PERSONALITY AND DIRECT ASSESSMENT OF BEHAVIOUR

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Abstract

The primary purpose of the present study was to develop the thesis that conventional personality psychology has reached its limits as a science and that an alternative approach is both called for and contrivable. Accordingly, the two major classes of personality models -- the trait and psychodynamic models -- were critically analyzed in terms of conceptual, methodological and empirical considerations. Situationism, -- the antithesis of the trait and psychodynamic models with respect to causality -- was examined on the same bases. And finally, interactionism (the model which attempts to incorporate features of both of the former positions) was critically analyzed. It was concluded that some fundamental and crucial shortcomings in these conventional personality psychology positions, have caused personality psychology as a science to have reached its limits.

Accordingly, an alternative approach based on direct assessment of behaviour which may provide a basis for the amelioration of the difficulties that apparently inhere in the former positions, was proposed. More specifically, a personality dimension based on accumulated evidence was suggested and of particular concern was the extent to which people consistently manifest behaviour which can justify the postulation of two behavioural orientations, styles or personality types. An empirical investigation of the transsituational consistency of persistence of behaviour of elementary school children was reported. The results generally supported the hypothesis that the direct assessment of behaviour across
varied situations will show higher transsituational consistency of behaviour than the usual indirect assessment procedures have heretofore indicated. The implications of this approach both for the consistency-specificity issue and personality assessment in general, were discussed.

Supervisor
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CHAPTER I

INTRODUCTION

Teachers meet in more-or-less formal situations with children and adolescents with the expectation that these students will learn. These teachers by virtue of their training, have special skills in helping others learn. They guide and direct the learning of their pupils. Of paramount importance in guiding and directing learning at efficient levels, is not only the understanding of the learning process, but also the understanding of the nature of those children that would learn. Usually, the foci of attempts to understand the learner are abilities and personality. The former are however, somewhat more precisely, fully and readily understood than is the latter even though both psychologists and educators have studied personality as much and for as long as they have studied abilities (knowing as they do that abilities are often subordinate to nonintellective personal qualities). That is to say, that psychologists and educators have long recognized that personality characteristics mediate, and therefore influence, educational transactions and performance.

In the everyday understanding of personality, each one of us, as we come in contact with particular individuals, recognizes and expects the behaviour that distinguishes each individual from all other people. As we observe a particular person over time, we notice how his temperament, interests and attitudes are developing, and how his behaviour tends to take more-or-less consistent directions. So we come to use the term
"personality" somewhat loosely as standing for that degree of consistency in behaviour by which we distinguish the people we know, one from the other.

In "scientific" circles, two major classes of personality models -- the trait and psychodynamic conceptions — are typically recognized (e.g. Mischel, 1968). Although these two classes of personality models differ in several ways, probably the most important way in which they differ is in their assessment techniques. The trait model is intimately associated with tests and questionnaires, classical test theory, correlational techniques, factor analysis and regression techniques. The psychodynamic model is closely associated with interviews, free association and case histories while no rigorous statistical procedures have been developed in conjunction with this brand of theory.

In the last few years, both the trait and psychodynamic models of personality have come under severe criticisms from various sources. Some of the assumptions which are fundamental and central to personality theory have been seriously undermined and largely thrown into doubt as a result of extensive empirical data that has accumulated in recent years. As a result, psychologists are currently arguing about the status of the notion of personality and some even refer to it as a myth (e.g. see Helson & Mitchell, 1978). Indeed, the whole area of personality assessment and research has fallen into disarray. Helson and Mitchell (1978) for example, sum up the state of the art this way:

Personality psychology has...been seen as the domain of a little group of rational technicians who specialize in
criticizing each other's measure of the insignificant, then conclude that the existence of the obvious is doubtful, then doubt whether the study of personality is worthwhile...This caricature had a base in reality (p. 579-580).

Such pronouncements are devastating for personality psychology as a science. But what is the nature of the limitations of personality psychology?

The nature of these limitations may be more readily understood by considering that the usefulness of a theory is usually assessed with regard to the generation of falsifiable predictions and propositions concerning relevant events. It seems, that it is exactly in this connection that personality theories have largely failed. They are descriptive but not especially fertile for making predictions which can be readily submitted to a test. The results are all too often equivocal. All in all, personality theories have shown limited usefulness and seemingly unlimited problems.

One of the major problems that is seen as imposing severe limitations on personality psychology, is that the ties between measurement and observations and hypothetical abstractions within vague theories, are very weak. One strategy that may hold some hope for circumventing this problem, but which has, unfortunately, been paid little attention in personality research, is that of observing, recording and classifying significant behaviours in circumstances of particular interest. Such an approach allows for a de-emphasis of the search for hypothetical motivational forces that are assumed to give birth to behaviour. Accordingly, interest may be shifted away from the attempt to "look inside" the
organism and toward discovering the morphology of observable behaviour. As Skinner (1975) suggested, this path to understanding "personality" may not be "so steep and thorny after all" (p. 49).

The foregoing considerations provide the general basis for the present thesis which, through the reformulation of personality constructs and assessment procedures and an empirical investigation of a persistent and central problem in personality psychology, offers a modest indication of possibilities for resolving some thorny issues. The application of ethological principles for observing and recording behaviour as well as the development of personality principles based on broad formulations that have been generated from received theory and data from various sources seems promising since such applications have not been explored completely. Accordingly, the problem is addressed from this perspective.

General Problem and Delimitation

The present study is an attempt to develop the thesis that received personality theories and their respective measurement models have not shown themselves to be very fruitful as bases for research, and that an alternative approach is both called for and contrivable. Three interrelated factors are seen as being responsible for giving rise to problems of such magnitude that they are not reconcilable within already developed approaches. Furthermore, they do not appear to be reconcilable in the future. These factors are: 1) the weakness of ties between measurement and observation and hypothetical abstractions of vague theories, 2) the lack of predictive power and reliability of indirectly collected data and
data from tests and questionnaires which is the modus operandi of traditional personality research, and the problems inherent in nonpublic clinical data as a basis for theory building, and 3) limited agreement among theorists about the appropriate conclusions to be drawn from sets of observations.

The present study cannot and does not attempt to dissolve all these problems. It does however, include a conceptualization of how these matters might be addressed. Accordingly, an alternative approach based on direct measurement of observable behaviours in natural and contrived situations of particular interest is proposed. More specifically, a personality dimension based on accumulated evidence is suggested; and of particular concern is the extent to which people consistently manifest behaviour which can justify the postulation of two behavioural orientations, styles, or personality types.

