

## CHAPTER II

## REVIEW OF RELEVANT LITERATURE

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## C H A P T E R    I I

## REVIEW OF RELEVANT LITERATURE

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2.1. Introduction

Browsing through psychological journals of <sup>The</sup> last fifty years, one can find numerous studies on perception-personality relationships. With the advancement in psychology, these two broad and self-developed fields have some close to each other, and not it can be said that to understand either perception or personality fully, one must study both the fields, because they are independent. The present investigation is a systematic, synthetic and experimentally controlled attempt to study the relationship between perception and personality. To be more precise, the present investigator tries to study the relationship between some perceptual characteristics and personality traits. In the preceding chapter, the type of relationship that exists between perception and personality was pointed out. Several studies have been carried out by eminent researchers,

psychologists, clinicians and social psychologists in this direction. Some of the relevant studies are reviewed here. The works of Witkin and his associates<sup>(158)</sup>, Bruner, J.S. and Postman, L.<sup>(25)</sup>, Brunswik, E.F.<sup>(30)</sup>, Vernon, M.D.<sup>(147)</sup> Vernon Hamilton<sup>(146)</sup> and Lazarus, R.S., Eriksen, C.W. and Folds, C.P.<sup>(91)</sup> are remarkable and most relevant. The present investigator has tried to review all these relevant researches on perception-personality relationship. To understand and appreciate the specific findings of the present work, it is essential first to get acquainted with similar works attempted by others. This chapter proceeds to give somewhat detailed review of relevant studies in the light of which it would be more fruitful, instructive as well as interesting to follow the findings of the present investigation.

## 2.2. Bruner, J.S. and Goodman, C.C.<sup>(23)</sup> studied 'Value and Need as Organizing Factors in Perception'

This study has to do with the perception of magnitude. In the study children ages 10 to 11, divided into those from fairly prosperous homes and those from a slum settlement homes, were given the task of adjusting a variable patch of light to the sizes of pennies, nickels, dimes, quarters and half dollars. Half the subjects worked with coins in hand, half from memory. Control groups adjusted the light patch

to cardboard discs of the same size. The findings, in general, were that the sizes of the more valuable coins were over-estimated, <sup>those the</sup> of less valuable coins underestimated. The effects were greater for the memory conditions than for the condition with coin present. No significant effect was found for paper discs. In general, the economically well-to-do children showed less of the value-distortion effect than the poor children.

The study has been repeated several times, and as McCurdy,<sup>(100)</sup> and Tajfel<sup>(138)</sup> point out, the same effect was found more often than not under a variety of conditions. One experiment by Carter and Schooler<sup>(36)</sup> found somewhat contrary results.

2.3. Postman, L., Bruner, J.S., and McGinnies, E.<sup>(124)</sup> studied 'Personal Values as Selective Factors in Perception'.

Bruner, Postman and McGinnies indicated that the speed and ease with which words were recognized when briefly presented in a fast exposure apparatus (tachistoscope) were a function of the value areas these words represented and of the interest the subjects in the experiment evinced in these various value areas as measured by the Allport-Vernon study of values, which tests for the relative dominance of religious, aesthetic, political, social, theoretical and economic interests.

The general finding was that the greater the dominance of a value in the person, the more rapidly he would recognize words representing that area. The authors found that the hypotheses offered by the subject prior to correct recognition were particularly revealing, suggesting that in the presence of low value words there was some form of defensive avoidance - the perceiving of blanks, scrambled letters, or even derogatory words which the authors called 'contravaluant hypotheses'. With high value words, on the contrary, subjects tended in excess of chance to propose guesses that were in value area of the stimulus word prior to correct recognition.

2.4. Brunswik, E.F.<sup>(30)</sup> studied 'Intolerance of Ambiguity as an Emotional and Perceptual and Personality Variable'.

In recent years there have been an increasing number of attempts to integrate the field of perception with that of motivation and of personality. These attempts may take either of the two opposite directions. One is characterized as perception-centered and the other may be called the personality-centered approach. This is not to say that with the first case the primary interest is always in perception, and with the other always in personality. In Brunswik's study, personality-centered approach was applied to concept and findings originating in the sphere of emotional ambivalence and to their expansion into experiments on perceptual ambiguity proper and on related

subjects which had been treated under different aspects so long as they were left within the framework of the psychology of perception.

### Perception-Centered Studies in Motivation and Personality

Murray's investigation (109) of the influence of fear on perception was <sup>a</sup> perception-dependent approach. So were also <sup>So were also</sup> Sherif's work (133) on the need for conformity, and Bruner and Goodman's experiment on values (23) as determining perception in the poor as contrasted with the well to do. Emphasis is in each case on temporary or otherwise relatively personality alien factors, defining a single motivational force in relative isolation. Characteristically it may involve the traditional problem of geometrical 'illusion' or it may be an aesthetic appreciation. Want, fear or social influences are now added as further determinants to complete the existing list of interferences already known; and the motivational factors are superimposed upon a well-structured cognitive core, at least within the framework of the experiment concerned.

Examples of the perception-dependent approach is given by a group of investigators who have come to conceive of personality as a whole after the pattern of what they have learned in studying perception proper. This role may well have fallen to the Gestalt Psychologists, had they been able to develop a sufficiently specified interest in the problem of personality.

E.R.Jaensch's tests <sup>(24)</sup> are undoubtedly of greater potential relevance than most of the older psychological tests, none of which has reached the level of penetration of what has recently become known as projective techniques. Examples of the tests used by Jaensch are the adjustment of the individual to prismatic lenses. The J-type is said to accomplish his adaptation to the prismatic spectacles slowly and consistently, showing steady progress, whereas its undesirable counterpart, the S-type is said to show in all the perceptual experiments irregularities, great latitude of reaction, instability and jumpiness; his adaptation to the prismatic spectacles is said to proceed in a jerky fashion with switching back and forth and a wide range of correction values.

#### Personality-Centering in the Recent Approach

The approach by Jaensch is personality-centered because it is reformulated and broadened; it has originally developed and perfected in the clinical and social field. The prime concern is to bring together a variety of aspects in order to study the generality or lack of generality of the personality patterns involved. Can basic formal attitudes such as subjectivity, rigidity, fear of ambivalence and of ambiguity etc. be taken as unified traits of the organism ?

A second advantage offered by carrying the personality problems into perception is that tendencies which in the social and emotional fields are manifested in a vague fashion are rendered more clearly assessable to experimental varification. It is hoped that by discussion of the same formal principles in all three; the motivational, social and perceptual contexts, greater conceptual clarity can be achieved than through a discussion of any of those channels alone. A third advantage is what may be called the reduction of social bias. This paper is beginning to answer the problem in an empirical manner. The topic to serve as a medium through which the procedure will be followed is given by what seems to the writer one of the basic variables in both the emotional and cognitive orientation of a person toward life and what she has suggested to be labelled 'tolerance vs intolerance of ambiguity'.

The material evidence is based primarily on a project conducted at the Institute of Child Welfare of the University of California and dealing with rigid adherence vs disinclination to ethical prejudice in children, and the motivational and cognitive correlates of those social attitudes. This study has involved the construction of a series of scales for the direct and indirect measurement of prejudice and for the assessment of



factors suspected to be related. Data have been collected from 1500 public school children, eleven to sixteen years old, in several samples. With 120 of these subjects, representing the extremes of prejudice and of freedom from prejudice. More intensive studies were conducted in terms of individual interviews and projective tests. Approximately forty of the intensively studied children were further submitted to some of the experiments in perception proper and in memory. The investigator, observed that some of her subjects were able to tolerate emotional ambiguities better than others. Secondly, the importance of individual differences in the insistence on unqualified assertions was first brought to the attention of the writer in a study on mechanisms of self-deception. The greater the definiteness and lack of shading, the greater the intolerance of ambiguity in the self-description of favourable traits.

The background of the problem of ambiguity thus becomes related to the vast fund of knowledge supplied by psychoanalysis in connection with the development of the concept of 'ambivalence'. Ambivalence is defined by co-existence, in the same individual, of love and of hate, cathexis toward the same object. The existence of ambivalence in a person and the further fact of this person's ability to face his other ambivalences toward others

must be considered an important personality variable. Here we are dealing with experimentation concerning formal factors, such as intolerance of ambiguity or rigidity and the question of whether or not these attitudinal variables are restricted to the emotional area.

One and the same individual may recognise in the same object (e.g. in parents or other groups) any actual coexistence of positive and negative features. Ability to recognise such coexistence in all likelihood constitutes another important, emotional-cognitive personality variable. Our material gives evidence of individual differences in emotional ambivalence and the readiness to face it and in the more cognitive recognition of traits of conflicting value in others.

