C H A P T E R III

A REVIEW OF SOME APPROACHES TO PERCEPTION - PERSONALITY RELATIONSHIP

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3.1. Introduction

In the beginning of the nineteenth century, two vastly developed areas in psychology, viz. perception and personality came nearer to each other. Numerous researches were carried out to study the relation between perception and personality. Perceptual characteristics have some sort of relation with individual's personality organization. Various journals have published findings of perception-personality relationship. While going through this literature, one can find that the relation between perception and personality was studied from different angles. In other words, there are various approaches for studying the relation between these two important fields which have systematically, scientifically and experimentally developed in the last fifty years.

Eriksen C.W.[48] and Zubin J.[159] and others have tried to group all the researches under different headings. Zubin divided all the researches regarding the relation between perception and personality into four groups viz. (i) typological approach (ii) directive state approach (iii) direct state theory (approach, the controversy re-evaluation approach) and (iv) hypothesis or expectancy theory approach. Similarly, Eriksen attempted to divide all the perception-personality researches into two groups viz. (i) individual differences in perceptual behaviour and (ii) effects of motivational state or need upon the perception of objects.

A.3.2. Point of View of Zubin, Eron and Schumer et al

As noted above, Zubin et al divided all the researches into four groups. The following sections describe several dominant approaches in this connection. Also these have developed independently of each other, they suggest that the study of perception is of interest not necessarily per se, but as an approach to the understanding, exploration and perhaps even diagnosis of personality.

(i) Topological Approach :

As early as 1944, Thurstone[139] described an extensive factorial exploration of various perceptual tasks in order to isolate underlying variables which could be used to

account for individual differences. Since that time, there have been many attempts to relate various personality variables to differences in performance on perceptual tasks. Innumerable perceptual tasks have been studied, and significant correlations have frequently been reported. For example, to mention only a few studies, Johansson[80] in a study of motion perception and personality, constructed perceptual measures based on the fact that a perceived velocity of a single object moving in a visual field increases considerably when a second object moving with the same speed in the opposite direction is introduced Ss with extreemly slow 'velocity synthesis' (affected little by the relativity effect introduced by the other object in the motion percept) were found to be artistic ally withdrawn, and to possess self-isolating attitudes. Schumer[159] found marked differences in the quality of phi-phenomenon experiences reported by 100 college men. These differences were found to be significantly related to productivity of human movement in the Rorchach.

Eysenck, Granger and Brenglman[53], in a study of perceptual processes and mental illness, explored a wide variety of non-cognitive behaviour in an attempt to find relationships to personality. Working with samples of 100 normal, 20 psychotic, and 20 neurotic males, they did an

extensive factor analysis which included 29 simple perceptual measures, such as visual acuity and simple closure, and more complex measures such as after-images, tachistoscopic performance and various automatic tests. The perceptual tasks, as well as a questionnaire which was used, held up well, that is, normal, neurotics and psychotics were differentiated. The author's hypothesis that normality was associated with 'integrative', 'wholistic', 'synthetic' attitudes was, according to them, generally confirmed. Vandenberg(144) in reanalyzing some of Eysenck's results, generally confirmed his findings. It seems strange, however, that in these studies, insufficient attention was paid to the questions of set, attention and motivation which plagued workers in psychopathology.

Granger(66) in an extensive review of research on personality and visual perception, included studies on dark adaptation, colour vision, visual acuity, visual fields, flicker, fusion, autokinetic effect, pupillary reactions, ocular movements, accommodation, response time, and perceptual attitudes such as colour-form attitude, analytic-synthetic attitude. On the basis of this review, he reported a conflicting but sufficiently positive evidence to show the existence of individual differences in perception. But he deplored the absence of the consideration of the questions of attention, set, motivation, motor factors, and automatic functioning, as well

as the lack of theoretical framework for the correlations which did appear.

The Approach of G.Klein et al.:

Klein and his co-workers[84][85][83][82][86] have long felt that insufficient attention has been paid to the perceiver in perceptual theory.Their research has been typical of an approach which regards perception and the study of perception from a strictly personality-oriented view-point; it is not an attempt to understand perceptual processes, but personality processes. They criticized some of the work of Postman, Bruner, etc. stating that all needs states did not affect generalized perception in the same ways. Their position is that the individual must maintain equilibrium between inner strivings and the demands of reality since perception can be regarded as an adaptive response; perceptual situations and tasks should reflect the individual's particular defensive pattern. Thus, the authors were concerned with examining traditional perceptual parameters such as thresholds, speeds of response etc. in order to search for 'typical adaptive solutions' of the individual, typical adaptive solution related to 'mode' which may be called 'syndromes'. Syndromes presumably indicate the perceptual attitude of the individual, that is, his preferred style or expression.From these preferred styles or expression, the individual's central controls can be inferred. Klein feels that the adaptive process actually reveals, in each individual,

his Anschauung - his solution which reflects his ego control system. With the experimental findings Klein classified subjects as levelers amd sharpeners. In another experiment Klein and Schlesinger (86) classified the subjects as tolearnt of, or resistent to, the unstable, 'form boundedness' and form-lability on the Rorchach and these were significantly related to the types found in the phi-situation.

Klein (83) described additional experiments which differentiated Ss in terms of ability to disregard irrelevant or interfering stimuli in the solution of a task. High interference, and low interference groups were further shown to possess tightened, suppressive control and flexible, non-constrictive controls. Klein, Holzman and Laskin (83) delineated some of the typological dichotomies disclosed by their studies. Their subjects could be described as tolerant of unstable or ambiguous stimuli; they could be called levelers or sharpeners; they could be dichotomized in terms of method of handling intruding stimuli; they were labeled as focusers or non-focusers.

