

An Epistemological Approach to Psychiatry: On the Psychology/Psychopathology of Knowledge

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This paper represents an epistemological approach to psychiatry. The area of investigation is what we have termed the 'psychology of knowledge'. The research questions explored are as follows: (1) what are the processes involved in the ontogenetic development of how one comes to know; (2) what accounts for individual differences in perception of what constitutes knowledge; (3) what is the function of cultural role models, specifically books, in the ontogenesis of how one comes to know; (4) what are the significant differences between the non-psychiatric and psychiatric samples in terms of perceptual sets. The total number of subjects interviewed was 75 with 30 constituting the psychiatric sample and 45 the non-psychiatric sample. Background variables of sex, age, socio-economic variation, and incidence of major stressors in home of origin were either held constant or controlled. In order to avoid the making of value judgments as to what constitutes 'mental health', operational definitions were used. The non-psychiatric sample consisted of persons with less than two visits to a mental health professional while the psychiatric sample consisted of persons with more than fifteen visits and/or psychiatric hospitalization. We wanted to see if there were long-standing fundamental differences between the two groups in terms of perceptual sets. Research findings included the following: (1) both the non-psychiatric and psychiatric subjects showed evidence of having developed, early in life, a characteristic perceptual set as a coping response to childhood stress; (2) the psychiatric sample tended to develop perceptual sets which revolved around some defect in the self or a parent, whereas the non-psychiatric group tended to develop trans-personal perceptual sets in which negative aspects of self or family were transformed perceptually from the personal, concrete, and specific to the trans-personal, abstract, and the general; (3) the fundamental differences in perceptual sets developed during childhood found continuity in significant differences in dominant role behaviors between the two groups during adulthood; (4) the two samples showed a differing balance in the integration between primary and secondary process thinking in the interpretation of stimuli; (5) cultural role models, with especial emphasis on books, are shown to be useful as projective indicators. The paper concludes with a delineation of areas for further research and the suggestion that psychiatric intervention include among its goals the *resocialization* of perceptual sets characteristic of the psychiatric population.

It is the goal in this discussion to investigate, both theoretically and empirically, several questions which are epistemological in nature. This

investigation will be conducted at the level of between individual variation. Thus the subject matter of this presentation is what we will term 'the psychology of knowledge'.

The Random House College Dictionary (1975) defines the term 'epistemology' as "the investigation of the origin, nature, methods, and limits of human knowledge or human knowing". 'Epistemology', therefore, refers to the science of knowledge and has at its base the question of how one comes to know. How does a person come to know something, or more interestingly from the vantage point of psychiatry, how does a person come to *feel* that he or she knows something? The term 'to know' is defined as (1) to perceive or understand clearly and with certainty, (2) to have fixed in the mind or memory, (3) to be cognizant or aware of, or to be acquainted with, and (4) to understand from experience. From these meanings of the term 'to know', we can see that knowledge is, at least in part, a function of individual perception and individual experience, and therefore knowledge is a relative phenomenon.

The research questions to be explored in this paper are (1) what are the processes involved in the ontogenetic development of how one comes to know, (2) what accounts for variation in individual perceptions of what constitutes knowledge, (3) what is the function of cultural role models in the ontogenetic development of how one comes to know, and (4) what are the significant differences between non-psychiatric and psychiatric subjects in terms of perceptual set?

What *is* the development course of how a single individual comes to know or feel that something is known? What processes are involved in the ontogenesis of knowledge and how does one account for variation between individuals in what is perceived as knowledge when socio-cultural variables are held constant or controlled?

There are two fundamental approaches to the psychology of knowledge. The first approach, represented by Piaget (1952; 1967), Bruner (1968), Vygotsky (1962), and Levi-Strauss (1963; 1966) is to try to isolate and describe a universal invariant sequence of cognitive development. Thus, the process of how one comes to know is equated with the process of cognitive development. The focus of this approach is to find stages or forms of development which are common to all people. Thus, the emphasis is on individual sameness rather than on individual difference. Piaget, for example, states that cognitive development involves an evolution through four qualitatively distinct stages, sensori-motor, pre-operations, concrete operations, and formal operations, in which each stage is based on the previous one and constitutes preparation for the following one, and each stage is more complex than the preceding

one. There is an inner logic to the sequence of stages and the stages represent an invariant, unilinear, and universal hierarchy of integration.

The second fundamental approach to the psychology of knowledge is relatively unexplored and represents the approach taken in this paper. This second approach, while similar to the first approach both in the concern with questions pertaining to ontogenesis across the life span and in the endeavor to discover universal developmental structures relating to thought, differs from the first approach, because, in addition to the focus on developmental sameness between individuals, there is also a focus on how developmental *differences* arise between individuals within the same society. When researchers of the Piagetian approach, for example, do shift their attention to the question of differences, the variations investigated are generally those between members of differing societies (Dasen, 1972) or differing social strata (Shweder, 1977) in terms of comparative rates of attainment of stages—as opposed to the investigation of variations between individuals in a single society with major socioeconomic variables held constant. An aim of the research developed here is to discover what processes are involved in the development of individual differences relating to perception and interpretation of what finally comes to be regarded as knowledge, when background variables are controlled. The differences of interest include the perceptual and interpretive differences between psychiatric and non-psychiatric subjects coming from similar families of origin.