Some individuals are more apt to see positive as well as negative features in their parents and can accept feelings of love and hate toward the same persons without too much anxiety or conflict, and others seem compelled to dramatize their image of the parents in seeing them either as altogether good or as altogether bad. We list here only a few of the facts which were used as the basis of such an inference.

First the description of the parents in the second type of cases is often stereotypical and exaggerated. We find a preponderance of reference to physical and other external

characteristics rather than mention of more essential and abstract aspects of the parents' personalities. The different data induce us to state that the children concerned split the positive and negative sides of their feeling and attitudes rather than become aware of their coexistence.

Dominance-submission, cleanliness-dirtiness, badness-goodness, virtue-vice, masculinity-femininity are some of the other dictotomies customarily upheld in the home of children. The absoluteness of each of these differences is considered natural and eternal, excluding any possibility of individuals trespassing from one side to the other.

Discipline is experienced by the children significantly more often as threatening, traumatic, overwhelming and unintelligible, as contrasted with an intelligent, non-ego destructive type of discipline in the home with the more flexible atmosphere. Actually in the home with rigid orientation, the discipline is more often based upon the expectation of a quick learning of external, rigid, superficial rules beyond the comprehension of the child. Family relationships are based on roles clearly defined in terms of dominance and submission. It is of course true that no children can fully master his environment.

Further factors contributing to the rigidification of personality in children are the stress on stereotyped behaviour,

as expectancy of self-negating submission, and the inducement to repress non-accountable tendencies. Data on the parents of the children in the rigid, intolerance group reveal that it is their feeling of social and economic marginality in relation to the group to which they aspire from which ensures the desperate clinging to external and rigid rules. Obviously, the less secure they are in their feeling of belonging, the more they will insist on maintenance of the cultural norms in themselves and in their children. It is this rigid adherence to norm which furnishes the key to an understanding of all the various avoidances of ambiguities listed in the paper. The evidence from both direct and indirect material thus suggests that children who tend to make unambiguous statements either of total acceptance or of total rejection, seem to be aware of only one of the two aspects co-existing within their dynamic, attitudinal make up. In this state of affairs, the conflicting tendencies are isolated from each other and expressed only alternatively through different types of media, each of them representing a different layer of the total personality. The fact that the tendency toward emotional dichotomizing in interpersonal relationships is related to dichotomizing in the social

field is not a surprising one.

One must add that a great variety of perceptual and cognitive processes may be considered as formal approaches to reality which may be very revealing of a person's style of life. The establishment of the relationship of these formal aspects to content is an important task of psychology. The question may be raised as to what are the consistencies, and positive correlations, and what are the compensations in terms of behaviour. It is such problems which led to the experiment discussed subsequently in this paper.

Academic research on ambiguity and on probability adjustment has discovered a number of important principles by which cognitive responses are linked to characteristics of stimulus-configurations and stimulus-combinations in the environment. The study of Brunswik, E.F. is entire development of the problem under the aspect of personality.

In order to investigate empirically how far basic personality trends, found in the emotional and social sphere, such as ambivalence, are apt to spread beyond this area to include perceptual and cognitive aspects, it was decided to combine the personality studies of the children in project on ethnic prejudice referred to above not only with an ascertainment of their social beliefs but also with an

investigation of their perceptual reactions. The writer had been led to expect prejudice to be associated with perceptual rigidity, inability to change set and tendencies to primitive and rigid structuring of ambiguous perceptual fields. Well-tested experimental approaches are available for these variables. It only remains to use them in connection with susceptibility to prejudice.

At first the problem was approached in a more summary fashion. Such traits as 'intolerance of ambiguity', 'distortion of reality' and 'rigidity' were defined in a general manner and each child was rated, without knowledge of his prejudice score, on the basis of a synopsis of the available clinical material. The same group which manifested extreme racial prejudice received on the average high ratings on these traits also.

Furthermore, children with a tendency to dichotomize in the social field on the basis of external characteristics at the same time tended to subscribe to statement included in a personality inventory and expressly designed to reveal a dichotomizing attitude, a rejection of the different, or an avoidance of ambiguities in general.

To this more general evidence of the relationship between emotional social ambivalence and repression, on the one hand, and tolerance of cognitive ambiguity, on the other,

we now add a brief description of some relevant experiments, some of them being still in a highly tentative state.

Differential Distortion of Reality in an Experiment on Memory

First a memory experiment, conducted by Brunswik will be discussed in which there is still some emotional and social involvement. It stresses an important characteristic of the personality-centered approach.

The task was the recall of a story. It was carried out in 1946 as a group experiment with forty-two children of the 6th, 7th and 8th grades to whom a number of tests developed during the project were given. The sample included extremes as well as subjects of immediate attitude.

The story - actually a somewhat broadened milieu characterization - dealt with the pupils of a school and their attitudes towards new comers. The entire material covered one and one-half double-spaced typewritten pages. It was read to the children only once. After a short interval, they were asked to reproduce it in writing.

Children scoring relatively high on prejudice mentioned the Negro boy significantly more often in an unfavourable context, than did the less prejudiced. The negative characteristics ascribed to him were subjective elaborations on the part of the subjects concerned. The prejudiced children

tended generally to recall a higher ratio of undesirable characteristics.

The low-scorers stuck close to the 'truth' in this respect at least, than did the high-scorers. The fact that 43% of the high scorers as contrasted with only 8% of the low-scorers, recalled exclusively that part of the story which dealt with the fighting without mentioning any of the other themes.

The fact that low-scorers on the whole approximate more correctly the actual configuration of stimuli will also be seen in the results of the perceptual experiments to be discussed below.

#### Experiments on Perceptual Ambiguity

We now turn to a group of experiments<sup>(30)(124)(130)</sup> in perception proper. These are quite free from emotional and social content and are designed to help investigate whether or not such characteristics as intolerance of ambiguities are generalized. If such intolerance should turn out to be a formal characteristic of the organism independent of content, experiments on perceptual ambiguity could be used as diagnostic tools. In most cases the subjects were children in the project mentioned above who had scored extremely high or extremely low on ethnic prejudice.



While taking the account of individual differences in perception, the sociological attributes of the sample become decisive. The sample for the experiment under discussion consisted mainly of a lower middle-class group in an area restricted by covenant.

In the first of the preliminary experiments, a disc shaped reversible figure-ground pattern was presented to a total of 14 subjects. It was expected that prejudiced subjects would display a smaller number of spontaneous shifts, that reaction time in shifting would be longer, and that there would be a tendency to settle on one of the possible solutions. The answer to this may throw some light on the question as to whether subjects who exhibit rigidity in the emotional and social fields are generally less likely to shift back and forth between alternative interpretations of an ambiguous perceptual configuration. The results of this experiment so far were not conclusive.

In another tentative experiment, first the picture of a dog was shown, followed by a number of pictures representing transitional stages leading finally to the picture of a cat. At every stage the subjects were asked to identify the object on the given card. In spite of the fact that the cards were not too well drawn for the purpose, distinct trends became evident. The prejudicted group tended to hold on longer to the first object and to respond more slowly to the changing stimuli. It

may be well to turn upon further evidence that intolerance of perceptual ambiguity is related to a broader psychological disturbance of which prejudice itself is often a deviation from the prevalent code.

Turning again to less specific situations, figural after-effects of what is, or has temporarily become the 'familiar' seem to show generally a relatively strong resistance to change in this group. It is as if any stimulus is playing the role of an authority to which the subject feels compelled to stimuli. With internal conflict being as disturbing as it is in this group, there apparently develops a tendency to deny external ambiguity as long as such denial can be maintained. Underlying anxiety issuing from confusion of one's social identity and from other conflicts is apparently so great that it hampers individual in this group in facing even the purely cognitive types of ambiguity. The mechanism discussed is somewhat related to what Postman, Bruner, and McGinnies(124) have called 'perceptual defences'. Persons with less severe underlying confusions, on the other hand, may be able to afford facing ambiguities openly, although this may mean an at least temporary facing of conflicts and anxieties as well.

In a further experiment in which one after another in a progressive series of hues was to be named, the investigator gained the tentative impression that prejudiced subject again

perserverated longer than the unprejudiced, in this case with a given colour-term conceived of fewer and cruder steps along the scale. Another experiment, conducted recently along the general line of the one with the cat-dog pictures just mentioned, is one by Mr. Norman Livson and Mrs. Florine Berkowitz Livson<sup>(30)</sup>. Two statistically significant differences were found for a total of forty-two of the children in the social discrimination project.