The problem then, becomes tripartate: 1) to delimit and analyze the major measurement and conceptual problems that are inherent in the trait and psychodynamic positions, 2) to propose an alternative approach to personality conceptualization and assessment in terms of behavioural orientation or "styles", and 3) to explore the consistency-specificity of directly assessed behaviour across situations.
CHAPTER II
THEORETICAL ORIGINS OF THE PROBLEM
AND REVIEW OF RELATED LITERATURE

In the preceding chapter mention was made of the two general classes of personality models that are generally recognized as having greatly influenced research and theory in psychology. An analysis of these approaches, the trait model and the psychodynamic model (which share several characteristics when compared on several dimensions), lays bare some sources of the present problem.

Conceptual Bases for the Trait Model

According to the classic trait model of personality, observable behaviours are ordered by general orientations to the world which are acquired in the first few years of life and which persist throughout. These so-called traits are used to explain observed behaviours (Endler, 1973, 1975, 1976, 1977; Endler & Magnusson, 1976a, 1976b; Ekehammar, 1974; Mischel, 1968, 1973a). The factors determining behaviour are considered to be within the person himself and it is supposed, serve as predispositional basis for consistency of behaviour in different situations. In the description of individuals, the interest for those who adhere to this model lies in the relation between responses and latent dispositions for which the responses are supposed to be indicators. So, in addition to providing a description of personality dimensions such as aggressiveness, dependency, introversion, anxiety and the like, attempts are made to measure traits and differences in such measurements are used to explain observed in-
Individual differences in present or future behaviour. It is considered then, that traits are the main sources of behavioural differences such that the rank order of individuals with respect to a certain behaviour, is consistent across different situations (e.g. Stagner, 1976, p.121). The trait model emphasizes that individual behaviour is related primarily to factors within the person and accordingly, individual differences in overt behaviour are not considered to be dependent upon the situation in which the behaviour occurs (e.g. Allport, 1966, p.1).

Assumptions of this sort led Allport (1937) to conceive of traits as general and enduring predispositions to respond independently to specific stimuli. Similarly, Cattel (1950, 1957, 1965) and Guilford (1959) conceived of traits in the same way, such that traits became the basic units to be studied in personality. Cattel (1965) distinguished between surface traits — overt trait elements or responses — and source traits — the underlying variables or causal entities that determine the surface responses. Although trait theorists differ with regard to the number and character of specific traits (compare Cattel (1957) to Guilford (1959), for example) they seem to agree in general, that traits are the prime determinants of behaviour. At the same time, one can discern differences in the character of trait theories that appeared at different times. The early theories proposed by Allport (1937) and Thurstone (1947), had different theoretical formulations than do the modern ones such as those suggested by Cattel (1965) and Stagner (1976). The forerunners of the trait theories, the typology theories (e.g. Jung, 1923;
Sheldon, 1949) which emphasized a biological and constitutional element, represent a categorical view of personality since discrete categories of personality were assumed. Sheldon's (1949) categorical description in terms of ectomorphy, endomorphy, and mesomorphy for example, is a case in point.

Concerning the ontogenetic or developmental aspects of personality, the trait theorists represent traits as stable dispositions which are affected to some degree by maturation, but are not markedly influenced by environmental stimuli. According to this conception then, there is little opportunity for major changes in personality once the traits have become stabilized in the individual (Endler & Magnusson, 1976a, 1976b).

Conceptual Basis for Psychodynamic Models

Psychodynamic theories, the precursors of trait theories, rest on the assumption that there is a basic personality core which serves as a predispositional basis for behaviour in various situations (Berne, 1961; A. Freud, 1946; Hall & Lindzey, 1970). Like the trait psychologists, psychoanalytic theorists assume that the determinants of behaviour lie within the person. Psychodynamic theories such as that of Freud (1959) for example, are primarily concerned with personality structures, dynamics and development. The elements of personality structure as Freud construed them were the id, ego and superego and personality dynamics entail primarily, the continuous interactions between these structures (Freud, 1959). The anxiety aroused by these interactions instigates the development and employment of defense mechanisms which defend against this anxiety. Furthermore, within this conception, experiential factors are seen to serve
primarily as influences on the expression of instinctual impulses. Freud (1959) put much emphasis on the invariant ordering of psycho-sexual stages in the development of personality. On the other hand, Erickson (1963), one of the neo-Freudians, has de-emphasized instincts and psychosexual stages and has focussed on the ego, social factors and the psychosocial stages of development.

Unlike the trait model within which it is assumed that the rank order of individuals with respect to a certain behaviour is consistent across different situations, proponents of the psychoanalytical model do not always assume this. Because defense mechanisms are operative, emitted behaviour is largely dependent on situational stimuli that elicit certain psychic or covert defense mechanisms that in turn determine overt responses. The drama of the depths is what seems to be compelling. Conversely, like the trait model, the psychodynamic position emphasizes that individual behaviour in manifested as the phenotypic expression of underlying intrapsychic genotypic structures within a person.

When considering the ontogenetic or developmental aspects of personality as it is manifested in actual, present day behaviour, the trait and psychodynamic positions differ markedly. The trait theorists pay less attention to developmental aspects than do the psychodynamic theorists. For proponents of psychodynamic theory, the latent dispositions determining actual behaviour are seen as having been formed on the basis of early interpersonal experiences modifying the expression of inherited instincts or motivational forces (Hall & Lindzey, 1970). As already mentioned, the trait model theorists hold that environmental factors are not of primary importance in influencing the development of the latent dis-
positions which are manifested in expressed behaviour. Thus, environmental stimuli in the trait position are not seen as being particularly important in affecting emitted responses.

Research and Measurement Based on the Trait Model

Of received models, the trait model has been the most influential in guiding research in personality psychology. Tests and questionnaires, classical test theory, correlational techniques, factor analysis and regression techniques are all intimately related to the trait model. Of these strategies, correlational techniques have been so popular that Cronbach (1975) dubbed the trait model as one of two disciplines of scientific psychology and characterized it as "systematic correlation" (p. 125).

The trait model is based on the assumption that traits exist and are stable latent dispositions which determine a person's manifest observable behaviour that is consistent in the rank order of individuals across various situations. Accordingly, a crucial issue that arises for trait psychology is whether behaviour is situation specific or whether the rank order of individuals with respect to a particular variable shows transsituational consistency. This is the so-called consistency-specificity issue. The two major approaches to the resolution of the issue are: a) a multidimensional variance components strategy, and b) a correlational research strategy (Endler & Magnusson, 1976a, 1976b). The multidimensional variance components technique, assesses via variance components derived from analysis of variance, the relative variance contributed by situations and persons to behaviour and especially the con-
tributions of person-situation interactions. The correlation approach which is a more direct test of the consistency-specificity issue, involves studying the correlation of individual rank orders for a specific personality variable across different situations.