While both approaches involve an interest in the delineation of universal *structures or forms* related to development, our research also involves the exploration of how individual variation in cognitive *content* (Simmel, 1971) comes to develop. In previous research, we have found that each individual has an enduring characteristic cognitive orientation toward life (Csikszentmihalyi & Beattie [Emery], 1979; Emery & Csikszentmihalyi, 1981). This characteristic *cognitive or perceptual set* showed evidence of having developed, early in life, as a coping response to childhood stress. It is the goal in the research presented in this paper to explore the processes involved in the ontogenesis of this characteristic cognitive or perceptual set.

Both the perspective of Piaget and the perspective in this paper are interactionist in that development is considered to come about as the result of an interaction between intrinsic maturational factors and experiential factors (Piaget, 1952; Rapaport, 1957; 1960). In exploring the experiential components contributing to the development of a characteristic perceptual set, there is an attempt in the research discussed in this paper, to discover, what, if any, relationship exists between one class of cultural

role models, books, and the ontogenesis of this characteristic perceptual set. The data suggest that a perceptual set, which tends over the years to become structuralized as a part of personality, develops initially as an attempted coping response to some fundamental problem which the person wishes to solve above everything else (Csikszentmihalyi & Beattie [Emery], 1979; Emery and Csikszentmihalyi, 1981). In exploring the processes involved in the ontogenesis of this perceptual set, we will also delineate the function of cultural role models in such processes.

It is ironic that whereas thousands of articles have been written about how one learns or fails to learn to master the task of reading, practically no research can be found relating to the socialization effects of what is read on the perspective or orientation of the reader. The few exceptions seem to deal with rather specialized and restricted views of the relationship between books and socialization: no basic approach to the issue seems to exist. The rare empirical study that has followed up this potential line of investigation has focused generally on selected roles, such as that of parent (Golin, 1974; Hendrickson, Perkins, White, & Buck, 1975) or the "Asian American" (Chin, 1976), and through content analysis of particular books has drawn inferences about possible modeling effects. Two recent Eastern European studies followed a slightly different approach, one comparing the degree of identification with fictional characters as against movies (Nudelman, 1975); the other investigating the relative use of modeling, escape, and acquisition of information in the perusal of literature (Kamaras, 1976). Yet books are held to be important socializing models in that they present scenarios with unfolding social roles which allow the reader who identifies with the characters to rehearse possible real life roles and attitudes (Noble, 1972). Bettelheim suggests that fairy tales promote the child's ability to find meaning in life, by presenting models of past resolutions of psychic conflict passed on through the cultural heritage (Bettelheim, 1976, 1977). Yet those who have investigated this area of inquiry can be counted on the fingers of one's hands (Altmann & Neilsen, 1974; Applebee, 1973; Tyszkowa, 1974).

Thus, we are interested in finding out if there is any relationship between books, as one class of cultural role model, and the development of a characteristic perceptual or interpretive set.

Method

The Non-Psychiatric Sample

The research data base consisted of two sets of subjects, a non-

psychiatric and a psychiatric sample. The non-psychiatric sample is indicated by less than two visits or consultations with a psychiatrist or other mental health professional while the psychiatric sample is indicated by more than fifteen visits to a psychiatrist or mental health professional and/or psychiatric hospitalization. There has been a deliberate attempt to limit the conceptualization of 'psychiatric' and 'non-psychiatric' populations to an *operational definition* in order to avoid value judgments as to what constitutes mental health. We are simply saying that one sample consulted and the other did not consult mental health professionals and we want to see if there are significant differences between the two samples in terms of perceptual set.

The non-psychiatric sample, which was chosen originally for broader research purposes than are dealt with in this paper (Csikszentmihalyi & Beattie [Emery], 1979; Emery & Csikszentmihalyi, 1981), consisted of twenty-seven men. Variables of sex, race, age, religious and socio-economic background in family of origin as well as variables of childhood disorganization in the family or origin (alcoholism of parent, death of parent, divorce, chronic unemployment of father, and so on) where either held constant or controlled.

All respondents were white males with one-third born between 1910-20, one-third born between 1921-30, and one-third born between 1931-39. Thirteen of the respondents were of Protestant background, seven of Jewish, and ten of Catholic background in family of origin. In terms of childhood stress variables, the incidence of disorganization in the families of origin of the non-psychiatric sample ($N=27$) is as follows: six had a father and two a mother who died before the respondent was age fourteen, five other respondents had parents who were divorced before the respondent age of fourteen. One respondent whose mother had died was raised in an orphanage, as was another respondent whose parents were divorced. Of the overlapping categories, ten respondents had immigrant parents; eleven respondents experienced extreme poverty in childhood and of those eleven, four had fathers who were chronically unemployed while another two had fathers who were alcoholic and erratically employed; three respondents had severely alcoholic mothers.

The data were gathered by interviews. Each interview lasted from one to three hours. The interviewers either took extensive notes, which were later transcribed, or tape recorded the interviews. The questions were aimed at eliciting, in the respondents' own words, the salient events and experiences which they considered to be formative in their lives. The interviews were structured insofar as each respondent was asked to answer the same questions in the same order and to answer in the order of

chronology. In order to communicate the mood of the questions and encourage full and complete rather than literalistic and monosyllabic responding, the questions were phrased in paragraphs rather than in discrete sentences. The questions were of the following kind:

Thinking back on your life, what are the things or kinds of things you experienced as being important? What kinds of things happened to you during your life that stand out? What was your everyday life like when you were little? In order to have this interview somewhat systematic, why don't you start at the beginning of your life. Tell me where and when you were born and a little about your parents, what were they like? What was life like for you as a child? Work your way up to the present time in terms of things you experienced as important *at the time that they happened*. It's important not to answer this question from the point of view of hindsight or what you think now. Answer the question from the point of view of how you felt at the time. The question is, when you were little, what is the one single thing you experienced as being the most problematic at that time. What did you experience as being the biggest problem in your life when you were little?