Rokeach<sup>(130)</sup> investigated a problem of rigidity related to ambiguity. He used a Gestalt psychological thinking problem, involving the manipulation of three jars. First complex problems were given and after that simple problems were given. First type of problems could be solved by complex method and others by simple method. A measure of rigidity was derived from the number of cases in which the established set was maintained and thus an inability demonstrated to restructure the field and to perceive the direct solution. The children scoring extremely high on ethnic prejudice solved the new problems more rigidly than those extremely low on prejudice. A spatial problem also devised by Rokeach, calling for the finding of a shorter path on a map after a set for a longer route had been established, has further borne out the greater rigidity of the ethnically prejudiced. The rigidity scores derived

from the simple arithmetic problems just referred to tended to correlate with over-all clinical ratings of children's rigidity based on their attitudes toward parents, sex roles, self, morale, values etc. as revealed in our clinical interview. Similarly, significant correlations were found between rigidity scores gained by Rokeach and the total score on personality inventory, designed to measure dichotomizing in emotional and social attitudes. The inventory consisted of a series of statements referring to attributes towards authority, aggression and weakness, etc. Since we were in the present context more interested in the handling and mastery of a well-circumscribed-reality, and less in projection as such.

The overall trend of the data discussed in this section seems to indicate a certain generality within the individual concerned, of the approach to reality which we have subsumed under the term 'intolerance of ambiguity'.

#### Rigidity, Discontinuity, and Chaos: The Closeness of Opposites

There is evidence for the fact that rigidity of attitudes constitutes a counterbalance to underlying conflicts often varying on chaos. Rigidity and chaos seem on theoretical as well as on the empirical grounds closely related than one may assume from purely phenomenological viewpoint. Goldstein<sup>(62)</sup> has

pointed out the coexistence of rigid and disintegrated behaviour in the same individual.

A combination of rigidity and chaos, similar to that found in the cognitive and in the strictly emotional field, is also present in the social field. We find in the rigid children artificial isolation and separation of feelings and attitudes which belong together, and, at the same time, fusion of attitudes which do not belong together. It should be mentioned here that Werner<sup>(153)</sup> conceived of 'rigidity' as being caused by either too much isolation of the different subareas of the personality or by too much overlapping in the sense of perseveration of certain elements throughout the entire mental life.

The splitting off and exclusion from consciousness of unacceptable tendencies such as aggression against authorities, or weakness may be considered as contributing to the general lack of insight, the rigidity of defence and the narrowness, to all kinds of discontinuities as revealed especially in the attitude of the rigid person toward himself.

An intolerant individual makes significantly fewer spontaneous comments on his own early childhood. Upon inquiry, we discover that a discontinuity between present and past self often becomes apparent.

As long as we remain in the emotional and especially in the social field, the evaluation of what is a reality-adequate or a reality - inadequate representation might be hard to judge. All in all, we have the impression from our data that liberals distort reality less.

In the study under consideration, the main emphasis was on environmental factors, Kretschmer<sup>(30)</sup> stressed constitution as a determinant of differences in cognitive and emotional behaviour. Our evidence regarding environmental factors must not be allowed to detract from the possibility of constitutional differences in rigidity and frustration tolerance, although they may well turn out to be of a different kind than those emphasized by Kretschmer.

Personality-centered research would seem to be bound to give great prominence to the idea of the closeness of opposite extremes. Results of research designed with an eye on genuine problems of personality dynamics will be of necessity force upon the investigator the recognition of this basic relationship.

The rigidity in one respect may go with flexibility in another, yet it may actually be part of a dynamically coherent personality make up. In fact, it may even be impossible to remain extremely rigid, or objective or concrete, without at

the same time making up for it by extreme flexibility, subjectivity, or abstractness in some other respect compensatory to the first. The problem as to whether individuals differ primarily with respect to over-all rigidity or with respect to the differential distribution of rigidity within the various aspects of personality thus appears in a new light and acquires even greater urgency.

In the paper referred to (30) an attempt was made to discuss denial of emotional ambivalence and intolerance of cognitive ambiguity as but different aspects of what may be a fairly coherent characteristic. Experiments in memory, perception, and related topics are devised to test tolerance of ambiguity on an emotionally more neutral ground.

There is some indication that in the case of distinct intolerance of emotional ambivalence, one may as a rule be able to locate at least some aspects of intolerance of cognitive ambiguity. More detailed study of single cases reveals that social and cognitive intolerance are far from being inseparable even in the extreme groups.

Emotional ambivalence helps to imbue personality-centered study of cognition as exemplified in this paper with the realization of such important dynamic principles as the closeness of opposites.

In general, severe repression of certain tendencies such as aggression toward authority, fear, weakness, or elements of the opposite sex in oneself, finds its parallel in an externalized image of these tendencies as projected onto others and in narrowness and rigidity of consciousness. There is more than an empirical affinity between the strength in hostility, of power-orientation, of externalization, and of rigid stereotyping, on the one hand, and the intolerance of ambiguity on the other. There is a similar affinity between the orientation towards love and the acceptance of drive-impulses, on the one hand, and a general flexibility, on the other. The struggle between these two orientations is basic to our civilization; its individual members display these two patterns in varying proportions and changing configurations.

2.5. Bruner, J.S. and Postman, L.<sup>(28)</sup> studied 'On the Perception of incongruity; a Paradigm'

Perceiving comprises a highly complex series of little understood psychological processes. For under all conditions, perceiving represents a resultant of two complex sets of specifications. One set describes the conditions of stimulation. Stimuli do not act upon an indifferent organism. The organism in perception is, in one way or another, in a state of expectancy about the environment. The perceptual effect of a stimulus is



necessarily dependent upon the set or expectancy of the organism.

There have been very few systematic efforts to analyse the dimensions of set and to formulate laws regarding the effectiveness of set in perception, such as those which describe stimulus-perception relationship.

The study under discussion, though empirical in nature, deals with directive factors in the perceiving process. Our basic axion has already been stated that perceiving is a process which results from the stimulation of a prepared or *eingestellt* organism.

A second axion concerns the operation of such directive factors. Directive processes in the organism operate to organise the perceptual field in such a way as to maximize percepts relevant to current needs and expectations. This 'minimax' axion is the construction-defence balance in perceiving (20).

Expectancies continue to mold perceptual organization in a self-sustaining fashion so long as they are confirmed. It is when well established expectancies fail to ~~confirmation~~ that the organism may face a task of perceptual reorganization. The principal concern of this paper is with the perceptual events which occur when perceptual expectancies fail of

confirmation - the problem of incongruity. The aim of the Bruner and Postman study was to observe the behaviour of intact, normal organism faced with incongruous situations. It is essential to examine how incongruity is dealt with, what repertory of responses is available to the organism in incongruous situations.

In this investigation, 28 subjects were shown successively by <sup>A</sup>teichstoscopic exposure of five different playing cards. From one to four of these cards were incongruous colour and suit were reversed. Both normal and 'trick' cards were prepared. Each card was presented successively until two correct recognitions were sought.

A major conclusion is simply a reaffirmation of the general statement that perceptual organization is powerfully determined by expectations built upon past commerce with the environment. When such expectations are violated by the environment, the perceiver's behaviour can be described as resistance to the recognition of the unexpected or incongruous. The resistance manifests itself in subtle and complex but nevertheless distinguishable perceptual responses. Among the perceptual processes which implement this resistance are :

- (1) the dominance of one principle of organization which prevents the appearance of incongruity and
- (2) a form of 'partial assimilation to expectancy', which we call compromise.

When these responses fail and when correct recognition does not occur, what results may best be described as perceptual disruption. Correct recognition itself results when inappropriate expectancies are discarded after failure of confirmation.

2.6. McGinnies E. and Bowles, W.<sup>(104)</sup> studied 'Personal Values as Determinants of Perceptual Fixation'

The importance of perceptual organization in learning has long been recognized by the Gestalt psychologists. We have only recently begun to investigate some of the culturally derived personality variables which condition the type of perceptual organization that the individual will achieve. One of these variables, personal value, has been shown to determine, the selectivity of perception for value-words <sup>(124)</sup> Since individuals tend to perceive selectively in accordance with their basic values, or interests, it seems reasonable to suppose that they will also acquire new perceptual habits in a manner consistent with their particular value orientation. Demonstration of the role of personal value in perceptual fixation, or learning, is the purpose of the McGinnies and Bowles study. Bruner, J.S. and Goodman, C.C.<sup>(23)</sup> who have suggested that perceptual behaviour is characterized by three basic processes: selection, accentuation, and fixation. Selection refers to the lowering of thresholds for objects of distinct personal reference

lowering of thresholds for objects of distinct personal reference to the individual. Objects that are selected frequently become accentuated, that is, they appear brighter larger, or more vivid. Fixation denotes the persistence and preferential retention of certain selected percepts.