Endler and Hunt (1966), Raush, Dittman and Taylor (1959) and Raush, Farbman and Llewellyn (1960) were the first to test the consistency-specificity issue using the multidimensional components technique. Argyle and Little (1972), Bishop and Witt (1970), Endler (1973), Endler, Hunt and Rosenstein (1962), Ekehammar, Magnusson and Ricklander (1974), Grinder and Mutterer (1969), Moos (1968, 1969, 1970) and Wisenthal, Endler and Geller (1972) employed a variation of the multidimensional variance components strategy and found that the major source of variance in behavioural analysis was due neither to the person nor the situation but was due to a person by situation interaction. The reported person variance in these studies rarely exceeded 10%. These studies included various behaviours and personality constructs from population samples varying in age, social class, geographical location and mental health. A recent assessment of these studies yielded the following general conclusion:

...persons...per se are less important sources of behavioural variance than are person-situation interactions (Endler & Magnusson, 1976b, p. 964).

The correlational research strategy to test the cross-situational stability or consistency of behaviour was originally employed by Hartshorne and May (1928) in their now famous study of honesty. In this study, children were exposed to different situations in which they had opportunities to cheat and lie and measures of honesty on each child were procured. It was found that correlation of honesty scores for
any one child across the different situations did not exceed 0.30. More recently, Burton (1963), Endler and Magnusson (1977), Endler and Magnusson (1976a), Endler and Okado (1975), Magnusson and Heffler (1969), Magnusson, Gersen and Nyman (1968), Magnusson, Heffler and Nyman (1968), Newcomb (1931), Rushton (1976) and Rushton and Endler (1977) have used the same approach to test the consistency hypothesis and have found that the correlations generally do not exceed ±0.30 which is about 9% of the relevant variance. This line of research then, seems to produce some agreement with the multidimensional variance components technique as to the proportion of the variance attributable to the person factor in the analysis of behaviour.

Several authors have evaluated the trait position (Argyle, 1975; Argyle & Little, 1972; Bowers, 1973; Byrne, 1974; Endler, 1973, 1975, 1976, 1977; Endler & Magnusson, 1976a, 1976b, 1977; Ekehammar, 1974; Mischel, 1968, 1969, 1973b, 1972; Pervin, 1968; Vernon, 1964) and have indicated that there is little support for the belief in transsituational consistencies of behaviour. Personality validity coefficients obtained using various methods and various variables such as leadership, anxiety, hostility, rigidity, self-confidence and honesty, range from 0.20 to 0.50 with a mean coefficient value of 0.30 (Endler, 1973; Mischel, 1968, 1969). The various research methods however, all shared several critical features, namely, the indirect measurement of hypothetical constructs in imagined situations. These common features form the basis from which sources of criticisms of the research methods arise. These criticisms will be outlined in some detail later in this paper.
Hunt (1966) has questioned the belief in fixed intelligence, but there is some evidence for stability over time and for cross-situational consistency with respect to intellectual and cognitive factors (Endler, 1977; Mischel, 1968, 1969; Rushton & Endler, 1977). Nevertheless, from the foregoing evidence, it becomes clear that although cross-situational consistency is logically implicated in the trait position, it is not empirically supported. The empirical evidence from the variance components studies and from the correlational studies, gives rise to serious questions about some of the assumptions which are central and fundamental to trait theory of personality and its measurement techniques.

Research and Measurement Based on the Psychodynamic Model

Unlike the elegant and rigorous statistical techniques that have been developed in conjunction with the trait model for measuring assumed personality dimensions, psychodynamic theorists have shown little interest in the measurement problem (Mischel, 1973a). Information gathering procedures such as interviews and free association are the methods of the psychodynamic model while the case history or the case description are deemed as appropriate for presenting the results. The therapist, using dream analysis, free association and so forth, attempts to reconstruct the history of the client. It has been amply demonstrated however, to be notoriously difficult to obtain even a partially accurate reconstruction of personal events long after they have taken place since even such close eyewitnesses as parents simply forget the bulk of what happened
This large difficulty in reconstructing the client's past and hence understanding his "intrapsychic functioning", makes a causal analysis based on amorphous internal determinants more than somewhat challenging. Thus, Bandura's (1977) conclusion that insight into supposedly intrapsychic causes of behaviour "is more like a belief conversion [to the therapist's point of view] than a self discovery process" (p. 5) is understandable even though it is a sweeping and harsh judgment.

For each "school" of personality there is a different focus and orientation such that the hypotheses and expectations of the investigator affect what he looks for and what is found in both research and psychotherapy (Bandura, 1977; Mischel, 1968, 1973b). Within the framework of the psychodynamic model, personality is an abstraction or hypothetical construction which is connected with behaviour only indirectly, whereas behaviour itself consists of observable events. Accordingly, Freud (1933) emphasized this point -- the necessity for making a clear distinction between the hypothetical or abstract nature of personality and behaviour (observable events) -- when he referred to instincts as mythical entities:

The theory of instincts is to say our mythology. Instincts are mythical entities, magnificent in their indefiniteness...The unshakable biological fact [is that] the living individual...is at the command of two [forces] often in conflict: the species preservative or sexual impulses; and the self preservative impulses. The former curbed by the latter are often in conflict...(p. 95).

Personality, within the psychodynamic conception, describes the inferred, hypothesized, mediating internal states, structure, and organization of individuals. Accordingly, it is contended that all responses from
a person ultimately reveal his enduring basic problems and personality organization if the underlying meaning of behaviour is interpreted properly. Mischel (1968) points out that adherents to this variety of theory believe that in an unstructured, ambiguous or projective situation the person's responses reveal his basic personality configuration. All aspects of his behaviour are interpreted as potentially revealing the basic "underlying" personality organization (Hall & Lindzey, 1970). Psychodynamic theorists long ago rejected the idea of behavioural consistencies across situations (Mischel, 1973a) but instead they emphasize that behaviour varies such that diverse behavioural patterns serve the same enduring and generalized underlying dynamic or motivational dispositions. The search for dispositions thus rests on a distinction between surface behaviours and the motives that they serve. This involves the distinction between the phenotypic and the genotypic and entails an indirect rather than a direct measurement model (Mischel, 1968). The psychodynamic approach thus shares with the trait approach a disinterest in behaviours except as they serve as signs of generalized dispositions. The utility of the direct sign approach to dispositions depends on the value of the inferences provided by the clinical judge. Consider for example, the following excerpt in which internal "mental" states about a psychotic patient, are being inferred from her behaviour.

This patient rather clearly exhibited three different ego states. These were distinguished by differences in her posture, manner, facial expression, and other physical characteristics (Berne, 1961, p. 30).

The reliability and validity of the clinical judgment then, becomes crucial. Mischel (1968, 1969, 1972) has investigated in detail the
extensive empirical studies on the issue of the utility of clinical judgments in inferring broad dispositions indirectly from symptomatic signs and unravelling disguises in order to uncover the motivational dispositions that might be their roots. Mischel concluded:

Surveys of the relevant research generally showed that clinicians guided by their concepts about underlying genotypic dispositions have not been able to predict behaviour better than the person's own self-report, simple indices of directly relevant past behaviour, demographic variables, or, in some cases, their secretaries (1973b, p. 339).