As a matter of fact, Klein, Schlesinger and Meister (84) generally and specifically have indicated their belief that the 'personal values' and 'perceptual defence' interpretation

of the early Bruner and Postman perceptual studied is incorrect; they have rather interpreted some of these findings in terms of 'preferred perceptual attitudes' and 'individualized styles' in the context of less than optional visual situation.

The Works of Witkin and His Colleagues(158) :

Witkin, in a series of researches, explored exhaustively the perception of upright, examining the various parameters of this function. These studies in space orientation involved several experimental studies in each of which S was asked to determine the vertical or upright orientation and to indicate this judgment by adjusting his body, the visual field, or a rod. In doing so, S could rely, chiefly, or in part, and in various combinations, on cues from his own body or from the visual field. TThee three tests of space orientations were : (i) The rod and frame test (ii) the tilting room - tilting chair test (iii) the rotating room test. Using various normal male and female Ss of different age groups and hospitalized diagnostic groupings, Witkin and his associates conducted a massive correlational study which included additional perceptual tests such as the embedded-figures test, auditory visual conflict test, brightness-constancy tests, tests of body-action and various tests and procedures designed to assess personality variables - a personality questionnaire, sentence-completion test, clinical interview, figure-drawing test, Rorchach inkblot, TAT test and a word-association test.The complete battery of tests could not be, for various reasons,

given to all Ss. In addition to exploring their data from the point of view of sex and developmental differences, Witkin and his associates were concerned with the consistency an S showed from test to test and within parts of each test as to his preferred mode of perception. From the mass of findings, it has been concluded that marked individual differences exist and are definable in accordance with the degree to which S is dependent or independent of the 'prevailing visual field. Those perceptual types such as those with the ability to 'resist the pull of the visual field' or 'the field dependents' were utilized as the basic variables in the vast correlational analysis of the personality data, in an attempt to evaluate whether or not material from the personality area bore any relationship to S's perceptual mode, based on indices derived from the three orientation tests and the embedded-figures test.

In general, the authors were satisfied that particular ways of perceiving were congruent with certain personality characteristics, although they did suggest that the degree to which a task facilitated or inhibited', 'field-dependence' was also an important variable in terms of whether or not S's usual perceptual mode was elicited. Witkins and his associates' approach to perception is not productive, but it is an evaluation of the personality-perception link they claim to have established. No doubt, the work was neatly divided methodologicall

into clear-cut, operationally defined, carefully controlled, standardized laboratory procedures with objectively defined quantitatively reliable and carefully pretested scoring procedures and measures on the one hand and on the other hand, into clinical material evaluated crudely, unreliably and quite subjectively.

The Work of Frenkel-Brunswik(30)(31):

E.F. Brunswik's approach to perception is still another example of perceptual research which is almost entirely personality oriented and which throws light on personality factors as well as social and emotional variables. Brunswik became interested in perceptual variables in connection with the well-known research at the Institute of Child Welfare of the University of California which dealt with prejudiced and non-prejudiced attitudes and their motivational and cognitive correlates. Generally speaking, ethnocentric attitudes were found to be related to authoritarian personality structure. Brunswik soon discovered that many of her Ss were less able to tolerate 'emotional ambiguities' than others. She became interested in whether or not this intolerance extended also to the more traditional field of perception. As a result of some of her explanations, she was able to offer rich evidence on the basis of interviews, clinical evaluations etc. that in emotional attitudes towards values, parent figures, other children,

and the like, there was often a dichotomy, but some children were simply unable to accept 'coexistence' in the form of good and bad, right and wrong, or sheer complexity in any event or interpersonal relationship. She showed that in memory as well as in various traditional, experimental, perceptual situations in which some ambiguity was 'built into' the stimuli, the more prejudiced Ss tended to be more rigid and perseverative. She was concerned with the relationship of the perception of self and others and various social attitudes with the more traditional perceptual responses - a unity of style approach.

Brunswik's work is largely correlational in nature, albeit, rich and suggestive and there are explanations of a broad, clinical, largely psychoanalytic nature.

(ii) Directive State Approach :

In the late 1940's, a 'new look' in perceptual theory emerged. The approach of the workers doing the early studies within this framework can be regarded as the single most important influence in the swing towards the belief that perception is essentially a personality oriented phenomenon. There were innumerable reports of research, some opposing, some defending the conclusions of the original classic studies; and bitterness, criticalness, and deep conviction pervaded

the literature. The 'new look' is a phrase borrowed from the publicity releases from Maison Dior in Paris, which described some startling changes in fashion.

The great discovery of the 'new look' was that the perceiver also counts. In some ways, the introduction of the perceiver into the process of perception can be linked to the introduction of the observer into the measurement of velocity in the theory of relativity. Einstein's great contribution emerges when he introduced the velocity of the observer or his frame of reference into the measurement of the velocity of an object. In the same way, the new look hoped to revolutionize perception by introducing the characteristics of the perceiver, that is, his personality (drives, needs etc.). Unfortunately, the revolution in psychology did not go off as successfully as the revolution in physics, but fizzled more like the revolution in fashion.

The 'new look' perceptionists, although recognizing autochthonous or structural factors in perception, the stimulus mechanisms for perceiving, the organization of the nervous systems, and the so-called formal factors, stressed primarily the other determinants. These determinants have to do with the previously neglected 'inside' factors, not associated with the stimulus, for example, need state, values, past experience, and expectancy. Adherents of this position began with the simple functional interpretations, such as 'we perceive

what we need to perceive or expect to perceive; but later embraced a large variety of principles and generalizations. In short, values, motives, and even personality as a 'central directive state' influence our perceptions.A more formal label for the movement thus emerged : directive-state theory. Attention was dramatically turned to factors having to do with the perceiver as a whole - his attitudes, beliefs, and motives. The directive-state theory is not a theory in the formal sense. A review of some of the earlier studies seems appropriate in order to understand this concept.