Several studies have been carried out dealing with the laws of learning in relation to perceptual organization. Three investigators - Seeleman, V., Kremer, B. and Levine, J. and Murphy, G.<sup>(104)?</sup> have considered the role of attitudes in the fixation of percepts. McGinnies and Bowels<sup>LES (104)</sup> tried to devise a situation in which perceptual fixation may be demonstrated as a function of personal values without the specific mediation of primary re-enforcement or differential frequency of exposure to the perceived material.

Neither selectivity nor fixation in perception can be measured directly; they can only be inferred from certain overt reactions taken as adequate criteria. They have considered strength of fixation to be systematically represented by rate of learning to associate a percept with its value denotation.

Six values from Allport-Vernon study of values and twelve faces of men from a magazine were selected. Each face was given a pair of value and occupational titles. They were as follows: Theoretical scientists, economic-business, aesthetic-~~men~~

artistic, social-social worker, political-congressman and religious-minister. Twenty four undergraduates in psychology, 12 male and 12 females, were subjects for the study.

The faces were shown to the observers in a Gerband's Mirror Tachistoscope at an exposure duration of .10 seconds, with an interval of approximately 8 seconds between successive exposures. During the initial series each exposure was prefaced by the statement from the experimenter: 'This is a scientist' (or artist, clergyman etc.). Since 12 faces were used to symbolize the 6 values, each value area was represented by two pictures. The entire series of pictures was presented in a pre-determined random order. First there was a series of initial presentation of 12 pictures. Following the initial run of 12 exposures, the observers were told that they would be shown the faces again and that they were to attempt correct identification of each face as it was presented. When the observer identified <sup>the</sup> correct face, then next exposure was presented, and if there <sup>was</sup> an incorrect response then <sup>the</sup> experimenter corrected it. The entire series of pictures was presented until the observers had correctly identified each face on three consecutive trials. From each observer, two statistics were computed, (1) the rank order correlation between values, (2) the product-moment correlation between actual scores on the Allport-Vernon Scale

and the number of trials needed for fixation of the two faces representing each value.

On the whole, a positive relationship between individual value preferences and rate of perceptual fixation for objects denoting those values was clearly indicated.

One more statistical operation was performed on the data. A total was obtained of the trials required for all observers to fixate the faces representing their highest rank value, their second-ranking value etc. down to the lowest ranking value of each. An analysis of variance was then undertaken to determine whether the means of the 6 value ranks differed significantly. An F-value of 2.37 was obtained, indicating significance at the .03 confidence level.

In a study<sup>(104)</sup> mentioned later on, dealing with the role of value in perception, it was suggested by the authors that three mechanisms governed the perception of value-related symbols: selective sensitization, perceptual defence and value resonance. The present results appeared to be consistent with these postulates.

In general, the observers fixate more readily <sup>the</sup> faces <sup>with regards to the</sup> symbolizing their highest values than they do faces representing their lowest values. The fixation occurs more readily for percepts having secondary reward value acquired through

association with value-related activity. In the presence of supreliminal stimuli, differential ease of perceptual fixation is acquired in an equivocal situation through selective sensitization or perceptual defence.

2.7. McClelland, D. and Liberman, A. (97) studied - 'The Effect of Need for Achievement on Recognition of Need-Related Words.'

McClelland, Clark, Roby and Atkinson<sup>(101)</sup> have reported a study in which they derived what purported to be a measure of the need for achievement (n achievement). In this study it was shown that experimentally induced failure under ego-involving conditions produced characteristic changes in briefly written TAT stories. In an attempt to extend the meaning of this new measures of n Achievement, Clark and <sup>McC</sup><sub>LELLAND</sub> undertook to find out whether it was related to performance on an anagrams task.

Two correlated measures of n Achievement are available: one based on the TAT apperceptive measure, the other based on performance on the anagram test. Furthermore, they are not only correlated with each other, but covary in their relation to other measures.

The purpose of this experiment was simply to determine the relationship between these two measures of n Achievement, on the one hand, and the ease or readiness with which need

related words are recognized, on the other. That they may be such a relationship is suggested by the work of Postman, Bruner, and McGinnies<sup>(124)</sup> who have shown that the time required for recognition of tachistoscopically presented words is determined in part by the connotation of the words as they relate to the individual needs or values of the subject. By determining the relation, in this case, between n Achievement and recognition of need-related words, it may be possible to enlarge the meaning of the n Achievement measure, and also to throw light more generally on the way in which a need or motive influences readiness to recognize or perceive those parts of the environment which are relevant to the need in perception.

Thirty-six male undergraduates, on whom an apperceptive and a performance of n Achievement were available, were asked to try to recognize 30 tachistoscopically presented words. They were given successive .01 second exposures of the words at increasing illuminations until they were able to identify them correctly. Ten of the words were neutral, 10 security-related. The number of exposures taken to see the need-related words was converted into a standard score in terms of the distribution of recognition times for the neutral words for each subject. The subject's incorrect guesses or presolution



hypotheses were also recorded and analysed. The major findings were :

1. The subjects with high n Achievement, as determined either by the apperceptive or the performance measure, recognised the achievement related words with positive (success) connotations ( + words) more quickly than did the subjects with low n Achievement. There were no differences for the achievement-related words connotating failure or difficulty ( - words ).
2. When the apperceptive and performance measures of achievement were combined to give a more reliable estimate of each subject's n Achievement, it was found that a breakdown of the resulting combined rank distribution into thirds yielded slower recognition times to the achievement - words for the middle third of the distribution, and faster recognition times to the achievement - words for the middle third of the distribution, and faster recognition times to <sup>the</sup> achievement + words for the higher third of the combined distribution. There was also a reliable tendency for the middle and high thirds to see the security-related + words faster.
3. An analysis of the presolution hypotheses showed that the middle third of the combined rank n Achievement distribution showed fewer structural hypotheses for the security-related words, and the high third relatively fewer structural hypotheses for the achievement-related words.

These results are interpreted as meaning that the group of subjects with moderate n Achievement are security-minded

and chiefly concerned with avoiding failure, or with achieving a minimal level of aspiration, whereas the group of the subjects with high n Achievement are concerned more directly with achieving success or attaining a maximum level of aspiration (24).

2.8. Vanderplas, J.M. and Blake, R.R.<sup>(145)</sup> studied 'Selective Sensitilization in Auditory Perception'

Several studies showing the importance of dispositional 'set' in guiding perceptual behaviour have appeared in the recent literature. Bruner, J.S.<sup>(25)</sup>, Bruner, J.S. and Goodman, C.C.<sup>(23)</sup>, Bruner, J.S. and Postman, L.<sup>(26)</sup> and Postman, L. and Bruner, J.S.<sup>(123)</sup> have conducted research<sup>es</sup>; and their studies are more significant in this connection. All these studies were designed to test the validity of the general proposition that perceptual activity may, under certain conditions, be functionally guided by need, value, stress, tension, and other variables. One of the more important studies is that concerned with personal values as selective factors in perception. Postman, Bruner, and McGinnies<sup>(124)</sup> presented stimulus material consisting of a list of words which were judged by psychologists to be associated with the value areas measured by the Allport-Vernon (A-V) study of values. They found that the length of exposure time required to recognize correctly the words associated with the A-V. values areas tended to vary inversely with the preference scores on the

A-V. scale. They concluded that there was a corresponding decrease in threshold for words associated with areas in which value was high and a generalized increase in recognition threshold for words associated with areas in which value was low. They postulated three mechanisms for perceptual behaviour: Perceptual Sensitization, in which a lowering of threshold of recognition occurs as a function of high value for the area with which the stimulus is associated; perceptual defence, or a heightening of thresholds of recognition against inimical stimuli; and value response, which makes for a persistence of responses which are value orientated, even when the associated stimulus is absent from the immediate environment. In the study relevant to <sup>the</sup> present discussion it was desired to test the general validity in auditory perception of the first of the three propositions.

