultural influences affect development and learning intimately, and therefore assist or inhibit the potential for natural movement toward becoming critically conscious, entering new meaning perspectives, and reaching maturity (Ibid., 1978, p.106):

...to the degree our culture permits, we tend to move through adulthood along a maturity gradient that involves a sequential restructuring of one's frame of reference for making and understanding meanings. We move through successive transformations toward analyzing things from a perspective increasingly removed from one's personal or local perspective, a process Jerome Bruner calls "decentration" (Ibid., 1978, p.104).

As individuals move progressively from perspective to perspective they continually reinterpret and reconstruct the reality of the past. They may incorporate older meaning perspectives into their present one, but they can never return to the old ones in their original form (Ibid., p.106).
"Maturity holds the promise that becoming older may indeed mean becoming wiser because wisdom can mean interpreting reality from a higher perspective" (Ibid., p.106). It is in this sense that Mezirow feels that perspective transformation functions as an explanation of transition between stages of adult psychological development in major life-span theories such as those of Kohlberg (1976), Gould (1978) and Levinson (1978) (Ibid., p.13). Adult development and perspective transformation are seen as being intimately connected:

Maturity may be seen as a developmental process of movement through the adult years toward meaning perspectives that are progressively more inclusive, discriminating and more integrative of experience....We move, if we can, towards perspectives that are more universal and better able to deal with abstract relationships, that more clearly identify psychocultural assumption shaping our actions and causing our needs, that provide criteria for more principled value judgments, enhance our sense of agency or control and give us a clearer meaning and sense of direction in our lives (Ibid., 1978, p.106).

Thus, the basic physical and mental constructive tasks of childhood development are potentially extended and transcended in the process of adult development which is essentially a holistic process involving the mental, emotional, and spiritual growth of the whole person through perspective transformation.

Mezirow (1981) claims that the natural tendency to move towards new perspectives may be "explained as a quest for meaning by which to better understand ourselves and to anticipate events" (p.7). and through a quote from Carl Rogers connects this tendency in humans to the "formative directional
tendency in the universe...an evolutionary tendency toward greater order, greater interrelatedness, greater complexity" (Rogers, 1978 in Mezirow, 1981, p.7). In this way Mezirow connects perspective transformation to human development not only in terms of maturity but in terms of hopes for humanity's progress through the creative force of evolution.

8. The dynamics of perspective transformation

Mezirow outlines the basic dimensions and elements of perspective transformation as a specific type of learning process with specific goals. Perspective transformation is a process of:

Learning how we are caught in our own history and are reliving it. We learn to become critically aware of the cultural and psychological assumptions that have influenced the way we see ourselves and our relationships and the way we pattern our lives (Ibid., 1978, p.101).

Perspective transformation may occur through a series of gradual transitions or through sudden insight (Ibid., 1981, p.7). The more common dimension is through a gradual accumulation, an accretion, of transformations in specific meaning schemes, and the more dramatic is an epochal transformation (evident in consciousness raising, psychoanalysis, religious conversion etc.), involving the transformation of a total system of meaning schemes (Ibid., 1985a, p.24). The epochal transformation often takes place in response to an externally imposed existential dilemma, a disorienting dilemma, which contradicts the taken-for-granted
assumptions of the existing meaning perspective in a way that cannot be ignored (Ibid., 1988, p.226):

There are certain challenges or dilemmas of adult life that cannot be resolved by the usual way we handle problems...life becomes untenable, and we undergo significant phases of reassessment and growth in which familiar assumptions are challenged and new directions and commitments are charted...Resolving these anomalies though critical analysis of assumptions behind the roles we play can lead to successive levels of self development (Ibid., p.101).

Mezirow agrees with contemporary existential thinkers and Hegel and Marx in the recognition that transformation takes place in a cycle of three phases. The first is alienation from prescribed social roles. The second is a reframing stage in which there is a recognition of the possibility of effecting change through one's own initiative and a restructuring of one's conception of reality and one's place in it. "This involves a redefinition of problems and the need for action and new criteria for assigning values and making judgments (Ibid., 1978, p.105). Finally there is a contractual solidarity stage, "within which it becomes possible to participate again in society—or in its reconstruction—-but on one's own inner-directed terms as defined by the new meaning perspective (Ibid., p.105).

Mezirow enlarges on this cycle in his conception of the dynamics of perspective transformation as they were derived from his (1978) research with college re-entry women, a conception that has remained relatively stable throughout his writings. At that time the following elements of perspective
transformation were derived:

(1) a disorienting dilemma; (2) self-examination; (3) a critical assessment of personally internalized assumptions and a sense of alienation from social expectations; (4) recognizing one's problem as being shared by others; (5) exploring options for new ways of acting; (6) building competence and self-confidence in new roles; (7) planning a course of action; (8) acquiring knowledge and skills for implementing one's plans; (9) provisional efforts to try new roles and to assess feedback; and (10) a reintegration into society on the basis of conditions dictated by the new perspective (Ibid., 1981, p.7).

These items are useful for explaining conditions and action steps surrounding perspective transformation but they do not appear to touch directly on the dynamics or process elements of the process of transformation itself.

Progress through the elements of perspective transformation results in new meaning perspectives which give individuals new orientations to life, reinterpretations of their whole existence and its expression:

A new meaning perspective has dimensions of thought, feeling and will. It involves seeing one's self and one's roles and relationships in a consistent coherent way, a way which will dictate action priorities. Meaning perspectives are more than a way of seeing: they are proposals to experience one's life which involves a decision to take action. Feelings and events are interpreted existentially, not intellectually as by an observer (Ibid., 1978, p.105).

New meaning perspectives can lead to a new sense of identity and autonomy, self-confidence, a vision of new possibilities and alternatives for action, and the power to choose among them; all of which give people a sense of agency and responsibility for their own lives and the power to take some measure of control over how they will live them. New
perspectives give individuals a new conception not only of themselves but of their place in society:

This major reordering of reality and redefinition of one's own possibilities within it mandates action decisions. Personal problems can be seen as having their counterpart in public issues, and these call for both individual and collective action (Ibid., p. 103).

Mezirow thus views the development of new perspectives, which brings with it the development of critical consciousness, as a prerequisite for liberating personal development and social action. But the success of that liberation process depends upon the success of individuals in navigating through many possible obstacles to perspective transformation and to the likelihood of incorporating new perspectives into their everyday lives.

9. Inhibiting and facilitating factors in perspective transformation

a. Influential factors

There are many factors which affect the individual's ability to achieve perspective transformation. The intensity of events, the traumatic severity of the disorienting dilemma within the life of the person increases the possibility and probability of the occurrence of perspective transformation, but even intense external or internal pressure does not ensure that perspective transformation will occur. Both cultural and psychological factors provide strong stumbling blocks that restrain the natural tendency to learn through perspective
transformation. Habitual patterns, internalized cultural assumptions, unresolved childhood dilemmas, the reification (acceptance of human phenomena as concrete, and beyond human control) of the social order, and the sheer difficulty of making the passage between the old perspective and the new one may all be obstacles that block the path to potential perspective transformation (Ibid., 1981, pp.7-8). Learning through perspective transformation can be painful because it "often involves a comprehensive reassessment of oneself and the very criteria that one has been using to make crucial value judgments about one's life" (Ibid., 1985a, p.24). Critically appraising the assumptions underlying our roles and beliefs is usually emotionally charged and threatening as the individual's self concept may be highly invested in maintaining the old perspective. Even though the development of the self concept is part of the journey towards maturity it is not an easy journey (Ibid., 1978, p.105).

Individuals may choose not to act, but even if they do choose to act the process is still fraught with difficulty. "Even after restructuring one's reality and seeing the need for action, the will or determination to persevere in carrying out one's plans may require special support and assistance" (Ibid., p.105). Moving to a new perspective and sustaining the actions which it requires is dependent on an association with others who share the new perspective and are willing to give support and reinforcement for the actions based on the
new perspective.

b. The educator's role

It is in assessing the inhibiting and facilitating factors affecting perspective transformation and assisting learners to negotiate their own perspectives transformations that Mezirow sees the role of educators. In fact, he sees the support function ranging along a continuum from education to therapy depending on the severity of the inhibiting factors to perspective transformation in an individual case (Ibid., 1978, p.105).

Mezirow's conceives of the educator's role as that of catalyst, facilitator and supporter in the learner's process of perspective transformation. In following the elements of perspective transformation detailed by Mezirow, educators have an opportunity to act as catalyst by challenging learners to enter into a process of self examination, and to act as facilitator and supporter as they progress through the steps which enable them to embed their new perspective in their lives. Educators can emphasize self-help and self-exploration, encourage sharing of common problems and experiences, model behaviour which assists the transformation process, help learners develop relevant new skills and knowledge, provide environments in which learners can test out their new perspectives with minimum risk, encourage the exploration of alternatives and the development of action plans, and generally support the development of competence and self-
confidence in the learners as they integrate new perspectives into their lives. In Mezirow's view perhaps the most significant contribution educators can make is in acknowledging that the educator's role is to:

...identify and facilitate the transformation of meaning perspectives of learners. Education cannot be defined by a simplistic preoccupation with fostering direct behaviors change...The most significant behaviour changes may be functions of perspective transformation, and such transformation is often an essential precondition for meaningful behaviour changes (Ibid., p.107).

In broadening the concept of learning to include perspective transformation as an important dimension which affects learning in all of its more generally recognized dimensions, educators can genuinely become active in facilitating learners attempts to achieve perspective transformation.

10. Current approach to learning

In recent writing Mezirow (1988) has taken a slightly different tack on learning as perspective transformation. While in earlier formulations he suggested that the third learning domain, that of emancipatory action, was the most important for perspective transformation, he now pursues learning and critical awareness in terms of the second domain, that of communicative interaction. If learning is seen as a dialogic process which includes dialogue within the self and dialogue with others, Mezirow is now stressing the dialogue with others rather than with self.

He begins with the definition of learning in terms of the
making of meaning:

We learn by making meaning of our experience. Learning may be best understood as the process of construing and appropriating a new or revised interpretation of the meaning of one's experience as a guide to decision and action. Meaning is central to learning" (Ibid., 1988, p.223).

Then he focuses on the negative aspects of cultural input to the structure of meaning without taking into account the possibility of positive aspects of cultural input or the possibility for unique, creative personal input in their development:

Meaning schemes and perspectives are structures of largely unexamined presuppositions which often result in distorted views of reality; we get trapped by our own history. They are transformed through a critically reflective assessment of epistemological, ideological and psychological distortions, acquired through the process of socialization in childhood...Transforming these structures of meaning is seen as the most significant "developmental task" of adulthood in a modern society (Ibid., p.224).

Here Mezirow is more focused on the content of perspectives in transformation rather than the process of transformation itself. In fact, he reduces learning, transformation and the making of meaning to a matter of words:

Rather than a psychological process or event, meaning is essentially and inherently linguistic. To understand under what conditions it is true (in accord with what is) or valid (justifiable) (Ibid., p.224).

According to this view, knowledge becomes communicative, consensually arrived at meanings obtained through the process of critical discourse in which contested meanings are confirmed or negated (Ibid., p.225).

Transformation, according to Mezirow in his earlier
writings (1981) meant an:

...emancipatory process of becoming critically aware of how and why the structure of psycho-cultural assumptions has come to constrain the way we see ourselves... reconstituting this structure...and acting upon these new understandings (Ibid., 1981, pp. 6-7).

In contrast to the meaning carried by transformation in 1981 by 1988 transformation becomes a gradual process of gathering meaning:

The way we arrive at new meanings when confronting the unknown involves a process which can be characterized as context accretive. We begin with our partial insights to direct the way we collect additional data, comparing incidents, key concepts or words and relating them, often metaphorically, to our meaning schemes. When the properties of the experience do not fit, new schemes are created and the properties are integrated into them. Over time, the limited initial understanding becomes transformed as we come to discover its significance in other experiential, theoretical, literary or aesthetic meaning contexts. Each item of information is a building block of understanding and is clarified by the discover of further building blocks of data. We continually move back and forth between the parts and the whole of which we seek to understand, following the procedure described as the "hermeneutic circle (Ibid., pp.225-226).

In this scenario perspective transformation occurs basically as a social process through discourse, the external dialogue, while the individual process of internal dialogue and reflection as an act of consciousness is down-played:

From the perspective of transformation theory, adult development is understood as an adult's progressively enhanced capacity to engage in critically reflective discourse through which expressed ideas are validated. This definition recognizes that development in adulthood is both a function of a person's biography and his culture (Ibid., p.227).

This shift in focus mirrors "Mezirow's movement away from a philosophy of consciousness towards a theory of communication"
(Collard & Law, 1988, p.3) as he increasingly follows Habermas' theory of communicative competence.

The basic critique of Collard & Law (1988) centers on their perception of Mezirow's failure to provide an integrated theory; they feel that his theory is fragmentary and "fails adequately to address the social context of his emancipatory ideas" (Collard & Law, 1988, Abstract). In contrast, in the context of this author's work, Mezirow fails to address sufficiently the personal or psychological context of his emancipatory ideas. Hopefully, as Mezirow's work continues he will produce an integrated theory that addresses both issues adequately. The key seems to be in the reconciliation of the contrasting emphases on the social and the collective on the one hand, and the psychological and the individual on the other, in a clear conception of perspective transformation for emancipation.

11. Conclusion

Mezirow's theorizing is very comprehensive and rich in detail in terms of drawing the work of other theorists from various disciplines (i.e. Habermas, Freire, Laing, Bruner and Kelly) into the realm of his theory. This provides for a rich cross-fertilization of ideas but at the present time these ideas have not been integrated sufficiently enough to present a coherent, integrated theory. Although the theme of perspective transformation is a unifying factor, concepts from...
various areas of thought i.e., European critical theory via Habermas and interactionism via American sociology have been drawn together without clear definition of their relationships. Assuming that theory construction is an evolving process this is not necessarily a disadvantage if the theory continues to evolve but it is somewhat confusing in its present state.

Mezirow places heavy emphasis on the obstacles to perspective transformation, particularly, it seems, because he emphasizes the cultural component of human learning far more strongly than the individual component. Mezirow's humanity is tightly bound by cultural obstacles with some limited hope of breaking free. While it is important to recognize the power of cultural influences, their positive as well as their negative effects must be taken into account, and the creative capacity of humanity to creatively interact with culture, in individual as well as collectives ways, must be recognized. In this matter, Mezirow's point of view does not maintain a balance between positive and negative cultural and personal forces.

Mezirow's theorizing takes important steps towards extending the concept of learning into broader dimensions which take personal consciousness into account and may help to take learning theory beyond narrow behaviorist or cognitivist approaches. By placing human consciousness at the centre of learning Mezirow encourages further exploration and integration of ideas leading towards viewing learning as a
transformative process.

F. NICHOL: PARADIGM-TRANSITION LEARNING

1. Introduction

Nichol (1980, 1980a), a British educator, presents a theory of the T-group method and the kind of learning it facilitates in his theory of paradigm-transition learning. This theory was developed on the basis of two field studies (Nichol, 1977, 1980) which used a grounded theory approach (Glasser & Strauss, 1967) to investigate the function of trainers and the experience of participants in T-group laboratories. In addition to the field studies Nichol acknowledges the influence of Freire's "conscientization" (1972), Berger & Luckmann's (1966) work on the social construction of reality, Kelly's (1955) personal construct theory, Mezirow's perspective transformation and Kuhn's (1962) thesis about paradigms and consciousness, in the development of his learning theory. It is to Kuhn's work that Nichol refers most directly, but the influence of the other writers is also strongly evident, particularly in the assumptive structure surrounding Nichol's theory. At the heart of paradigm-transition learning is the notion that:

...the basic social process of a T-group is the construction by the trainer of a social reality based on a particular social paradigm. The making of this reality brings about a paradigm-transition in the participants' consciousness (Nichol, 1980, p.1).
This central statement clarifies not only the essential conditions and process of paradigm-transition learning, but also the primary assumptions which undergird the theory. Several assumptions of major importance here are that reality is assumed to be "created", "made", "constructed" by man, that reality is multi-faceted according to its construction, that the screen on which reality is projected is consciousness, and that certain types of learning may involve changes in consciousness. An examination of the implications of this statement will clarify what Nichol understands to be the essential ingredients of paradigm-transition learning. An interpretation of the relevance of paradigm-transition learning for the understanding of transformative learning involving changes in consciousness will accompany this examination.

2. Knowledge development and learning: Revolutionary processes

Kuhn's (1962) basic thesis is predicated on the acceptance of the assumption that in the history of science knowledge has not progressed entirely in the rational, orderly, accumulative manner with which it has traditionally been associated. Instead, Kuhn proposes that often knowledge development has taken on a revolutionary character in which great creative leaps and radical changes in perspective discredit old knowledge and give rise to totally new ways of seeing things, a new vision of the way things are. The
dramatic advances in scientific knowledge can be viewed in terms of revolutionary change brought about by paradigm transition, a change in the consciousness of the scientific community which then spreads within the community at large (Ibid., pp.1-2).

Kuhn (1962) outlined three phases in the development of knowledge: a pre-paradigm phase in which several paradigms provide competing explanations of phenomena, a second phases in which one paradigm becomes dominant, but is under increasing pressure from the growing number of anomalies (phenomena which cannot be explained within the dominant paradigm) which become evident, and a third phase in which "a new paradigm emerges which explains the anomalies but, in doing so, radically reinterprets the whole field" (Ibid., p.2).

Nichol proposes that paradigm-transitions, "revolutions in the way we have come to understand the world" (Ibid., p.2), as characteristic patterns of knowledge development in the history in science, are mirrored in the shorter history of the individual biography, as often dramatic episodes in the course of learning within the consciousness of individual men and women (Ibid., p.2). Here again, as evident in the thought of other theorists such as Bruner and Kelly, is support for the idea that the development of the individual's consciousness and knowledge is mirrored in, and developed through parallel processes with the large public knowledge systems of society.
Implicit in this is the idea that understanding of the development of knowledge is enhanced by paying attention to both personal and social processes and systems. These writers implicitly support the assumption that what can be discovered about the process of knowledge development on the social level can be applied to the understanding of the process of learning on the personal level.

On this basis Nichol (1981) proposes three modes of learning for the individual parallel to Kuhn's (1962) three phases in the development of knowledge in the history of science: learning by elaboration within an established paradigm, paradigm-transition or a shift from one paradigm to another, and the rare form of learning when an individual introduces a new paradigm into human consciousness (Ibid., pp.2-3). Nichol believes that paradigm-transition learning is a primary mode of learning in a T-group and it is this type of learning that is the focus of his attention.

3. Paradigm-transition learning

In choosing to use Kuhn's (1962) concept of "paradigm" Nichol acknowledges the relationship between this concept and concepts used by other theorists concerned with the role of consciousness in learning:

I choose paradigm in preference to "personal construct" (Kelly 1955) which is not sociological enough and to "system of meaning" (Berger & Luckmann, 1971) which is not psychological enough, and to "thematic universe" (Freire, 1972) which is undeveloped...(Nichol, 1980a., p.2).
A paradigm, according to Kuhn's thesis, is a consciousness-enveloping way of looking at the world: it is an hypothesised organizing structure which governs understanding of objective reality, a system of meaning which influences and channels the individual's perception and interpretation (Ibid., p.2):

A paradigm is a hypothesised construct within human consciousness. It is a set of assumptions, theories, models and procedures, which serve to explain the experience of a domain of objective reality. A paradigm not only interprets our experience of the world but it also influences how we see our world...Our paradigms enable us to see certain phenomena and to attach various significance to things and processes (Ibid., pp. 20-21).