Gardner Murphy(87) and his colleagues conducted a group of studies which aimed to show the relationship between perception and certain organimic motivational states. Levine, Chein and Murphy(94), for example, demonstrated that verbal associations to ambiguous drawings of objects contained many more food responses in a group deprived of good than in the central group Sohafer and Murphy(132) demonstrated that reward and punishment had a sizable influence in determining which alternative of reversible (Figure-ground, ambiguous) stimuli would be subsequently perceived, that is, Ss would 'learn' what to perceive and Proshansky and Murphy(128) demonstrated similar effects of training with reward or punishment on the estimates of lengths of lines.

One of the earliest of the 'classical studies' was that of Bruner and Goodman(23) who studied the effect of values on

judgments of apparent size. The purpose of this research was to investigate the hypothesis that judgments of the size of objects and some of their other properties were dependent not only on the actual size, but also on the values attached to these objects. In this experiment, the child was told that it was a game, and that he was to make in the disc the circle of light of the same size as the various objects he was shown or told about. The results indicated that when discs of the same size as the five coins - namely the penny, nickel, dime-quarter and fifty-cent piece- were presented, no great deviation occured between the observed size and the actual size of the disc. In other words, the coins were regarded as being larger than they really were; and this discrepancy increased with the size of the coins so that the greater and fifty-cent pieces were regarded as much larger than their actual sizes by nearly 30%. When the same comparison was made for the rich and the poor children, it was noted that the increase for the poor children was much greater than that for the rich. Whereas the rich children showed no great variation in their size judgments for the coins, the poor children showed the same general tendency that was noted before namely, for the over-estimation in size to increase with the value of the coin. In another experiment, the size of the perceived coin was compared with the size of the memory image

of the coin. It was noted that among the poor children, the presence of the coin always tended to increase the perceived size, whereas with rich, the converse held true, the presence of the coin tendency to serve as a check on its size. In a follow-up study by Carter and Schooler (36) however, this finding was not confirmed.

Bruner and Postman (27) have reported the effect of value on perceived size of an object. This exponent had symbolic positive and negative value. The authors concluded that whatever was significant for Ss whether positive or negative, was accentuated in perception. In another early research, Bruner and Postman (25) studied the influence of emotional selectivity on perception. The purpose of their experiment was to analyze the relationship between reaction time and correct recognition of words that were emotionally loaded or complex-bound for an individual. The words with an initially long association reaction time tended also to have longer recognition times but relationship was curvilinear. The words with the shortest association reaction time and those with the longest association time both required rather short recognition times for their correct recognition, whereas the words of medium original association reaction time showed the highest recognition time. To explain this phenomenon, two

effects were postulated, a defence process and a sensitization process. The defence process was indicated by the fact that as a word increased in emotional tone, it took longer to recognize it correctly. This involves the assumption that the original reaction time was truly an indication of emotionality. The second factor, that of sentization, was introduced to explain why certain words, inspite the fact that they had a rather long reaction time originally, were recognized in rather short order. These words were regarded as emotionally surcharged words to which the individual had become sensitized.

Postman, Bruner and McGinnies(122) reported an experiment which explored the relationship between personal interests or values and the speed of recognition of preselected words, exposed tachistoscopically. The words used were equally distributed over the range of values.For each subject, time of recognition for each of the exposed words as well as their attempted solution were obtained, and this information was compared to the scores of Ss on the Allport-Vernon Study of values, which indicated for each S his highest and lowest values. The results of the study indicated that Ss recognized the words representative of their own high values were rapidly than the other words.

Further support for the concept of perceptual defence was claimed by McGinnies(102) in his discussion of a study

which examined differences between recognition thresholds for emotionally toned and neutral words. GSR data prior to the response to the emotionally toned stimulus were also recorded. The findings confirmed the notion of perceptual defenee, according to the author, in that thresholds were higher for emotionally toned words and GSRs before recognition of these words were considerably higher than those for the neutral words.

Bruner and Postman[28] in a study of the influence of incongruity on perception, suggested on the basis of their findings that most people depended on a stable, constant environment and that they tended toward off deviation from their expectations. They classified individual differences in content of responses to incongruity, for example, dominance, compromise or description. They concluded that their expectations based on past experiences with their environment were extremely important determinants of their perceptual organization. Another example of the'disruption' effect of incongruity on perception was provided by Stipola[134]. She compared response time and response content of a matched pair of chromatic and achromatic blots derived from the Rorchach stimuli.

A study frequently cited by the supporter of the directive state is one by McCelland and Atkinson[101]. They

conducted a study of the influence of the hunger drive on perception. The purpose of this study was to investigate the influence of varying strengths of the hunger drive on the visual 'percepts' which emerged when the subjects were asked to look at a blank slide. After eating they tested subjects at an interval of 1 to 2, 4 to 5 and 16 to 18 hours. Their reactions were analyzed into frequency of food-related responses and comparative size and number estimates of food-related and neutral objects. The findings were : (a) the frequency of food-related responses increased reliably as hours of food deprivation increased; (b) the increase in food-related responses was more prominent for instrumental objects related to food, (c) the food-related objects were judged larger in comparison with neutral objects by the hungry Ss but not by the satiated Ss.

The first half of the 1950's was devoted to a lively and spirited controversy which centred around some of the findings in these earlier reports. They are modifying and even repudiating their own earlier concepts.Research reports on perceptual defence, subliminal sensitivity to certain words with 'taboo' qualities etc. are still being published with considerable zeal and emotional fervour. Here are some examples : Chodorkoff and Chodorkoff (39) attempted to 'pull

together' findings from psychological, physiological and psycho-analytic sources to explain perceptual defence.