The lack of predictive power as well as the frequently equivocal therapeutic effects of the psychodynamic approach, undermine its raison d'être. Bandura (1969) insinuating that there are other motivational factors which underlie the continued and stubborn adherence to psychodynamic approaches to behavioural change in clinical settings, unkindly suggested that:

...this therapist-centered value system would change rapidly if therapeutic contracts required financial remuneration to be made at least partially contingent upon the amount of demonstrable change achieved by clients in the interpersonal problems for which they seek help (Bandura, 1969, p. 81)

The bases for utterances of the foregoing sort mark the great vulnerability to telling criticism of received psychodynamic approaches.

Evaluation of the Trait and Psychodynamic Models

The grim evaluations of the psychodynamic and trait models that have been passed down in the last few years notwithstanding, certain proponents of these models of human personality, staunchly defend the theories (e.g. Stagner, 1976; Wachtel, 1973). The controversy that has arisen in evaluating
and interpreting the results of personality research stems from a failure to distinguish between personality theories as models of psychological processes and the measurement models that are relevant to these theories (Endler, 1977). The empirical studies have in the main, failed to provide evidence for transsituational consistency (Bandura, 1977; Byrne, 1974; Cronbach, 1975; Endler, 1973, 1975, 1976, 1977; Endler & Magnusson, 1976a, 1976b; Fiske, 1974; Mischel, 1968, 1969; Peterson, 1968). The criticisms of trait and psychodynamic models based on these results have been directed at the trait and psychodynamic measurement models (or rather, the lack of a measurement model in the case of psychodynamic theories), while the defenders of traits have focussed on the trait and construct personality theory. Adherents to the psychodynamic perspective have depended upon interviews, case histories, and idiographic verbal descriptions whereas those who have attached themselves to its offspring, the trait model, have relied upon questionnaires, ratings and tests. Mischel (1968) emphasizes that the psychodynamic theorists have shown little interest in developing a measurement model based on quantitative data. The methodological shortcomings of this brand of theory then, become obvious. Thus, the overall conclusion reached is that neither the trait model nor the psychodynamic model of human personality retain much promise as a bases for research since they are not very useful for enabling one to make accurate predictions. With such considerations in mind, Tyler (1965) concluded that:

...the most important reason I see for questioning the adequacy of this way of looking at things is that we are no longer making the progress with it that we have a right to expect (p. 501).
A change in course, appears to be called for.

Situationism

When some of the basic assumptions of the trait and psychodynamic models of personality were seriously undermined by extensive empirical data, situationism (a term coined by Allport (1966, p. 3)) -- the antithesis of the trait and psychodynamic models with respect to causality -- came into prominence with Mischel (1968, 1969, 1972, 1973a, 1973b) being its chief proponent. This position regards the stimuli in the situation as the main determinants of individual behaviour. It is true however, that some social psychologists (e.g. Cottrel, 1942; Mead, 1934) as well as social learning theorists (Bandura, 1971; Bandura & Walters, 1963; Blass, 1977) have always maintained that situations are the main sources of behavioural differences. Since the critical onslaught of trait and psychodynamic theories were so successful, theorizing as to the prime determinants of behaviour swung into the "situationists'" favour. The trait and psychodynamic positions held that the prime determinants of behaviour resided in the person while the situationists took the opposing point of view that behaviour is primarily determined by the details of the specific conditions of the situation of interest (Bandura, 1971, 1977; Skinner, 1953, 1960, 1975, 1977). As Allport (1966) pointed out, the situationists are those -- especially sociologists and anthropologists -- who prefer to explain behaviour in terms of the "outside structure" rather than the "inside structure" (p. 3).

Bowers (1973) suggested that the word "situationism" is employed
instead of the much more maligned term "behaviourism", largely because the former connotes the explanatory bias espoused by its proponents. The situational modus operandi is either to ignore individual differences completely or to regard them as subsidiary to the primary impact of the external stimulus whereby a connection between cause and effect is established. Hence, Mischel (1972) argued that a person will behave consistently across situations only to the extent that similar behaviour leads, or is expected to lead to, similar consequences across the conditions. If situations have the same meaning for subjects, then response consistency will occur whereas inconsistency of responses will be expected if situations have different meanings. Bowers (1973) has recently spoken out against situationism and provided an extensive criticism of this particular viewpoint in terms of its metaphysical, psychological, and methodological assumptions. The large appeal of situationism Bowers (1973) suggested, lies in the situationist analysis of behaviour using stimulus-response (S-R) units that seem to entail an explicitly causal analysis. In contrast, the trait and psychodynamic models are primarily response-response (R-R) models which are disdainfully dubbed "merely correlational" (Bowers, 1973, p. 309). The correlational strategies limit conclusions about relationships between variables to predictive status; that is, knowledge about one variable allows prediction about the nature of its correlated counterpart. On the other hand, situationists purport that the S-R paradigm is a cause-and-effect relationship. However, this is not a justifiable position to uphold because, as Bowers (1973) argued:

If causality depends upon a theoretical understanding of
observable relationships of either the S-R or R-R variety, then the experimental method loses some of its mystique; one cannot simply conclude that antecedent conditions (stimuli) cause the consequent responses (p. 311).

The implicit formulations in the situationist position that ultimately it is the stimuli specific to the situation that accounts for behaviour as is emphasized by Bandura and Walters (1963), Mischel (1968, 1969), and Skinner (1953, 1971), as well as others, are not tenable. According to the situationist position, a large majority of the variance in behavioural analysis should be accounted for by situational factors. Bowers (1973) analyzed 11 studies that were published since 1959 and that dealt with the issue over whether the situation or the person accounts for more of the variance in behavioural analysis. Employing the multidimensional variance components technique, Bowers analyzed the variance as either due to the person (personality factors), situation (setting) and a person by situation interaction. In all eleven studies analyzed, the variance arising from the person by situation interaction component was larger than the variance arising from either of the two main effects alone. The mean variance due to persons was 12.71%, the mean variance due to situations was 10.17% and the mean variance due to the person by situation interaction was 20.77%. Saronson, Smith and Diener (1975) surveyed a total of 508 studies dealing with the person versus the situation issue carried out from 1970 to 1972. It was concluded that the slightly higher proportion of the variance accounted for by situational variables is not striking enough for them to be considered prepotent by comparison. The variance due to the interaction component was consistently larger than either of the two main effects alone. Endler (1975, 1976) cogently argues that
the issue over which factors are more important is actually a pseudo-issue since neither situation variables nor person variables are as important when taken alone as is their interaction. Bowers (1973) slyly states:

...situations are as much a function of the person as the person's behaviour is a function of the situation,

and then concludes that,

...interactionism views main effects as a sort of behavioural precipitate that does not readily dissolve in the fluid interaction of organism and environment (p. 327).