How did you go about thinking about this problem? Can you recall what your thinking was at that time as to what might have caused the problem and what it would take to get rid of the problem. Was the problem perceived as anybody's fault?

As you were growing up, was there any book that had an impact on you or seemed special or important to you in any way? What was it, would you tell me about it. Where did you get the book? How old were you at the time? During your entire lifetime, what books, if any, had an impact on you?

In analyzing the data from this non-psychiatric sample, several developmental trends emerged which had not been anticipated—in order to start a check on the generality of these trends, eighteen more non-psychiatric subjects were interviewed, bringing the non-psychiatric sample to a total of forty-five subjects.

The Psychiatric Sample

In the course of working in the University of Chicago Hospitals, Department of Psychiatry, as co-investigator of a research project relating to differential diagnosis between organic brain syndrome and depression in adults, it was noticed by the senior author that the depressed persons showed some marked difference on several parameters relating to perceptual and interpretive sets when compared to the non-psychiatric sample which had been investigated. Thus, arrangements were made to ask the same questions within the depressed population as had been asked of the non-psychiatric group, and a sample of twenty-two depressed subjects, matched on demographic variables to the non-psychiatric sample, was derived and interviewed.

In an effort to find out whether the results indicated by the depressed sample generalize to other forms of psychiatric disturbance, we have

been interviewing forensic and schizophrenic (in some cases, the two categories are overlapping) patients at the New Hampshire Hospital, so as to obtain contrast groups *within* the psychiatric population. Thus, the comparisons within the psychiatric population, while already interesting, are still being researched at the present time.

We will turn our attention now to the findings which have come out of the research project described.

Results and Discussion

On the Ontogenetic Development of Perceptual Sets

The research results to be discussed first are those which describe processes fundamental to the ontogenetic development of both non-psychiatric and psychiatric subjects. In outlining these research results we will also be addressing ourselves to the research question of what is the developmental course in the ontogenesis of interpretive sets. Both non-psychiatric and psychiatric subjects showed evidence of having developed, early in life, a characteristic interpretive set as a coping response to childhood stress. The data suggest that a perceptual or interpretive set, which tends over the years to become structuralized or a part of personality, develops initially, as an attempted coping response¹ to some fundamental problem which the person wishes to solve above everything else.² This fundamental problem tends to be one on which much attention has been focused during early years and seems to involve the attitudinal or behavioral interactions between family members or between family members and the social system. The perceptual set is an attempt to facilitate the adaptation of the person in relation to his or her experienced stress. Analysis of the data points to a chronological sequence in the development of a characteristic perceptual set which is as follows:

(1) Stress variables relating to the interactions between family members or between family members and the social system result in the experience of anxiety or psychological pressure in the person during childhood. The causal connection between external stress variables and internal experience of stress is established operationally. Stress variables

¹In the discussion of differences between the psychiatric and non-psychiatric samples, it will be shown that in the psychiatric group, the attempted coping response, though aimed initially at adaptation, is maladaptive in the long run.

²The characteristic perceptual set which develops in this manner is the cognitive part of a broader phenomenon which we have termed the 'life theme' (Csikszentmihalyi & Beattie [Emery], 1979).

are classified as such on the basis of the subjects' experience, interpretation, and attribution of stress as due to same. Thus the application of the term 'stress' to certain variables has its basis in the phenomenological experience of the subjects.

(2) The experience of extreme stress or psychological pressure causes the person to seek, either consciously or unconsciously, for a way to cope with the anxiety or with the stressor perceived or interpreted to be the cause of the anxiety.

(3) The attempt to cope involves the *identification* of what it is that needs to be dealt with, as perceived or interpreted by the person, either consciously or unconsciously.

(4) This identification of what it is that needs to be dealt with, or *what the central problem is in the perception or interpretation* of the person attempting to cope with stress, forms the essence around which the characteristic perceptual set develops.

(5) Once such an identification is made, the person attempts to cope on the basis of this identification, tries to adapt on the basis of his or her interpretation of what the chief problem is. Our data suggest that once this interpretation is made as to what the chief problem is, the person is sensitized thereafter toward finding and toward trying to find evidence of this problem in the course of everyday living. Given any broad range of stimuli, the person will tend to respond to those which relate to the chief problem.

Thus, a characteristic interpretive set develops as a response to a fundamental unresolved psychological issue and represents an interpretation of reality and an attempt to deal with reality on the basis of this interpretation. In developing a characteristic interpretive set, the person has developed an organizing and unifying gestalt. Our data show that the interpretive set serves, and tends to persist, as an organizing principle for affective, cognitive, and behavioral processes. As such it comes to have motivational properties. Through the function of a characteristic interpretive set, stimuli, both external and internal, are filtered, processed, and integrated. This cognitive set or structure functions as a mechanism to organize and pattern stimuli. Thus the characteristic interpretive set is also an attentional set, and in some cases, an expectational set, in that it serves to organize attention and expectation. Our data point to the idea that this interpretive set, which developed during childhood as an attempt at adaptation, tends to endure, become structuralized and characterological, thus representing a continuity in personality over time.

On The Relation Between Interpretive Sets and Cultural Role Models

It is a basic assumption in this paper that epistemological development involves an interaction between intrinsic maturational factors and experiential factors (Piaget, 1952; Rapaport, 1957; 1960). The interest in the relation between interpretive sets and cultural role models represents a part of the overall attempt in our research to delineate experiential correlates in the ontogenesis of how one comes to know.