Spence (136) demonstrated the effect of anxiety on recognition thresholds of tachistoscopic stimuli, but indicated that both increases and decreases of threshold (defence and vigilance) might be parts of the same process. On the basis of experimental findings, Levy (98) has claimed evidence for perceptual defence in tactual discrimination. Walters, Banks, and Ryder (151) reported a study in which perceptual defence was accounted for in terms of learning, that is, responses exemplifying perceptual defence were regarded as instances of conditioned avoidance responses. Their study demonstrated that non-taboo words which followed subliminally presented taboo words were correctly identified less ffequently than non-taboo words that did not follow subliminally presented taboo words. In other words, the perceptual defence was 'generalized' influencing the response even to neutral words. Blum (14) reported evidence which suggested that Ss who showed avoidance reactions to the Blacky pictures manifested increased thresholds. When tachistoscopic presentation of the pictures at levels below awareness was made. He attempted to link psychoanalytic theory to perceptual processes.

Freeman (55) explored the hypothesis that parsimonious explanations could be found to explain the effect attributed to perceptual defence in tachistocopic presentations of taboo and non-taboo words. He was particularly interested in whether or not 'set' could explain the perceptual defence effect. The author felt that his findings generally supported his hypothesis that ego-involving instructions and the general factor of set could account for some of the perceptual defence effects he found. Mathews and Wertheimer (99) found no evidence that perceptual defence effect could be accounted for completely by the 'simpler explanation.'

In another study, Hatfield (70) explored the relative merits of word frequency, set and motivational factors in explaining subliminal sensitivity. The author hypothesized that there was a relationship between motivational factors and perception, but the direction of relationship was not predicted. His experimental procedures involved the indication of anxiety, through electric shock, in relation to certain meaningless disyllables, and study of subsequent changes in speed of tachistoscopic perception of these stimuli. The variable of word frequency was controlled by the use of these disyllables. Significantly lower thresholds were found for shock than for non-shock syllables, implying a kind of 'vigilance' or 'overalertness' rather than defence.

Brown [19] has explained and discussed the concept of perceptual defence. He did not agree with the other investigators. He has derived his own theoretical 'explanation' of this concept.

The major tenets of directive-state studies can be summarized as follows :

(1) Bodily needs (such as hunger and thirst) influence the perceptual event, that is, what is perceived.

(2) Past learning, or more specifically, rewards and punishments associated with the perceiving of stimulus, determine subsequent perception of that stimulus; past experience and memories are presumably involved through the availability of trace systems.

(3) Values, as determined by some outside criterion, are related to the speed with which certain words are recognized and to estimates of size and brightness objects.

(4) Threatening stimuli are recognized after a longer time interval than neutral words (perception defence) and they are misperceived before they are recognized in accordance with a tendency toward off the threat they pose. An effect opposite to perceptual defence (sensitization or vigilance) is found in certain experimental conditions.

(5) Certain groups of workers although differing from the directive-state workers in many respects such as Klein and his associates, have concentrated on the perceiver rather than on

types of perceptual responses and have suggested that broad personality characteristics of individual are related to his 'style' 'mode' or 'manner' of perceiving.

(6) Murphy and his associates have poisted 'autison' [61] as the mediating mechanism between the central motivational state of subjects and his perceptual response. Other workers have not felt that a mediating mechanism was necessary and still others have elaborated theories to account for the mediating mechanisms.

(7) Evidence has been suggested for discrimination without awareness, that is, subsception, which is probably a necessary corollary for the concepts of defence, vigilance etc.

(iii) Directive State Theory (Approach) - The Controversy, Re-evaluation Approach :

McGinnies' study[102] which reported increasedthresholds for recognition of emotionally toned, taboo words, was regarded as strongly supportive of perceptual defence, as a special mechanism. This specific study stimulated much controversy. Howes and Soloman [74,75] advanced the notion that McGinnies' results could be explained in other ways. They noted that McGinnies' taboo words were much less familiaf than the neutral words. They demonstrated that the more familiar a word was, the brifer was its recognition thresholds (perceptual defence) for the taboo words, although McGinnies [103] defended his original

interpretation.

In general, the concept of perceptual defence began to lose status, even among the directive state workers themselves.

McGinnies' defence consisted of noting that increased recognition thresholds for neutral words were found when they followed immediately after taboo words - constituting evidence for 'generalization' of the avoidance (defencive) reaction. Furthermore, the analysis of pre-recognition responses suggested that for neutral words there was a greater resemblance to the stimulus words than there was for the taboo words. Postman, Bronson and Gropper[122] strongly contested these explanations, suggesting that the uncontrolled variations in familiarity of words could account for most of the perceptual defence effect. Solomon and Postman[135] had already reported a study which showed that recognition thresholds varied inversely with frequency of past usage. They interpreted their findings within the context of general verbal learning theory, rather than in terms of perceptual defence, or perceptual sensitivity.

In general, Postman[120,121] and Postman, Bronson and Gropper[122] strongly criticized Postman's own earlier formulations with Bruner, concerning 'defence'. He raised the general notion that interference by competing responses might be involved and that this mechanism did not operate only with emotionally-tinged material. He also noted that stimuli

purported to be emotionally toned could not be shown to elicit perceptual defence until and unless they were equated for familiarity and structural characteristics with neutral stimuli.

Postman(121) agreed with Howies (76) that there was little justification for the concept of perceptual defence, but did not go along with Howie's contention that the basic issue was the antithetical nature of perceptual defence and perceptual vigilance: how could both operate at the same time in a theory of perception ? Postman agreed that a paradox was involved in the concept of defence in that a stimulus must be first discriminated before there was a delay or avoidance of its discrimination, but suggested that perhaps there was more than one kind of discrimination. Postman argued that the former, earlier concepts of the direct influence of motivational factors in perception was over-simplified, and although agreeing still that central motivational states affected perception, he felt that how this was accomplished was still unknown. Lawrance and Coles(90) explored the hypothesis that perception as defined by activity during the actual stimulus presentation, was not influenced by motivational states.