Situationism then, seems to be as limited as trait and psycho-dynamic models as a fully adequate means of construing human conduct. The interactionism model which attempts to incorporate features of both of the former positions, has recently become popular and as Endler suggests, probably "is the present Zeitgeist of research in personality" (1977, p. 345).

Interactionism: A Resolution to the Problem?

The interaction model focuses on the multidirectional interaction between an individual and his environment. Actual behaviour in this model, is considered to be the result of an irreducible interaction between the person and the situation he encounters and in many cases, other persons form an integral part of the situation. This does not imply that neither the person nor the situation is an unimportant source of behavioural variance. Accordingly, neither person factors nor situational factors determine behaviour; the important element is the person by situation interaction unit. The four basic features of interactionism according
to Endler (1977) are:

1) Actual behaviour is a function of a continuous process of multidirectional interaction or feedback between the person and the situation (including other persons) that he or she encounters.

2) The person is an intentional and active agent in the interaction process.

3) With respect to the person, cognitive factors are the essential determinants of behaviour in the interaction process.

4) With respect to the situation the psychological meaning of the situation for the person is the important determining factor.

The empirical evidence to support an interactionist viewpoint has come mainly from those researchers who have used the multidimensional variance components technique (Endler, 1966). This technique allows for the comparison of relative variance contributions and Endler and Hunt (1968) have done this with respect to the variables of anxiousness and hostility; and Endler and Magnusson (1977) have done this with respect to anxiousness. Typically, the variance components attributable to the person-situation interaction is larger than the variance components attributable to either persons or situations. Recent evidence of the same nature demonstrates the prepotence of the interaction unit: Cohen (1977) who studied the impact of traits and situational factors in the psychology of dreaming sleep; Rushton and Endler (1977) who examined academic achievement; Magnusson and Ricklander (1974) who investigated the interactionist anxiety model; Endler and Magnusson (1977) who focussed on stress factors in an examination situation, as well as Wiesenthal, Endler and Geller (1973) and Endler, Coward and Wiesenthal (1975) who shared an
interest in conforming behaviour, all showed that the interaction unit accounts for more of the variance than either of the two main effects alone.

Other areas of personality research which supports the interactional model of personality includes Fielder's (1974) work on leadership; Berkowitz's (1973) material on aggression; the literature on locus of control (e.g. Baron, Cowen, Garz & McDonald, 1974); some work on social isolation (e.g. Altman & Haythorn, 1967), as well as other more indirect tests of interactionism. This apparent solid body of supportive evidence notwithstanding however, there appears to be shortcomings in the interactionist approach as it stands today. These arise from conceptual, methodological and empirical considerations.

Conceptual Basis for Interactionism

The trait model of personality is basically a response-response (R-R) theory which rests on the assumption that the determinants of behaviour reside within the person \( B = f(P) \). Situationism is a stimulus-response model (S-R) wherein it is assumed that the primary determinants of behaviour are due to the specific stimuli of the situation \( B = f(S) \). The interactional model encompasses features of both of the former focusing on multidirectional interaction between an individual and his environment. Thus, within the interactional model, behaviour is seen as resulting from both person and situation factors \( B = f(P,S) \). While the shortcomings of the trait model have been adequately demonstrated (e.g. Mischel, 1968) and the situationists' formulations have also been
successfully assaulted (e.g. Bowers, 1973), little criticism has been levelled at the interactional model, perhaps because of its inherent logical appeal.

The idea that behaviour is a function of both the environment (situation) and the organism (person) is hardly new as outlined by Ekehammar (1974). In recent publications (Endler, 1977; Endler & Magnusson, 1976a, 1976b) however, there is the implicit suggestion that "interactionism" is a new and revealing conceptualization. While Endler (1973) goes as far as assigning interactionism to new paradigmatic status, Cattel (1965) for example, nearly a decade earlier, readily recognized the importance of situational stimuli. Thus, he wrote:

Lack of allowance for the situation is one of the main causes of misjudging personality (p. 27).

At the same time, Mischel (1973a) has indicated that the language of interactionism and moderator variables simply provides another way of talking about the idiosyncratic organization of behaviour and its dependence upon specific conditions. Before it can claim to provide a new direction for personality theory, interactionism must be predictive rather than merely descriptive. It must on an a priori basis, predict moderator variables from classes of behaviour or reactions that will be useful in analyzing behaviour. The interaction studies that have recently been conducted by Endler, Hunt and Magnusson as well as others, as Endler (1977) readily admits "do not tell us why [the variance is attributable to the interaction component]" (p. 352), but merely demonstrates that the interaction component accounts for more of the variance than either
of the two main effects alone.

Furthermore, these studies have not as yet explained the nature of the obtained interactions between persons and situations and no one has demonstrated that accurate predictions can be made a priori about individual behaviour. The attribution of the variance to the interaction component might lead one to conclude that the interactions have demonstrated consistent and predictable behaviours across a variety of situations. But this of course, is not the case. The variance components studies are descriptive but not predictive. In the absence of an explanation of how interactions take place psychologically, "the emphasis on interactionism... becomes little more than the proclamation of a truism" (Mischel, 1973a, p. 257).

Clearly, the basic question of how the person and situation interact in determining behaviour remains to be clarified and this is after all, the question that Anastasi (1958) posed some 20 years ago. In the unidirectional notion of interaction, persons and situations are treated as independent entities that combine to produce behaviour (Bowers, 1973). Person and environmental factors however, do not function as independent determinants but rather determine each other and persons cannot be considered to be independent of their behaviour. Since it is largely through their actions that people produce the environmental conditions that affect their behaviour in a reciprocal fashion, the experiences of conditions generated by behaviour also partly determine what a person becomes and does which, in turn, effects subsequent behaviour (Bandura, 1977). The modern conception of interactionism acknowledges that
behaviour is overdetermined and determinant; but persons and situations are depicted as independent causes of behaviour as though it were only a product that does not figure in the causal process. Clearly however, behaviour is also an interacting determinant and not simply an outcome of a person-situation interaction. Certain behavioural responses would effect subsequent behaviour such that neither the person nor the situation would remain static but rather each would be in continual concommitant flux with reciprocal effects. Such analyses are not possible in the received version of interactionism.

The Role of Reactive Variables

Endler (1977), one of the most enthusiastic supporters of interactionism, stresses the necessity for distinguishing between behavioural variables (typically conceived of as reactive variables) and mediating variables (treated as hypothetical constructs). He stresses that there is not necessarily a one-to-one relationship between the emitted behaviour and intraspsychic functioning at the hypothetical construct level. This is merely a restatement of the phenotypic-genotypic distinction that was made by Mischel (1968) and which has provided a conceptual trap for personality theorists. The interactionist theorist, who does as the trait and psychodynamic theorists, and relegates observable behaviour to the "reactive variable" status, faces problems.