A paradigm is a system which prepares people to see certain phenomena and to be unaware of others. It organizes and channels our perception of the world and thereby limits the scope of our conceptions of the world. The limiting influence of the paradigm makes it likely that the recognition of, and transition into another paradigm may be infrequent, dramatic and difficult:

That a paradigm channelises perception makes the transition to another paradigm like entering another world. A paradigm is a whole rather than a part. Whereas we speak of a value, or a construct as an element within a system, a paradigm is that system. In a way not unlike a mood, a paradigm envelopes consciousness...A paradigm is not open to easy inspection...to know a paradigm we must enter it (Nichol, 1980, pp.21-22).

Nichol maintains that communication between paradigms is not possible. "People speaking out of different paradigms cannot communicate with each other. They share a common language but the meaning of the words is modified by different paradigm assumptions" (Ibid., p.16). At the same time, he also
asserts that communication between people holding different paradigms is possible given appropriate conditions, that is, the development of a common paradigm, albeit in rudimentary form (Ibid, p.23).

This is a confusing issue. It might be argued that if people can create rudimentary common paradigms, which might be called bridge paradigms, paradigms whose meaning is developed in common for the purpose of interpersonal communication, that similar bridge paradigms might be developed for intrapersonal communication between paradigms. In other words, some consciousness of the possibilities inherent in another paradigm must become available or paradigm transition would not be possible. Otherwise, there would be no consciousness that a leap to another way of looking at things was a possible option. In fact, Nichol later refers to the fact that one of the trainer's major tasks is that of facilitating communication across paradigms (Ibid., p.27) but he does not specify how this might be accomplished. Perhaps the construction of bridge paradigms may be a partial answer.

Nevertheless, paradigm boundaries create communication barriers and paradigm transition, moving from one paradigm to another, therefore requires a leap of faith across a chasm to a new vision, a new understanding of reality (Ibid., p.3)

Nichol touches on the difficulties encountered in attempting to explain the experience of transition itself (Nichol, 1980, p.15). For some people paradigm shift is a very
dramatic event (Ibid., p. 19). In touching on issues that form the core of meaning in individuals' lives strong emotions are evoked (Ibid., p. 16). Nichol notes Kuhn's description of the almost conversion-like quality of the shift a scientist makes to a new paradigm (Ibid., p. 19). Nichol describes paradigm-transition as "a leap of faith in which the reasoning process must be suspended" (Ibid., 1980a, p. 2). The suspension of the reasoning process in conjunction with the experience of strong emotion, the sensation of making a sudden leap towards a radically different way of viewing the world, and the intensely personal nature of the experience for the individual creates problems in attempts to explain the phenomenon through the usual mode of ordered, rational communication.

Nichol assumes the existence of a multiple-paradigm consciousness, that is, there is more than one paradigm within our consciousness for different fields of reality or life-worlds. Within each individual, paradigms differ in their relative number, strength, elaboration, and degree of isolation from others (Nichol, 1980, pp. 22-23). "Individuals will differ in which paradigm is ascendant in their consciousness. And individuals will differ in the degree to which their paradigms are ascendant in relations to each other" (Ibid., p. 23). To explain how multiple paradigms operate within the individual consciousness Nichol points to the fields of reality or life-worlds evident in the physical and social sciences. In general:
The state of affairs in the physical sciences and in sociology and psychology is mirrored within the consciousness of the individual. We have certain adequate explanations of our physical world. Our explanations of social reality are altogether less adequate... (Ibid., p.23).

Implicit in the foregoing is an emergent need on both the individual and social level for the development of more adequate paradigms to explain and order social reality.

Nichol describes social reality in terms of "life worlds", a concept borrowed from Berger & Luckmann (1971). Modern society is a web of different social realities or "life-worlds" and individuals routinely cross between those which are familiar to them, for example, the "home" world and the "work" world (Ibid., p.14). In the course of daily routine different social paradigms in our consciousness are usually insulated from each other but there are occasions when situations confront us with the difference between our various explanations of the world. In Freire's terms we are faced with "contradictions in our consciousness" (Ibid., p. 23). Whereas people usually give little thought to their normal crossings between established life-worlds, in the T-group the participant is caught up in the process of constructing a new social reality, a new life-world. This process of construction of a new social reality is intimately related to the educational task (Ibid., p.15). Nichol does not spell out this relationship, but it might be hypothesized that though people regularly move between established life-worlds as a matter of habit, unconscious of the transitions, the T-group is
effective because it forces participants to become aware of transitions by involving them in the process of construction of, and transition to, a new life-world or paradigm.

Nichol also implies that it is not the content of the new life-world or social reality which is the most important part of the participant's learning in this situation, but the process of shifting, transition, or transformation of social reality and the participant's awareness of the shift. Nichol feels that "...the process of shifting the ground of social reality is crucial to the communication of the trainer's knowledge" (Ibid., p.15). Again, Nichol does not specifically explain this idea but several implications of major importance for transformative learning emerge from this idea. By implication, it may be surmised that participants becomes aware not only that social reality is multi-faceted and that they can make transitions between these various facets, but also that personal reality is a construction and their own personal reality is a system of such constructions which may contain contradictions and conflicts which need resolution. In addition, participants may become aware of ways in which personal and social reality act as parallel systems, and their own power to consciously affect the growth and development of their own personal and social paradigms.

The trainer is a "maker of reality" who guides the creation of a radical social reality which brings about a paradigm-transition in the participants' consciousness. The
shift or transition results in the participants' experiencing and understanding objective reality in an altered way (Ibid., Abstract). Nichol does not spell this out, but he implies that it is the awakening of awareness in the individual that a shift or transformation has taken place in his/her own consciousness, and that this is a possible repeatable experience, that constitutes the primary learning experience. This knowledge creates an environment in which other learning of this type can be explored.

There appears to be some confusion in Nichol's use of the term "life-world" which he borrows from Berger and Luckmann (1971). In the summary paper (1980a) he describes the social environment of a person as being made up of many "life-worlds", each of which has its associated system of meaning or paradigm which accounts for events and behaviour within it (p.1). In the 1980 paper he says "A life-world has its paradigms" (see Abstract) which implies that there is a single over-arching "life-world", or meaning system which contains the less extensive ones. There is a similar confusion surrounding the use of the term "paradigm".

These concepts appear to be essential in both senses but care should be taken to specify in which sense they are being used. The "life-world" or "paradigm" can be thought of as over-arching meaning systems, within the consciousness of the individual, that include within their sphere of influence many subordinate "life-worlds" or "paradigms" of a more limited
nature. As it seems to be assumed in Nichol's writing that each life-world has a matching paradigm, both the over-arching and the subordinate meanings of "life-world" and "paradigm" can be understood in the description of "a person's consciousness being a competition of paradigms, some more elaborated than others, and one probably ascendent" (Nichol, 1980a, p.2). It is implied that the ascendant paradigm is the one that envelops consciousness and that various communication possibilities exist between subordinate paradigms within the system, depending upon the particular structure of the individual's paradigm system.

According to Nichol, the main impetus for personal change or learning comes from within the individual. In what appears to be an echo of Kelly's ideas, Nichol describes learning as a person's tendency towards developing better explanations of his/her world (Ibid., p.2). The individual is impelled to learn by the very nature of present day society, which is characterized by an ever increasing rate of change and complexity. "The complex of life worlds in modern society...gives rise...to significant failures in people's striving to explain experiences" (Ibid, p.6). Although much of the "life-world" or paradigm system is taken for granted much of the time, when a person is faced with a situation which cannot be readily interpreted within the current paradigm system an awareness of conflict between paradigms may be produced. This awareness of "contradictions in consciousness"
(a term coined by Freire, 1972) generates increased tension between paradigms and provides an impetus towards paradigm-transition learning:

The energy for personal change is in these tensions...it is an important part of the T-group to bring such contradictions to light. The emergence and work with contradictions is central to the group experience (Nichol, 1980, p.6).

The construction of a radical social reality guided by the T-group trainer provides the conditions under which an awareness of contradictions in consciousness may be induced and dealt with. In this work with contradictions a phenomenological and reflexive perspective becomes predominant within the group (Ibid, p.6). Learners find that turning the light of reflective thought on their own experience is a powerful tool in this learning environment.

4. Personal development and paradigm transition

Nichol (1980) offers learning in a T-group as one mode of development in a long-term personal development process. Because of the strength and persistance of old life-worlds and old paradigms, participation in the creation of the T-group as a distinctive life world is not enough to ensure that the learning accomplished there will have long term effects. People must be committed to a major effort to integrate new learnings into their on-going life-style if they are to have any lasting effects (Ibid., p.25). This integration is accomplished only as a result of continuing effort over time:
...not only does the T-group develop a new reality, but also a new self emerges associated with that reality...it may be constructive to think of our development as a dialectic rather than as a linear process...In the period of paradigm-transition a new self co-exists and stands in contradiction to the old. Building on the new, intensifying the contradictions until the emergence of the synthesis is a different model of personal development. The strategy for continuing development becomes one of re-creating or re-visiting the T-group reality where the emergent self can develop definition and substance (Ibid, pp.25-26).

The T-group is an isolated, safe, and controlled environment in which paradigm-transition learning can be induced. Participants become aware that a new self and a new reality arise together out of the experience of this type of learning. Nichol implies that both the new self and the new reality are at first vulnerable and undeveloped in relation to the old self and old reality. Nichol suggests that there is a reciprocity between the conception of self and the conception of reality (Ibid., 1980a, p. 3); each influences the development of the other. The T-group is a safe and nurturing environment in which the individual can explore and consolidate the development of the new self in conjunction with the development of a new reality. It is also implied that conscious awareness of the process of paradigm-transition learning within individuals helps them to develop a strategy for further learning in this mode when they return to the T-group or use the T-group experience as a "reference experience" (Nichol, 1980a, p.2) for further learning within their own every day realities. It would seem that time, practice and further support are essential to the full
development of the implications of a paradigm-transition and its integration into the on-going life-style of the individual.

5. Tracing some implications of paradigm-transition learning

Paradigm-transition learning theory has several important implications for general learning theory according to Nichol (1980); these can be applied and extended specifically to an understanding of learning as a transformative process as well.

Paradigm-transition learning suggests that there is a distinction between methods of facilitating transitions between paradigms and methods of developing knowledge within a paradigm framework (Nichol, 1980, p.26).

The concept of paradigm-transition learning also offers an interpretation of educational activities such as "consciousness raising" and education for worker participation (Ibid, 1980, p.26).

In addition, paradigm-transition learning represents a critical perspective on Paulo Freire's (1972) work:

His method of "conscientization" has elements in common with the T-group, both are professedly democratic, concerned with social change and involve a group process (Nichol, 1977). I would anticipate the co-ordinator of the circles of culture to have more influence on the shaping of the new consciousness than Freire is inclined to acknowledge (Nichol, 1980, p.26).

Nichol acknowledges the strong influence that the educator, as "maker of realities", has on the learning experience of the individual and emphasizes the necessity for examining the
ethical dilemmas which are integral to this type of learning.

Paradigm-transition learning highlights the significance of the T-group trainer's role as a "maker of realities" who has both explicit and implicit determining influences on the group. The "maker of realities" image may present the democratic, student-centred educator with an ethical dilemma. On the other hand, the need for the educator to break out of the traditional teacher role is emphasized in the trainer's tasks of facilitating communication across paradigms and becoming something of an "actor/director, creating experiences in which to ground the participants' new knowledge" (Nichol, 1980, p.27).

Several other implications of importance to a conception of transformative learning, which Nichol does not deal with specifically, also emerge from his work.

The potentially powerful influence on the consciousness of the learner inherent in the view of the educator as a "maker of realities" is emphasized in a juxtaposition with Bruner's conception of educator as tutor, based on Vygotsky's theory of learning, which involves a process of "loaned consciousness" between the teacher and student. Although Bruner and Vygotsky were referring to learning in childhood there is no reason why this idea would not be applicable to adult learning as well. In "making a reality" the idea of "loaned consciousness" may have relevance; educators may arrange the educational situation so that their own
consciousness is reflected in the making of a social reality, which they invite the learners to borrow as their own, as a means of expediting the learning experience. In terms of ethics, it would appear to be crucial that both the educator and the learners be aware of whether this "borrowed" consciousness is intended to be appropriated by the learners as their own, or whether it is considered as merely a tool to be used for insight into the potential development of their own unique consciousness. If learning is to be referred to as a process of the sharing or negotiating of meaning, reality, or consciousness (Bruner; 1986; Berger and Luckmann; 1966) then there must be a clear understanding that sharing and negotiating imply a mutual, reciprocal relationship between the educator and learners rather than one in which learning is imposed on the learners.

Nichol (1980) was "disappointed not to find good evidence of contradictions in consciousness" (p.20) in his field study because he thought that they might be an essential ingredient in paradigm-transition learning. Contradictions in consciousness may still be confirmed as an important stimulating factor in paradigm-transition learning, but other factors such as the particular characteristics and adequacy of the individual's paradigm system, its comprehensiveness, and its functionality or dysfunctionality within the person's life-world, may be equally relevant.

Nichol (1980) suggests that the primacy of feelings,
openness, and awareness reported as learnings by participants supports to some degree his hypothesis that participants come to share the same paradigm as the T-group trainer (Nichol, 1980, pp. 17-18). Nichol does not take this idea farther, but it suggests implications in two directions.

First, the primacy of feelings, openness, and awareness reported suggest the effectiveness of this type of learning in putting people in touch with all aspects of their experience rather than just those aspects which involve the intellect or overt behaviour; at the same time, the primacy of these elements are a reminder of the potential vulnerability of the learner engaged in the process this type of learning, and the responsibility of the educator to provide an atmosphere of safety and trust.

Secondly, it may be that the value of coming to share the paradigm of the trainer may not be important in and of itself, but only insofar as it helps participants become aware of the limits of their own paradigms and aware also of the possibility of being able to make their own personal paradigm shifts. In this way, coming to share a group paradigm with the trainer may be functional in preparing the way for participants to become aware of their own power and possibilities. This perspective may clear the way for the democratic, student-centred educator to accept more comfortably the role of "maker of realities" in that by encouraging participants to share in making a reality the
educator is acting as an adjunct, impetus or catalyst to the learners becoming aware that they each have their own power to be their own "maker of realities".

Of course, it must also be explicitly realized that some educators can and do use their power as makers of realities for purposes that are not advantageous to learners and both educators and learners must be cautiously aware of this fact.

Nichol's account of paradigm-transition learning emphasizes the importance of a group setting to this type of learning. This raises questions about how critical the learning conditions, created by the educator in the new social reality of the group, are to the success of paradigm-transition learning and by extension, to transformative learning in general. What are the optimum conditions of safety and trust, of challenge and change that assist participants to feel free to risk the leap to a new paradigm? Is group support necessary for paradigm-transition learning to take place? Are there other situations that will support this type of learning? Answers to these questions will come only with the further exploration of transformative learning.

6. Conclusion

Although Nichol's contribution is not extensive in terms of source materials, his work makes an important contribution towards developing an understanding of transformative-learning.
He presents a rudimentary theory of paradigm-transition learning which can be understood directly as an example of transformative learning. His theory emerges from a background of assumptions which derive in part from the other selected theorists, which assists an attempt to integrate ideas about transformative learning, and at the same time it calls on and extends other relevant theoretical lines of thought. Nichol grounds his theory by using it to examine a concrete learning situation, and although his explanations and descriptions are often cryptic, they spark immediate connections with themes and categories that have emerged in the writings of the other selected theorists, and readily suggest implications which extend understanding of the nature of transformative learning.

G. CONCLUSION OF THE LITERATURE REVIEW

The work of selected authors including Bruner, Freire, Kelly, Mezirow and Nichol has been reviewed under the guidance of a modified constant comparative method for the purpose of the identification and description of the basic elements of transformative learning and its supporting assumptive structure; the writings of these authors explore common themes which lead to a conception of transformative learning as a distinct type of learning. The development of this conception supports the idea of a comprehensive, global concept of learning which recognizes transformations in consciousness as
essential learning processes in the course of human development, both personally and culturally.

In the following chapter the ideas of the selected authors will be integrated towards the development of a useful model of transformative learning.
IV. INTEGRATION OF LITERATURE

A. INTRODUCTION

This chapter integrates the work of selected authors including Bruner, Freire, Kelly, Mezirow and Nichol for the purpose of identifying and describing the basic elements of transformative learning involving changes in consciousness.

The first section examines common or compatible elements in the selected authors' conceptualizations of learning which support the concept of transformative learning involving changes in consciousness as a distinct type of learning. The second section presents a proposal for a model of transformative learning. The third section explores the roots of the transformative learning model in the source materials of the selected authors. The concluding section proposes a way in which the model of transformative learning may be put to use and tested.

B. COMMON OR COMPATIBLE ELEMENTS

The comparison of the writings of Bruner, Freire, Kelly, Mezirow and Nichol reveals a striking similarity in their conceptualizations of the learning process, a similarity which is most apparent in their emphasis on the function of consciousness and the nature of reality as being central to learning. In this section these common elements will be discussed under the broad headings of characteristics and
functions of consciousness, the nature of reality, and transformative learning involving changes in consciousness.

1. Characteristics and functions of consciousness

All of these writers view consciousness as an essential tool and arena for learning. Bruner and Freire speak of consciousness as a tool of the human mind that is used to discover, invent and transform different types of reality. Bruner's "possible worlds" created through the use of the paradigmatic and narrative modes of consciousness and Freire's levels of consciousness attained through conscientization are conceptualized under these terms of reference. Kelly, along with Bruner, stresses the importance of recognizing the unconscious as well as conscious aspects of mind; he directs attention towards bringing a greater proportion of one's construct system into conscious awareness and learning to change or transform that system. Nichol also acknowledges the importance of unconscious as well as conscious processes and the necessity for bringing some portions of the unconscious into conscious awareness. Mezirow examines consciousness in terms of levels of reflectivity and suggests that higher levels of consciousness enables individuals to critically assess and transform personal meaning systems or perspectives. Nichol says that consciousness registers reality and sees paradigm transition taking place in the individual's consciousness as a result of the "making" of a new reality.
Each of these writers contributes to, or agrees with, the importance of recognizing the development of consciousness as an essential and parallel process to the development of self and general human development, both personally and socially. There is general agreement that individuals and groups that have developed higher levels of consciousness are more effective human beings who are active, creative and capable of choice. Bruner develops these themes extensively; Freire's philosophy clearly expresses these themes; the philosophical stance of Kelly's personal construct theory includes and supports these ideas; Mezirow supports these themes with his explanations of perspective transformation as a major aspect of adult development; and while Nichol does not discuss these matters in detail, his ideas about the parallel emergence of a new self and a new paradigm clearly support these ideas.

There is also general agreement between these writers that the structure and function of human consciousness is mirrored in personal and social meaning systems and can be understood with reference to those meaning systems. Each writer, either explicitly or implicitly, views language as an important tool for the exploration and development of both private and public meaning systems, and as the mediating link between them. Bruner discusses these matters extensively in terms of individual development, the development of academic disciplines and the arts as public meaning systems, and the role of language as a key to the development of both. Freire
develops these ideas in terms of seeing public meaning systems as inhibiting the development of individual consciousness and Mezirow echoes that view. Both Freire and Mezirow view the development of individual consciousness as a struggle to break free from social meaning systems which impede human progress, both individually and socially. Both Kelly and Nichol agree with Bruner in viewing social meaning systems in a more positive or optimistic light. They see the development of individual knowledge and consciousness as mirroring the processes of science in a productive and creative way, Kelly in terms of his model of "man-the-scientist" and Nichol in terms of the history of science.