Brown (18) studied the question of whether or not instructions and experimental procedures affected the actual perception of a stimulus or its subsequent recall or retention. He did raise a trenchant question: ' does set have a direct influence on perception, or on other intermediate variables such as retention or recall which in turn influence the perceptual response ?'

Johnson, Thomson, and Frincke (80) have reviewed the presently old controversy as to values, word frequency, and lowered visual thresholds.They have demonstrated the fact that word frequency is directly related to word value that is, the more frequently a word is used in the English language, the better it is rated as a goodbad scale.

Eriksen (49) has comprehensively summarized research on the perceptual defence effect. His view-point is that the familiarity or frequency factor cannot adequately explain various experimental findings. Reinforcement rather than frequency as an explanatory principle must be introduced, since perception is essentially a learned response and the defensive nature of these learned responses may differ among different individuals. Eriksen indicates that perceptual defence effects can be adequately demonstrated in the laboratory, provided that we independently show that the stimuli for which the defence is expected are anxiety-arousing, and that we independently

show that the S w uses avoidance-type defence. Most early experiments - failed to meet one or both of the criteria. According to Eriksen, the perceptual effect is genuine, but its explanation should apply to defence mechanisms in general. Following are the additional points to be noted.

(1) Although many correlations between needs and perception have been demonstrated, there is a general failure to explain how and why these take place, that is, the mediation factors are not clear.

(2) In many studies which have purporated to show the relationship of need perception, cognitive and judgmental elements are used as measures of perceptual response. These studies have failed to distinguish between perception and judgment. If motivational states influence perception per se, this should probably be demonstrated in experimental designs which control for factors such as attitude, set, memory, attention and familiarity.

(3) Most of the effects have been demonstrated with marginal, ambiguous stimulus . Are needs and motivations as powerful and influential in 'everyday' veridical perception as they are under marginal stimulus conditions ?

(4) Perceptual modifications as a result of motivational states should be demonstrated through immediate perception, rather than in more complex, cognitive, and social situations.

(5) Effects demonstrating the relation between perception and need should probably be studied not only with other means, but with other experimental procedures and other perceptual events and situations.

(6) Effects suggesting both vigilance and defence have been demonstrated. But when and how one or the both take place is not clearly studied and the relationship between these effects have not been adequately handled.

(7) 'Defence' as a concept has been severely criticized.

(8) Some experiments which require subjects to verbalize associations to ambiguous material may not involve perception at all.

(9) The question of set has not been adequately ruled out as an explanation of some of the effect; especially with respect to judgments of size.

(10) The role of motor adjustments, competing responses, and the availability of responses has not been adequately considered.

(11) The question of 'subception and discrimination without awareness creates many problems.

(iv) Hypothesis or Expectancy Theory (Approach) :

The directive state approach face some methodological problems and from that a theory of hypothesis or expectancy was developed. This approach suggests that perceiving is always

based on an expectancy or hypothesis on the part of the organism, that is, he is turned to some aspects of his surroundings.(This view of perceiving is of course related to the approach of various set theories.)Bruner and Postman [21] were the original founders of the hypothesis or expectancy theory.

Perception involves the input of information from the environment. Input is not specified in terms of stimulus energy, but rather in terms of its signal value, as cue or clue. The next process involves the checking or confirmation of the organism's hypothesis. If there is confirmation, the hypothesis is strengthened and its arousal will be 'easier' in future when similar 'information' from the environment is received. If the hypothesis is not confirmed, the organism will introduce a new hypothesis, until one of them is confirmed.

There are many principles governing the process by which hypotheses become confirmed or infirmed. Frequency of confirmation strengthens a hypothesis; the stronger it is, the greater is the likelihood of its arousal. The arousal of a hypothesis is dependent also on monopoly, as well as on cognitive, motivational and social consequences, such as integration with past experiences, relationship to the goal striving of the organism and agreement with others.The information provided by cues can be used to confirm or infirm the organism's hypotheses.

Strong hypotheses may be confirmed by even 'unreliable' information. If the informational input is week, then the subject may use his own hypotheses - his own experiences and motivation. Bruner insisted that most complex perception, especially of social nature, involves less reliable cue value and information than we like to think; and that we do not indeed, in daily life, fall back on hypotheses and expectancy derived from our own past experience.

Bruner and Postman have suggested that there are any number of differences in the kind of strengths of hypothesis individuals utilize as a result of motivational factors, past experience and personality structure. As a matter of fact, hypotheses with strong motivational and cognitive support need less stimulus input for confirmation and more contradictory input for confirming them. Thus, there is an ample framework in this approach for accounting for set, individual variables, individual differences and obvious differences between the stimulus variables.

It should be noted that in their reformulation, Bruner and Postman argued against the simple statement that motivational factors had a direct influence on perception and they deplored the fact that non-motivational variables, such as stimulus characteristics and subject's verbal response habit were virtually

ignored in earlier studies. Postman suggested that there was much to consider in the argument that perception per se was not affected by motivational elements, but that verbal and motor responses used to indicate perception, were subject to motivational effects.

Hypothesis theory states that perception is inferential in nature and yet, to varying degree, represents reality in a predictive and adaptive sense. We learn to perceive;and this learning involves learning how to make predictions and how to confirm our expectation about the world around us. In other words, perception involves a process of inference or categorization from cues as to the identity of things around us and the nature of the physical world in which we live.

Bruner's later reformulation of hypothesis theory(22) introduces terms such as categorization, cue-search, confirmation check, confirmation completion etc. Perception is now regarded by him as a decision process which involves probabilities of events, coding of stimulus input, appropriate categories etc.

Floyad Allport(3) who, in his review of the two theories of perception, was rather favourably impressed with this formulation

B : 3.2. Point of View of Eriksen, C.W.

Eriksen suggests that researches in the field of perception and personality fall into two major sub-divisions which correspond with differences in projective techniques. One is the research

for individual differences in perceptual behaviour and the other is the investigation of the effects of the motivational state or needs upon the perception of objects. Both of these problems have their parallels in the projective test.