The aim of this study was to test the validity of the mechanism of perceptual sensitization by studying the effect of value and other variables on the perception of aurally presented stimuli. Thirty-six words, the ones used originally by Postman, Bruner, and McGinnies, selected to represent the six value areas measured by the Allport-Vernon study of values, were recorded and presented aurally under controlled conditions to a group of 22 college students, normal for hearing. Recognition threshold scores for each group of words in the

six value areas were computed and compared with the subject's scores on the A-V. study of values.

The results showed clearly that value played a selective role as one determinant of recognition efficiency. In general, subjects perceived words representing their high value areas at significantly lower intensity levels than they perceived words which represented their low value areas. This finding for auditory perception, which is consistent with that furnished by Postman, Bruner, and McGinnies for visual perception, supports the general assumption that some mechanism of perceptual sensitization operates to differentially raise or lower <sup>down the</sup> recognition thresholds.

A discussion of the psychological meaning of these data suggests that decreases in recognition thresholds may come about through the operation of factors related to familiarity with valued stimuli, through the effects of assigning more precise and therefore, more meaningful definitions to valued stimuli, or through the interaction of these two processes. The contribution attributable to meaning and that attributable to associative frequency cannot of course be determined from these data.

In terms of the original hypothesis, it appears that the experimentally derived determinants, such as values, serve a

centrally located integrative system which directly and differentially guides the recognition of certain kinds of auditory stimuli.

2.9. Lazarus, R.S., Eriksen, C.W. and Fonda, C.P. (91) studied 'Personality Dynamic and Auditory Perceptual Recognition'.

There have been recent experiments which have studied the relationship between perceptual behaviour and need states. Perceptual behaviour is studied as a means of studying personality dynamics. The results of a few experiments have created a great deal of controversial discussion concerning the nature of the relationship.

Let us consider some of the ways in which perceptual behaviour may be used to study personality dynamics. The extent to which perceptions are accurate should give clues as to the strength of the relevant needs as well as the 'reality contact' of the individual. The type of effect upon perception, sensitization, or defence, may indicate the acceptability of the need for the individual as well as something about the form of the ego defence mechanism involved. Experiments by Erikson (44) and McClelland and Liberman (97) constitute a start in this direction.

In the investigation mentioned above, <sup>an</sup> attempt is made to study personality mechanism through perceptual behaviour. Authors believe that the highest priority should be given to

determining the extent of these relationships between personality variables measured by clinical instruments and perceptual behaviour. Personality variables may be identified either by inhibiting or accentuating the perception of emotionally threatening material.

In their study, auditory perceptual recognition was used. Auditory perception was used by Vanderplas and Black (145) and also <sup>by</sup> Postman, Bruner and McGinnes<sup>(124)</sup> successively, and sentence completion test with sexual and aggressive needs was used. They have predicted that needs revolving around sex or aggression are freely expressed in the sentence completion situation that will produce relatively high recognition accuracy.

Thirty-five literate psychoneurotic patients were used as subjects. The testing was done into two sessions. In the first session auditory perceptual recognition was done. In all 45 sentences were presented, out of which fifteen expressed sexual ideas and fifteen contained aggressive implication and fifteen relatively natural. After each sentence was presented, the subject was asked to write down what he heard. They were encouraged to guess if there was difficulty. In the second session a sentence completion test was administered individually. Scoring method for auditory perceptual recognition

of words and sentence completion test was established. Following conclusions were drawn :

1. High positive correlations were obtained between performance on the sentence completion test and perceptual accuracy for both the sexual and hostility areas. Accuracy was found to be unrelated to response frequencies in these areas.
2. Two basic reactions to threatening stimuli were found:
  - (a) high perceptual accuracy and ready verbalization and
  - (b) low perceptual accuracy and minimal verbalization with blocking. Individuals were found to be consistent in their use of either of these basic reactions.
3. Patients with intellectualizing mechanisms perceived threatening material with significantly greater accuracy than those with repressing mechanisms. The classification of the above two categories was based upon case history and therapeutic interview data. It was made independently of the experimental data.

2.10. Postman, L., Bronson, W.C. and Gropper, G.L.<sup>(8)</sup><sup>(122)</sup> conducted an Experimental Work on 'Is There a Mechanism of Perceptual Defence?'

Several investigators have reported higher thresholds of perceptual recognition for negatively valued or taboo materials than for neutral or positively valued materials. Perceptual defence, an unconscious mechanism of resistance to recognition of threatening stimuli, has frequently been involved to explain the differences in speed of recognition. A principle of perceptual defence was first considered by Bruner and Postman<sup>(25)</sup><sup>(124)</sup> in explanation of

high thresholds for negatively valued and emotionally charged words. It was inadequate because (a) it did not specify the mechanisms producing the raised thresholds and (b) it failed to consider explanation of the observed facts in the terms of more general determinants of perceptual recognition.

Perceptual defence, as a special perceptual mechanism, was affirmed and elaborated in a study by McGinnies<sup>(102)</sup> He compared recognition thresholds for emotionally toned taboo words and neutral words. Without exception, thresholds were higher for emotional words than for neutral words. Moreover, subject's incorrect guesses suggested a tendency actively to avoid recognition of the emotionally toned words. He considered these findings as a strong evidence for the operation of perceptual defence. However, Howes and Solomon<sup>(74)</sup> comment on McGinnies's perceptual defence, and this leads to new and critical questions to clarify the status of perceptual defence. McGinnies's results may be criticized in two ways. Firstly, the taboo words used are less familiar words than the neutral words - with which they are compared. On the basis of the known general relationship between word familiarity and recognition speed, lower thresholds for the neutral words are to be expected, regardless of differences in emotionality. Secondly, his subjects tended to withhold reports of the socially unacceptable words until they were completely sure of having recognized them correctly.



McGinnies claimed that the systematic differences between pre-recognition responses to neutral and emotional words constituted further evidence for perceptual defence. He classified the pre-recognition responses into four categories: (1) structurally similar, (2) structurally unlike, (3) nonsense and (4) disconnected groups of letters. However, the process of perceptual defence has not been sufficiently specified to make the reported differences in pre-recognition responses relevant to its demonstration. Such differences can equally well be ascribed to the uncontrolled variations in the familiarity of the words. The work<sub>s</sub> of Rosenstock<sup>(13)</sup> and Eriksen<sup>(144)</sup> could not explain perceptual defence clearly. However, this work was designed to answer the question whether there was any evidence for perceptual defence in word <sup>co</sup>recognition, when the factors of familiarity, set, and selective verbal report are taken into account.

In this study<sup>the</sup> investigator used four different groups consisting of male and female subjects. The four groups were : (1) un-informal<sup>ED</sup> group, (2) informal<sup>ED</sup> group, (3) facilitation group and (4) inhibition group. Four different sets of instructions were used. The subject was asked to recognize the word presented tachistoscopically. A series composed of taboo words and neutral words were used. The familiarity of the two

types of words was equated as closely as possible by means of the Thorndike-Lorge word-count. Following results were inferred :

1. Under all conditions of the experiment, the thresholds for taboo words were somewhat lower than the thresholds for neutral words. The difference in thresholds was probably due to a systematic underestimation of the familiarity of the taboo words.
2. The relative thresholds for neutral and emotional words varied significantly with the nature of the preliminary instructions. The uninformed<sup>ED</sup> group had higher relative thresholds for taboo words than any of the groups forewarned to expect taboo words. The facilitation group had the lowest relative thresholds for such words. The results for the inhibition group were almost identical with those for the informal<sup>ED</sup> group. These findings indicate that set and selective verbal report contribute to the observed threshold differences.
3. Females have higher relative thresholds for taboo words than the males. It is possible that women are less familiar with these words than men and/or that women are more prone to selective verbal report.
4. There was significant tendency for all subjects to conform to instructions more fully in the presence of the female experimenter. The E-S relationship has demonstrable effects on the observed threshold differences.

The experimental results thus failed to provide any support for a mechanism of perceptual defence. The discussion stresses

the inadequacy of ad hoc mechanisms for the analysis of motivational factors in perception. The effects of such factors are most economically treated in the framework of a general theory of perception.

2.11. Chodorkoff Brand<sup>(38)</sup> conducted experiment and Clinical investigation on 'Self-perception, Perceptual Defence and Adjustment'

In the personality theories of Rogers and Snygg and Combs, defensiveness is described as primarily a perceptual phenomenon which follows as a consequence of threat to the individual's self. Defence is the prevention of accurate perceptions of what is threatening from reaching awareness. As a result some aspects of the environment and of person himself may be denied to awareness or may be misperceived. It is in this way that the individual insures the stability of his self. Furthermore, the adequacy of the individual's personal adjustment is considered to be inversely related to the degree to which experiences are denied awareness.