Books involve idea systems. Through the use of written linguistic form, books can preserve and transmit norms, mores, ideas, and beliefs from any and all points in space and time from which such linguistic records are available. In this way books can provide a person with reference systems which transcend his or her own location in the historical process.

Of the 75 respondents in the study, 35 had found some book meaningful at some point during their lives. Of the 45 non-psychiatric respondents, 22 had found some book meaningful (48%), while of the 30 psychiatric respondents, 13 had experienced some book as meaningful in the course of their lives (43%); there was no significant difference between the non-psychiatric and psychiatric groups³ in terms of the proportion of the group which experienced impact from a book. The research results pertaining to the relation between books and the development of interpretive sets cut across psychiatric and non-psychiatric groups and suggest *general developmental principles* which are applicable to both populations. These principles are as follows.

Major impact by books was experienced generally between the ages of eight and twenty-two. No respondent mentioned more than five books as having had great impact. The books experienced as significant were ones which related to the fundamental problem which had been the greatest source of psychic stress during childhood and which formed the core around which the perceptual set developed. The significant books addressed the central unresolved psychological issue which was of continuing concern to the individual. The data show that the selective principle underlying the experience of significance in books was the characteristic interpretive set. The person's perceptual or interpretive set is a mediating variable in the psychology of knowledge. Analysis of the data shows that the books which had a great impact were ones which related to the

³However, there were significant differences between those respondents who had experienced impact by books in their lives and those respondents who had not experienced impact by books in their lives. These systematic and patterned differences occurred along dimensions other than the psychiatric variable and will not be discussed in this paper, but are the main subject matter of another discussion (Emery & Csikszentmihalyi, 1981).

perceptual set of the person in one or several of the following ways, either consciously or unconsciously: (1) the books provided answers to questions raised by the problem perceived to be the most critical by the person, (2) the books gave words or concepts by which to describe to oneself the critical problem which was experienced, though not formulated in a conscious way, (3) the books provided a systematic framework by which to justify, reinforce, refine, put into perspective, or extend an orientation already existent which had evolved from the attempt to deal with the central problem, (4) the books provided a new set of solutions to the problem and served as models for future behavior, and (5) the books abstracted the person's problem by transforming 'personal' dimensions of concern into a 'general' concern whereby the problem was no longer perceived to be a problem specific to the respondent but rather came to be viewed as a problem common to all of humankind.

Thus, books of impact can function as a *projective indicator* or technique in the determination of what it is that represents an individual's primary concern or issue. A person's projection of a dominant concern is what underlies the principle of selection in books of significance. Thus, a person's dominant issue is a mediating variable in the psychology of knowledge.

Excerpts from respondent interviews will illustrate more concretely the way in which books of great impact, as one class of cultural role model, relate to the perceptual set of a respondent by providing models for the identification and attempted resolution of critical life problems.

Data Relating to Experienced Critical Problems, Interpretive Sets, and Cultural Role Models

In the presentation of research results it has been shown that perceptual sets develop initially, in both psychiatric and non-psychiatric groups, as an attempted adaptational response to the experience of stress during childhood and involve the identification of a chief existential problem in the perception of the person experiencing the stress. This identified central problem forms the core around which a characteristic perceptual set, which is also an attentional set, develops. Excerpts will be presented which demonstrate the dynamic relationship between the experienced central problem, interpretive sets, and cultural role models.

Respondent 1, from the non-psychiatric sample, is a Professor of Humanities at a well-known university and has won several awards for the quality of his teaching. His area of special interest is the philosophy of the ancient Greeks, in particular that of Plato and Aristotle. He con-

siders himself to be essentially a Platonist. The background variables of Respondent 1 include immigrant parents, severe and emotional discord between parents culminating in an emotion-filled divorce, and extreme poverty. At the age 16, the respondent had to quit school in order to help support his mother and sister with whom he was living. During those early years of his life, *the central existential problem perceived by the respondent was unbridled emotionality*. He identified emotional excess as the cause of the familial strife and believed that had it not been for such emotional excess, all the lives involved would have been less disrupted. Of his parents, the respondent stated:

We always knew they were going to get a divorce. They stayed together as long as they did for us—our sake, but I can tell you that it didn't do us much good. When they finally got divorced, we went with mother. All that bickering—all those years. That is what I could not stand. And I still can't. Do you know that as a child I vowed that I would never, not ever marry. And it took me a long, long time to get married as a matter of fact. I got married far after most people my age did. But I did not want to live like that. I knew that I never wanted to live like that.

The next statement by the respondent pertains to the first major impact of a book on him. The book in question deals with the place of reason in existence. It presents *reason as the solution to that excess emotionally* which the respondent identified as the main threat to the equilibrium in his life. He stated:

I remember clearly, at 16, reading Kant's *Critique of Pure Reason*. I remember, and I still have the book as a matter of fact, with my underlinings in it. I can still remember the feeling of reading it because it was what I would call a turning point in my life. Because it *gave me what I was looking for*—it told of the place of reason in cultural evolution. And that's what I'd been wanting to know about. That's what I wanted to know. I had wanted to know what was the place of reason in man's history. And reading Kant directed what type of reading I did thereafter. It directed the questions I brought to the analysis of the universe. Anyway, it was through Kant that I started to trace back the evolution of ideas and that's how I discovered Plato soon after. Kant led me to Plato because when you trace back the place of reason in man's history, you soon see that you have to go back to the Greeks. And when I discovered Plato, that was the *most meaningful experience in my life* because Plato gave me the reason for what I already believed. Plato showed me the *reason to live for mind*. I had believed this already, but when you're 16 or 17 years old, how do you know if you're right or wrong in what you believe. Well, Plato gave me the reason why it is right to live for mind.