Each of these writers contributes to or agrees with a conception of consciousness which recognizes the power of reflection (i.e., the power to consciously turn back on experience), as the essential, uniquely human ingredient of consciousness which fuels human learning and progress. Bruner discusses in detail the importance of conscious reflection as a major factor in human development and calls particularly on the work of Vygotsky in support of this stand. The heart of Freire's ideas about learning rest in his descriptions of the development of critical consciousness as the highest form of reflectivity and his claims of its significance in the humanization and liberation of humanity. Mezirow, once again echoing Freire, and drawing on Habermas, emphasizes emphatically the importance of reflectivity in human
development, and defines consciousness in terms of a finely graduated set of levels of reflectivity, crowned by critical consciousness or critical reflectivity. Neither Kelly or Nichol speak directly to this theme but Kelly implicitly recognized the importance of reflectivity in his use of the repertory grid as a reflective device that allowed people to become aware of their own construct systems through a self-reflective process and Nichol confirms the importance of a reflective perspective in the t-group experience.

This strong emphasis by all of the selected writers on consciousness as an essential tool and arena for learning, and reflection as the essential, uniquely human ingredient of consciousness which enabled both personal and social development, encourages the development of a perspective which acknowledges consciousness as having a central role in the learning process.

2. The nature of reality

Either explicitly or implicitly each of these writers support a constructivist view of reality which assumes that there is no unique pre-existing "real world" and that the power of the human mind or consciousness has a direct effect on the creation or construction of reality.

Bruner extensively discusses how multiple realities or possible worlds are created, individually and collectively, within the context of culture; world-making involves a
transformation of existing world versions and is a basic characteristic in the development of the human mind and consciousness. He describes the paradigmatic and the narrative modes of consciousness as complementary modes of cognitive functioning which provide distinctive ways of ordering experience or constructing reality.

Freire's philosophy views people as acting upon reality in a creative relationship with the world; he sees people as creating and recreating history and culture as they intervene in reality in order to change it. He stresses that people perceive and understand reality at various conditioned levels of consciousness--both historically and culturally.

Mezirow, drawing primarily on Freire and Habermas, agrees that reality is constructed; he sees personal reality as embedded in socio-cultural-historical reality and in need of being brought into conscious awareness and critically examined and transformed.

Kelly's theory of personal constructs is based on the philosophical position of constructive alternativism which he explains in detail. Constructive alternativism assumes that our present interpretations of the universe are subject to revision and replacement and that there are always alternative constructions available. A construct system is a personal version of reality and the personal power to represent, interpret, and construe, rather than just respond, is at the heart of humanity's creative capacity.
Nichol also supports a constructivist view of reality in his contention that reality is created, constructed, "made" by people. He sees personal reality as being based on a multiple-paradigm consciousness which includes different fields of reality or life-worlds, to some degree insulated from each other, within each person's consciousness.

Each of these writers views the personal process of reality construction as resulting in a personal meaning system which is subject to revision, change or transformation. These personal meaning systems, and their respective transformation processes, are referred to as possible worlds and the construction of possible worlds by Bruner, levels of consciousness and conscientization by Freire, construct systems and the construction and reconstruction of construct systems by Kelly, meaning perspectives and perspective transformation by Mezirow, and paradigms and paradigm-transition by Nichol. It is this essential and strong agreement among these writers about the importance of this process of change or transformation in personal meaning systems, reflecting changes in consciousness, which suggests the importance of developing a concept of transformative learning as a distinct form of learning.

3. Transformative learning (Learning involving changes in consciousness)

The selected author's views of learning are so closely
tied to their ideas about consciousness and reality that their general approach to learning as a transformative process (See Appendix A for a detailed listing) has been covered in the discussion of the characteristics and functions of consciousness and the nature of reality. While none of these writers has formulated a clear and comprehensive model of transformative learning, each views learning as, in some sense, a transformative process and an examination of their conception of the elements of that basic process, its phases and dynamics, its facilitating and inhibiting factors, is a good foundation on which to build a concept of transformative learning. Each writer makes a distinct contribution to the understanding of learning as a transformative process.

Bruner, in his view of learning as a social and developmental process, agrees with Vygotsky that learning is the transmission of mind across history, effected by successive mental sharings between the more competent and the less competent, through the medium of language. The goal of learning, in this sense, is the conversion of consciousness or the creation of a new consciousness. Bruner uses tutoring as a prime example of the learning process in that it takes place through a dynamic, negotiable transaction, a collaborative dialogue. The educator provides a "loan of consciousness" or acts as "consciousness for two" while the learners "borrow" the consciousness of the educator as a means of entering the knowledge system which they want to acquire.
Freire does not describe process elements directly but outlines educational techniques and goals which imply process elements. Freire aims to raise the level of consciousness of a cultural group. Working with people in small, local learning groups or culture circles, he assists them in understanding and confronting their own reality through problem posing and dialogue, reflection and action. A gradual or sudden shift to another level of consciousness is the basic dynamic and aim of this type of learning.

In Kelly's view, reconstruction, and therefore learning, takes place in a continuous process of successively construing and revising one's construct system in the direction of increased validity. This process involves anticipating, reevaluating, creating and choosing from alternative constructions. While Kelly's theory of personal constructs explains the characteristics of constructs and construct systems and techniques for their reconstruction in detail, it does not explain the learning process directly. Kelly does imply that a gradual or sudden awareness of a contextual shift in a construct or a construct system is common in the process of reconstruction.

Mezirow speaks of several types of learning processes including elaboration within existing meaning schemes, the assimilation of new meaning schemes which are complementary or compatible with existing meaning schemes, and the transformation of meaning schemes. The third process,
perspective transformation, is the one most closely related to the idea of transformative learning. Mezirow outlines specifically the phases of perspective transformation and suggests that its dynamics consist of either a series of gradual transitions or a sudden epochal transformation.

Nichol proposes three modes of learning which may be summarized as paradigm-elaboration, paradigm-transition and paradigm-creation. His main concern is learning through paradigm-transition and the basic process involves the creation or making of a new reality which brings about a paradigm-transition in the learner's consciousness. He stresses that this type of learning can have a "revolutionary character" including creative leaps, dramatic advances and radical changes in perspective.

Kelly and Mezirow have the most to say about specific inhibiting and facilitating factors in the transformative learning process but all of these writers are clear about the significance of the role of the educator in facilitating this type of learning.

An examination of the common or compatible elements among the conceptualizations of learning presented by selected authors supports the conception of learning as a transformative process and encourages the development of the concept of transformative learning as a distinct form of learning. The next section will use these compatible elements as a base from which the concept of transformative learning
can be developed and extended.

C. THE PROPOSAL OF A MODEL OF TRANSFORMATIVE LEARNING: DEVELOPING AND EXTENDING THE CONCEPT OF TRANSFORMATIVE LEARNING

On the basis of the analysis and synthesis of the selected writers conceptions of learning as a transformative process, a model of transformative learning has been developed. In this section the dynamics of the model are explained and contributing elements which help to distinguish transformative learning as a distinct form of learning are described.

1. A model of transformative learning

The model presented here proposes that transformative learning is a distinct type of learning which is distinguished by unique process and product elements. While it is hoped that the presentation of these elements in terms of the phases and steps of the model will help to clarify the unique features of transformative learning, the limitations of a static model must be recognized; it is important to acknowledge that the phases and steps are intended to be descriptive rather than prescriptive, and that they are a simplified static version of a complex dynamic process of learning. With that caveat in mind, a model of transformative learning as a distinct type of learning is presented here.

Transformative learning is a cyclical process of change
or transformation in consciousness which takes place in a series of three phases—generation, transformation, and integration (See figure 1, p. 196). Each of these phases will be discussed in turn and the connection to their roots in the writings of the selected writers will be traced.

a. Phase one: Generation of consciousness

The first phase of transformative learning is a preparatory phase which generates the conditions necessary for transformation in consciousness to take place. The generation phase consists of two steps, Encountering Trigger Events and Confronting Reality.

Transformative learning commonly begins when the learners' life events direct or demand their attention in a dramatic way. Reality may demand attention in a variety of ways including life-shattering events involving major social upheaval such as war, environmental disaster, or rapid social change, or major personal upheaval such as death, divorce or serious illness. Reality may also demand the focusing of attention in less outwardly visible ways such as troubling contradictions between various meaning systems within the learner's life-space, burning anomalies, curiosities or questions which arise, or disorienting dilemmas which must be clarified and resolved. Thus Trigger Events may be composed of any combination of external, social events and internal, psychological events within the life of individuals. While it is possible that people may attempt to reject or ignore the
Figure 1: Essential elements of transformative learning
opportunity for learning offered by Trigger Events, for those who are willing to accept the challenge Trigger Events often act as the impetus that initiates the learning cycle; Trigger Events prepare learners for learning by preparing them to expect, anticipate, accept or seek change.

The way in which Trigger Events demand attention from learners often propels them into a direct confrontation with the disturbing issues in their reality. This confrontation is at the heart of the second step, the Confronting Reality step, in the transformative learning process. Confronting Reality consists of a period of intense engagement with experience in which there is a heightened concentration and focus of the learners' energies on the issues provoked by the Trigger Events. This confrontation may be self-induced (i.e., a writer begins generating ideas for a novel), triggered by life circumstances (i.e., a person who has been severely injured begins to deal with the aftermath), or other-induced and/or facilitated (i.e., an educator encourages learners to widen their horizons or a therapist assists a client to begin exploring life from a different perspective).

In the process of confrontation with reality learners are involved in an inventive, generative, or creative process; in preparing to shift the grounds of reality; in creating or making new realities, new worlds or new forms of consciousness. In this process learners participate in a transactional relationship with reality through reflection,
dialogue, and the fusion of reflection and action. Each of these will be discussed in turn.

Reflective powers and abilities are extremely important throughout the process of transformative learning. During this first phase reflective powers are used to reflect on personal reality, on personal powers of reflection, and on creating or making a new reality, new world, new paradigm or new perspective. Learners reflect on personal reality in the form of unexplained anomalies and disorienting dilemmas, inadequacies in present perspective, emerging contradictions, common problems, intriguing possibilities or alternatives, and areas of curiosity. Reflective powers are heightened as learners reflect on their own personal powers of reflection by developing a sense of awareness of distancing and decentration, stance, point of view, context, and self in relationship to the self, others and the world. Reflection is also used to create alternative possible new realities, worlds, paradigms or perspectives. In all of these areas reflection is used to focus attention, to anticipate possibilities and alternatives and to project these possibilities beyond the current frame of time and space. Reflection recognizes few limitations and allows uninhibited creative and inventive movement during the generation phase of transformative learning.

The learners' transactional relationship with reality is also enhanced through dialogue, the sharing and generation of
meaning internally, with the self through thought and reflection, and externally, through direct communication with others. Skills in dialogue allow learners to connect with alternate possible worlds or views of reality in their own thoughts or minds and in the thoughts or minds of others, and to share and develop these possible worlds or views of reality either on their own or in the company of others.

Finally, the learners' confrontation with reality is characterized by a fusion of reflection and action. This fusion is evident in the integration of all aspects of experiencing—thought, feeling and action—throughout the transformative learning experience. This is a major distinguishing feature of transformative learning in that this fusion or integration is necessary to the progress of the entire learning cycle and a prominent sign that transformative learning is indeed taking place. During the Generation phase there is a particularly heavy accent on reflection as the dominant factor while later on in the Integration phase the balance shifts so that the accent tends to be on action, although both remain important throughout the cycle. This shift in accent is due to the importance of thought or reflection in the generation of possible alternative perspectives or worlds in the Generation phase and the importance of translating these possible perspectives into action in the Integration phase.

The attitude of learners is extremely important in all
three phases of transformative learning. In the Generation phase, as in the others, trust and openness to experience, an experimental attitude, and a willingness to generate alternatives and possibilities by being actively engaged on all levels—physical, mental and emotional—is essential.

Overall, the purpose of the Generation phase is invention, the creation of a new vision, or a new version, of reality.

b. Phase two: Transformation of consciousness

In contrast to phase one which extends over a widely variable length of time, and phase three which tends to take an even more extended time period than phase one, phase two usually takes a very short, sometimes even momentary, time for completion. While this second phase is the heart of the transformative learning process it is in its drawing power on events leading up to it and its aftermath in the learner's life that its true impact is evident.

The Transformation phase consists of two steps, steps three and four in the transformative learning model. Step three, Reaching the Transition Point, is accomplished through the successful completion of the Confronting Reality step of phase one. Confronting Reality requires effort and energy in a struggle which results in a dramatic or gradual increase in tension or resistance until the Transition Point is reached. The Transition Point is the point at which the learner is
ready for the release of tension in the next step, a Shift or Leap of Transcendence. At the Transition Point the learner is ready for one of two things to happen: either the learner makes a conscious decision to leap or shift to a different vision of reality or the learner experiences a dramatic leap or shift that "just happens" in a way that is not consciously planned or controlled.

Step four, a Shift or Leap of Transcendence, is the learners' experience and awareness of a shift or leap in their own consciousness which involves an awareness that the new state of consciousness transcends their former state of consciousness. In this step learners are aware of a shift in the grounds of reality or a leap to a new reality through sudden insight (the usual case) or gradual revelation (less common). This step is particularly difficult to explain, because much of the experience is beyond the capabilities of explanation in language and because the experience tends to be charged with high emotion. Feelings of challenge, struggle, risk, difficulty and resistance in making the passage required by the shift or leap are followed by feelings of excitement, exhilaration, accomplishment and release when the passage is completed. The process of Transcendence, of transformation in consciousness, is explained in terms of a change in the quality, level, or structure of consciousness according to the selected authors. Bruner explains it as the development of possible worlds; Freire explains it as conscientization, a
change in the level of consciousness; Kelly explains it in terms of a contextual shift or a process or reconstruction in the construct system; Mezirow explains it as a transformation in perspective and Nichol explains it as the transition between paradigms.

The experience of the Shift or Leap of Transcendence is described in many different ways including a leap of faith, a creative leap or contextual shift, a shift, transition or transformation in the way reality is perceived, or a revolutionary change in the way one experiences the world (See Appendix B for a more complete list). The Transcendence step is the most dramatic step in the transformative learning process, the lynch-pin on which the entire process depends. The experience of the Shift or Leap of Transcendence, the discovery of a new vision of reality, completes phase two.

c. Phase three: Integration of consciousness

While phase three, the Integration of Consciousness, is usually more mundane than the first two phases, it is equally as important to the process of transformative learning as the other two phases. The Integration phase consists of the process of holding and developing the vision of reality created in the Generation phase and experienced in the Transformation phase. The new knowledge, reality, or consciousness that results from the transformation process must be nurtured and grounded, implemented, extended, and
developed, or integrated into the life pattern of the individual over a period of time; there must be a personal commitment to this process if it is to be successfully completed.

Step five is Personal Commitment, a conscious decision to personally commit to living out the integration process and establishing the new vision, reality, world, perspective or paradigm as one's own. This step requires that the learner's personal intention, purpose or will be harnessed to the new vision of reality. Once again making this step requires little time, but applying it throughout the extended period required for the next step is a challenge in itself.

Step six, Grounding and Development, involves careful nurturing of the growth of the new reality and interweaving the new vision of reality into the every day life-space of the individual. It involves practicing, implementing and extending the new vision experienced in the Shift or Leap of Transcendence, letting go of old patterns, and accepting and acting on new ones that confirm the new vision. This step also involves exploring options, alternatives and possibilities within the new vision that will lead to its expansion and development, its projection towards the future. In this step the new vision gradually becomes the central focus of the learner's experience.

In this phase the fusion of reflection and action is expressed with the accent on action rather than on reflection.
as it was in the initial phase. Here the emphasis is on putting into practice in action terms the vision of reality that was generated primarily through reflection.

It is in this phase, also, that other types of learning are used in the service of transformative learning as new information is acquired and integrated, new skills are developed and new behaviors are practiced as a means of fleshing out the new vision of reality.

Overall, the Integration phase demands the exploration and development of the potential of the new vision of reality. Elements essential to the success of the Integration phase include adequate time and support. Time must be allowed for the maturation and development of the new reality (the new paradigm, perspective or construct system) in relation to the strength and persistence of the old system of reality. Both social and personal support are also essential. Social support in the form of assistance from an educator or therapist, association with a reference group (a group having similar educational experience in relation to similar concerns), or return to the same or a similar group learning experience for reinforcement and further learning. Personal support, in terms of learners supporting their own learning, may be experienced when learners use the original transformative learning experience as a "reference experience" in integrating new knowledge into their current life situation. This type of personal support is also evident in personal commitment and
the exercise of will to continue the process of learning while realizing that the old and new consciousness will co-exist until the new gathers strength and definition and has the power to create a unique synthesis composed of old and new elements.

2. Contributing elements

While the basic process of transformative learning is contained within the three phases—generation, transformation and integration—there are several essential contributing elements which distinguish the process of transformative learning as a distinct type of learning. These contributing elements include facilitating factors, the power of reflectivity as an aspect of consciousness, and the possible results or end-products of transformative learning. Each shall be discussed in turn.

a. Facilitating factors

Facilitating factors of particular importance for transformative learning include atmosphere, environment, an optional group setting, learner readiness and the educator's role.

An atmosphere of trust, support, openness and safety is extremely important in the transformative learning process which demands that learners be totally involved (physically, mentally, and emotionally) and often put at risk a great proportion of their personal meaning systems. The ideal
environment for transformative learning is insulated from the ordinary cares of the world to provide a protected and safe atmosphere, controlled so that learning is facilitated under optimum conditions, simplified so that learning processes and goals are easier to grasp, and experimental so that learners have an opportunity to check out alternatives.

A group setting, while optional, provides an situation in which an educator can set up atmospheric and environmental conditions which will help to facilitate effective learning. A group setting provides an opportunity to create an optimum learning environment in which learners are encouraged to share, intensify, clarify and reinforce their learning experiences.

Learner readiness is also an important element. Learners can experience transformative learning most readily if they are prepared through their own directed intention and willingness to participate, interact, experiment, reconstrue and be open to experience.

The educator or therapist may have a major role in creating an effective transformative learning experience for learners. The educator or therapist may act as a facilitator who organizes optimum learning conditions, a partner/collaborator who aids the planning and execution of learning steps, a creator, actor or director who structures a new reality that fits the learners needs, or a lender of consciousness who encourages the learner's development through
the ability to share consciousness on the level required by
the learner's rate of advancement.

All of these facilitating factors or conditions may add
to the effectiveness of the transformative learning experience
and in some cases may be required elements.

b. The power of reflectivity

The power of reflectivity as an aspect of consciousness
is a key factor in transformative learning and one of its
major distinguishing characteristics. Although all of the
selected authors consider the conscious use of the power of
reflection to be a key factor in their conceptions of
learning, no one author deals completely and clearly with the
issue. A distillation and extension of their thoughts about
the power and potential use of reflectivity is presented here
as a means of working towards a comprehensive understanding of
the role of reflectivity in transformative learning. In the
writings of the selected authors the terms reflection and
reflectivity appear to be used synonymously, but based on
strong implicit distinctions between different types of
reflective power suggested by their writings a proposal for a
clear definition of reflectivity as distinct from reflection
is put forward here. The concept of reflectivity as distinct
from reflection is proposed as a useful tool for understanding
the essential nature of transformative learning.

In order to understand the importance of reflection in
the process of transformative learning it is necessary to make a distinction between reflection as it is commonly understood and reflectivity which shall be defined here as an extended application of reflection which can be developed for specific human purposes. This distinction is necessary because transformative learning implies the development of this specialized use of the power of reflection.