The research by Chodorkoff Brand was designed as an attempt to verify the following hypotheses :

- (i) The greater the agreement between the individual's self-description and objective description of him, the less perceptual defence he will show.
- (ii) The greater the agreement between the individual's self-description and objective description of him, the more adequate will be his personal adjustment.

- (iii) The more adequate personal adjustment of the individual, the less perceptual defence he will show.

To test the significance of <sup>the</sup> above mentioned hypotheses, the following tools were used into three sessions according to the requirement :

- (i) Q-sort of self-descriptive statement.
- (ii) Tachistoscopic presentation of neutral and threatening words.
- (iii) Biographical inventory.
- (iv) Rorchach ink blot.
- (v) Word-association test.
- (vi) T.A.T.
- (vii) Rorchach check list.
- (viii) Adjustment rating scale.

In the investigation under discussion, 30 subjects were used. They were <sup>the</sup> all college students. A brief description of <sup>the</sup> three sessions is as under :

First session started with two tests, namely, biographical inventory and Rorchach ink blot. The second session included the administration of a word association test and the TAT. The perceptual defence procedure was administered one week after the word association test. To study the phenomenon of perceptual defence, ten words, 5 with emotional tone and 5 <sup>with</sup> neutral tone from word associations test were selected. Selected words were presented tachistoscopically. After <sup>the</sup> perceptual defence procedure,

each subject was given the Q sort cards with <sup>an</sup> instruction to sort them so that they described himself. 125 short self-descriptive statements were used in Q-sort method. Judges were also asked to interpret the projective material obtained from subjects. In the third session an adjustment rating scale was given to one judge and experimenter.

Data gathered from using the above mentioned method yielded three basic scores : (1) ADS = Accuracy of self description, (2) PD = Perceptual defence and (iii) A = Adjustment.

The results generally supported all <sup>the</sup> hypotheses. The following conclusions were observed :

1. In a group of Ss who showed varying degree of adjustment and defensiveness, one finds that the more inaccurate and faulty in his perception of himself, and his environment, the more inadequate in his personal adjustment.
  2. Perceptual defence is meaningful when it is considered as an individual's phenomenon rather than a general or universal one. Important differences exist between persons and apparently can be demonstrated, if personally relevant, individually selected stimuli are used.
- 2.12. Witkin, H.A., Lewis, H.B., Hertzaman, M., Machover, K., Bretnall Meissner, P., and Wapner, S.(1958,1957) used systematic, and scientific approach 'To Study Perception-  
Personality Relationship'.

The approaches used in the study of problems of perception have traditionally been of two main kinds. In one sort of approach

the explanation of perceptual experiences has been sought in the structure of the prevailing field. Perception is not significantly influenced by the emotions of the perceiver, his needs, the techniques he has developed for coping with problems, or other personal factors. It is not influenced by psychological characteristics of the perceiver. In the other the emphasis has been<sup>laid</sup> upon the operations of the sense organs and associated neural structures mediating the stimulus, as well as upon the accumulated effects of the person's past experiences with the stimulus.

Each of these approaches has stimulated important research, as a result of which a good deal has been learned about the roles of structural characteristics of the field, and of sensory and neural processes in perception. Most of all the studies seem to have neglected motivational and other personal factors which may influence perception. The process of perception must be studied in context of the overall psychological organization of the individual perceiver. One should consider that perception is related to one's own motivation, emotion and so on. A systematic proof that motivational factors are important in perception, and that perception is therefore, directly connected with the main stream of the individual's psychological life, is significant for two reasons. First, it necessarily leads to a broadening of our current theories of perception, and second, it provides the possibility of using perceptual techniques as a means of understanding

and diagnosing general personality.

There are limited evidences concerning the personal factors playing a part in perception. This has been derived mainly from ambiguous situations. The investigation mentioned above studies how the personal characteristics of the individual influence his perception. Its aim was to provide answers to the following fundamental questions. (1) What is the relation between an individual's characteristics way of perceiving and his general personality organization ? (2) If perception and personality are related to each other, are the personality variables associated with a given way of perceiving the same for all adults ? (3) In what ways do men and women differ in perception and are these differences related to personality ?

Briefly, the procedure of this investigation was as follows : First of all, two types of population (sample) were selected, namely, normal adult college group and hospitalized psychiatric group. Total number of sample was 180 selected, consisting of 52 male and 51 female from the normal adult college group and 38 male and 39 female from the hospitalized group. Mean age of <sup>the</sup> normal adult group was 19.6 years and for the other group it was 22.9 years.

The whole investigation was carried out in a well-controlled and systematic method. To test the relation between perception

and personality, a battery of perceptual tests consisting of orientation test and non-orientation test was used. In all four perceptual tests namely, (i) the rod and frame test, (ii) tilting chair and tilting room, (iii) rotating room and (iv) embiedded figure test were used. Personality assessment was done by using a few standardized personality tests, viz., clinical interview, Rorchack<sup>H</sup> ink blot, Thematic Apperception Test, Figure-drawing test, word-association test, a sentence completion test and autobiography.

Firstly, the perceptual test was given to all the male and female subjects of the normal adult group individually in the following sequence. The rod and frame test was given first, followed within a few weeks by the tilting room- tilting chain test. Then the third test, that is, rotating room, was given and finally, the embiedded figures test was given.

Secondly, in personality measurement each subject was submitted to an intensive personality analysis. It was recognized that performance in the perceptual tests would not show a relation to all the manifold and complex aspects of personality organization, and could at the most be related only to certain possible understanding of each subject's personality variables or dimensions. A battery of personality tests were administered and interpreted by three different investigators.



Correlational techniques were used as the main procedure for determining the degree of relationship between perceptual performance and personality make-up. To supplement the correlational data a second kind of analysis of the perceptual and personality data was carried out as well. The distribution of scores for each of the perceptual test and for each combination of tests, was divided into three segments and the mean of the personality scores of the subject in each category was computed. By comparing those mean personality scores, it was possible to determine how and to what extent scores in perceptual situations were differentiating with regard to personality.

In preparing the distributions for setting up the perceptual categories, standard scores were employed for subtests and index scores for combination of sub-tests or tests. In all three groups were composed. i.e., low index score group, high index score group and intermediate index score group.

As expected, the statistical operation yielded significant correlation for perceptual tests scores and personality scores. Below are some of the findings :

1. Perception Test and Clinical Interview :

In the clinical interview five pairs of personality

characteristics were taken into account, namely, degree of self-awareness, method of handling hostility, degree of activity-passivity, method of handling inferiority feelings and the degree of self-assurance. Collrelation of perceptual tests scores with the individual and total interview scores indicated the existence of a significant relation between these personality variables and perceptual performance. Specifically, the correlations indicated a tendency for field-dependent perceptual performers to lack insight, to repress their impulses, to be passive, to yield to their inferiority feelings, and to be tense. Subjects who successfully resisted the influence of the field generally tended to show self-awareness, to express their impulses directly, to be active, to deal with inferiority feelings in a compulsory way and to show self-assurance.

## 2. Perceptual Test and Rorchach Ink Blot Test :

Six major scores (W P C M H F) and one minor score (A) that proved to be significantly related to perceptual performance were derived from the Rorchach material. Two groups namely coping group and introspective group were formed. Two types of correlation techniques were used, namely, Biserial Correlation and Product Movement Correlations. Generally, all the correlations were in the expected direction,

and many of them were significant. It was also clear that correlations involving individual Rorschach scores were lower than those involving the summed scores. The correlations involving individual Rorschach scores tended to be higher for men than for women. Their range was very wide for both sexes. The correlation between perceptual scores and summed Rorschach scores, indicated a general picture of high and significant relationship.

### 3. Perceptual Test and Figure Drawing Test :

Two sets of drawings, each consisting of a male and a female, one in a group situation and the second in an individual situation, were used. Correlations between drawing scores and perceptual test scores were generally high and significant. It was also found that the correlation between drawing scores and perceptual scores were generally high for men than for women.

In general, the results showed that persons who were field dependent in their perception produced figure drawings reflecting a low evaluation of their bodies, infantile defence against anxiety, lack of self-assurance, passivity coupled with uncontrolled expression of hostility and difficulty in accepting an adult role. On the other hand, people who were not influenced by the prevailing field and who were capable of dealing with it in an active, analytical

fashion produced drawing expressing a high degree of narcissistic investment in the body, sophisticated defences against anxiety, self-assurance, identification with desirable characteristics of both sexes, strong drive and manipulative tendencies in controlling their drives.