The Rorchach is mainly a perceptual test of personality in that the manner in which an individual structures the ink-blots and the use he makes of form, colour and shading are supposed to reveal significant information about his personality structure. The TAT, on the other hand, is primarily a measure of need as revealed in the interpretation or perception of ambiguous material. The test assumes that the individual, in interpreting the somewhat ambiguous pictures, projects or distorts his interpretation in keeping with his own needs and adjustment mechanisms, an assumption that is also involved in the interpretation of content in the Rorchach test. Both these points are summarized herewith.

(i) Individual Differences as revealed in Perceptual Behaviour :

The presence of individual differences in perceptual behaviour was recognised in psychology. Psychologists interested in the field of perception and sensory processes have characteristically taken considerable pains to devise experimental situations that are sufficiently simple and controlled to minimize these individual differences, in the

interest of studying more accurately the phenomena with which they are primarily concerned. Any way, little attempt was made to study individual differences in perception systematically in relation to other aspects of behaviour or personality. Thurstone's (139) extensive factor analysis of perceptual task was predominantly oriented towards isolating or detecting general factors of perception, but was not particularly concerned with personality correlates of these perceptual factors. There were no personality tests included in the battery that would have made such relationships detectable. Early investigators used Rorchach ink-blot to relate systematically personality traits and perception.

Early in the modern revival of interest in experimentation on need in perception, Klein (84,82) has drawn attention to the presence of perceptual styles and perceptual modes of handling threatening or emotional material. Klein (82) and his associates have gone on to show the presence of a personality dimension labeled 'leveling' (versus sharpening) which is revealed not only in perceptual recognition behaviour, but in perceptual judgmental tasks as well.

The excellent work of Witkin and associates (158) on the perception of verticulity has revealed some of the potentials in perceptual approaches to personality dimensions or traits. They have shown that a common dimension underlines an ability

to orient toward verticality in the absence of normal visual cues and in the perception of Goltschaldt embedded figures, and have related these abilities to various manifestations of personality in non-perceptual situations. However, Elliott's[42] work has suggested that the relationship between some of these personality measures and perceptual behaviour may not be quite high as originally reported.

There has been a tendency, often, implicit, to view individual differences revealed in perceptual behaviour as somehow reflecting more basis or fundamental dimensions or styles of personality than are found in the more common personality factors. However, there is little logical or empirical justification for such a position.

(ii) Motivation (Need) and Perception Approach :

Need and Perception : For many reasons the major researches emphasis in the field of perception and personality has centred around the effects of need or motivational variables upon perception. Here again there have been two distinct approaches. One line of investigation involves study of the effects of various need states upon the degree of distortion of colour, size or other dimensions of perceptual stimuli. The other has been concerned with the recognition thresholds for neutral and various need-related objects or stimuli. In the former approach, the work has been much more diversified and on the whole less

systematic than in the latter. The work of McClelland and his associates is an exception. Beginning with the early experimental work of McClelland and Atkinson[101] showing the effect of experimentally manipulated hunger on the perception of the ambiguous stimuli, these investigators have systematically developed this approach to the present stage, where sensitive measures of needs such as achievement and affiliation can be reliably and validly scored from certain TAT cards. This work has also suggested promising leads toward the understanding of defence mechanisms. The work of Clark and Sensibar[40] has illustrated the interplay of guilt and inhibiting factors in need expression and work on sleep deprivation. Murray[108] has shown that with increasing periods of need, the expression of goal objects in perceptual interpretations of TAT cards does not become greater but is actually inhibited. Similar findings have been found by Lazarus, Yousem and Azenbeg[93] in the case of food deprivation.

Perceptual Vigilance and Perceptual Defence : Major interest in the need and perception problem has centered around the concepts of perceptual vigilance of perceptual defence. Both the concepts were introduced in a series of three articles by Bruner and Postman[25][26] and Postman, Bruner and McGinnies[124]. These terms were used to describe and perhaps explain various observed differences in the

tachistoscopic duration necessary for the recognition of threatening or emotional stimuli as opposed to neutral stimuli. They suggested the principle of perceptual vigilance whereby stimuli important to the organism were enhanced in perception and recognized sooner, perceptual defence means words representing low values (as assessed by the Allport-Vernon study of value) were found to have higher recognition thresholds than neutral words of words from high values areas.

Bruner and Postman administered a word association test to their subjects and then subsequently studied the tachistoscopic duration necessary for the recognition of words with long,medium and short association times. They found that for some subjects words with long association times, indicating emotional disturbance, required much longer durations for recognition than words with medium or short association times. They termed this heightened recognition threshold 'perceptual defence' and linked it to the process of repression, whereby anxiety-provoking stimuli, were defended against perception. They also found, however, that in certain subjects long association time words had lower thresholds for recognition. They involved their principle of 'perceptual vigilance' to account for this lowering of threshold for affect-laden words. In the Bruner, Postman and McGinnies(124) study the duration thresholds for the recognition of words representing the value areas in the Allport-Vernon study were

compared with individual subject's scores on this test. The concept of vigilance and defence were again invoked to explain these results with vigilance assumed for low thresholds for the high value areas and perceptual defence for the higher thresholds for low value areas. The concept of inhabition of recognition in perception became clear in the study by McGinnies (102) . He found that the taboo words tended to require higher durations for recognition, but also subjects gave greater GSR's on the pre-recognition trials to the taboo words than they did for the neutral words. The higher recognition thresholds for the taboo words were considered a manifestation of perceptual defence.