Reflection can be defined as a natural mental faculty which allows humans to turn back on their experience, examine it, and interact creatively with it in conscious thought. This creative faculty of reflection endows the human mind with unique power.

Reflectivity can be defined as that aspect of human awareness or consciousness that enables or allows the conscious use of the power of reflection to distance, focus on, objectify, analyze, relate and value various aspects of experience, including its own processes; reflectivity implies the use of conscious reflection as a tool to probe, structure, project, introject, create and understand meaning or reality; reflectivity is reflection harnessed to conscious will, purpose or intention and therefore focused and directed towards chosen priorities.

Reflection, and therefore reflectivity, as reflection in a conscious, purposeful mode, implies the ability to separate or distance self from reality and to connect or relate across the gap thus created. This facility allows the development of
a sense of self or individuality including a sense of personal identity and personal control, a sense of subjectivity and objectivity, and a sense of relationship of the self to self, others and the world. Being able to distance self from reality and to connect or relate across the gap also allowed humanity to develop a sense of time (temporality), including past, present and future, place (context or orientation) and history (historicity).

This ability to develop a sense of time, history and place in turn prepares the way for the development of the ability to take a stance, point of view, or perspective and the ability to realize that there are a range of possible stances, points of view, or perspectives that are always available in a particular situation. The ability to recognize that one can view an event or situation from the vantage point of more than one stance or perspective is called decentration (in the sense of seeing from points of view centered not only in the self but elsewhere) or decontextualization (in the sense of seeing the same event in the light of different contexts). This ability to recognize the variability and flexibility of stance, point of view or perspective through the use of reflection also opens possibilities for people to choose, develop, or change their perspectives according to their individual purposes.

The development of the ability to create a sense of self, time and place, and point of view through the power of
reflection in turn allows and requires the development of an increased capacity for effective dialogue in the form of thought (internal dialogue) and communication with others (external dialogue), effective clarification of intention or purpose, effective anticipation, prediction, and control of experience, and effective decision-making, participation and action. The power of reflection also allows people to develop an increased capacity for the critical assessment of experience; the power to discriminate, criticize and judge value (as in the development of critical consciousness).

In addition, the ability to reflect allows and requires the development of an increased capacity to envision various possibilities and alternatives through the use of imagination (the ability to form images of things not present), projection (the ability to go out of oneself into other places, including the feelings and minds of others, and times, including past, present and future) and create images of those experiences in the mind. Thus the power of reflection, expressed through the capacity for imagination and projection, greatly enlarges the potential boundaries of human experience by making vicarious experience possible.

The capacity for the development of reflection and reflectivity is also evident in humanity's capacity for creativity, the power to create through the discovery or invention of new relationships or connections, and the ability to use present structures of meaning as foundations for new
structures for the future. Reflection and reflectivity allow humanity to test the boundaries of the possible with the attitude of "as if" so as to "make visible the unseen" and "make possible the unimagined". Thus reflectivity makes it possible to provisionally envision and enact experience in alternative, possible worlds as a means of anticipating, experimenting with, and testing their viability for projection on, and understanding of, personal reality.

Thus it is evident that the power of reflection expressed in reflectivity is a major tool used by human consciousness and a key element in the transformations of consciousness involved in transformative learning.

c. Possible results or end-products

The possible results or end-products also distinguish transformative learning as a unique type of learning. All of the selected writers agree that the primary result of this type of learning is some form of a new sense of personal reality. This is expressed by some writers as a sense of a new world, new vision or a new sense of reality. It is expressed by others as a sense of a new meaning system, paradigm or perspective which is more comprehensive, more inclusive of experience and structured at a higher, more integrated level than those achieved previously. Regardless of the way in which it is described, it is implied that this new sense of personal reality includes a sense of heightened consciousness, greater
personal integration, enablement of personal power, and potential developmental progress, both personally and socially. These shall be discussed in turn.

The sense of heightened consciousness evident in this new sense of personal reality may include increased awareness of self, self in relation to reality, and personal capacities and power, particularly the power of reflection in its purposeful, conscious application as reflectivity. This sense of heightened consciousness is also likely to include an awareness of alternatives and possibilities, contextuality and psychic relativity. (Psychic relativity will be discussed later in this section).

The new sense of reality also incorporates a sense of greater personal integration evident in the holistic synthesization of all aspects of self including emotion, thought and action. The fusion or combination of reflection and action (praxis is Freire's term) assists the process of integration and is in itself evidence that integration has taken place.

The enablement of personal power is also a major characteristic of the new reality; it is evident in many ways including an increased capacity for action, participation and interaction in relationship, reflection, choice or decision making, creativity, success in the pursuit of meaning, self-direction and mastery, anticipation, prediction, control of events, and coping with personal and social change.
The new reality also includes potential developmental progress toward personal maturity, emancipation or liberation in terms of freedom from undue cultural and psychological constraints, and humanization in the sense of reaching toward the potential for human development and progress not yet realized. Thus, the new reality carries within itself the potential for developmental progress on all levels, personal, cultural and historical.

This section has presented a summary of the possible primary results of transformative learning. While this summary has been distilled from the writings of the selected authors, each author stresses to a greater or lesser degree, either explicitly or implicitly, most of these potential learning outcomes.

The only term used in this section which is not to be found in the selected authors' writings is psychic relativity. This term has been coined as a result of strong converging implications found in the writings of the selected authors. All of these writers suggest that reality is constructed by the individual and that individual consciousness, particularly in its use as a reflective tool, is the creative force which constructs that reality. This particular view of individual powers of mind and their effect on the world suggests that it is extremely important that humanity learn to be aware that reality is relative rather than static and stable as is ordinarily accepted. In this world so divided by views of
reality which individuals and nations hold as inviolate and unchangeable, learning to accept the relativity of the psychic world, the world of the mind, may be an important step towards dealing intelligently and compassionately with human problems and finding viable solutions to the world problematique. With these hopes in mind, a definition of psychic relativity as an acknowledgement of the relativity of reality to a particular person, in a particular context, with reference to a particular perspective or paradigm is offered.

A general acceptance of this idea could have a great impact on peoples' approach to their own lives and the world in which they live. Just as Einstein's theory of relativity changed the scientific view of the nature of physical reality and opened up vast possibilities for exploration of the physical world, it could be projected that a wide recognition of the psychic relativity of personal and social perspectives and points of view might change the general view of the nature of psychic reality and open up vast possibilities for exploration of the psychic world, the world of the mind. Just as Einstein's theory of relativity can be applied productively to the physical world, it is proposed that a recognition of the relativity of the psychic world might be equally as useful in the study of the human mind and its learning functions.

D. THE ROOTS OF THE TRANSFORMATIVE LEARNING MODEL

While all of the selected authors have made suggestions
about the way in which they believe learning of a transformative nature may occur, no one has proposed an encompassing model as a means of explaining the phenomenon. The model of transformative learning proposed here draws heavily on the writings of the selected authors but goes beyond their work in suggesting that this model may help to explain transformative learning as a general distinctive type of learning which encompasses all of the various forms of learning that they describe. In this section the unique contribution of each author to the various phases and steps of the model and the identification of particular facilitating conditions for transformative learning is recognized.

1. The roots of the generation phase

The first phase of transformative learning, the Generation of Consciousness, is amply supported by each of the selected writers. This is the initiating, creative phase which prepares the learner for the experience of the second phase, the Transformation of Consciousness.

The development of the conception of Encountering Trigger Events as a possible first step in the process of transformative learning stems from Freire's concept of "contradictions in consciousness", Nichol's application of that same term, and Mezirow's idea of a "disorienting dilemma". There is also explicit agreement with this idea in the writings of Bruner and Kelly as each recognizes problems,
IV. LEAP OR SHIFT OF TRANSCENDENCE
Shift grounds of reality, or leap to new reality or perspective through:
1. sudden insight
2. gradual revelation

III. REACHING THE TRANSITION POINT
1. make decision to leap or shift
2. leap or shift "just happens"

II. CONFRONTING REALITY
Period of intense, concentrated engagement with experience
Involved in "making a reality" "world-making" "consciousness-creating"
1. self-induced and self-propelled
2. other-induced and facilitated (i.e., by educator or therapist)

I. ENCOUNTERING TRIGGER EVENT(S)
Reality demands attention (anomalies, contradictions, disorienting dilemmas)
1. external (social) events
2. internal (psychological) events

V. PERSONAL COMMITMENT
Making decision to proceed with integration (act of intention, purpose, will)

VI. GROUNDING AND DEVELOPMENT
Nurturing the growth of the new reality through:
- trying out new vision in own life-space
- letting go of old patterns
- accepting and acting on new patterns
- interweaving old and new patterns

Figure 2: Model of transformative learning
challenges or curiosities in the life of the individual as means of instigating or initiating learning.

The Confronting Reality step is based on Bruner's description of the intensity of the creative process and his description of the dynamics of the tutor-learner relationship, Freire's and Mezirow's conception of the educator's role as a facilitator of the learner's confrontation with reality, Kelly's ideas about the role of the therapist in relation to the client, and Nichol's description of the dynamics between the trainer and learners in a t-group. Previous discussion has amply explained how these writers agree that in the process of confronting reality the learner is involved in creating a new reality or preparing to shift the grounds of reality. Previous discussion has also made clear that all of these authors agree on the importance of reflection, dialogue and the fusion of reflection and action in the creation of a new reality.

2. The roots of the transformation phase

The Transformation of Consciousness, the second phase of transformative learning, is also rooted in consistent and strong support from all of the selected writers.

Support for step three, Reaching the Transition Point, is found particularly in Nichol's account of paradigm-transition, assisted by his description of the experience through the eyes of his learners. Freire speaks of the difficulties encountered by those who seek conscientization. Kelly and Mezirow also
emphasize the effort necessary in the reconstruction of a construct system or the transformation of a meaning system. Bruner also follows the struggles of the creative process up to the point at which connections are made and result in effective surprise. While all of the writers support the idea of a dramatic shift or leap of consciousness which "just happens", some, such as Mezirow and Kelly, support the idea of the learner making a conscious decision to make the leap or shift as well.

There is strong, consistent evidence for step four, the Shift or Leap of Transcendence, in the writings of all the selected writers. Each author strongly supports the idea of transcending the old frame of reference or meaning system through a process of transformation in consciousness. This transcendence of the current consciousness or transformation in consciousness is experienced as a shift or leap in awareness, and is explained in terms of a change in the quality, level, or structure of consciousness. In summary, Bruner's account of the development of possible worlds, Freire's description of conscientization, Kelly's explanation of contextual shift as an aspect of construct system reconstruction, Mezirow's conception of perspective transformation, and Nichol's presentation of paradigm-transition all emphasize transcendence through transformation, experienced as a shift or leap in consciousness, as one of the central concepts in their conception of learning.
The descriptions of the experience of Transcendence as they have been gleaned from these writers encapsulates the drama of this type of learning. While the other writers describe or imply other important characteristics of the experience, such as the difficulty of explaining the process, the feelings of struggle and resistance which accompany the learner in the approach to Transcendence, the feelings of exhilaration and release that herald its successful completion, and the intense emotional response engendered by this type of learning, Nichol describes these process characteristics most clearly.

3. The roots of the integration phase

The Integration phase, the third phase of transformative learning during which the new vision of reality is incorporated and integrated into the on-going life-world of the individual, is also generally supported by all of the selected writers, with varying degrees of emphasis and clarity.

Mezirow, Nichol, and Kelly emphasize step five, Personal Commitment, most emphatically and specifically. All of these writers emphasize that the new vision of reality reached through the Transformation phase will remain only a vision unless a Personal Commitment is made to integrate that vision into the everyday reality of the individual. Bruner's and Freire's writings, although not so explicit about its nature,
also strongly support this learning step.

Step six, Grounding and Development, is particularly well supported by Mezirow's conception of the phases of perspective transformation which, in the main, describe specific elements of the grounding and development of the new vision of reality. Nichol and Kelly are also very clear and specific about the necessity for, and practical suggestions regarding the Grounding and Development of a new paradigm or construct system. Freire implicitly suggests the importance of this step in his explanation of the functions of the culture circle as a support group for its members. Bruner's work also contributes general support for this step. All of the writers acknowledge the importance of social and personal support and the allowance of ample time for development as essential to the success of this stage of transformative learning.

4. The roots of facilitating factors

In addition to their contributions to the conception of the basic phases of transformative learning all of the selected writers discuss to some extent the importance of strong facilitating factors for the success of transformative learning including comments on atmosphere and environment, the advantages of a group setting, learner readiness and the role of the educator. Each of these shall be discussed in turn.

The importance of a positive atmosphere and environment for learning is evident in the writings of all of these
authors. Kelly and Nichol stress most strongly and explicitly the necessity for a positive experimental atmosphere and environment, Kelly by direct explanation and Nichol by description of the essential qualities of the t-group environment. Bruner, in his explanation of the tutoring situation, Freire, in his detailed description of the operation of culture circles, and Mezirow, in his explanations of ideal conditions for perspective transformation all support the importance of positive facilitating conditions for success in learning.

The educator's role in transformative learning is also given strong emphasis. All of these authors describe the educator's role in slightly different terms, but all agree on the particular importance of the educator in facilitating transformative learning. Bruner expands on the idea of the educator as a "lender of consciousness" who assists the learner by staying on the growing edge of the learner's awareness and creating a constant pull towards further learning. Freire, while downplaying the effect of the educator by concentrating on the methodology and philosophy of conscientization, outlines the steps that the educator must take in developing culture circles in which learners learn effectively. Kelly points out the strong effect that the therapist's intervention may have on the construct system of the client. Mezirow acknowledges the importance of the educator in assisting the learner to attempt the various
phases of perspective transformation. Of all the writers represented here Nichol is most explicit about the power of the educator in directing and facilitating the process of transformative learning through perspective transformation; he acknowledges the educator's power as an actor/creator/director, a "maker of realities".

The possible importance of a group setting is also acknowledged by these writers. Nichol and Freire stress most strongly the important influence that a group setting may have as a facilitating factor for learning. Mezirow also gives support to the idea of the importance of a group setting for learning. While Bruner and Kelly concentrate more on learning in a one-to-one setting, they each recognize the importance of group or social influences.

While Kelly gives the most explicit account of the readiness of the learner the other authors also support this idea either implicitly or explicitly.

In reference to all the phases and steps of transformative learning and the facilitating factors which affect its success, it is evident that the transformative learning model has strong roots in the writings of the selected writers.

E. CONCLUSION

This chapter has clarified the essential nature of transformative learning through an integration of the work of
selected authors including Bruner, Freire, Kelly, Mezirow and Nichol. Common or compatible elements of the transformative learning process were derived. A model of transformative learning was proposed and its roots in the writings of the selected authors were explored.

In the following chapter the case history of Sara will be examined in light of the proposed model of transformative learning as a means of clarifying Sara's personal learning experience and reflecting on the adequacy of the model.
V. FINDINGS AND CONCLUSIONS: REVISITING SARA'S CASE

A. INTRODUCTION

In the presentation of the case history it was noted that Sara's description of her learning contained elements that could not be accounted for by traditional formulations which view the learning process in terms of behaviour change and/or the acquisition, retention, organization and recollection of knowledge. Two interwoven themes, which defy explanation through current perspectives of learning, pervade Sara's account of her learning experience. The first theme is a clear description of the core of the learning process as being experienced as a radical change, described in terms of a shift or leap, or a major transition:

To let go of those familiar ideas that I had held as true meant that I would have to make a leap across what seemed like a giant chasm to the unknown territory (p.35).

The second theme involves a sense of the quality of personal awareness or consciousness, and particularly, changes in consciousness, which appear to be intimately connected to the experience of the leap or shift. There is a qualitative shift in Sara's perception of the world around her and of her relationship to that world which suggests a radical change or transformation:

This change in the way I was seeing myself was a major revelation, a major shift in my whole approach to life...(It) completely changed my point of view of how the world worked. I seemed to be looking at everything with new eyes (p.33).
And later:

I felt a sudden awareness of things fitting together differently as if I was seeing them for the first time in a whole new way (p.41).

These two major interwoven themes instigated an exploration of a perspective of learning which emphasizes the creative possibilities that people have for the generation of knowledge through the alteration or transformation of consciousness, that is, transformative learning.

The work of selected authors including Bruner, Freire, Kelly, Mezirow and Nichol was integrated in order to bring meaning to, or explain, this type of learning. The integration resulted in a model of transformative learning which will now be applied to an understanding of Sara's description of her learning experience presented in Chapter 2. At the same time, the transformative learning model will be further explained and elaborated in the process of its application to Sara's experience. The mutual illumination of the case study and the transformative learning model will be organized according to the three basic phases of the transformation of consciousness in the transformative learning process—generation, transformation and integration.

B. PHASE ONE: GENERATION OF CONSCIOUSNESS

The first phase of the transformative learning process, Generation of Consciousness, involves events which disturb people's reliance on their current meaning systems or versions.
of reality, and the beginning of the generation or creation of a new vision or version of reality. This period of invention or generation in the transformative learning process usually consists of two distinct steps, Encountering Trigger Events and Confronting Reality, that lead in succession to the Transition Point which begins the second phase.

1. Encountering trigger events

Trigger Events are incidents or experiences that disturb the individual's current view of reality; they are experienced as anomalies, curiosities, contradictions or disorienting dilemmas; they are experiences or events which demand attention and cause the individual to stop and think. These events most often occur outside the individual, but they can also be internal, psychological events i.e., the germ idea from which a work of art or a scientific breakthrough evolves. Trigger Events focus attention and prepare individuals to accept or seek change in their perspective of reality. It is during this step that individuals begin the process of internal and external dialogue which guides the process of transformative learning and the process of reflection that is intimately connected to and expressed through dialogue.

Sara's case amply illustrates external Trigger Events and their effects in focusing her attention on her personal reality and preparing her to anticipate, seek or accept change:
When I decided to go to the personal development course my life was a mess. My husband had left a month ago saying that he did not think we had enough in common to keep us together. I had just started to recycle my career by going back to study at university. I had been a high school teacher, but that was nine years ago, before...I had become a stay-at-home mother. Many teachers were out of work so it was not likely that I would find a job even if I wanted to go back to teaching (p.27).

Sara's account also illustrates how Trigger Events tend to involve the individual physically and emotionally as well as intellectually:

I was dragging myself through the days wondering where I would find the strength to cope with the next hour. It was horribly difficult trying to give my nine and ten year old daughters the extra love and reassurance they needed through letting them know how afraid, angry, grief-stricken and empty I was feeling (p.27).

And later she comments:

I was used to learning which required thinking; having my emotions as well as my thoughts so totally involved in the learning process was a new experience for me (p.36).

And, later on, she emphasizes the profound nature of this learning. "I had never before experienced such a profound and intense period of learning" (p.39). Her learning involved much more than mere changes in behaviour or acquisition of information. Indeed, it seemed to consume and affect her totally.

It is characteristic of transformative learning to demand this total engagement of people as integrated whole beings; this integration is expressed in the transformative learning model in terms of the fusion of reflection and action as an integral aspect of the entire learning process. The fusion of reflection and action is evident in Sara's decisions to enter
the program and to participate whole-heartedly in its activities; in each phase of learning her action steps are integrated with her thoughts and emotions.