The last sentences clearly illustrate the crucial effect that a cultural role model, in this case Plato, can have in clarifying and validating a person's cognitive processes and later behavior. For Respondent 1, the key psychological issue, around which a characteristic perceptual set developed, was emotionality versus not-emotionality. Thoughts, feelings, and attentional vigilance relating to this issue have been a central part of this respondent's phenomenological experience from childhood

up through today. Emotionality did and still does create anxiety in this respondent. During his early years, this respondent perceived or interpreted that emotionality was the central problem related to his experience of family conflict. He came to believe that there had to be a way to live which was based on reason, but he wasn't sure that his thoughts made sense. At age 16, when he discovered Plato, the respondent was provided with what he had been looking for, a justification and legitimization of the idea that man must order his life so as to live with reason and not emotion. Thus, one can see in this case material that there is a continuity between the experience of childhood stress, development of a characteristic orientation or set in perceiving, interpreting, and ordering stimuli, and cultural role models.

Respondent 2, from the non-psychiatric sample, is a sociologist whose mother died when he was 7 years old with the result that the respondent was put into an orphanage where he stayed until he was "on his own" until about age 17. This respondent experienced great anxiety at being put in an orphanage and he identified the chief problem as being "the uncertainty of what happens to kids who grow up in orphanages". Respondent 2 stated:

All of the sudden my mother was dead and I was in this place. I felt confused and didn't know what would happen to me. I was scared and had continually in my mind the question of what would happen to me and to others in that place. What happened to orphans?

In the orphanage library, at about age 8, this respondent discovered the Horatio Alger books. The discovery had a profound impact on him because all of a sudden he "realized that he could create his own life" even if he were in an orphanage. He had been looking for an answer to the question of what would become of him and now he *realized that what would become of him was up to him*. Horatio Alger gave this respondent the feeling that his life was his own and he could create it as he chose.

The characteristic set of perceiving volunteerism or the capacity for volunteerism is in evidence still in this respondent's work as a sociologist as he believes that human beings are the creators and initiators of social systems and as such one can determine social order rather than suffer as the passive recipient of a deterministic social process. In sum, there is evidence of continuity in the characteristic perceptual orientation of this respondent.

Another example from the non-psychiatric group is the case of Respondent 3, a Professor of History, whose mother had to board him with a family in a distant town at four years of age after the parents were divorced. Respondent 3 grew up in various boarding houses in Europe,

travelling on a stateless passport. All through his childhood, this respondent felt himself to be an outsider, without a country and without a family. When he was 13 years old, he happened to read two history books that helped him formulate what had been bothering him and pointed him towards a solution.

When I was reading Van Loon and Burkhardt, I knew something important was happening in my life—because while reading them I was knowing that I found a way to view the world. These two books determined what questions I asked about life and determined out of what perspective I viewed life thereafter.

The historical perspective of these works helped this respondent place his own homelessness and statelessness into perspective. He found in history a wider context than the concrete time-space location in which he had been rejected. Although one may have no place in the here and now, he had a place in the historical context. Knowing this liberated this respondent from his continual marginality. He went on to become an eminent historian.

The fourth and final non-psychiatric case to be discussed is that of a cut-rate carpet salesman whose father had been a banker. As a boy, Respondent 4 perceived “competitiveness” to be the chief problem in his life. When mentioning formative influence in his life, this respondent stated that the “atmosphere of his childhood was too competitive”. In talking of books of impact in his life, he stated:

I liked Marx because the system evens everything up for everybody and I liked the book *Wind in the Willows*. I'd say that was about the most meaningful book in my life because of the feeling that it gave me. I felt so peaceful when I read it. It's about these animals that are raised to the status of people, but as people-types they don't have to compete. They live this idyllic happy life, and they don't have any of the pressures people have.

This statement by Respondent 4 suggests that *Wind in the Willows* helped to justify the respondent's downward mobility by presenting a life without competition and pressures as a desirable thing. The respondent was disinclined to compete but felt continual anxiety that perhaps he should be doing so anyway. This book served as a model for a non-competitive orientation.

Case 5, taken from the psychiatric sample, is a secondary school teacher with a history of schizophrenia, the first diagnosis occurring at respondent age of eighteen. Current diagnosis under DSM-III classification is Schizophrenic Disorder Residual Type (295.62). Variables in home of origin include an attorney father and a mother with a psychiatric history. In describing the experience of stress during childhood, this respondent stated:

I guess I was my biggest problem. I've been a loner really. I didn't want to relate to people. I felt like a hermit. I felt like a snob. I've been in my own world. I thought of myself as a weirdo. I couldn't be like other people. How old was I when I first felt like this? Early, like seven or eight years old at most. Well, I still feel these things much of the time. If you're sensitive you turn on or retaliate on those who criticize you. Much of the time I've refused to do things. I couldn't think of the future. I had to force myself to be intellectual. I tried to back out of things and stay at home. I took some insecticide then.

In terms of the experience of impact by books, the respondent said:

There were two books that were really important to me. The first was when I was seventeen years old and I read *Catcher in the Rye*. What was the book about? Well, it was about a boy who went to a prep school, that's where I was at the time. And this boy ended up in a mental institution. He was listening to his insides. He turned his sensitivity inwards. The other book was, I can't exactly remember the author's name, a Swedish author, I think. Maybe it's Par Lagersten. Anyway, the book is called *The Dwarf*. The dwarf was the main character and he was a spectator in life. His attention - he always observed but misinterpreted phenomena. His attention was keyed inward.