The phenomenoa of perceptual vigilance and of defence could both be explained as a function of the differential frequency with which the stimuli had been experienced in the subject's past history. Stimuli of high frequency of prior occurance would have low visual duration. Soloman and Howes (74,75) carried out an experiment to study duration thresholds for the recognition of words with different frequencies, as predicted by the Thorndike-Lorge tables of word frequency. They consider perception as a response and therefore susceptible to learning as are other responses. The frequency argument is based upon the assumption that perception is a response and

that it is modified by learning via frequency of prior occurences. If perception is to be considered as a learned response, then we would expect it also to be modifiable by the other factors that determine other forms of learning. Perceptual vigilance is to the effects of positive r einforcement upon perceptual responses and perceptual defence to anxiety-provoking.

Perceptual defence and psychological defence mechanism : Bruner, Postman and McGinnies come to the conclusion that perceptual defence has definite relationship to more general area of personality dynamics and defence mechanisms. However, they could not draw more systematically and thoroughly related concept of perceptual defence and psychological (clinical) defence.

Eriksen (44,45,47) was the first systematically to relate perceptual defence phenomena to clinical conception of defence mechanisms. He pointed that the clinical concept of repression is more sophistical than the assumption that all people and even a majority of people automatically repress any sexual or aggressive ideation or that all anxiety-arousing thoughts or feelings are repressed. Repression is not only one defence; the dynamic theories of personality recognise also other types of defensive mechanisms. Intellectualization, reaction formation and projection are defensive mechanisms that one might expect actually to lead to sensitization for a stimulus related to the

conflict. Differences in defensive mechanism would be expected to have different perceptual concomitants. In case of repression one might expect a tendency for the subject to manifest avoidance or higher duration thresholds for stimuli related to the sources of conflict. On the other hand, those manifesting defenses of intellectualization reaction formation or projection might be expected to show a lower duration threshold for anxiety-related stimuli.

Defensive mechanisms are learned techniques and it is to be expected that in learning process the subjects also learn the types of situations. Thus the choice of anxiety-stimuli and the context in which they are presented must be so selected as to permit the defence to be effective and not in conflict with the subject's need to behave in a reasonable manner.

Repression manifesting itself at the perceptual level by higher thresholds for the recognition of threat related stimuli (perceptual defence) must meet certain requirements. Firstly independent operations must exist to show that the stimulus for which perceptual defence is expected are indeed anxiety-arousing for individual subjects in the experiment. Secondly, it is necessary again through independent criteria to show that the subject has or uses avoidance defences. The experimental studies of Postman, Bruner and McGinnies (124) and McGinnies (102) do not meet either of these criteria. In the first of these

studies, the application of the term 'perceptual defence' to account for the higher recognition thresholds for words presenting values areas of low interest to the subject would seem to have little or no relation to the clinical conception of repression. In the McGinnies study, there was again no attempt to take into account the individual differences in the use of defence mechanisms and also there was no independent means for assuring that the taboo stimuli employed were indeed anxiety arousing for all or even a majority of the subjects used. However, the work of Bruner and Postman(25) satisfied the first requirement to study 'perceptual defence'. In this study, the perceptual stimuli were selected for individual subjects on the basis of association times to the words on a word association test. The perceptual stimuli may be emotion-producing for the individual subject but no provision was made to study possible individual differences in the way of the emotion or threat was handled by the subject.

The failure of these early studies to test adequately the concept of perceptual defence in relation to the concept of repression is to an understandable degree. The clinical concept of repression has never been too clear, nor the general theory of psychological defences. However, work on perceptual defence has done much to sharpen the clinical concept of defensive mechanisms and has yielded valuable material in terms of understanding

their functioning. No doubt for studying personality dynamics and psychological defences, the need perception research play a key role to stimulate numerous research to understand this concept.

From some experimental evidence one can say that defensive mechanisms as clinically conceived reveal their presence in perceptual recognition behaviour. In a series of experiments, Eriksen and his associates have shown quite clearly the relationship between defence mechanisms as clinically conceived and perceptual recognition behaviour. Not only have these experiments revealed that defences can be studied through perceptual recognition, but also some major steps have been taken in tracing out personality characteristics associated with different types of defensive reactions and the separation of different defensive effects on perceptual recognition. In the first of these studies, Eriksen(44) used psychiatric patients who were selected on the basis of having problems in specified need areas and in whom avoidance defence mechanism might be expected to be operating. The amount of emotional disturbance in the three need areas of aggression, homosexuality and dependence was assessed by a modified word association technique and disturbance scores on this test were then related to the subject's perceptual recognition thresholds for pictures depicting neutral and need-related scenes.

Patients with high disturbance indicators on a need area were found to require longer exposure intervals for recognition of the corresponding need-related pictures than the neutral pictures. In another study, Eriksen[47] found that emotional stimuli did not necessarily lead to higher perceptual recognition thresholds. Subjects who were found to show extensive overt aggressive behaviour and to express freely aggressive content in stories about TAT pictures were found to have lower recognition thresholds for pictures depicting aggressive content than for neutral pictures. Similarly, Lazarus, Eriksen and Fonda [91] in an experimental study found that the patients classified as sensitizers tended to give freely aggressive and sexual endings to a sentence-completion test, whereas those characterized as repressors tended to block.

Eriksen [46] conducted experiment on the relation between repression as conceived in memory and perceptual recognition behaviour. A group of students who were studying in the pre-medical course was used. They were strongly motivated to perceive themselves as intelligent. A pseudo-intelligent test was given to threaten them that they were all fail. Their subsequent recall for items on which they had been successful relative to items upon which they had failed was determined and compared with a control group. Subjects were selected on the basis of experience preponderance of recall of either successful

items or failed items. These two groups of subjects were then administered a word association test and in a subsequent session. Their recognition thresholds for long, medium and short association fine words were determined. It was found that subjects who were predominantly successful recallers on the memory study showed higher recognition thresholds for long association time words. No significant relationship between recognition thresholds and association time was found.