In the Generation phase the accent is on reflection as individuals strive to cope with Encountering Trigger Events and Confronting Reality by generating various possible solutions to the problems they pose. This balance of reflection and action is evident in Sara's involvement with learning modules that stress immediate action experiences based on course content which demands reflection:

The facilitator would give a short lecturette and then get us involved in one or two small group exercises which would help us explore the topic that had been discussed in the lecturette. The small group exercises were super because we could begin immediately to explore just how we might apply the concepts presented in the lecturette in our own lives....I sure learned a lot in a hurry when I was encouraged to think and act out immediately how each idea might fit into my own life. Each small group exercise was always followed by a full group discussion or question and answer period with the facilitator and that really helped too. Those discussions...(were) a great way to get problems clarified, and some of the insights or ideas that people shared about their experiences in the exercises were really helpful (p.29).

It is obvious at this stage that action is used as a adjunct to reflection in the generation of ideas. In this process external dialogue with others and the internal dialogue of reflection continue in parallel processes. Sara recounts her participation in both types of dialogue, and her process of reflection through internal dialogue is increasingly evident as her account of the learning experience continues. In fact, her whole account is, in a sense, a record
of her internal dialogue as she progressed through the series of personal development courses:

Where could I find one point of focus in my life? It was coming apart at the seams! It was difficult to choose one area, but I finally settled on two that I felt were the most crucial, my career options, and my relationship with my husband. I guess I picked them because they were the ones that terrified me most. I thought I might as well go for broke and deal with the tough ones (p.30).

Sara recognizes how the learning environment facilitated the process of reflection, "The residential centre...was a perfect setting for reflection and introspection" (p.38). She also comments on the difficulty of engaging seriously in the process of reflection. "Increasing my self-awareness was not a comfortable process but I had given myself this challenge and I was going to see it through" (p.39).

2. Confronting reality

The second step in the Generation phase of transformative learning process involves Confronting Reality, a step impelled by the stimulation of Encountering Trigger Events and the individual's attempts to grapple with them. This step consists of a period of intense engagement with experience or reality, not only in terms of its present state, but also in terms of alternatives and possibilities for the future; it is a period of true generation and invention in which individuals explore beyond their current paradigm boundaries for new expressions of their intentions towards, and their understanding of, the world; it is a future-oriented period of anticipation and
projection in which possible worlds are imagined and subjected to experimental test:

Of course I did not piece this all together until later but the basic idea behind the lectureettes and the activities was that they were structured so that we would gradually become aware of the attitudes and beliefs that each of us used to guide our personal approaches to life, and the positive or negative effects that these belief systems had on our lives. Eventually we were also given methods of rooting out those that were ineffective and destructive, and methods of choosing and incorporating alternative attitudes and beliefs that would lead to more satisfaction and success in our lives (p.30).

During this step individuals are involved in beginning to transcend their predominant paradigms by using their current understanding as a basis for world-making. (In the ensuing discussion the term "world-making" will be understood to imply a range of terms acquired or developed in the course of this study which refer to a creative process of mind that affects the way people perceive reality i.e., world-making (Bruner), consciousness-creating (Freire), reality-making (Nichol), construct-creating (Kelly), perspective-creating (Mezirow), and paradigm-creating (Nichol).

The process of Confronting Reality may be self-induced and self-propelled, or it may be induced and facilitated by other people such as educators or therapists. Self-induced confrontations with reality which result in products such as original works of art, invention or discovery may be generated in an almost totally self-directed manner, although even these extremely individualized generative processes are often facilitated by some form of assistance from others. In other
instances other people in a professional role such as educator or therapist will facilitate the learning process by challenging and supporting learners in their confrontation with reality, either on a one-to-one basis or in a group situation.

It must be noted in this connection that Trigger Events may be intentionally induced during the course of education or therapy, rather than occur in an unplanned, haphazard fashion in the everyday life-space of the individual, as the result of an educator or therapist directly facilitating the process of Confronting Reality in the learner. Indeed, the educational or therapeutic experience may be a Trigger Event in itself. In this case the Trigger Events step may be experienced simultaneously with the Confronting Reality step, or the Trigger Events step may be bypassed entirely as the learner is catapulted into confrontation with reality through an educational or therapeutic experience.

As has been noted Sara definitely experienced her encounter with Trigger Events before her confrontation with reality in the educational setting. In fact, the "triggers" of her critical marital and career situation led her to the educational program as a means of confronting and dealing with her current reality. Sara reports finding the support of the friend who brought her to the educational group, and the challenge and support of the facilitator and his staff, as well as the learning group as a whole, as essential to her
progress in the Confronting Reality step, even though she was eager to challenge and support herself as well:

I have never lived through five such lively, entertaining and exhausting days in my life. I didn't know so much information and activity could be crammed into such a short time. I have never felt so totally involved in learning—so challenged, so encouraged, so supported in the risky business of trying out new ideas. I have never worked so hard or felt so light and exhilarated afterwards (p. 28).

Later she comments on the support she received from the group:

At first I was hesitant about participating in the exercises and discussions. I was feeling quite shy and afraid. But as other people showed that they were willing to share their experiences, their hopes and uncertainties, I began to feel free to share mine. There was no pressure to participate, but it soon became evident that participation was the key if I really wanted to learn. And I really wanted to learn (pp. 29-30).

Sara also comments on the support from the facilitator's assistants:

It was fortunate for me that volunteer (I did not know he was a volunteer at the time) was very supportive and encouraged me to go ahead with my closet cleaning in spite of my fear (and my distaste for house cleaning!) (p. 31).

Later she gives recognition to the general support of the organized learning situation in facilitating the success of her learning experience:

I do not think that making a leap to a whole new way of knowing or seeing is something that we do easily or naturally. I do not think that I would have been able to learn in this way, or at least not as effectively, or in such a short period of time, if I had not been guided in the experience of these three courses (p. 47).

In this passage Sara acknowledges the essential contribution that a well planned and carefully orchestrated learning experience can make to the success of transformative learning.
The process of world-making in the Generation phase of transformative learning may take a variety of different forms which would include:

1. The rare case of the creation of a world that is introduced into human thought as an entirely original world-version, i.e., the Copernican Revolution.

2. The appropriation of a world promoted by powerful or charismatic others without the balancing factor of being assimilated into an integrally developed self-system which has the power to modify the influence of this new world version according to the person's own need and values, i.e., usually the first stages of socialization or entry into a religious or political cult.

3. The assimilation of a ready-made reality which is modified or individualized to suit the self-system of the individual, i.e., the process of becoming a medical doctor.

4. The appropriation of a world jointly created in social process for a specific purpose which suits individual as well as social needs, i.e. Freire's culture circles and Mezirow's dialogic learning situations in their ideal forms.

5. The creation of a world which is a "bridge-paradigm", a world-between-worlds, which allows communication and provides a practice or laboratory space between an old world and one to be created in the future, i.e., the world created in the t-group (implied by Nichol) which is used to bridge the space between the old world that occupied the everyday life-space of
individuals and the new world that they will create when they return to their everyday life-space. Some of Kelly's therapeutic techniques such as fixed role therapy also fit this category.

It must be understood that there may be other categories of the world-making processes, given the variety of human ingenuity, but this may be considered a basic list. Sara's experience clearly fits into the last category; her learning was in the form of a bridge paradigm which she used as a tool to create a new reality in her own life-space. Sara explains her bridge paradigm in the following way:

During these courses I experienced several major leaps across the void towards new perspectives, or major shifts in my ways of seeing and thinking about myself and my relationships to the people and events in my life. The major learning shift that I made was in realizing the power of my own awareness and my ability to make shifts or changes in that awareness. I learned to experience changes in my awareness, to recognize familiar features of the process of these changes as they took place, and to some extent actively control the process of changes in my awareness as a means towards finding meaning and fulfillment in my own life. Knowing what an important part my own awareness plays in my learning has had, and will continue to have, a strong influence on how I choose to live my life (p.48).

Clearly Sara feels that what she has learned will act as a bridge to further learning in her own life situation outside the protected environment of the learning group.

The Confronting Reality step of transformative learning is facilitated by an experimental environment in which learners can actively explore alternatives and possibilities with new materials or ideas in a controlled setting, with
maximum directed focus and support, minimum risk and
distraction, and immediate feedback. This type of environment
is most easily created in a group setting where the group
itself becomes part of the effective experimental environment;
it can also be created on a one-to-one basis between a learner
and an educator or therapist, or by a particularly skilled and
motivated self-directed learner alone. Sara clearly describes
the effectiveness of the experimental environment in the group
setting of the series of courses she attended:

A facilitator managed and guided the flow of events. A
group of volunteers acted as assistants in all sorts of
ways. Their assistance was so low key that I was not
very much aware of how much they were helping
participants until near the end of the program. The
course was basically set up on a module system which kept
us really active. The facilitator would give a short
lecturette and then get us involved in one or two small
group exercises which would help us explore the topic
that had been discussed in the lecturette. The small
group exercises were super because we could begin
immediately to explore just how we might apply the
concepts presented in the lecturette in our own lives.
Some of the things I learned came as quite a shock,
some were quite confusing, but I will tell you more about
those later. I sure learned a lot in a hurry when I
was encouraged to think and act out immediately how each
idea might fit into my own life. Each small group
exercise was always followed by a full group discussion
or question and answer period with the facilitator and
that really helped too. Those discussions were often
pretty lively but it was a great way to get problems
clarified, and some of the insights or ideas that people
shared about their experiences in the exercises were
really helpful (p.29).

Further on she states:

The relationships that formed between people at the
course were special. The facilitator set the tone for an
atmosphere that was always positive, encouraging and
supportive. We got to know and trust everyone involved
very quickly because we all knew we were there to learn,
and that we could help each other by being supportive and
non-judgmental. The facilitator and the volunteers made it clear that they were there to assist people to discover their own way to move toward their own goals. There was never any feeling of being pressured or personally attacked, only of being challenged to consider alternate points of view or frames of reference which might be more productive and satisfying (p.37).

The attitude and involvement of the learner is extremely important at all stages of the transformative learning process, but particularly so at the generation stage; the success of the learning process is entirely dependent on the full participation of the learner. The guidance, challenge, and support supplied by a group can be of immense value in actively engaging the learner in a holistic manner on all levels of experience, physical, mental and emotional. Having people participate in an active and integrated way increases the focus, intensity, and possible creativity of their confrontation with experience. In addition, full participation by each member of a group inspires and challenges others to full participation. Therefore, being able to successfully complete the first phase of transformative learning and move into the second phase is facilitated by the full participation of individuals, either on their own or within the context of a group.

Sara mentions how quickly she overcame shyness and apprehension and became involved in the learning process in the group. She speaks often of the intensity of the total involvement that she feels:

I have never lived through five such lively, entertaining and exhausting days in my life. I didn't know so much
information and activity could be crammed into such a short time. I have never felt so totally involved in learning—so challenged, so encouraged, so supported in the risky business of trying out new ideas. I have never worked so hard or felt so light and exhilarated afterwards. The hours flew by and when it was over each day I was eager to learn more (p.28).

Sara acknowledges how working in a group can encourage an atmosphere of trust, challenge and openness to experience through mutual modelling and support under the guidance of the facilitator. Sara recognizes the value of the group process in her own learning experience:

I do not think that I would have been able to learn in this way, or at least not as effectively, or in such a short period of time, if I had not been guided in the experience of these three courses (p.47).

The time factor becomes critically important, especially in the group setting, because the facilitator carefully arranges activities for maximum effect in minimum time, thus telescoping and making efficient a process which may occur in the life of an individual in an unplanned fashion without support over a much more extended and erratic timetable.

This is not meant to suggest that learners move in any lock-step fashion through the phases of transformative learning, but rather that their individual timetables of movement may be streamlined because they are focused, challenged, and given support, assistance and feedback in the group setting.

Generally, as the Transition Point is approached, the intensity of the confrontation with reality intensifies even further as learners become more aware of the necessity for
choice among multiple alternatives and possibilities, or they feel more deeply the cross-pull of their anomalies, contradictions or dilemmas. Awareness of the risk of committing to the unknown, and the known comfort of current ways of seeing things, may fuel a more or less severe but growing resistance to forward movement as the confrontation with reality progresses.

Highly charged emotions and feelings of being "stuck" that characterize this step are amply evident in Sara's report. Sara describes varying degrees of resistance encountered as she approached the Transformation phase of learning. She confirms feelings of being stuck, of not wanting to go on, of not wanting to face the risk of change, or leave the comfort of the familiar way of being to risk an unknown future and also feelings of questioning her own ability and her own reasons for possible change:

I resisted looking closely at myself because I was afraid of all the terrible things I might find. I also wondered if there was much hope that I could change anything even if I did find out what was wrong. I did not want just to end up making things worse for myself, if that were possible. As I remember agonizing to one person "What good is it going to be for me to open the closet and let all the old bones and garbage come out? What guarantee is there that I will be able to do anything to clean up the mess? I feel a lot safer just keeping the door closed as tightly as possible and going ahead with my life as best I can from day to day (p.31).

As this quote indicates the risk in making a change can also be threatening to the self concept. Sara expresses strong emotion in connection with her realization that her own conception of herself comes under increasing self-scrutiny and
is very much in question. "...I began to see how damaging many of my basic attitudes to life were. I cringed with distaste to find out what a victim and martyr I had become" (p.31). As Sara reports, if the learner is willing for the learning process to continue, the growing resistance or "stuckness" eventually leads to release in the Transformation phase:

...the process of becoming aware was one of the most painful, as well as one of the most exhilarating, experiences of my whole life. It was not easy for me to look closely at myself and be honest (p.31).

Later Sara remarks:

The course helped me to see that there were other perspectives, other possible ways of looking at my life, that promised to be far more productive (p.33).

Sara's willingness to confront her reality and seek solutions in new perspectives enable her to enter the Transformation phase in spite of her fears and resistance.

C. PHASE TWO: TRANSFORMATION OF CONSCIOUSNESS

The Transformation of Consciousness phase of transformative learning consists of two closely related steps, Reaching the Transition Point and making a Leap or Shift of Transcendence which together propel the learner into the conscious discovery and experience of a new vision of reality. This phase is the core of the transformative learning process, the phase in which learners clearly experience leaps or shifts in consciousness. These leaps or shifts in consciousness result in the feeling that the grounds of personal reality have been altered so that they are seeing the world with new
eyes or that the world that they are seeing is different; there is a definite feeling of transcendence beyond the old way of being and thinking.

1. Reaching the transition point

At the Transition Point the issues and inventions of the generation phase come to a head and a state of balance; resistance is often strongest just before this point is reached. Sara speaks often of the intensity of the challenge and difficulty, risk and struggle which she experiences as she approaches the Transition Point:

I just found that what I had come to learn demanded that I let go of a lot of things that I had been holding onto very tightly so that I could let more positive things come into my life. That very process of letting go and accepting new perspectives on my life was by its very nature a very emotional experience (p.36).

It is very simple to look back and see how well things all turned out, but at the time this type of learning was not easy for me. Making changes in my outlook was a very difficult, terrifying, and confusing process. Each structured activity and lecturette brought its own new ideas for me to apply to my life and I struggled to make some personal sense out of them and incorporate them into my old ideas about myself and my life. Some of the most difficult times where those when I realized that I could not incorporate the new ideas into the old established patterns. Those were times of major decision and change. I would either have to cling to the old ways, even though I could now see how they were hurting me, or let the whole set of old ways of thinking go and trust in an entirely new way of thinking which would demand that I make major readjustments in my life. That was really scary because it meant that I would have to risk to find out if the new ways might work for me. What would happen to the relationships that counted if I changed my ways of thinking and being? Would those that I cared about accept my changes? And there were ideas that I felt I could not give up—especially those that anchored my anger and resentment. Acute surprise and anguish often punctuated
those moments when I suddenly realized that old ideas were not working for me the way I thought they would. To let go of those familiar ideas that I had held as true meant that I would have to make a leap across what seemed like a giant chasm to the unknown territory of a whole new way of looking at things. I often questioned my courage and my desire to make that leap. There is a comfort in the familiar even if its negative qualities are recognized. As a result I often swung wildly from feeling very low and incapable of the effort required to explore further, to feeling very high and excited about new possibilities that I could see for myself that would result from changing the way that I was thinking (pp.35-36).

At the Transition Point the struggle ends, the resistance is released, and the learner moves forward into the Transcendence step, either through conscious intention and decision, or through an unconscious release of resistance and acceptance of the newly created world or reality. In the unconscious form of passing the Transition Point the sudden shift or leap that the learner experiences appears to "just happen." Sara's experience confirms passing the Transition Point by both methods, a conscious decision and the experience of a sudden and surprising insight:

The experience at the decision point varied considerably but I soon came to recognize common elements. Sometimes the approach was the result of struggling through a maze of thoughts and experiences in a long slow anguished climb, and sometimes, to my surprise, I was already leaping out beyond my own boundaries before I had time to consider what was happening. Sometimes I approached the edge several times and turned back, not feeling ready to leap....Most of the time I felt that I made a conscious choice to experience the leap, but sometimes it just seemed to happen. All of a sudden things would come together in a whole new way and I would think "Yes, yes! That is the way it is! Why did I not see it this way before?" (p.40).

Intense emotional involvement is evident not only in the
struggle and resistance leading to the transition point but in
the release of feelings of transcendence, excitement, energy
and exhilaration which accent the transformation experience
and its aftermath:

When I reached the new territory on the other side of the
chasms where things looked so different I also felt a
sense of lightness, of release, of letting go of burdens
from the past, as if the shift I had made had released a
whole new reserve of energy from somewhere deep inside.
This energy seemed to be connected to a greater sense of
peace within myself, a new sureness about myself and my
life, and a rising sense of excitement about new
possibilities just over the horizon (p.42).

2. Leap or shift of transcendence

Sara confirms that usually the Transcendence step is
experienced as a sudden insight giving rise to its description
as a leap or shift but she also confirms that the
transformation can also take place in a more gradual manner.
In the case of a gradual shift, as well as the more abrupt
one, there usually is a point of recognition of transition
when learners, although they have not noticed the gradual
transition or shift until that point, realize suddenly that a
major shift has taken place. Perhaps these two types of
description represent two approaches to the same kind of
experience. In any case, the essential point is that whether
it happens suddenly or gradually, learners become aware of the
experience of a shift, leap, transition or transformation in
their own consciousness.

The selected authors have variously labelled the shift or
leap of the Transcendence step as entering another world version, perspective transformation, conscientization, paradigm-transition or contextual shift. These authors imply that Transcendence can incorporate many different types of shift or leap within various sub-sections of a personal meaning system, as well as applying to a shift which incorporates the entire meaning system as a whole.

Sara is quite clear in suggesting that she experienced many such shifts or leaps and that each of these experiences included a greater or smaller proportion of her personal meaning system. In this respect Sara's account suggests more clearly than any of the selected writers' accounts that context shifts are cyclical in nature; she describes these shifts or leaps in consciousness as happening repeatedly, inclusive of various areas of her personal meaning system, and differing in intensity according to the proportion of the total meaning system that they covered:

During the second course I became even more familiar with the process of coming to the decision point at the edge of the giant chasm between old ways of thinking and a totally new way of thinking...The experience at the decision point varied considerably but I soon came to recognize common elements....Sometimes when I made the leap the changes on the other side seemed so subtle that I barely saw any immediate difference in the territory on the other side, and other times I landed in territory so new and strange that it took me a while to adjust and get my bearings (pp.40-41).

There always seemed to be a sense of wonder or surprise associated with the leap and the delightful (usually!) awareness of how new and yet how appropriate the new territory was. I felt a sudden awareness of things fitting together differently as if I was seeing them for the first time in a whole new way (p.41).

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At the same time she suggests that even small shifts in small areas of meaning can have an important effect on the whole system:

It was like playing with a kaleidoscope and wondering at how just a subtle shift can make the whole pattern entirely new. The pieces are all the same old pieces, but they have been transformed into an entirely new design (p.41).