The interactional model was developed basically on anxiety research (Endler, 1966; Endler & Hunt, 1966; Endler & Magnusson, 1977). In recent formulations (Endler, 1977) about the nature of anxiety, two
components have been distinguished: trait and state anxiety. Trait anxiety is conceptualized as a hypothetical construct which is thought to be a relatively stable personality characteristic and has at various times, been conceptualized as a trait, as a motive, and as a drive (Shedlesky & Endler, 1974). State anxiety is also conceptualized as a hypothetical entity but is considered to be a transitory emotional condition. Nevertheless, anxiety, whether state or trait, is viewed as a hypothetical entity within a person that "causes" behaviour which is at the same time, dependent on situational stimuli to some degree. Anxiety has in the past, been operationally defined with reference to many diverse criteria and as a consequence has given rise to considerable imprecision and confusion in psychology. Sarbin (1968) takes the position that since anxiety is typically used with reference to a mental state it becomes ontologically mythical. He goes on to suggest that inquiry must be steered away from hypothetically constructed states of mind which have been the source of much futile speculation. The modern day interactionists however, still rely on the hypothetical "state-of-mind" approach which leads into the intractable and complex problem of discovering causal factors and determining the nature of those causal factors.

Speculations concerning these internal factors lead to a galaxy of "constructs", "traits" and "dispositions" for which there is little in the way of convincing evidence. Searching for these "states of mind" leads directly into the strategy of construct validity.

The investigator using this approach, takes as the criterion, a particular behaviour which is not intrinsically meaningful or of interest
in its own right. Rather, he regards, on theoretical grounds, such "reactive variables" as "signs" or "test responses" for indexing some underlying trait or disposition. Unfortunately, this search for an inner system via reactive variables, has, as Skinner (1975) puts it, "proved to be one of the most fascinating attractions along the path of dalliance" (p. 43). Cronbach (1975) speculates that the whole notion of construct validity itself is becoming a questionable strategy. Because of the apparent transitory nature of constructs and traits, Cronbach (1975) states:

This puts construct validation...in a new light. Because Meehl and I were importing into psychology a rationale developed out of the physical sciences, we spoke as if a fixed reality is to be accounted for...Rarely is a social or behavioural phenomenon isolated enough to have this steady-process property...An actuarial table describing human affairs changes from science to history before it can be set in type (p. 123).

Cronbach (1975) goes on to argue that because two-way person-situation interactions are themselves nearly always mediated by higher-order interactions, it is probably wise to abandon our search for universal, transhistorical principles of human behaviour. Cronbach seems to be balking in the face of heretofore unsuspected complexity in personality with apparent higher-order interactions.

However, abandoning the search for laws governing behaviour as they apply universally does not seem to be a wise decision. Even if behaviour is totally random, then that is a law worth establishing. Whitehead (1925) asserts that science itself was only able to rise in Western society because of Man's inherent belief in the orderliness and predict-
ability of nature. It would do us little good then, to cast away
these beliefs as they apply to personality -- inconsistency itself
may be a personality dimension (Campus 1974) and change over time may
be a general principle governing behaviour. It is worthy to search
for what laws there be if we are to maintain the scientific mentality,

...which instinctively holds that all things great and
small are conceivable as exemplifications of general
principles which reign throughout the natural order
(Whitehead, 1925, p. 5).

Endler's (1973, 1975, 1977) conception of the interactional model
then, still flounders on the problem of discovering causal "predispositions"
and "internal constructs" which again leads into the strategy of con­
struct validity wherein it is assumed that constructs and traits are
fixed steady-state processes which are to be accounted for. The interac­
tionist point of view then, (which merely adds stimuli specific to the
situation as another dimension) is only a small conservative shift in
view-point from that held by traditional trait and psychodynamic theorists
rather than a "new paradigm" in the Kuhnian (Kuhn, 1970) sense. An
examination of this approach reveals this and more.

Pervin (1976) demonstrated the modus operandi of the interactionist
approach. Subjects were allowed to describe situations, situation
traits, feelings and behaviour that were applicable to their real life.
From these data, Pervin (1976) attempted to infer,

In what ways, and why, do people remain stable (con­
sistent) in their behaviour and feelings, and in what
ways do they vary according to which situational
characteristics (p. 446).

Examples of behaviour given are: sensitive, ambitious, compulsive, caring,
emotional, introverted and so forth. Why these are listed as behaviours is not altogether clear since they are merely adjective descriptions of some inferred state. There is little reason to suppose that such adjectives have anything at all to do with behaviour per se (Mischel, 1968). The Pervin (1976) study is representative in assuming that there is something to gained by this kind of assessment procedure. Notice of Skinner's (1977) warning, seems appropriate in this connection:

The really serious mistake is to infer a drive state as an explanatory entity simply from the behaviour to be explained (p. 1010).

Other attempts in assessing person-situation interactions (Ekehammar & Magnusson, 1973; Magnusson & Ekehammar, 1975) involve the use of questionnaires rather than direct observation of behaviour. In these studies, the subject is asked how he would "behave" or "feel" in a hypothetical situation. The subject's responses are taken as reliable indicators of what he would in fact do if presented with such a situation. Snyder and Tanke (1976) however, found that there is little relationship between personal intentions and overt behaviour. Mischel (1968) has also demonstrated this incongruence and has argued that the overt behaviour of interest be studied rather than relying on attitudes and intentions of subjects to predict a criterion behaviour. In the same vein, Wicker (1971), studying attitudes toward the church and related criterion behaviours, showed that individual behaviour cannot be predicted very well from attitudes and personal intentions. He used four self-report predictors, including three verbal measures stating intentions about church attendance, monetary contributions and participation in church-related affairs. For attendance and contributions, all four pre-
dictors accounted for approximately 25% of the variance in the criterion behaviours (actual attendance and actual contributions) leaving 75% to be explained; for participation, 94% of the variance was unaccounted for. Evidence of this sort raises doubts about the viability of the questionnaire research strategy.

To the current interactionist, the overt behaviour that is manifested in a given situation is usually not taken to be of interest per se. Endler and Magnusson (1977) used a "physiological" measure of anxiety — self-reported heart rate — to indicate variable levels of anxiety in an examination situation. This "objective" measure of anxiety was not of interest in itself but was significant only inasmuch as it revealed conditions about causal factors of anxiety. Accordingly, personality assessment in the interactional model still flounders on the measurement difficulties that have plagued the traditional trait and psychodynamic approaches.