There have been numerous studies by other investigators which have also revealed individual differences in perceptual recognition of anxiety-related material. Postman and Solomon (126) reported that some of their subjects showed a significantly lower threshold for anagram solutions on which they had failed, while other subjects showed significantly higher recognition thresholds for the failed solutions. Similarly Spence (136) found individual differences in terms of either facilitation or impairment in recognition of words when the emotionality or threat of the words had been experimentally manipulated.

Carpenter, Weiner and Carpenter (35) try to establish relationship between perceptual recognition to clinical conceptions of defence. In their study they selected groups of repressors and sensitizers by using the Sentence Completion test. Subsequent recognition thresholds were determined for words of neutral, sexual and aggressive content and it was found that subjects with a tendency to repress sexual completions

test had significantly higher thresholds for sexual words than did those subjects who showed a sensitiation pattern on the sentence completion test. Similar results were obtained for aggressive stimuli. Kleinman (81) used subjects with a hysterial hearing loss and compared auditory recognition thresholds for neutral and emotional stimuli. The hysteric patients showed higher recognition thresholds for emotional stimuli, whereas a control group composed of patients with partial organic deafness showed no differences in the two classes of stimuli.

Blum(15) and Nelson(110) made use of the Blackie pictures not only to select areas of anxiety, but also to determine the type of defensive mechanism employed by the subject in this conflict area. They were successful in relating perceptual recognition behaviour to the clinically assessed areas of conflict and defence.

Eriksen and his associates have been successful in relating the sensitizer repressor variables to a hysteria-psychosthenia dimension as measured by the corresponding scales in the MMPI. Again, Erisken (47) found a correlation between a composite of the hysteria-psychosthenia scales and recall of completed-incompleted tasks, where the tasks had been administered under ego-threatening conditions. In this experiment, those scoring high on the hysteria pole tended predominantly to favour successful tasks in their recall, while those scoring at the

psychosthenia end of the dimension favoured incompleted or failed tasks over successful ones.

Eriksen and David (51) give the evidence connecting repressor-sensitizer dimension with the hysteria-psychosthenia and clinical conceptions of defences. Here it was shown that scores on the hysteria-psychosthenia dimension were significantly and appreciably related to clinical assessment of extraversion and the use of repression.

The relation of the hysteria-psychosthenia scales to differentiate responses to ego threat has been well substantially shown by other investigators. Mathews and Wertheimer(99) found essentially the same relationship between the hysteria and psychosthenia scales and perceptual recognition of threatening words as did Eriksen and Brown(50). Carlson(34) found that those high on the hysteria pole tended to recall fewer disturbing words in a learning experiment and Truax(141) reported that the repressors forgot more in response to implied failure on a learning task.

A number of other investigators have made deductions based upon the differences in defensive reaction of the repressors and sensitizers and extended these to other aspects of behaviour. Altrocchi,Parsons and Dickoff(5) showed that repressors and sensitizers differed in self-ideal discrepancy. They found that sensitizers had more hostile and submissive self-concept than repressors; and therefore, a greater discrepancy between self and ideal self. Gordon(64) found meaningful differences in the

interpersonal predctions of repressors and sensitizers and in the stability of the assumed similarity response set. In this latter study, Gordon found that repressors tended to assume similarity between self and partner more frequently than did the sensitizers while predicting responses to a personal inventory. Altrocchi[4] confirmed and further extended these findings showing again the usefulness of the distinction between the repressor and the sensitizer.

In sum, these studies and others have succeeded in demonstrating first of all a consistency in defensive reaction within individuals that extends across learning, perceptual and interpersonal situations. The relationship of the hysteria-psychosthenia or repressors-sensitizer dimension to Eysenk's introversion-extraversion has been noted by Eriksen[44] and Altrocchi[4]. The similarities of the sensitizers to Eysenk's[52] findings concerning neurotic-experimentally-determined characteristics of the repressors to Eysenk's neurotic extraverts. A further suggestion of the interrelationships of these dimensions is reported in an experiment by Brown[19] where perceptual recognition differences, comparable to those between sensitizers and repressors, were related to the neuroticism and extraversion scales of the Maudsley Personality Inventory. Also, Inglis [77]

On the whole, the studies in this area have played an important role in understanding the concept well. Various studies have been undertaken to study the need-perception in various ways. Their experimental design, approaches, methodology and procedures also differ. However, the most significant contribution has been made to the field of personality by furthering our knowledge of ego-defensive mechanisms and providing a means by which they may be detected and measured in the laboratory. It has provided us with the beginnings of a behaviour theory account of repression, and in so doing has made available more precise concepts and language for dealing with psycho-pathology. In giving rise to the concepts of sensitizers and repressors it has indicated an important dimension of ego defensiveness. The important work of Gordon, Altrocchi and associates as well as that of Ullman and Lim[142] have indicated the fruitfulness of this dimension in understanding a wide variety of defensive behaviour. The relationship of this dimension to Eysenck's introvert-extravert dimension has already been noted and there are a number of indications that this same dimension is related to the Taylor Manifest Anxiety scale and to the levellers and sharpeners dimension of Klein and his associates. The nature of these interrelationships will require a large research effort to conform and consolidate.

An important attempt at integration in this area has been made by Inglis(77); but the data are yet too scattered and too many links in the chain are missing to achieve more than suggestive consolidation.

3.3. Summary

Different approaches have been established to study the relationship between perception and personality. These approaches have been named differently. However, the goal of all the studies was the same. The works of Thurstone, Postman, Bruner, Eriksen and others are remarkable. They have opened a new field for investigation. The present investigation is one more attempt to study perception - personality relationship in this context.

These, in short, are the studies relevant to the problem under study. In background of these studies, the present problem has been re-examined to fill up some of the gaps felt; and to arrive at more extensive findings on personality-perception relationship. The next chapter is devoted to the exposition of the specific problem on hand and the procedure adopted to study it by the present investigator.