Overall, Sara emphasizes the overriding importance of the experience of the shift or leap of the Transcendence step in the process of her learning and her difficulty in explaining it adequately:

The intensity of my experience surrounding the approach to the dizzying edge, the leap of faith across the nothingness, and the incredible newness of the world on the other side is difficult to explain but this type of intense experience was central to my learning during these courses and certainly the most amazing and memorable aspect of those courses from my viewpoint several years later (p.40).

It is obvious that Sara regards the Leap or Shift of Transcendence as the corner stone of her learning process.

D. PHASE THREE: INTEGRATION OF CONSCIOUSNESS

The third phase in transformative learning involves holding and developing the new vision or version of reality that has been created and entered into through phases one and two. While this phase continues to thrive on the fusion of reflection and action the balance between them is shifted so that action becomes the predominant focus in their symbiotic relationship; during this phase the new vision must be translated into action in the life-world of the individual,
while still being controlled and guided by reflection. Sara recognizes this shift in the balance between reflection and action at this stage in her learning process:

The desire to explore the big, new, wide, wonderful world out there in terms of my new vision was strong, but figuring out how I was going to tackle it personally was a different matter. It was truth time; time to prove all my fine promises to myself with action and I felt not just a little shaky and scared quite frankly I was terrified—but determined (p.44).

In contrast to the Transformation phase of transformative learning which is distinguished by the tendency to take place in a very short space of time, the Integration phase is distinguished by its need for an extended time period for its successful completion. Integration is achieved through an extended period of exploration and development of the new vision of reality. It is fostered by nurturing the growth of the new reality, decreasing the strength and persistence of the old reality, and shaping the new consciousness based on the new reality, which incorporates or interweaves what is best from the old and the new. This phase takes place in two steps, Personal Commitment, and Grounding and Development.

The first step, Personal Commitment, involves a conscious decision to accept the new vision and to do the work necessary for its integration into a personal meaning system. The necessary work which follows is the Grounding, that is, rooting the new reality in the personal meaning system and the everyday life-space of the individual. Grounding is only possible if time and effort is given to the Development or
maturation of the new meaning system. Thus, the second step is called Grounding and Development.

1. Personal Commitment

The inclusion of the Personal Commitment step in this model of transformative learning acknowledges that people can attain a state of new vision through the experience of the transformation phase and still decide, for various reasons including safety, the comfort of familiarity, and unwillingness to risk, to retreat to their old vision of reality. Sara recognizes this possibility:

Once the leap or shift had been made there seemed to be no going back. I felt a solid sure sense that I "knew" in a very deep way, on many different levels, that things had changed and I could not see them in the old ways again even if I tried. I might try to choose to retreat to old ways but I would always know the greater truth of the new ways (p.41).

Achieving the transformation stage does not guarantee the fulfillment of the transformative learning cycle and it may be derailed at this point. It takes the courage of conscious intention, purpose, and will to commit to the process of integration through extended Grounding and Development. In Sara's case there is little evidence of a struggle with the decision to commit to the continuation of the learning cycle, but her commitment is obvious. "But I always felt committed to the new vision of my life that I had created and I knew that if I kept working towards it I would reach my goal" (p.46).
2. Grounding and Development

Grounding and Development begins as soon as the commitment is made and individuals begin the work of exploration necessary in trying out the new vision in their own life-space, and shaping and developing it to their own needs. As they let go of old patterns, accept and act on new ones, and interweave what is best from old and new, they implement and extend their new vision, and intimately tie it to their everyday experience. They become increasingly centered and grounded in the new reality as they continue to practice and introject their new vision and use it as a means to project towards the future and further transformative learning. Sara's experience confirms this:

I was surprised to find how often I came to blocks in my path and the realization that to get rid of them I would have to work out a shift in the way I was seeing the problem. Obviously, although I had made major changes in the way I was thinking about my life there were still changes to be made. Again I would find myself in that now interior struggle leading up to a leap across the void towards a new way of seeing things. The process was not any easier but at least it was familiar and I knew from experience that the results I could create by going through with the process were very worthwhile. I was feeling a growing confidence in my ability to learn in this way, and I knew that when the courses were over I would be able to continue to learn and grow on my own, knowing that help from other people would always be there if I needed it (p.47).

Nurturing the growth of the new reality through Grounding and Development requires effort, time and support. Sara's account recognizes the importance of all three ingredients. In regard to the effort and energy she found necessary to expend she says:
The implementation of ideas was not easy. I knew so clearly now what I wanted, but sometimes what I had learned seemed so slippery, and all my old patterns of behaviour were waiting there so smugly and confidently, knowing how easy I would find it to fall back into relying on them. Working towards my new vision meant breaking a lot of old and comfortable bonds and putting incredible effort into forming new patterns and behaviours (p.45).

Rome and new versions of reality are not built or rebuilt in a day; the new vision experienced in the transformation of consciousness is the blueprint for a fine new structure but it can only be realized over an extended period of time. And as with rebuilding a city there are many problems, setbacks and difficulties to be overcome. Sara recognizes this need for time in the Integration phase of her learning:

I know you can't rebuild a life in a day, but I wanted to. There was so much to learn, so many plans to be made, so many new ways of thinking and behaving that I wanted to try out and refine. The learning process did not stop. I found myself awash in new ideas to explore and I kept having to tell myself that I could not change everything I wanted to change in just a few days. Although I was seeing things in my life in a different light, it was difficult figuring out the practical application of my new vision. Even though the whole picture of what I wanted had changed within me, I knew that I had to prioritize and focus my energy in work on one or two small areas of change at a time. Once movement and change began in small areas of my life it was easier to keep up the momentum and widen the area of focus (pp.44-45).

Time and effort are needed to achieve the maturation, the Grounding and Development, of the new version of reality.

Support from others, particularly those who have shared similar learning experiences, or educators or therapists skilled in such support, is as crucial to the success of the Integration phase as it is to the other phases of the
transformative learning cycle. In recognizing the importance of support for the successful completion of the transformative learning cycle there is a recognition of the importance of the social and cultural influences on this type of learning. Sara acknowledges the importance of support in the Integration phase of her learning experience. "Having a support partner was a invaluable asset....It was much easier to tackle difficult tasks knowing that that support was there" (p.46). Sara also acknowledges the support she received from the facilitator and the ongoing support group:

We were so comfortable with each other within the group, and knew each other so well, that we were able to give each other invaluable feedback and encouragement on a ongoing basis. And of course, although we now felt more and more confident in being able to keep working towards our goals on the individual paths we had set for ourselves, the facilitator helped us to stay focused on our commitment to our own lives. It felt marvelous going back to the group where we all felt so safe, and yet at the same time so challenged, to move forward with our individual plans. Seeing how other people were changing and developing, following their successes and failures so regularly and closely, and feeling their genuine support for my endeavours was an invaluable source of inspiration, energy and courage for me (pp.46-47).

Thus, Sara confirms the continuation of her own learning journey in the company of others.

E. CONCLUSION

Sara's description of the transformation experience from a personal point of view fills in gaps left by the selected authors. She underlines and extends some of their points and adds new ones for consideration.
Her description of the transformation experience is especially clear in spite of the fact that she confirms Nichol's view that this type of experience is difficult to explain. She speaks of the process as one that she comes to recognize as a familiar cyclical event in her learning. In her case transformation happens in small areas of her personal meaning system over time rather than happening as just one major life-jolting, cataclysmic event in the total meaning structure. Even small changes appear in her account to be often quite difficult and far-reaching or pervasive of the whole system in their effects.

The significance of transformative learning cannot be better expressed than in the words of Sara:

I do not think that making a leap to a whole new way of knowing or seeing is something that we do easily or naturally. I do not think that I would have been able to learn in this way, or at least not as effectively, or in such a short period of time, if I had not been guided in the experience of these three courses. The new self-awareness that I achieved ushered in a major period of change and learning in my life. I had not realized before that important learning can take place through changes in my awareness of myself, other people and situations in my life. During these courses I experienced several major leaps across the void towards new perspectives, or major shifts in my ways of seeing and thinking about myself and my relationships to the people and events in my life. The major learning shift that I made was in realizing the power of my own awareness and my ability to make shifts or changes in that awareness. I learned to experience changes in my awareness, to recognize familiar features of the process of these changes as they took place, and to some extent actively control the process of changes in my awareness as a means towards finding meaning and fulfillment in my own life. Knowing what an important part my own awareness plays in my learning has had, and will continue to have, a strong influence on how I choose to live my life (pp. 47-48).
Sara's recognition of her ability to control her own processes of transformative learning is the key to the significance of transformative learning for adult education. If Sara can learn the secrets of managing her own transformative learning experience then other adult learners can hope to do the same; adult education may choose as one of its mandates the open opportunity to foster transformative learning.
REFERENCES


APPENDIX A

ANALYSIS OF SELECTED AUTHORS

I. INTRODUCTION

This appendix was originally an analysis chart which helped to clarify the views of the selected authors according to various categories and sub-categories developed in the comparative analysis. Only the page detailing the background of the selected authors remains in the form of a chart (See Figure 3). The rest of the information has been formatted to flow from the ideas of one author to the comparative ideas of the next. Consequently the category headings are the same for each author and their ideas regarding each category can be easily compared. A complete outline of categories is presented here to assist the reader in cross checking between authors.

II. OUTLINE OF CATEGORIES

A. Outline of analysis chart categories applied to each author
   1. Background
      a. publication dates
      b. nationality
      c. antecedents
      d. orientation
      e. focus of inquiry
      f. primary theoretical context
      g. purpose
      h. formal attempts at theory building
   2. Major concept categories and related sub-categories
      a. consciousness
         1. characteristics and functions
         2. emphasis
         3. levels, modes, domains
         4. development of consciousness parallels development of self
5. development of consciousness parallels general human development
6. characteristics of people with consciousness developed to high levels
7. relationship of consciousness and language
8. the operation of consciousness is mirrored in personal and social meaning systems
9. reflectivity as a major aspect of consciousness

b. reality
   1. philosophical outlook
   2. type
   3. focus
   4. relationship of the individual with reality
   5. modes of construction of reality
   6. personal meaning systems

c. transformative learning (learning involving changes in consciousness)
   1. general approach to learning
   2. definition of the transformation process
   3. impetus
   4. primary focus
   5. environment
   6. practical application
   7. goal (purpose in humanity's development)
   8. domains and modes of learning
   9. elements of the basic learning process
  10. phases
  11. dynamics
  12. blocks or barriers
  13. facilitating factors
  14. educator's role
1. **BACKGROUND**

<table>
<thead>
<tr>
<th></th>
<th>Bruner</th>
<th>Freire</th>
<th>Kelly</th>
<th>Mezirow</th>
<th>Nichol</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>b. Nationality</strong></td>
<td>American</td>
<td>Brazilian</td>
<td>American</td>
<td>American</td>
<td>British</td>
</tr>
<tr>
<td><strong>c. Antecedents</strong></td>
<td>American and European interdisciplinary studies rooted in psychology</td>
<td>Christian and Marxist principles pragmatism existentialism humanism</td>
<td>American psychology</td>
<td>Kuhn, Freire, Kelly, Rogers, Bruner, Berger &amp; Luckman</td>
<td>Kuhn, Freire, Berger &amp; Luckman, Kelly, Mezirow</td>
</tr>
<tr>
<td><strong>d. Orientation</strong></td>
<td>psychological</td>
<td>sociological</td>
<td>psychological</td>
<td>psychological</td>
<td>psychological</td>
</tr>
<tr>
<td><strong>e. Focus of Inquiry</strong></td>
<td>development of mind in relation to human development</td>
<td>role of human consciousness in the social transition of groups</td>
<td>role of thought structures and processes in human personality</td>
<td>theory building in area of adult learning and development</td>
<td>process of paradigm-transition as learning process</td>
</tr>
<tr>
<td><strong>f. Primary Theoretical Context</strong></td>
<td>psychology in relation to the sciences, humanities and arts</td>
<td>Marxist historical epoch</td>
<td>basic science model &quot;man-the-scientist&quot;</td>
<td>Habermas's theory of communicative action</td>
<td>Kuhn's history of scientific paradigms</td>
</tr>
<tr>
<td><strong>g. Purpose</strong></td>
<td>broad understanding of human condition based on study of the processes of the human mind</td>
<td>education of social groups towards attainment of individual, social and political power</td>
<td>individual therapy (the psychological reconstruction of life)</td>
<td>-exploring perspective transformation as a central concept for adult education -liberating personal development and social action</td>
<td>understanding the process of paradigm-transition in an educational setting</td>
</tr>
<tr>
<td><strong>h. Formal Attempts at Theory Building</strong></td>
<td>philosophy and methodology of education for critical consciousness</td>
<td>personal construct theory -a comprehensive theory of man -a personality theory</td>
<td>critical theory of adult learning and development or transformation theory (theory of adult learning, development and education)</td>
<td>paradigm-transition learning theory</td>
<td></td>
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Figure 3: Background of selected authors
III. CONCEPT CATEGORIES APPLIED TO EACH AUTHOR

A. BRUNER

1. Background (See Figure 3).

2. Major concept categories

a. Consciousness

1. Characteristics and functions
   - a tool for understanding
   - an instrument of mind (a combination of conscious and unconscious processes)
   - a form of private display
   - a device for creating the here and now in an accentuated way
   - an extraordinary way of highlighting the immediate

2. Emphasis
   process—modes of thought or consciousness
   product—"possible worlds" or versions of reality created by humanity, culturally (academic disciplines) and personally (personal meaning systems)

3. Levels and domains
   Modes of thought or consciousness
   - paradigmatic
   - narrative

4. Development of consciousness parallels development of self
   Consciousness, as an aspect of mind, develops through access to other minds mediated through language.
   Self arises out of the development of the capacity to reflect, which is a process of consciousness. The capacity to reflect develops as result of internal and external dialogue in transactions with self and others, through the medium of language.
   The development of both depends on transaction, the social process of the mutual sharing of assumptions and beliefs.

5. Development of consciousness parallels general human development
   Human development is the result of the interaction of culture and genetic endowment.
   Meaning and reality are created by the conscious mind which has the power to recreate reality and reinvent culture.
   The human mind and consciousness have the power to create many possible worlds; they sense the "alternativeness of human possibility."
   The development of mind and consciousness is linked to
the general human development process which evolves in the matrix of interaction among the forces of learning, language, culture and self.

In every cultural "tool kit" are concepts that help people to get to higher ground mentally. New concepts gives a new, higher, more comprehensive perspective on lower ones. Bruner proposes that any new theory of development must begin with a discussion of mind.

6. Characteristics of people with consciousness developed to high levels
- active and creative
- capable of choice
- self-reflective
- able to use both paradigmatic and narrative modes

7. Relationship of consciousness and language
Language:
- is a powerful cultural tool for the development of mind and consciousness and at the same time it mirrors their development
- is a powerful tool for organizing experience and constituting realities
- its modes of organizing knowledge (structure) give insight into the operation and natural structure of mind and consciousness
- "reflected our lives in history. Yet at the same time it could propel us beyond history"
- is "constitutive"-it can create realities of its own; it can convert mental processes into products
- language creates and transmits culture and locates our place in it

8. The operation of consciousness is mirrored in personal and social meaning systems
The development of individual consciousness and knowledge is mirrored by, and developed in, parallel processes with large public knowledge systems i.e. academic disciplines. Therefore, understanding the development of knowledge is enhanced by paying attention to both personal and social processes and systems.

Culture provides humanity with instruments or tools for understanding that empower the individual mind, i.e., language and its products, with which possible worlds can be created. Humanity is the product of culture as well as nature. The stock forms of culture give structure and meaning to human experience and allow communal sharing of that experience. The tools of culture make it possible for "mind to vault beyond
itself." Humanity can thus be understood as "a species that created itself" through the process of culture-creating.

9. Reflectivity as a major aspect of consciousness

Every culture had a tool kit of concepts "that permit one to get to higher ground mentally". Higher concepts give a higher perspective and provide a way of turning around on thoughts and seeing them in a new light; a process of mind reflecting on itself, a process of consciousness. Reflection is related to stance, our consciousness of our "place" in the world.

Reflection allows humans to distance themselves so they can:
1. see themselves and their experience more clearly
2. develop a sense of:
   a. self or personal identity (a set of stances)
   b. personal control
   c. the possibility of creating, controlling and choosing a range of alternative stances
   d. relationship with self, others and possible worlds

Vygotsky's views interpreted by Bruner:
- consciousness is mind reflecting on itself
- self-directed conscious reflection is internal dialogue (thought) which gives humans a capacity for personal control
- viewed learning as the transmission of mind across history through successive mental sharings via the medium of language
- consciousness (reflection) mediates between the individual and culture-the capacity for thought (personal control) develops as external learning dialogue (cultural influence) is internalized.

The demands of a particular culture determine how much and in what form the capacity for reflection develops.

b. Reality

1. Philosophical outlook

CONSTRUCTIVISM—There is no unique pre-existing "real world". The world is the product of mind (human mental activity) and symbolic language. Multiple realities or possible worlds are created individually and collectively within the context of culture. World-making involves a transformation of worlds or world versions already made. World-making is a basic characteristic in the development of
the human mind and consciousness.

2. Type
Both the human mind and human culture are collections of possible worlds. Multiple realities or possible worlds are created individually and collectively within the context of culture. The two modes of consciousness give two different sets of methods for the creation of worlds or realities.

3. Focus
The relationship of personal and social reality
- each illuminated the characteristic development of the other
- psychological reality is paramount

4. Relationship of the individual with reality
Reality is created through the individual's:
- active and creative construction
- transformative powers of mind and consciousness

5. Modes of construction of reality
There are two complementary modes of thought, cognitive functioning or reality construction; each provides a distinctive way of ordering experience or constructing reality:
   a. paradigmatic
      - its domain is physical reality, the physical world, explored through the sciences
      - it seeks to transcend the local and the particular
      - goal: to establish truth
   b. narrative
      - reflects the use of language and the way it operates constitutively to create a conscious reality of its own.
      - its domain is psychic reality (landscape of human action and consciousness) explored through the arts and humanities
      - it is textual rather than logical
      - its concern is with the human condition
      - seeks to endow humans experience with meaning
      - goals: lifelikeness or verisimilitude
      - meaning which is derived from the discovery of relationship
Sensitivity to the narrative mode is the major link between our sense of self and our sense of others i.e., it enables relationship.

6. Personal meaning systems
A personal meaning system is a collection of possible worlds created by each individual on the basis of world versions available in that individual's cultural context.
c. **Transformative learning** (Learning involving changes in consciousness)

1. **General approach to learning**
   Learning is approached through an exploration of the processes of mind or consciousness

2. **Definition of the transformation process**
   Learning is a multi-dimensional rather than a unitary process. Learning is:
   a. Mind as "method applied to tasks"—each academic discipline may be perceived as a distinct world view or perspective which gives access to certain types of perception and limits others
   b. "There are ways of framing ideas that are appropriate to the level of development." Bruner implies that through learning the level of development and the ways of framing ideas may be changed
   c. The "generativeness" of knowledge—knowledge is not static but dynamic and creative
   d. Learning is "figuring out how to use what you know to go beyond what you currently think. There are many ways of doing that" i.e. narrative and paradigmatic modes. Each way depends on knowing something structural about the knowledge—knowing the structure "permits you to go beyond it"

2. **Definition of the transformative process**
   The creation of possible worlds: takes place through a transformation in existing world versions. Transformation is a basic process in the development of the individual's mind and consciousness and in human development generally.