Fiske (1974) has argued that the difficulties in making connections between hypothetical constructs and self-report and other indirectly collected data, have caused the conventional science of personality to have reached its limits. Three interrelated conditions are seen as responsible: 1) most of the data are the products of complex interpretive judgment processes within observers; 2) the agreement between sets of observations is limited; and 3) the ties between observation and concepts is limited. In self-report data, the covariation between specific-items is low and reproducibility over occasions is poor. In judgment by others, there appears to be little hope for improving the level of agreement when the task requires complex decision processes (Fiske, 1974). The in-
teractionists still focus on concepts with inadequate specifications and tenuous linkages to measuring procedures. Since the severe limitations to progress in personality research is due to reliance on words as explanatory devices, dependence on complex observer judgments arrived at by processing diverse perceptions with low agreement between observers, Fiske (1974) was moved to conclude that,

As long as this traditional orientation to the field persists, little can be done to escape these fundamental handicaps (p. 10).

Methodological Problems of Interactionism

Cartwright (1975) argued that the S-R Inventory of Anxiousness developed by Endler, Hunt and Rosenstein (1962) and subsequently refined by Endler and Hunt (1966) and which has become the instrument of the champions of interactionism (Endler, 1977; Endler & Magnusson, 1977), inappropriately combines variance from situations and modes of response in the total variance pool against which the component of variance due to individual differences is evaluated. In the original study (Endler et al., 1962) the S-R Inventory showed test-retest reliability coefficients of 0.97 and 0.95 which indicates that 97% and 95% of the variance in this inventory is due to trait-like differences between individuals. The data analysis however, suggested that only 5% of the variance was attributable to individual differences. This discrepancy, Cartwright (1975) suggests, arises depending upon whether the inventory is used as a test in the usual sense or is used as an experimental design. Clearly, depending upon whether the inventory is used as a test in the usual sense or is used as an experimental design, different operations become appropriate leading to different results of analysis. In the experimental
design, modes of responses contribute the largest amount of variance which is typically about 25%. Individuals however, respond through the modes of response and not to the modes of response so that significant effects for the modes can at most suggest that respondents have a common preference upon the modes of response. Although this preference might be of interest in its own right, such facts are not of interest in the experiment and should not be allowed to inflate the total pool of variation and give an erroneous impression of the size of treatment influences (Cartwright, 1975). Further, the word anxious is used in the Inventory to mean either anxiousness of anxiety or anxiousness of pleasurable anticipation so that two factors govern the modes of response. It should not be surprising then, that these factors contribute the greatest variance; but Carwright (1975) suggests that these components should not be allowed to contribute to the total variance against which other variance sources are evaluated.

The situations in the S-R Inventory vary widely on the degree of threat that they present and as Endler and Hunt (1966) noted, such a state of affairs leads to a spuriously inflated variance component due to situations. The range of situations with regard to the degree of threat should not be excessive by contrast with the range of subjects with regard to degree of anxiousness (Cartwright, 1975). Since the percentage of variance contributed by a factor is evaluated against the total amount of variance and the total becomes larger or smaller depending upon what separate contributions are added to it, the relative size of variance contributed by one source becomes larger or smaller correlative. Cartwright (1975) experimentally made the situations more homogeneous
and found that less variance was attributable to situations than to persons. He concludes that as an experimental design, the Inventory allows large quantities of variance from unjustified sources to enter into the total variance against which the individual differences component is evaluated.

Typically, the source-of-variance paradigms decompose a person (p) X situation (s) X mode of response (r) data matrix by standard analysis of variance procedures and the obtained mean squares are solved for all obtainable variance component estimates. Then all possible omega-squared ($\omega^2$) ratios which purportedly assign the proportion of variance attributable to each component, is formed. Bowers' (1973) examination of the 11 studies involved the formation of three critically important ratios: $\frac{\sigma_p^2}{\sigma_{Total}^2}$ (i.e. person variance), $\frac{\sigma_s^2}{\sigma_{Total}^2}$ (i.e. situation variance) and $\frac{\sigma_{ps}^2}{\sigma_{Total}^2}$ (person X situation variance). Golding (1975) suggests that the omega-squared ratios are inappropriate statistics to use in this kind of analysis for several reasons:

1) This statistic rests on the assumption that scores on measuring instruments have absolute value both in a measurement sense and a psychological sense; that is, it assumes that the obtained value has meaning as an absolute quantity. This kind of ratio data of course, is never available in psychological measurement. The best that can be done is to provide "quasi-interval" data.

2) The size of the obtained interactions are spuriously inflated because of various measurement artifacts and ceiling and floor effects whose influence is usually unknown.
3) The triple interaction in the typical paradigm is confounded with error variance which inflates $\sigma^2_{ps}$ components and is not independently estimable.

4) The theoretical importance of such interactions without reference to an empirical examination of their structure which has as yet not been done, can neither be asserted nor denied.

Bowers' (1973), and more recently, Endler's (1977) position that maintains that interactionism accounts for more variance is as untenable as Mischel's (1973) position that maintains that the interactionist patterns are highly idiosyncratic. To assert the former, a demonstration that the obtained interactions can be meaningfully decomposed into replicable patterns is necessary (Golding, 1975). The latter position requires a demonstration that the obtained interactions are not systematic or patterned.

Golding (1975) suggests that the omega-squared ratios be replaced by generalizability coefficients which circumvent the shortcomings of the former statistic. Neither omega-squared ratios nor generalizability coefficients however, can overcome the lack of a strong data base. Currently available data are too fragmentary, method specific, or confounded to make the kind of conclusions about consistency-specificity that have been made by some (e.g. Endler, 1977; Endler & Magnusson, 1977). Most of the studies rely on self-report behaviour in imagined situations (e.g. Endler & Hunt, 1966; Endler & Magnusson, 1977) or more rarely, behavioural observations of questionable generality or importance. Moos (1969) for example, observed frequency of head nods, leg movement, scratching or smoking but these hardly represent behaviour from which
we might construct general theories of human behaviour or personality.

A final problem that is inherent in the current interactionist model is the arbitrariness with which situations are defined. Bowers (1973) pointed out that it is common practice to reason that if individuals behave differently the situations were different, and if they behave similarly, the situations were not different. This circular reasoning does not provide for independently defined and calibrated individual differences and situational factors. Although Magnusson (1971) has made initial attempts at analyzing and describing the dimensionality of individual judgments of situations, the effort has met with little success. Accordingly, Endler (1977) suggests that:

We need to make predictions in studies in which we simultaneously examine various situational variables ... [which] will enable us to investigate and predict the nature of person-by-situation interactions in effecting behaviour (p. 352).

This suggestion is commendable but, the interactional approach as it is currently applied will not yield such information. For as Golding (1975) has noted:

... the existence of interaction terms cannot be uncritically accepted as supportive of the interactionist viewpoint unless they are shown to be non-artifactual, replicable, and meaningfully patterned (p. 287).