In conclusion of Case 5, the data show a relationship between childhood phenomenology and the interpretative set of this respondent, as well as his later diagnosed schizophrenia, and his interpretations of the main characters in the two books of impact.

The next case from the psychiatric sample, a manager of a super-market produce department, has a Schizoaffective Disorder (295.70) with marked feelings of depersonalization and disassociation as well as a state of homosexual anxiety. He is middle-aged and has never had sexual intercourse. He sought treatment because of a fear that he would indulge in onanistic activity in front of his customers in the produce department. He lives at home with his parents and two other middle-aged unmarried siblings. The parents foster a close family relationship, strongly countering any attempt on the children's part to establish lives of their own. Thus the three middle-aged adults are still living the roles of children, enmeshed in their family of origin, without establishment of a family of procreation. In discussing what was the major problem experienced during childhood, Respondent 6 stated:

The fact that there was something wrong with me. There's something wrong with me. No matter what I do and whatever I try, there's something still wrong with me. Do you know what I can do about it? My sister has always felt that there's something wrong with her too. But I know for sure that there's something wrong with me. Is this what I worried about when I was little? Yes, all the time. That was the main thing. My organ is crooked. It tilts a little too much to one side. And then I was always afraid that I would forget how to do the everyday things in life. I always was afraid that the next day I would forget how to brush my teeth and things like that. Now I worry that I'll forget how to remember things. And that I'll forget how to drive the car. My mind is wrong. I used to be jealous, when I was little, of my finger nail clippings because they didn't have to do the things I had to do.

When asked about the books of impact, this respondent stated:

Well, I remember the first good story I liked. Well, not liked exactly, it scared me. But it was about a family of hippopotamuses. About a family of hippos. I can't remember - all I can remember is that they all had to walk together on a tightrope. On a tightrope together through life.

Then I remember this book about a boy whose mother was a nurse.⁴ He got a sex change. Then I liked *Great Expectations* by Dickens. It was about a kid in England who was involved with an old lady. She was always in her wedding gown and it was his mother. She had a young girl living with her and he fell in love with the young girl, but the old lady made the young girl really mean, because the old lady hated men, and that's how the book came out.

And, oh yes, I remember *Charlotte's Web*. I don't really remember the story but I remember being scared because I felt like I was caught in the spider's web. I didn't like the story because I felt caught in the spider's web.

Thus one can see in the data on Case 6, the continuing perceptual theme revolving around sexual anxiety within the context of a familial net which absorbed its members, not permitting the development and exercise of adult functioning and relationships.

The final case history, taken again from the psychiatric sample, is a patient brought into the forensic unit of a State Hospital after aggravated assault and rape of a woman. Respondent 7 is diagnosed as an Anti-Social Personality Disorder (301.70). Background variables for Respondent 7 include death of father at respondent age of five, an alcoholic mother who remarried, and a stepfather who continually beat the respondent. In describing what he perceived to be the greatest source of stress during childhood, this respondent said:

It was my father dying. That was the hardest thing for me. Felt miserable. Wouldn't have had the bitch marry the stepfather if he hadn't died. When he died, then I had to live with that stepfather. My problems began when my dad died. Then that jerk came into my life. My father was a mechanic in Massachusetts. One picture of him my sister showed me and when I looked at it something popped into my mind. I used to take my dad submarine sandwiches for lunch. Subs. Subs for lunch. He died when I was five. Heart attack.

When asked if there had been any important books in his life, Respondent 7 stated:

Never was a good reader. Didn't read much. But do ya know that I can still remember one story by heart.⁵ It's *To Think That I Saw It On Mulberry Street* by Dr. Seuss. And that is one story that no one can beat when I saw that I saw it on Mulberry Street. Wait a minute, what's next. A big magic man doing tricks with a long beard. No time for more. I'm almost home. I swung round the corner and ran up the stairs. Because I had a story no one could beat. And I saw it on Mulberry Street. My heart was excited and pounding away. And then I say—

⁴Respondent's mother is a nurse.

⁵At this point, the respondent began to recite what he remembered.

At this point the respondent started to cry and stated that he couldn't remember what came next in the recitation. When asked to think about it quietly for a moment, he stated:

I do remember. It's about a boy and his dad. The book is about a boy and his dad. And the dad wants to have the son report to himself about what he saw on Mulberry Street. And the son rushes up the stairs to tell his dad what he saw.

Thus, in the case history material of Respondent 7, one can see once again the connection between a problem perceived by the respondent as being the key one during his childhood, continuing perceptual sensitization revolving around the key problem, and impact by a book which in some way relates to the perceived key problem.

Similarities and Differences Between Non-Psychiatric and Psychiatric Samples⁶

(1) The data show that the *processes* relating to the development of a perceptual set occur in *both* the psychiatric and non-psychiatric samples, thus suggestive of a general developmental process. Perceptual sets developed, initially, in both samples, as an attempted adaptational response to the experience of stress during childhood and involved the identification of a chief existential problem as perceived by the person experiencing the stress. In both groups, this identified central problem formed the core around which a characteristic perceptual set, which is also an attentional set and at time an expectational set, developed.