3. **Impetus**
   - natural developmental tendency in humans
   - the demands of complex society

4. **Primary focus**—the individual

5. **Environment**—not tied to specific environment

6. **Practical application**—tutoring model used as example

7. **Goal (Purpose in humanity's development)**
   - creativity, meaning, enhancement of human development, increase the understanding of the processes of the human mind and its development

8. **Domains and modes of learning**
   **Modes:**
   a. consciousness in paradigmatic mode

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-an instrument for the analysis of necessity and trouble
b. consciousness in narrative mode
-connection-maker
-a filler of gaps
-a vehicle for making present the absent, making visible the unseen, making possible the unimagined

9. Elements of the basic learning process

Learning is a social and developmental process (the burden of learning is divided between individuals and their culture)

Learning (Vygotsky) is the transmission of mind across history effected by successive mental sharings from the more competent to the less so, through the medium of language e.g. modernization of Russian peasant described in the same manner as the mental growth of the child as a creative process of "fusing collective action with consciousness" with the goal of:

a. conversion of consciousness
b. creation of a new consciousness

Language is the paradigm case for the explanation of learning in that the "aspirant speaker must borrow the knowledge and consciousness of the tutor to enter the language"

10. Phases-Not directly applicable

11. Dynamics

Learning processes tend to be different in different modes. In the narrative mode learning is often characterized by creative leaps and effective surprise.

12. Blocks or barriers
- limiting nature of perception
- limits of cultural context

13. Facilitating factors-Not directly applicable

14. Educator's role

Tutoring, as a prime example of the learning process, takes place through a dynamic, negotiable transaction, a collaborative dialogue. The educator:
- provides a "loan of consciousness" or acts as "consciousness for two"
- stays on the growing edge of the learner's capabilities
B. FREIRE

1. Background (See Figure 3)

2. Major concept categories

a. Consciousness

1. Characteristics and functions
   - a tool that "stretches forward"
   - conscious activity expresses intentionality or purpose
   - has the capacity to objectify and reflect
   - means for discovering and inventing the world

2. Emphasis
   - process-conscientization
   - product-levels of consciousness

3. Levels, domains, modes
   - Levels of consciousness:
     a. semi-intransitive: near disengagement with reality—individuals operate on level of biological necessity and survival
     b. naive or semi-transitive: some awareness but individuals are still a part of the mass
     c. critical or transitive: more aware of selves, reality and their power to act on reality—capable of engagement and dialogue with the world

4. Development of consciousness parallels development of self
   - As humans progress through the levels of consciousness (conscientization) individuals become more aware of themselves as separate from the mass; they become more aware of themselves, their reality, and their power to act on reality

5. Development of consciousness parallels general human development
   - Humanization and liberation of people made possible as a result of their ability to rise through the levels of consciousness to the highest level, critical consciousness

6. Characteristics of people with consciousness developed to high levels
   - Critical consciousness is the highest form of consciousness. Critical consciousness is developed through the power of reflection. It is characterized by:
     - depth of interpretation
     - awareness of self in relation to socio-cultural reality
     - aware of capacity to act on and transform reality
     - capable of dialogue with self, others and the world
     - self confidence, responsibility, permeability and openness

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- capable of sound argument, receptive to new ideas, and accepting of the good in both old and new ideas
- active and creative in engagement with the world

7. Relationship of consciousness and language
   Development of literacy (language) from roots of people's experience essential to conscientization (change in the level of consciousness)

8. The operation of consciousness is mirrored in personal and social meaning systems
   Individual consciousness mirrors consciousness of the social group and its attendant place in social system.
   Public knowledge systems i.e., education, are designed to maintain the status quo (keep levels of consciousness in society stable)

9. Reflectivity as a major aspect of consciousness
   Reflection is the means that humans use to relate to their world in a critical way thorough critical perception or critical consciousness
   The uniqueness of human existence lies in humanity's ability to separate self from the environment, and to communicate and relate across the gap, i.e., to reflect

   Critical reflection enables the development of:
   - sense of self
   - sense of temporality and history
   - ability to relate through dialogue
   - ability to transcend time and space
   - increased capacity for choice and creativity in relationship to the world

   Reflectivity allows people to be active and creative in their relationship with the world. It gives them the critical capacity to make choices and transform reality. They "dynamize, master, humanize, create, and re-create reality" using the power of reflectivity.

   Critical consciousness focuses not only on objective external reality, but also on itself, in a form of self-reflection, becoming "a consciousness of consciousness."

   Praxis is a dynamic process based on the interaction of reflection and action, which allows people to be aware of, understand and act upon their reality, to transform it. The creation and transformation of reality through praxis humanizes and liberates people.

b. Reality

1. Philosophical outlook
   Combination of:
   a. Marxist-Christian principles-historical-cultural-
social reality has powerful effect on human affairs
b. Existentialism and humanism—people are capable of freedom in their encounter with reality

2. Type
Social reality variously interpreted according to the level of consciousness achieved by the individual. People perceive and understand reality at various historically and culturally conditioned levels of understanding.

3. Focus
Emphasis on personal reality within a social group; historical-socio-political reality paramount

4. Relationship of the individual with reality
Men "act upon reality" in an active and creative relationship with the world. As humans relate to the world they begins to "dynamite, to master, to humanize reality. They add to it something of their own making...by creating culture."
In relating to the world people "create, re-create, and decide and in doing so change reality and participate in the development of historical epochs."
Men can intervene in reality in order to change it: they create and recreate history and culture.

5. Modes of construction of reality
There are two modes of relating to reality, adaptation (dehumanizing) and integration (a combination of adaptation and the critical capacity to make choices and transform reality and thereby humanize it). These modes of relating to reality are controlled by the levels of consciousness which are levels of perception of reality.

6. Personal meaning systems
Personal meaning systems based on level of consciousness within the individual's social group.

c. Transformative learning (Learning involving changes in consciousness)

1. General approach to learning
Learning is approached from the conception of a philosophy and methodology of education for critical consciousness

2. Definition of the transformation process
Conscientization is:
"the process in which men, not as recipients but as knowing subjects, achieve a deepening awareness both of the
socio-cultural reality which shapes their lives and of their capacity to transform that reality" 
-the awakening of critical awareness of historically and culturally conditioned levels of understanding and consciousness

3. Impetus
   a. natural tendency implied
   b. direct education: critical consciousness must be developed through a specific educational effort
   c. the force of change in the transition between historical epochs
   d. "contradictions in consciousness"

4. Primary focus-groups within society

5. Environment
   group process-education in culture circles

6. Practical application
   literacy training for oppressed peoples

7. Goal (Purpose in humanity's development)
   Increased capacity for awareness, control, choice, creativity, understanding, participation, action: the humanization and liberation of man

8. Domains and modes of learning
   Not directly applicable

9. Elements of the basic learning process
   Group process in culture circles involving:
       -learning by developing themes from learners own cultural context
       -reflection and action as a group as well as individuals
       -helping people confront and understand their common reality through relationship, dialogue, and problem posing and confronting "contradictions in consciousness"
       -raising level of consciousness to a higher level

10. Phases
    Not directly applicable

11. Dynamics
    Basic dynamic is moving people from less aware to more aware states of consciousness through a process of conscientization, a process in which "men achieve a deepening awareness both of the socio-cultural reality which shapes their lives and of their capacity to transform that reality." A gradual or sudden shift from one level of consciousness to
another is implied.

12. Blocks or barriers
   - culturally induced myth
   - organized advertising, ideological and otherwise
   - manipulation and control of one social group by another

13. Facilitating factors
   - critical consciousness intentionally developed through education
   - educator supports conscientization through culture circles
   - learning developed out of the learner's own relevant experience

14. Educator's role
   - guides process of education for liberation through group process in culture circles
   - in partnership with learner
   - crucial role as development of critical consciousness often dependent on education
   - help learners reflect on their own power of reflection with the result of increasing their capacity for choice
   - "help men help themselves, to place them in consciously critical confrontation with their problems, to make them agents of their own recuperation"
   - help learners cope with societal transition
   - facilitate the process of humanization and liberation

B. KELLY

1. Background (See Figure 3).

2. Major concept categories

a. Consciousness

1. Characteristics and functions
   - construct system and stream of consciousness closely related
   - a person construes on a range or series of levels of consciousness
   - much of construct system may be unconscious unless specifically brought to consciousness
   - "man's widening awareness of the universe... gave him increased capacity to predict and make his world more manageable"

2. Emphasis
process-construction and reconstruction of construct system
product-qualities or characteristics of individual construct system

3. Levels, modes, domains
A person construes on implied range of levels of consciousness

4. Development of consciousness parallels development of self
Therapy is directed towards enabling clients to become more aware of their own personal construct systems (which reflect the self and consciousness of the individual) and aware of ways to restructure them in a more functional fashion.

5. Development of consciousness parallels general human development
The progress of "man-the-scientist" (ability to predict and control) depends on "man-the-philosopher" (thought processes, consciousness).

Humanity's development has depended to a great extent on scientific curiosity which reflects underlying human curiosity.

There is an implication that as the growing awareness or consciousness of "man-the-scientist" developed, humanity developed and progressed.

6. Characteristics of people with consciousness developed to high levels
An image of humanity as creative, active, capable of choice, and having the ability to predict and control the world through the construction and reconstruction of construct systems.
- characteristics of viable construct system-permeability etc.

7. Relationship of consciousness and language
The construct system (meaning system which reflects consciousness) is partially developed through, and explored by, the use of language (i.e., repertory grid).

8. The operation of consciousness is mirrored in personal and social meaning systems
Construction, testing and reconstruction of construct system (personal meaning system) mirrors the processes of science (a social meaning system).

The model of "man-the-scientist" (implying consciousness) is used to describe man's approach to world

9. Reflectivity as a major aspect of consciousness
The repertory grid is used as a reflective device, a
psychic mirror, to allow person to become aware of their own construct system through a self-reflective process.

b. Reality

1. Philosophical outlook
   CONSTRUCTIVE ALTERNATIVISM
   a. life involves the representation or construction of reality
   b. our present interpretations of the universe are subject to revision and replacement i.e., reconstruction. There are always some alternative constructions available to choose from.

2. Type
   Personal reality depends on the development of a personal construct system. Shared public construct systems (academic disciplines) and personal construct systems, can bring a variety of perspectives to the same event.

3. Focus
   Psychological reality most emphasized but it is recognized as being embedded in socio-cultural-historical reality

4. Relationship of the individual with reality
   The interpretation of reality is subject to construction and reconstruction.
   A construct system is a "personal version of reality"; personal power to represent, interpret, construe rather than just respond is at the heart of humanity's creative capacity.

   The construct system is built around the ability to anticipate, shape and look to the future so that future reality will be better represented.
   There are always alternative constructions that can be placed on reality. People play an active role in shaping events. They have the creative capacity to choose in their representing.

5. Modes of construction of reality
   Not specifically addressed but the construct system is a "personal version of reality". People have the creative capacity to represent the environment, not merely respond to it: they can place alternative constructions on reality.
   Truth, the correspondence between the construct system and reality can only be established within a limited range which is dependent on the construct system." Some constructs and construct systems are more adequate because they support more precise and accurate predictions about more events i.e.,
they have greater predicative efficiency in enabling man to anticipate events.

6. Personal meaning systems

Constructs and construct systems are means of making sense of the world and reference guides for behaviour.

A construct is "a representation of the universe (a course of events), a recognition of a recurrent there, a way of construing the world, a personal version of reality. The act of construing is an act of interpretation and the resulting construct is a model, a theory, an interpretation or representation that must be tested against the reality of subsequent event.

"Man creates his own ways of seeing the world in which he lives. He builds constructs and tries them on for size"...the same events can often be viewed in the light of two or more systems."

Constructs are tools for interpreting and exploring the world.

A construct system is designed to fit a limited realm of events and have limited application within those realms. Constructs are hierarchically organized into systems variously subject to test in terms of usefulness in helping the person anticipate events. Constructs allow people to "play active role in shaping events."

A construct system is "kind of scanning pattern which a person continually projects on the world"; the more adequate the scanning pattern is, the more meaningful the world becomes.

"Man looks at his world through transparent patterns or templets which he created and then attempts to fit over the realities of which the world is composed"

c. Transformative learning (Learning involving changes in consciousness)

1. General approach to learning

Learning is:

a. "assumed to take place"
b. "synonymous with any and all psychological processes"
c. what makes a person a person

2. Definition of the transformation process

Learning is assumed to be inherent in the course of all basic psychological processes and therefore is evident in the way these processes are plotted and controlled by one's construction of events. "A person's construct system varies as he successively construes the replication of events." Motion, change or transformation are basic to life processes and changes in consciousness through the construction and
reconstruction of construct systems is a natural process.

3. Impetus
   a. a natural human tendency to anticipate and explore the world
   b. individual therapy

4. Primary focus-individual

5. Environment-primarily a therapeutic setting involving a one-on-one therapist and client relationship

6. Practical application-primarily individual therapy

7. Goal (Purpose in humanity's development)
   - develop ability to predict and control events
   - develop individual potential by freeing from constraints of inadequate construct system
   - enable creative capacity, ability to make sense of the world, and ability to be active and capable of choice
   - enable control and individual liberation

8. Domains and modes of learning-not directly applicable

9. Elements of the basic learning process
   Work with individuals over time to explore and restructure their construct systems using a variety of techniques or learning processes such as fixed role therapy and repertory grid technique.
   Learning, experience and creative reconstruction of construct systems are closely interrelated. Reconstruction, and therefore learning, take place in a continuous process of successively construing and revising of the construct system in the direction of increased validity. This process involves anticipating, reevaluating, creating and choosing from alternative constructions. "Man comes to understand his world through an infinite series of successive approximations." He is always "faced with constructive alternatives which he may explore if he wishes."

10. Phases-Not directly applicable

11. Dynamics
   There can be a gradual or sudden awareness of a contextual shift in a construct or a construct system.

12. Blocks or barriers
   The essential nature of the construct system and the construing act tends to have a limiting effect; constructs (patterns, templates) limit the field of vision.
   a. adequacy and quality of construct system (comprehensiveness, permeability, limits, structural
integration, range, flexibility)

b. awareness or consciousness of structure and contents of construct system. People are not necessarily aware or articulate about their own construct systems
c. reluctance to express or test constructs because of element of risk in seeking improvement (It may take a "major act of psych-therapy or experience" to get a person to adjust their construct system).
d. framework provided by individual's construct system may not be adequate to task of further development in present state. Even "change which a person attempts within himself must be construed by him...he cannot even attain the new outlook in the first place unless there is some comprehensive overview within which it can be construed"
e. Conditions of threat may traumatize, immobilize or throw a person back on ineffective older constructions.
f. Preoccupation with old material
   -old and new must be interwoven or interlarded
   -old material can provide stability, anchoring or a margin of safety but can also provide a place to get stuck.
g. Lack of a laboratory (experimental atmosphere and materials)

13. Facilitating factors
   a. the introduction of fresh elements
      -new, laboratory environment
      -the availability of "the stuff" from which new constructs can be formed
      -verbal elements-stories and artificial roles
   b. experimental atmosphere
      -tentative constructs tried out in relative isolation and controlled setting
      -shifting construct grounds
      -consequences limited
      -small experiments tried
      -field trials planned
      -hypothesis formulated
   c. availability of validating data
      -educator monitor learning and give immediate feedback
   d. insular, protected environment
      -not threateningly different from person's usual life
      -lacking complexity of usual life
      -opportunity for rehearsal, role playing and exploration in a limited sphere
      -opportunity to work out problems in setting insulated from other variables

14. Educator's role
-education and therapy for individuals
-guide growing awareness of construct system, possibilities for reconstruction, and the process of reconstruction of the system
-analyze learner's constructs system
-monitor learning process
-respond to need for immediate validating data
-provide controlled experimental environment
-create partnership with learner in exploring and reconstructing construct system
-provide fresh elements

D. MEZIROW

1. Background (See Figure 3)

2. Major concept categories

a. Consciousness

1. Characteristics and functions
   Consciousness is defined in terms of the process of reflectivity which encompasses different levels of awareness. Consciousness or reflectivity is evident at various levels and is divided into two basic types, consciousness and critical consciousness (see section on reflectivity).
   Consciousness enables the individual to critically assess and transform personal meaning systems or perspectives.

2. Emphasis
   -process-perspective transformation
   -product-higher levels of awareness
     -greater maturity, higher levels of adult development

3. Levels, modes, domains
   Levels of consciousness or reflectivity:
   a. consciousness
      -reflectivity
      -affective reflectivity
      -discriminant reflectivity
      -judgmental reflectivity
   b. critical consciousness
      -conceptual reflectivity
      -psychic reflectivity
      -theoretical reflectivity

4. Development of consciousness parallels development of self
   Adult development is linked to development of reflectivity (self-reflection).
   Conceptualizing one's self concept in the process of
perspective taking is developmentally a function of maturity. Mezirow relates perspective transformation to Habermas's third learning domain which involves an interest in self-knowledge, the knowledge of self-reflection.

5. Development of consciousness parallels general human development

Perspective transformation (a change in consciousness implying a process of becoming more critically aware) is a "cardinal dimension of adult development" and "the most distinctive domain of adult learning"

Adult maturity is achieved through a developmental process of movement towards meaning perspectives that are progressively more inclusive, discriminating and more integrative of experience

The development of critical consciousness is a prerequisite for liberating personal development and social action

6. Characteristics of people with consciousness developed to high levels

- critically conscious of how and why their habits of perception, thought and action have limited their approach to life
- capable of critically reflective discourse (has communicative competence)

Characteristics of authentic perspective (critical discourse reflects best in human development)
- critically reflective
- objective and rational
- accepting and open to other perspectives
- free from distorting self-deception

Being critically reflective allows people to develop:
- new sense of agency and personal responsibility
- reciprocity and equality
- autonomy and self-determination
- contractual solidarity which enables participation in the reconstruction of society

A superior perspective is more inclusive, discriminating, and integrative of experience, and also sufficiently permeable to allow one access to other perspectives.

7. Relationship of consciousness and language

Adult development is the adult's "progressively enhanced capacity to engage in critically reflective discourse through which expressed ideas are validated"

Habermas' "ideal speech" in which all alternative
perspectives relevant to situation are presented, is held as an ideal for speech communication or discourse which Mezirow sees as central to perspective transformation.

More authentic meaning perspectives are created by dialectical communicative competence, critical reflection and critical discourse related in the process of perspective transformation.

8. The operation of consciousness is mirrored in personal and social meaning systems

Unexamined cultural assumptions may be reflections of economic political, social, religious, occupational or educational systems which all have psychological dimensions. Personal problems can be seen as having their counterpart in public issues and these call for both individual and collective action.

The state of consciousness reflects unexamined internalized cultural assumptions unless critical consciousness is consciously developed and used to critically examine those cultural assumptions.

9. Reflectivity as a major aspect of consciousness

Consciousness is defined in terms of levels of reflectivity. Reflectivity is, on the most basic level, simply becoming aware of specific perceptions, meanings or behaviours, or habits we have of seeing, thinking or acting.

Two types of consciousness:
   a. consciousness (affective, discriminant or judgmental reflectivity)
   b. critical consciousness (conceptual, psychic, or theoretical reflectivity)

Critical consciousness:
   -is awareness of our own perspectives (habits of perception, thought or action) of reality, but also awareness of why we attach the meaning we do to reality (awareness of cultural assumptions, which act as constraints, that dictate our meaning perspectives)
   -plays a crucial role in perspective transformation and therefore in adult learning
   -may be the "most distinguishing characteristic of adult learning"
   -is becoming aware of meaning as relative to interpretation in a particular context
   -a "uniquely adult capacity" realized through perspective transformation

b. Reality

1. Philosophical outlook
Critical theory (via Habermas)
Marxist interpretation of history (via Freire)
Constructivism (quotes Bruner and Kelly)

2. Type
Individual reality exists in the context of culture. Perspective transformation is a major reordering or restructuring of reality. Maturity and wisdom develop as a people reinterpret reality from higher perspectives as the process of development involves the developmental transformation of perspectives.