#### 4. Perceptual Test and TAT :

Each story obtained was rated with reference to two major characteristics namely, self-assertiveness and unfavourable outcome. Correlations between TAT lack of self-assertiveness scores and perceptual scores were positive, and for the most part significant. Correlations of the unfavourable outcome scores with perceptual scores were considerably lower. for women. In general, the TAT scores were less closely related to perceptual performance than were the scores for each of other personality assessment techniques. The results of the TAT thus showed that people who were field dependent in their perception were apt to produce stories in which the central character was unassertive in dealing with his problems, whereas people who were analytical in their perception were likely to create stories with a self-assertive principal figure. Also among men, stories with endings unfavourable to the central character were produced somewhat more frequently by field-dependent people than by those who effectively resisted the influence of the field.

#### 5. Perceptual Test and Case History Method :

In all six subjects were selected from the basic adult sample, and their full account of the personality evaluation was done by the case history method. Three men and women were chosen as sample of the people who gave field-dependent, independent or analytical and intermediate perceptual performances. In presenting the case material an attempt was made to integrate the evidence from other various personality techniques into an account of the person which showed important themes in his life.

A comparison of the personality patterns of these six subjects made clear certain aspects of personality differences between people with different modes of perception. The differences in personality between field-dependent and analytical perceptual performers, and the special features of personality of intermediate performers, confirmed the thesis that perceptual performance and personality were related. The degree of activity in dealing with the environment and the extent of differentiation of self-image were relevant to perceptual behaviour

#### Perception-Personality Relationship in the Hospitalized Group

To check up the results of normal group, a sort of another control group was used. A hospitalized psychiatric

group consisted of 38 male and 39 female subjects. Perceptual test and personality test were administered as per procedure of basic normal adult group. Scoring patterns were also the same.

In a number of other ways, the perceptual performances of the hospitalized subjects, as well as differences in perception between the hospitalized and the normal groups, proved related to particular personality results. The finding that the personality measures originally developed for the normal subjects were so well in relation to perceptual performance when applied to another quite different group, provided evidence of the validity of the perceptual personality relationship first revealed in the study of the normal group.

No doubt, the work of Witkin's and his associates was a remarkable piece of research. They studied perception-personality relationship in a new fashion and conducted a planned experiment too. However, there were some limitations in Witkin's work. Gruen Arno<sup>(67)</sup> criticized Witkin's work and challenged the perception-personality relationship. He believed that conclusion drawn by Witkin about perception and perception-personality relationship was not valid, because it did not validly reflect perceptual performance, and therefore, obscured the nature of perception-personality relationship. He examined Witkin's work into three dimensions: (1) Witkin developed evidence for a direct relation between perception and personality.

Witkin's attempt to draw inferences about personality from perception could be questioned. His procedures suffered too; because he focused on the perception rather than on the person and the process within the person mediating the perception. (2) It also needs to check up the Witkin's theory of the nature of his space-orientation situations and 'field-dependency-independency perceptual dimensions.' (3) Adequacy of Witkin's scoring method of perceptual tests also required a check up.

2.13. Ardis, J., Amor and Elizabeth Fraser<sup>(6)</sup> conducted an investigation on 'Personality and Perception: The Constancy Effects and Introversion'

Experimental evidence suggests that there is relationship between the constancy effect and the personality traits of introversion in abnormal individuals. Mayer-Gross<sup>(6)</sup> supported these findings. The investigators of above study tried to study relationship, if any existing, between the constancy effect and personality trait of introversion in normal individuals.

The role of personality factors in the perceptual process has received considerable attention in recent years. The works of Brunswik, Bruner, Postman, McGinnies, Klein and Schlesinger and still many others in this field, require no exposition in this connection. The area with which the above investigators are concerned, viz., the constancy phenomenon,

has itself been the subject of a considerable literature. The factors affecting constancy (e.g. the number of cues present, the attitude of the observer, the role of learning, and the developmental aspect of the phenomenon) have all been investigated and experiments on them have given a rise to a number of controversial issues. The question of attitude, which is particularly relevant to this work, has been studied by Klimpfner (1) and Holway(6) . They demonstrated that the adoption of an analytical attitude on the part of the observer resulted in the marked reduction of both shape and size constancy.

Relatively few researches, however, have been carried out on the more specific question of how persons, who are known to differ on a given personality dimension, behave in constancy experiments. However, the works of Thouless and Weber(6) are remarkable in this respect.

In the experiment mentioned above, shape constancy was used and an attempt was made to control experimentally the factors which were known to influence the constancy effect. It was predicted that the extroverts would show a more marked constancy effect in their perception than introverts.



For the purpose of this experiment, the thinking dimension of the Minnesota TSE Scale of introversion-extraversion was given to 91 college students, low scores and high scores on the scale indicate introverts and extraverts respectively. From 91 students, a representative group of 24 students was taken to test the perceptual constancy. Special apparatus and methods to study shape constancy were used. In fact, three objects were given one after another; they were a disc, a square and a rod. In the experiment, subjects were seven feet away from the object.

In all two estimates obtained for each presentation of each stimulus object were averaged for each object; and for the final results, seven readings for each of three kinds of stimulus object for each of twenty-four subjects (a total 504 readings) were analysed. Technique of analysis of variance was used to study effects of four main variables. Introversion-extraversion, stimulus object, sex and angle of the interaction.

Following conclusions were drawn from this investigation:

1. The significant relationship, between introversion as a personality trait and reduced constancy in perception of shape, was in general agreement with findings of the other workers. (Thouless 1932, Izzet 1934, Holady 1933, Klimpfner 1933, Weber, 1939).

2. There was some difference between both sexes, though the difference was not significant. But <sup>the</sup> female tended to show lower constancy than the male.
  3. The introvert males showed a progressive movement towards the low constancy end of the scale as the experiment proceeded, while the extroverts showed no tendency in any direction.
  4. Reduced constancy was due to the sensory deprivation, reduced attention to the environment and failure in the organizational process.
- 2.14. Vernon Hamilton <sup>(146)</sup> conducted an experiment on 'Perceptual and Personality Dynamics in Reaction to Ambiguity'.

Intolerance of ambiguity was first conceptualized by Frenkel-Brunswik <sup>(30)</sup>, who defined it as 'preference for familiarity, symmetry, definiteness and regularity... a tendency towards black-white solutions, oversimplified dichotomizing, premature, unequalled either/or solutions, etc.' These tendencies she considered to be perceptual characteristics found in association with strong attitudes of social and ethical prejudice, and with repression as a dominant mechanism. Eysenck <sup>(146)</sup> reports low correlation between measures of intolerance of ambiguity and perceptual and conceptual rigidity.

Intolerance of ambiguity has been variously investigated. Experimental evidence in support of principle of generalized

cognitive control has been advanced by Klein and his associates. According to Klein's theory, cognitive control of the environment is achieved through the operation of perceptual attitudes of levelling, form-boundedness, intolerance of instability, and so on. The investigation by Vernon Hamilton under discussion has two aims : One to determine if there are consistent individual differences in response to a variety of ambiguous situations and second, to determine whether consistency of response to ambiguity is sufficiently marked to serve as support for the view that consistent perceptual attitudes are instruments of an adaptive principle of ego control.

In his investigation a normal college group consisting of 102 subjects was taken. Subjects were given eleven test situations to measure ambiguity. In the pilot study empirical evidence was obtained which suggested that the tests discriminated sufficiently well between individuals and that significant correlations between them were consistent with the measurement of only a few related traits.

Findings viz. the individual differences in avoidance of ambiguity, the consistency of the behaviour in functionally related situations as demonstrated there, were taken to support Klein's theory of perceptual attitudes and system of cognitive control. The degree of consistency from situation to situation was strongly in favour of relatively permanent

and pervasive organization corresponding to some kind of need state or motivational 'set' of the individual. In this study, intelligence correlated with the 'ambiguity' scale and the Rubin figures under both autonomous and controlled conditions of oscillation. Age might have had considerable influence in this investigation.

An explanation of the data in terms of differences in avoidance of ambiguity was preferred to a number of ad hoc explanations. The dichotomies of form-boundedness, intolerance of instability and overlap tended to be correlated. The consistent perceptual attitude operative in all the situations had the control of sex ambiguity and uncertainty - the control of indefiniteness, unstructuredness and instability to a level required by a central principle of personality organization or motivational need. This explanation is consistent with a theory that specified perceptual behaviour may be predictably changed by modifying the anxiety level of subjects. The responses to ambiguity of individuals differ in a relatively well-known number in their affective behaviour, or personality structure.