(2) A significant⁷ difference between the two samples was that, in the psychiatric sample, there was a marked trend to perceive the chief problem, at the time during childhood that it was being experienced, as being *some defect in the self or a parent*, whereas in the non-psychiatric group, there was a marked absence of such attribution. In the depressed subsample of the psychiatric group, there was a distinct trend toward perceiving the chief problem as being *guilt* in the self; in the schizophrenic subjects there was a tendency to perceive the chief problem as being some defect or deformity of the self and/or body⁸; and in the forensic patients there was a tendency to perceive the chief problem as

⁶The differences between the two groups were in existence from childhood on through adulthood. In a paper in progress (O. Beattie Emery) it is proposed that the goals of psychiatric intervention include an attempt at modification of such differences in perceptual set and interpretative focus.

⁷Significance was determined by Difference of Proportions Test, adjusted for small samples. Significance level of item asterisked was .01.

⁸Excepting cases are paranoid schizophrenics who tend to oscillate between self blame and defect finding, and projection of blame/defect onto others.

being some defect in one or both the parents with especial focus on perceived negative behaviors of the father or father-surrogate. Thus the respondents in the psychiatric sample tended to blame, focus attention on, and place at the center of perception, negative aspects of self or parent. In contrast, persons in the non-psychiatric sample tended *not* to develop perceptual sets which concretize blame of self or other family members. Rather, the non-psychiatric group, as a whole, tended to put into a broader perspective the negative aspects of the self and family members, and through the use of mechanisms of abstraction and generalization, tended to transform, perceptually or interpretively, the personal problems into problems occurring at the generalized level of humankind. Thus, the divorce, poverty, and family upheaval in the family of origin of Respondent 1 were, at the time they were occurring, attributed to "emotionality"; the death of the mother and subsequent placement in an orphanage for Respondent 2 were viewed as a problem of "what becomes of orphans"; the divorce of parents at age four and subsequent living in boarding houses without parents and being shifted from country to country on a stateless passport, were interpreted by Respondent 3 as conditions of "statelessness and placelessness" and were put into perspective through the mechanism of "historicity"; and the chronic dissension in the home of Respondent 4 was viewed as being the result of "competitiveness". In sum, where the psychiatric sample tended to focus on the personal, sometimes to the extent of personalizing the impersonal, the non-psychiatric sample tended to transform the personal or the concrete and the specific into the abstract and the general.⁹

(3) These fundamental differences between the two groups in terms of perceptual sets which had developed initially during childhood, find continuity in fundamental differences between the two groups in terms of *dominant role behaviors during adulthood*. There is a general tendency to live out perceptual sets during adulthood. Whereas the perceptual sets which were developed during childhood by persons in the non-psychiatric sample commonly bear some relation to their adult occupational specialty, hobbies, or special interests (Csikszentmihalyi & Beattie [Emery], 1979; Emery & Csikszentmihalyi, 1981), the perceptual sets developed during childhood by persons in the psychiatric sample commonly bear relation to their adult psychopathology. Those persons who as children focused attention primarily on defects of the self or family members, who failed to transcend the personalization of stimuli, were as adults still primarily focused on defects in themselves or family

⁹While paranoid schizophrenics tended to 'abstract', their abstractions were lacking in consensual validation. The paranoids' abstraction showed primary process domination and lack of secondary process thinking.

members. It is as if they had made a career-substitute of psychopathology in such forms as the role of the victim or role of patient and so on. The data suggest that persons in the psychiatric sample have a tendency to orient and organize their lives around self-blame and/or blame of others.

(4) There was no significant difference in the proportions of the two samples which experienced impact by books. However, there was a significant difference (.05 level of significance) between the psychiatric and non-psychiatric groups in terms of *mode of recall*. The non-psychiatric sample showed more *objective* recall as to the actual content and detail in the books of impact. The psychiatric sample tended toward a more fragmentary and subjective mode of recall, i.e., only fragments of books were recalled and these fragments were highly subject to memory distortion.

(5) Another significant (.01 level of significance) difference between the two groups was that a preponderant number of the psychiatric group identified themselves with themes or characters in books which were representational of some basic lack, defect, deformity, or entrapment of an individual, whereas the preponderant number in the non-psychiatric group did not. Examples of such book themes or characters, taken from the psychiatric sample, were "the dwarf", "the tin soldier", "the boy who had a sex change", "the boy who went to a mental hospital", "boy caught in a spider's web", "boy who couldn't love the girl because mother made the girl mean", "the ugly duckling", "the dog named Spot who always got in trouble", and so on. This difference in what characters or themes from books were found to be meaningful is consistent with the basic differences in perceptual sets between the two samples which are discussed above.

Thus, a finding of interest which emerges from the data is that the books which people find to be of impact are reflective of ongoing unresolved dominating psychological issues or concerns. In this way, books of impact can serve as a projective measure because the books selected out of a myriad of possibilities indicate or serve as a projection of an individual's inner anxiety or dominant issue.

(6) The final difference which emerged between the psychiatric and non-psychiatric samples relates to a differing balance and integration between *primary and secondary processes* in thinking. Freud (1911) distinguished between primary and secondary process thinking. He wrote:

Processes in the unconscious or in the id obey different laws from those in the preconscious ego. We name these laws in their totality the primary process, in con-

trast to the secondary process which regulates events in the preconscious or ego. (p. 222)

Rapaport (1960) has analyzed extensively the balance between primary and secondary process thinking in human function, concluding that:

The development of thought is a progression from the dominance of primary process forms to the dominance of secondary process forms. The restraint of the primary process by the secondary process creates the balance between reality adaptation and instinctual drive satisfaction in the individual. (p. 44)

To conclude, the psychiatric sample showed more primary process dominance and intrusion in perception and interpretation of stimuli than did the non-psychiatric sample, while the latter showed evidence of a greater integration between the two processes with the secondary processes dominating general perception.