3. Focus
Personal reality is embedded in socio-cultural-historical reality

4. Relationship of the individual with reality
Children are socialized into ways of perceiving reality that are uncritically assimilated. Uncritically acquired meaning schemes must be brought into awareness by the adult and critically examined and transformed.

5. Modes of construction of reality
Same as modes of learning-instrumental, communicative, and emancipatory.

6. Personal meaning systems
A meaning perspective (meaning system or meaning structure) is:
- an integrated psychological structure with dimensions of thought, feeling and will
- a proposal to experience one's life
- an orienting frame of reference made up of sets of schemes, theories, propositions, beliefs and evaluations
- a personal paradigm:
  a. for understanding ourselves and our relationships
  b. that positions us for action, defines our expectations, and selectively orders and delimits what we learn and the way we learn it
- the structure of psycho-cultural assumptions within which new experience is assimilated and transformed by one's past experience
- a form of consciousness involving a particular constellation of beliefs, attitudes, dispositions etc
- the structures that constitute our "boundary structures" or "horizons of expectation" which impact on perception, comprehension and recall of meaning

c. Transformative learning (Learning involving changes in consciousness)
1. General approach to learning
"We learn by making meaning of our experience"
Learning "may best be understood as the process of construing and appropriating a new or revised interpretation of the meaning of one's experience as a guide to decision and action. Meaning is central to learning"

2. Definition of the transformation process
Perspective transformation is a personal, group or collective process of becoming critically aware of how and why the structure of our presuppositions have come to constrain the way we perceive, understand and feel about our world; through a meaning reorganization reconstituting the structure to permit a more inclusive, discriminating and integrative perspective; and making decisions or otherwise acting upon these new understandings.

3. Impetus
Internal or external pressure:
- natural tendency to become critically conscious of how and why habits of perception, thought and action have limited our approach to life
- "disorienting dilemma"
- intensity of events
- direct education

4. Primary focus-individual as member of a group

5. Environment-educational setting
- group process for support

6. Practical application-adult education
- education for social action

7. Goal (Purpose in humanity's development)
- quest for meaning
- maturity develops through freeing self from psycho-social constraints
- sense of personal control

8. Domains and modes of learning
Learning domains:
   a. instrumental
   b. dialogic (learning for communicative understanding)
   c. emancipatory (learning for perspective transformation)
(b. and c. are most associated with learning involving changes in consciousness)

9. Elements of the basic learning process
Learning processes within each domain:
   a. within meaning schemes i.e., differentiation and elaboration (habits, stereotypes)
   b. learning new meaning schemes which are sufficiently consistent and compatible with existing meaning schemes to complement them within a prevailing or emerging meaning perspective
   c. learning through meaning transformation: "becoming aware of specific assumptions...upon which a distorted or incomplete meaning scheme is based and through a reorganization of meaning, transforming it"

Illumination through redefinition or reframing is achieved by critically assessing the assumptions that support the meaning scheme or perspective within which the experience is being interpreted

10. Phases
   a. a disorienting dilemma
   b. self examination
   c. a critical assessment of personally internalized assumptions and a sense of alienation from social expectations
   d. recognizing one's problem as being shared by others
   e. exploring options for new ways of acting
   f. building competence and self-confidence in new roles
   g. planning a course of action
   h. acquiring knowledge and skills for implementing one's plans
   i. provisional efforts to try new roles and to assess feedback
   j. a reintegration into society on the basis of conditions dictated by the new perspective

11. Dynamics
   "Perspective taking" is the mechanism for perspective transformation. The learning process is different in each learning domain. Perspective transformation is realized through:
   a. a series of gradual transitions; an accretion of transformations in specific meaning schemes
   b. sudden insight-epochal transformation (i.e., consciousness raising) involving transformation of a total system of meaning schemes, the meaning perspective

12. Blocks or barriers
   Both psychological and cultural factors are strong stumbling blocks to the natural tendency to learn through perspective transformation:
      -risk and difficulty involved
      -often painful as a comprehensive reassessment of self and values may be required
-can be emotionally charged, threatening
-even after a new perspective is in place there is still
a need for support and assistance; habitual patterns,
internalized cultural assumptions and unsolved childhood
dilemmas may block progress
-limiting nature of perspective which control and limit perception

13. Facilitating factors
Support and assistance of the educator and the group who
share in the learning experience through all the phases of
perspective transformation (listed above)
-natural tendency towards
-intensity of events, severity of disorienting dilemma
can be facilitative

14. Educator's role
Educator challenges learners to enter a process of self-
examination. The educator helps learners:
-through difficult process of transforming dysfunctional
meaning structures
-come to realize their problems are shared and
perpetuated by institutions
-foster ideal conditions of critical discourse in the
learning situation
-move towards meaning perspectives which facilitate their
participation in discourse
-move beyond expressed needs and become critically
conscious of the reasons for their needs
-understand how their reality has been shaped and
influenced
-fostering critical reflectivity
-through concern for the whole learning process, not just
criteria-referenced, anticipated learning outcomes
-facilitate learning through sharing
-by modelling appropriate behaviour
-develop relevant skills and knowledge
-by providing environments where learners can test out
new perspective with minimum risk
-by encouraging the exploration of alternatives
-by supporting the development of self-confidence and
competence

E. NICHOL

1. Background (See Figure 3)

2. Major concept categories
a. Consciousness

1. Characteristics and functions
   - an individual's consciousness registers reality
   - changes in consciousness are induced by the "making" of a new reality
   - paradigm transition takes place in the individual's consciousness

2. Emphasis
   - process-paradigm transition
   - product-shift in awareness
   - entrance to new paradigm

3. Levels, modes, domains - not directly applicable

4. Development of consciousness parallels development of self
   - Emergent self develops in processes parallel to the development of emergent paradigm.

5. Development of consciousness parallels general human development
   - Participation in learning in a t-group is one mode of development in a long-term developmental process; a new reality and a new self develop together as learning progresses.

6. Characteristics of people with consciousness developed to high levels - not directly applicable

7. Relationship of consciousness and language
   - Communication between people with different paradigms (consciousness enveloping meaning systems) is difficult because although they speak a common language, meaning is modified by differing paradigm assumptions; paradigm boundaries create communication barriers.

8. The operation of consciousness is mirrored in personal and social meaning systems
   - The physical and social sciences are examples of fields of reality or life worlds. The process of the development of individual knowledge and consciousness is mirrored in the process of knowledge development in the history of science.

9. Reflectivity as a major aspect of consciousness
   - A reflective perspective is taken in a t-group. Reflection on experience allows paradigm-transition learning.

b. Reality
1. Philosophical outlook

CONSTRUCTIVISM—reality is assumed to be created, constructed, "made" by people.

2. Type

Multiple-paradigm consciousness: there are different fields of reality or life-worlds which are insulated from each other within the consciousness of the individual. Generally the paradigm system is taken for granted i.e., people are not conscious of their paradigm system and the fields of reality or life-worlds it contains.

3. Focus

Personal reality is based on socio-cultural reality

4. Relationship of the individual with reality

Reality is assumed to be created, constructed or "made" by each individual; personal reality is based on a personal paradigm, a personal construction of reality.

5. Modes of construction of reality—not directly applicable

6. Personal meaning systems

A personal meaning system is a paradigm. A paradigm is:

a. a consciousness-enveloping way of looking at the world
b. a hypothesized organizing structure which governs understanding of reality
c. a system of meaning which influences, limits, and channels perception and interpretation

c. **Transformative learning** (Learning involving changes in consciousness)

1. General approach to learning

Learning is approached as a process of knowledge development. Paradigm-transition is the major type of learning in a t-group.

2. Definition of the transformation process

Paradigm-transitions are "revolutions in the way we come to understand the world."

3. Impetus

- personal tendency towards searching for better explanations and meaning
- tension of "contradictions in consciousness"
- awareness of conflict within and without
- social complexity and rate of change impels people to
learn

4. Primary focus-individual

5. Environment-educational group process in a t-group

6. Practical application-education for personal development

7. Goal (Purpose in humanity's development)—a quest for personal understanding, meaning, explanation

8. Domains and modes of learning
   Three modes of learning parallel to Kuhn's three phases in development of knowledge in history of science:
   a. learning by elaboration within established paradigm
   b. paradigm-transition or shift from one paradigm to another
   c. rare event when person introduces new paradigm into human consciousness
   (Paradigm-transition learning derives from the second mode)

9. Elements of the basic learning process
   Basic process: Creating or making a new reality brings about a paradigm-transition in the learner's consciousness.
   The creation or construction of radical social reality brings awareness of "contradictions in consciousness" which demand that they be dealt with. Group process can facilitate the emergence and work with contradictions.

10. Phases
    Phases of social learning or knowledge development (history of science)
    a. pre-paradigm
    b. one dominant paradigm
    c. new paradigm emerges
    (Not applied directly to paradigm-transition learning, but basis for Nichol's three modes of learning).

11. Dynamics
    Paradigm-transition learning can have a "revolutionary character" including great creative leaps, dramatic advances and radical changes in perspective. This type of learning exhibits revolutionary change as well as rational, orderly, and accumulative change.
    Learning process for paradigm-transition:
    a. gradual transition
    b. sudden shift or transition from one paradigm to another.

12. Blocks or barriers
    a. essential nature of a paradigm: A paradigm limits the scope of conception of the world; therefore it makes
recognition of, and transition to, another paradigm infrequent, dramatic and difficult.

b. strength and persistence of old paradigm
c. communication barriers (same words mean different things in context of different paradigms)

13. Facilitating factors
   a. educator supports and facilitates as a "maker of realities"
   b. safe, nurturing supportive environment in which learners can share and experiment.
   c. adequate time and support for development of new paradigm

14. Educator's role
   The educator:
   - is a "maker of realities"
   - facilitates communication across paradigms
   - develops new social reality (a new paradigm) to induce paradigm transition
   - influences shaping of new consciousness
   - is an actor/director who creates experiences in which to ground participants new knowledge
   - guides creation of radical social reality that brings about paradigm-transition in the participant's consciousness; the transition or shift results in participants experiencing and understanding reality in an altered way.
APPENDIX B:

A PROFILE OF THE BASIC PROCESS OF TRANSFORMATIVE LEARNING

This appendix is a summary statement of the basic process of transformative learning and an outline of essential elements that contribute to its definition.

I. A MODEL OF TRANSFORMATIVE LEARNING

Transformative learning is a cyclical process embodied in three phases—the generation, transformation and integration of consciousness.

A. Phase one: Generation of consciousness

Step One: Trigger Events
Reality demands attention in the form of external (social) or internal (psychological) anomalies, curiosities, alternatives, contradictions or disorienting dilemmas.

Step Two: Confronting Reality
A period of intense engagement with experience; an intensification, concentration and focus of the learner's confrontation with reality:
1. self-induced
2. triggered by life circumstances (trigger events)
3. other-induced and/or facilitated (i.e., by educator or therapist)

In the process of confrontation with reality the learner is involved in creating or making a new reality or a new world, or preparing to shift the grounds of reality. In this process learners participate in a transactional relationship with reality through:

1. Reflection
   a. on personal reality in the form of:
      - unexplained anomalies, disorienting dilemmas
      - inadequacies in present perspective
      - emerging contradictions
      - common problems
      - intriguing possibilities or alternatives
      - areas of curiosity
   b. on personal powers of reflection: developing a sense of awareness of distancing and decentration, stance, point of view, context, self-in-relationship to the world, others and the self.
   c. on creating or making a new reality, new world, new paradigm or new perspective (using powers of reflection and reflectivity for focusing, anticipation and projection).
2. Dialogue
   a. internal—with self (thought, reflection)
   b. external—with others (communication)

(recognizing language as essential to symbolic representation which enables the exploration and sharing of experience of actual and possible worlds through dialogue)

3. Fusing reflection and action
Involving learners in learning activities that necessitate the integration of all aspects of experiencing i.e., thought, feeling, and action

B. Phase two: Transformation of consciousness

1. Process
Step Three: Transition Point
   The confrontation with reality requires effort and energy in a struggle which results a gradual increase in tension or resistance until the transition point is reached. The transition point is the point at which the learner is ready for the release of tension in the next step, transcendence. At the Transition point the learner is ready for:
   a. making a conscious decision to leap or shift
   b. a dramatic leap or shift that "just happens" (not consciously controlled)

Step Four: Transcendence (Shift or Leap)
   A shift in the grounds of reality or a leap to a new reality through:
   a. sudden insight (usually)
   b. gradual revelation (less common)

2. Explanation
The process of a transformation in consciousness is explained in terms of a change in quality, level, or structure of consciousness; it is explained as:
   - the development of possible worlds
   - conscientization—a change in the level of consciousness
   - contextual shift
   - reconstruction of a construct system
   - perspective transformation
   - paradigm-transition

3. Description
The experience has been described as personal awareness of:
   - a leap of faith
   - a creative leap or contextual shift
   - a sudden opening or enlightenment
   - a shift, transition or transformation in the way reality
is perceived
-a radical change in perspective
-a revolutionary change in the way one experiences the world
-a dramatic alteration in perception
-a reframing of one's frame of reference
-a metamorphosis
-a reinterpretation
-a discovery
-shifting the grounds of reality
-seeing the world with different eyes
-transcendence:
   1. going beyond old patterns; a reconstruction
   2. creating a new version of reality

4. Other elements of the experience include:
   a. difficulty in explaining the process, as much of the experience is beyond the realm of language
   b. feelings of challenge, struggle, risk, difficulty and resistance in making the passage, often followed by feelings of excitement, exhilaration, accomplishment and release when the passage is completed
   c. intense emotional response as this type of learning touches the core of person's meaning system

C. Phase three: Integration of consciousness

The integration phase consists of holding and developing the vision experienced in the transformation phase. The new knowledge, reality, or consciousness that results from the transformation process must be nurtured, grounded, implemented, extended and developed, or integrated in the life pattern of individual over a period of time; there must be a personal commitment to this process.

Step Five: Personal Commitment

A conscious decision to personally commit to living out the integration process and establishing the new vision, reality, world or paradigm; harnessing personal intention, purpose or will to the new vision.

Step Six: Grounding and Development

Nurturing the growth of the new reality and interweaving the new vision into the every day life-space of the individual; practicing, implementing and extending the vision; letting go of old patterns, and accepting and acting on new ones that confirm the new vision; exploring options, alternatives and possibilities within the new vision

Essential elements of integration include:
   a. Time-to allow for the maturation and development of
the new paradigm, perspective, or construct system in relation to the strength and persistence of the old system

b. Support
   1. Social
      a. personal support from educator or therapist
      b. association with "reference group" (group having similar educational experience in relation to similar concerns)
      c. return to same or similar group learning experience for reinforcement and further learning
   2. Personal
      a. use of the original transformative learning experience as a "reference experience" in integrating new knowledge with current life situation
      b. commitment and will to continue the process of learning while realizing that the old and new consciousness will co-exist until the new gathers strength and definition, and creates a new synthesis

II. CONTRIBUTING ELEMENTS

Particular facilitating conditions, the power of reflectivity, and the possibility of distinctive results or end-products are all essential elements which make a contribution to the definition of transformative learning.

A. Facilitating conditions

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<th>Atmosphere</th>
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<tbody>
<tr>
<td>trust</td>
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<tr>
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<tr>
<td>openness</td>
<td>simplified</td>
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<td>safety</td>
<td>experimental</td>
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</tbody>
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Educator role
facilitator
partner/collaborator
creator/actor/director
lender of consciousness

The educator provides guidance, challenge, feedback and support

Group setting (optional)
Group provides opportunity to create optimum learning
environment and to share, intensify, clarify and reinforce learning experience.

Learner readiness
Prepared with intent and willingness participate, interact, experiment, reconstrue and be open to experience.

B. The power of reflectivity

In order to understand the importance of reflection in the process of transformative learning it is necessary to make a distinction between reflection as it is commonly understood and reflectivity which shall be defined here as an extended application of reflection which can be developed for specific human purposes. This distinction is necessary because transformative learning implies the development of this specialized use of the power of reflection.

Reflection can be defined as a natural mental faculty which allows humans to turn back on their experience, examine it, and interact creatively with it in conscious thought.

Reflectivity can be defined as that aspect of human awareness or consciousness that enables or allows the conscious use of the power of reflection to distance, focus on, objectify, analyze, relate and value various aspects of experience, including its own processes; reflectivity implies the use of conscious reflection as a tool to probe, structure, project, introject, create and understand meaning or reality; reflectivity is reflection harnessed to conscious will, purpose or intention and therefore focused and directed towards chosen priorities.

Reflection, and therefore reflectivity, as reflection in a conscious, purposeful mode, implies the ability to separate or distance self from reality and to connect or relate across the gap. This allows the development of a sense of:

1. self; individuality, including:
   a. personal identity
   b. personal control
   c. subjectivity and objectivity
   d. sense of relationship of the self to others, self and the world
2. time; temporality, including past, present and future
3. history; historicity
4. place; context or orientation

These allow the development of the ability to:

1. take a stance, point of view, or perspective
2. realize that there are a range of possible stances, points of view, or perspectives (decentration, decontextualization)
3. choose, change and develop stance, point of view or perspective according to individual purposes
These in turn allow and require the development of increased capacity for:

1. effective dialogue
   a. internal (thought)
   b. external (communication)

2. effective anticipation, prediction, and control of experience

3. effective decision-making, participation and action

4. effective clarification of intention or purpose

5. critical assessment of experience; the power to discriminate, criticize and judge value (as in the development of critical consciousness)

6. the power to envision through the use of:
   a. imagination—the ability to form images of things not present
   b. projection—the ability to go out of oneself into other places (including the feelings and minds of others) and times (including past, present and future) and create images of those experiences (both imagination and projection enlarge the possibility of experience greatly by making vicarious experience possible)

7. creativity
   a. the power to create through the discovery or invention of new relationships or connections
   b. to use present structures of meaning as impetus to go beyond their boundaries—testing the boundaries of the possible with the attitude of "as if" so as to "make visible the unseen" and "make possible the unimagined"

Reflectivity makes it possible to provisionally envision and enact experience in alternative, possible worlds as a means of anticipating, experimenting with, and testing their viability for projection on, and understanding of, personal reality.

C. Results or end-products

A new world, new vision or a new sense of reality: a new meaning system, paradigm or perspective which is more comprehensive, more inclusive of experience and structured at a higher, more integrated level. It includes:

1. heightened consciousness including increased awareness of:
   a. sense of self
   b. sense of own capacities and power, particularly the power of reflection in its purposeful, conscious application as reflectivity
   c. self in relation to reality
   d. contextuality
e. psychic relativity
f. alternatives and possibilities

2. personal integration
   holistic integration of all aspects of self including emotion, thought and action (praxis—combination of reflection and action—assists integration and is part of the integration itself)

3. enablement of personal power in increased capacity for:
   a. reflection
   b. action, participation and interaction in relationship with reality
   c. choice or decision making
   d. creativity
   e. success in pursuit of meaning
   f. self-direction, mastery
   g. anticipation, prediction, control
   h. coping with personal and social change

4. potential developmental progress toward:
   a. personal maturity
   b. humanization in the sense of reaching toward the potential for human development and progress not yet realized
   c. emancipation or liberation in terms of freedom from undue cultural and psychological constraints