#### Comparison of Psychiatric and Control Groups

Brunswick<sup>(30)</sup> suggested that differences in intolerance of ambiguity behaviour might be specifically related to the individual's methods of dealing with conflicts and anxiety

in the environment. Hamilton <sup>(146)</sup> claimed from his pilot study that the tests used in his study were able to differentiate between control and neurotic subjects, and also between the neurotic subgroups themselves. Three hypotheses were tested :

(i) What differences are there in avoidance of ambiguity between a neurotic and control group ? (ii) What differences are there in avoidance of ambiguity between the neurotic subgroups ?

(iii) Can any group differences in avoidance of ambiguity be accounted for by differences in age and intelligence ?

The study was carried out with 22 anxiety states, 20 obsessionals, 20 conversion hysterics and 40 normal control. Results showed the significant individual differences for personality; in other words, the subjects of different groups differed according to their personality.

2.15. Vernon, M.D. <sup>(147)</sup> studied 'The Relation of Perception to Personality Factors'.

It has long been a matter of controversy as to what extent, and in what circumstances, percepts are a function principally of the sensory data related more or less directly to the distribution of light, shade and colour in the stimulus configuration, or to a greater or lesser extent of a selection from these data based largely upon the expectations of the observer. Furthermore, it has been debated whether these expectations depend mainly upon the probability of occurrence of

particular configurations in the field, upon the observer's previous knowledge of and familiarity with similar situations, upon his desires to perceive or refrain from perceiving them, or upon some combinations of or alteration between all these. It seems possible that in certain circumstances, the observer obtains some preliminary information as to the sensory data, or a wide range of these; and then selects from certain aspects of features about which he makes inferences. In normal circumstances, the observer is not consciously aware of percepts relating closely to the sensory data, and when the sensory data are unclear, then he may have difficulty in identification; and he may become fully aware of certain sensory respects of the stimulus field.

Kragh, V. (147) investigated the successive tachistoscopic perceptions of pictures. He found that there was relation between perception and the emotional experiences and conflicts of the observer. Now it seems quite possible that the effects of more fundamental and deeply seated motives and emotions of the individual upon his percepts might be greater than are those of comparatively superficial motivational states established in some of the experiments carried out by a number of psychologists on the effect of motivation on perception. The experiment of McClelland and Liberman (97) indicated that motives demonstrated in the TAT might also

affect the perception of words related to these motives.

Vernon wished to investigate the circumstances in which formal patterns were perceived before identification took place and to study the factors which influenced this occurrence. Are certain individuals more prone than others to delay identification of objects or less likely to make further inferences as to the significance of what was presented? And if in fact this be so, is the delay related to cognitive factors such as intelligence, education, and interest or motivational characteristics or emotional reactions or to all of these? To test these questions, the investigation mentioned above was carried out. In all, thirty subjects from different areas were selected and 24 were tested on ORT test. The object relation technique (ORT) is similar to the TAT. It consists of 3 series of pictures. All the pictures are ambiguous, blurred and indefinite. In the study under discussion only 2nd and 3rd series were used. All the pictures were presented tachistoscopically, and each subject was to narrate what he had seen. Pictures were presented several times. It was stopped only when the subjects reported nothing more about them. Similarly, each subject was asked to write ORT themes of all the pictures. After the ORT test, clinical interview for the subjects was

carried out and also the occupation, education and other interests of the subjects were noted.

From the investigation, following conclusions were drawn:

1. All the subjects began to identify objects and persons in the pictures at an early stage in the successive exposures of the pictures.
2. There was a considerable difference in the average number of exposures required by the different subjects and there were considerable individual differences in the type of response most frequently produced.
3. Arts students (subjects) gave more elaborate verbal formulation of the responses than others.
4. Some subjects gave exaggerated emotional reactions; some individuals claimed to perceive material giving rise to unpleasant feelings more rapidly than neutral materials (sensitizers); others responded to perceive the same more slowly (Bruner and Postman (25) Eriksen (44) , Garpenter and Wiener (35)).
- 4.5. There were some subjects who did not express emotion readily, but who suppressed or avoided it in both their themes and also their percepts.
  - (b) Thirteen out of 30 subjects showed some evidence of abnormal emphasis on or avoidance of the emotional implications of the pictures in both their themes and their percepts.
5. There was evidence of the effect of interests on the percepts of 16 out of 30 subjects, and in their themes, 8 subjects showed extensive influence of interest and a further eleven, a slighter influence. But only in 8 cases did the same type of interest appear in both the percepts and the themes.



6. There was some evidence of the effect on perception of education and special interests and of personal feelings and emotions. There were four cases in which unpleasant emotions and emotional conflicts appearing in the ORT themes also seemed to affect perceptual inference to some extent, and in nine cases there may have been suppression of reference to normal emotional characterisation, personal relationships, etc. in both O.R.T. themes and also perceptual inferences. But there was little doubt that many of the subjects gave much clearer expression to emotional reactions in their O.R.T. themes than they did in their perceptual responses.

However, it may be concluded that some effects, but only a minor one, may be produced on perception by education, interest and personal emotions both on the selection of what is perceived and also on the influences made about it.

2.16. Bloomberg Morton<sup>(13)</sup> studied 'Differences between Field Independent and Field Dependent Persons on the Stroop Colour-Word Test'

Research on field and dependence by Witkin et al<sup>(158)</sup> has offered ample evidence that degree of differentiation varies among <sup>the</sup> individuals of the same age and the same sex. On the other hand, there have been few efforts to define hierarchic integration in operational terms. Recently, Wapner<sup>(13)</sup> unveiled card III of the <sup>5</sup>stroop colour-word test as a potentially valid measures of this concept. The task is to subordinate reading colour words to colour naming, where the colour of the ink and

the colour referred to by the word are incongruous (e.g. the word blue printed in red ink ). The prediction was that a differentiated mode of perceiving would reduce latency for the card.

A group-administered embedded figures test (EFT) was given to 38 undergraduate students (24 female and 14 male). Data were analysed separately for each sex based on the median split of the EFT scores. Following were the conclusions :

1. The female group showed significant differences in field independence on card I and II, while <sup>the</sup> male group showed non-significant differences on all <sup>the</sup> three cards.
  2. It appears that field independence is a prerequisite for hierarchic integration, at least among females. Still, field independence is no <sup>a</sup> guarantee that one can restructure well-differentiated items in a novel way.
  3. Creative persons are hierarchically integrated field-independent perceivers.
- 2.17. (Mrs.) Vanarse Shyamala (143) conducted research at Poona University. She studied 'The Relationship Between Perception, Personality and Motivation'.

This work was undertaken with a view to finding out the relationship between perception, personality and motivation. Perceptual processes have always been known to yield both veridical and non-veridical percepts. It was assumed by the author that laws of perceptual learning could be extended to include phenomena of perceptual distortion as well. To study

perception experiments on following topics were conducted :

(1) Expectancy and the judgment of personal qualities, (2) Expectancy and selectivity of attention, (3) Expectancy and reaction time, (4) Expectancy and integrative aspect of attention, (5) Expectancy and trial and check, (6) Attention and sensory learning, (7) Attention and trial and check process, and (8) Sensory reception and trial and check.

The aim was to find out how different levels of generality in behaviour are interrelated, viz. perception, cognition, personality and motivation.

L.L.Thurstone's <sup>(139)</sup> factorial study of perceptions was chosen to guide the specific level, i.e., the perceptual response. R.W.Gardner and his associates<sup>(119)</sup> have factorially isolated cognitive level. R.B.Cattle's 16 P.F. test, and Allport-Vernon Lindzey study of values were used to indicate still more general patterns in functioning. Values were taken as the general motivational influence affecting behaviour.

The significant conclusions were found. It is also important to note that there was remarkable sex-difference in the patterns that emerged. Correlations with value areas were low and scanty for girls. But they were high and plenty for boys,

These suggest that sex is affecting the patterns of psychological functioning in some way. Whether it is a cultural

effect or not, cannot be said at this juncture. Particular personality traits also appeared to be determining the correlation, which again were different for boys and girls. Experimental work part I and II together showed that general patterns emerging in part II could be further analysed in terms of the process-components isolated in part I; and the mechanism, magnitude, and directness of the operations of personality and motivation in determination of the perceptual responses could be stated in clear terms, so that <sup>the</sup> <sub>^</sub>verdical and non-verdical aspects could be integrally understood.

All above discussions review important studies in area of perception and personality. A review of specific view points on the relationship between the two is continued in the next chapter.

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