Summary

This paper represents an epistemological approach to psychiatry. The area of investigation is what we have termed the 'psychology of knowledge'. The research questions which were explored are as follows: (1) What are the processes involved in the ontogenetic development of how one comes to know? (2) What accounts for individual differences in perception of what is knowledge? (3) What is the function of cultural role models, specifically books, in the ontogenesis of how one comes to know? (4) What are the significant differences between non-psychiatric and psychiatric subjects in terms of perceptual sets?

The total number of subjects was 75 with 45 constituting the non-psychiatric sample and 30 the psychiatric sample. Background variables of sex, age, and socio-economic variation in family of origin were either controlled or held constant. In order to avoid value judgments as to what constitutes 'normality' or 'mental health', operational definitions were used. The non-psychiatric sample consisted of persons who had a total of less than two visits or consultations with a mental health professional and the psychiatric sample consisted of persons who had more than fifteen visits and/or psychiatric hospitalization. Thus, generalization to the intermediate population, having from two to fifteen visits, must be made with caution.

The research findings were as follows:

(1) Both non-psychiatric and psychiatric subjects showed evidence of having developed, early in life, a characteristic perceptual set as a coping response to childhood stress. This characteristic perceptual set developed as a response to some fundamental unresolved issue and represented an

interpretation of reality and an attempt to deal with reality on the basis of the interpretation. This perceptual set tended to endure, becoming structuralized and characterological, thus, representing a continuity in personality over time.

(2) Findings relating to the relationship between books, as one class of cultural role model, and perceptual sets are as follows. Major impact by books was experienced generally during childhood up through the age of twenty-two. No respondent mentioned more than five books as having a major impact in his life. The books experienced as significant were ones which related to the fundamental problem which had been the greatest source of psychological stress during childhood and which formed the core around which the perceptual set developed. The selective principle underlying the experience of significance in books was the characteristic perceptual set. Thus, the person's perceptual set was the mediating variable in what we have termed 'the psychology of knowledge'. In this way books of impact can be used as a *projective indicator* or projective measure because the books which are selected out from the myriad of possibilities reflect or represent a projection of the person's dominating inner concern.

(3) Analysis of the data shows that the significant differences between the non-psychiatric and psychiatric samples were as follows:¹⁰

(A) A significant difference between the two groups was that, in the psychiatric sample, there was a marked trend toward perceiving the chief problem, at the time that it was experienced during childhood, as some *defect in the self or a parent*, whereas in the non-psychiatric group, there was a marked absence of such attribution. The non-psychiatric group, as a whole, tended to put into a broader perspective, the negative aspects of self and family, and through the use of mechanisms of secondary thinking such as abstraction and generalization, tended to transform, perceptually, the personal problems into problems viewed in the perspective of the *trans-personal* or the general, i.e., the problems were interpreted as being common to many people. Where the psychiatric group tends to focus on the personal and the concrete, sometimes personalizing the impersonal, the non-psychiatric group tended to transform the personal and the concrete into the trans-personal, the abstract, and the general.

(B) This fundamental difference between the two samples in terms of the perceptual sets which had been developed in childhood, found continuity in fundamental differences between the two groups in terms of *dominant role behaviors during adulthood*. The data show a general tendency for people to live out perceptual sets during adulthood. Whereas the perceptual sets which were developed during childhood by persons in the non-psychiatric sample commonly bore some relation to their adult occupational specialty, hobbies, or special interests, the perceptual sets developed during childhood by persons in the psychiatric sample commonly bore

¹⁰These differences were in evidence from childhood on through adulthood. The effects of psychotherapy on the modification of the variables on which the psychiatric group differs from the non-psychiatric group is the subject matter of a paper in progress (O. Beattie Emery).

some relation to their adult psychopathology. Those persons who as children focused attention primarily on defects of the self or family members, who failed to transcend the personalization of stimuli, were as adults still primarily focused on such defects.

(C) While there was no significant difference in the proportions of the two samples which had experienced impact by books, there was a significant difference in terms of mode of recall of the actual content and detail of those books. The non-psychiatric sample showed more objective recall whereas the psychiatric sample tended toward a more fragmentary and subjective mode of recall.

(D) Another significant difference between the two groups was in the type of character or theme from a book with which the person identified. The persons in the psychiatric sample tended to identify themselves with book characters or themes which were representational of some basic lack, defect, deformity, or entrapment while the preponderant number of the persons in the non-psychiatric sample did not. This difference is consistent with the basic difference in perceptual sets which distinguishes the two groups.

(E) Finally, the two groups showed a differing balance in the integration between primary and secondary process thinking with the psychiatric sample showing more primary process intrusion and dominance in the perception and interpretation of stimuli and the non-psychiatric group showing a greater integration between the two processes with secondary process thinking dominating general perception and interpretation.

In conclusion, research findings point to the idea of the existence of perceptual sets which serve as a mediating variable in the psychology of knowledge. We have explored the process by which perceptual sets come into being and have compared the perceptual sets of non-psychiatric and psychiatric populations. Further, we have examined the relation between cultural role models and the development of perceptual sets. What remains unexplored and unknown concerns the mechanisms by which some individuals come to personalize stimuli while others transcend such personalization in perception. Why do some individuals focus on self blame and blame of others while other individuals, with equally serious personal problems, transcend personalization in their interpretation and adaptation to reality. It is in the pursuit of these questions that information important for the theory and practice of psychology and psychiatry might be discovered.

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