Evaluation: The State of the Art

The interactionism paradigm of human behaviour which has arisen as a compromise between two opposing points of view -- traditional trait theorists versus situationalists -- is both intuitively appealing and
theoretically sound. In its present day operational form however, it is little more than the proclamation of a truism. Its greatest contribution to personality theory is that it has empirically demonstrated the necessity for taking into account both situation and personality variables when attempting to account for human behaviour. The methodology used in conjunction with the interactional paradigm, reveals statistical improprieties and heavy reliance on self-report data and other indirect measurement procedures for analyzing behaviour. Circular reasoning attempting to postdict whether "situations" were or were not different, is a severe handicap of the model. Directly observable behaviours in this approach, are merely regarded as "reactive variables" which indicate the nature of some underlying hypothetical trait or construct. The interactionists then, in attempting to explain the nature and existence of hypothetical traits and constructs, face the same apparently insurmountable obstacles that have caused these hypothetical entities to elude traditional trait theorists to date. Several psychologists (Byrne, 1974; Cronbach, 1975; Fiske, 1974; Goldfreid & Kent, 1972; Phares & Lamiell, 1977; Sechrest, 1976; Tyler, 1959) have indicated that personality as a science has reached its limits in employing the traditional orientation involving indirect assessment of hypothetical constructs. Sechrest (1976) concluded that,

"...most research -- the vast proportion of research -- in personality is inconsequential, trivial and pointless even if it is well done...[the] stagnation of personality study has arisen from...its preoccupations and methods: individual differences, self-report 'scales', abnormal behaviour, correlational research, description, therapy (p. 2-5)."
Phares and Lamiell (1977) are not more optimistic:

Many feel that social psychology is in a period of crisis. There is no reason to feel things are much different for those who study personality (p. 113).

Byrne (1974) speculates that the reason that personality psychology is in such a poor state, is that it may be in the random fact gathering stage of a preparadigmatic science. A perusal of the literature however, reveals very few reliable and enduring facts in personality theory and research. As for the interactional model, one of its progenitors, Moos, indicates that this too has reached its limits. He is reported by Mischel (1973a) to have said:

Frankly this is why I have stopped doing studies of this sort [i.e. interactional]. It seems to me that the point has now been amply demonstrated, and it is time to get on with other matters (p. 256).

Clearly, a new conception is demanded.
CHAPTER III

AN ALTERNATIVE APPROACH:
THEORETICAL PERSPECTIVES

In the face of a widespread recognition that little noticeable progress has been made in gaining predictive powers through personality research, several authors have indicated the need for reformulating the questions asked by personality theorists (e.g. Byrne, 1974). Accordingly, we observe a variety of attempts at reformulation in current work. Tyler (1965, 1959) for example, having recognized the limits of conventional "individual differences" psychology, suggested taking an approach which analyzes "strategies" of behaviour in place of traits as the unit of interest. Given the over-use of Kuhn's (1970) term "new paradigm" -- its unfortunate, abundant sprinkling throughout the personality literature -- one hesitates to apply the term to Tyler's innovation. Alker (1972), apparently undissuaded by such considerations, suggests that the work of Kogan and Wallach (1964, 1967) on rational versus irrational risk taking, constitutes the appearance of a new paradigm. Bem (1972), perhaps over-enthusiastically, concurs with Alker's (1972) proposal that the "moderator variable" approach as seen in the work of Kogan and Wallach represents a useful "paradigm" for personality research. Wallach and Legget (1972) (Wallach being the second author of the Kogan and Wallach team) however, do not agree with these assertions and point out that the moderator variable approach actually constitutes only a small conservative shift in viewpoint from that held by traditional
trait theorists. Another suggestion of paradigmatic innovation comes from Endler (1973) who states that interactionism meets the requirements of a paradigmatic shift in personality investigation. As has been shown above however, interactionism also represents only a small and conservative change in orientation when compared to traditional models of personality. Bem and Allen (1974) as well as Endler (1977), Endler and Magnusson (1976a, 1976b) and Magnusson (1971), suggest that personality research must concentrate on determining the psychological importance of situations which will give rise to new productivity in our understanding of personality. Finally, Bem and Allen (1974), Blass (1977), Campus (1974), Hayden and Mischel (1976) and Snyder and Tanke (1976), all suggest that consistency-inconsistency may itself be a personality dimension wherein consideration of this dimension will lead to new and fruitful directions for research. For the present writer, the latter suggestion appears to be especially fecund. Accordingly, it receives further attention below. Meanwhile, it is sufficient to note that by itself, this suggestion like all others, fail to account for the crucial change needed in personality investigation -- the need for methodological and measurement improvements.

The assessment of personality has traditionally been done through the use of self-reports and tests which are indirect measures of assumed qualities. The accumulation of this customary practice has led to a widespread dissatisfaction with personality tests and ultimately has led to the rejection by some, of the concept of general personality traits. Mischel (1968) for example, states:

...the phrase "personality coefficient" might be coined
to describe the correlation between .20 and .30 which is found persistently when virtually any personality dimension inferred from a questionnaire is related to almost any conceivable criterion involving responses sampled in a different medium — that is, not by another questionnaire (p. 78).

Even the notion of construct validity as conventionally applied to traditional psychometric theory and classical test score theory, has recently been doubted by Cronbach (1975). Cronbach (1975) suggests that the referents for constructs like traits are apparently not real fixed entities as it was once assumed, and hence traditional psychometric techniques are inappropriate means to try and account for personality dimensions. The notoriously poor instrumentation used in personality assessment is probably the crucial factor that has led personality as a science to reach its limits (cf. Fiske, 1974).

Skinner (1975, 1977) has asserted that the development of a scientific discipline of human behaviour has been impared by digression and diversion — personality theorists have been diverted into attempting to "look inside" the organism. Said Skinner (1975):

> When the important thing is a relation to the environment, as in the phylogeny and ontogeny of behaviour, the fascination with an inner system becomes a simple digression...We have not advanced more rapidly to the methods and instruments needed in the study of behaviour precisely because of the diverting preoccupation with a supposed or real inner life (p. 46).

This search for the "inner life" has led to galaxies of "constructs", "traits", and "predispositions" which are supposed to be underlying causes of behaviour. Throughout Skinner's work (e.g. 1953, 1960, 1975, 1977) the subtle but profoundly important distinction which separates
Skinner from those who attempt to explain human behaviour in terms of various personality theories, can be seen. While personality theorists have attempted to look inward to discover "mental states" that "cause" behaviour, Skinner simply assumes that "the organism behaves" (Skinner, 1953, p. 284). Thus Skinner by assuming that man by nature is an active and behaving organism, can free himself from the apparently unfruitful pursuit of those obdurately elusive internal states of the organism which are alleged to give birth to observable behaviour. Just as Aristotle's cosmology floundered on the misdirected search for the cause of motion itself, personality theorists have had difficulty getting off the ground on their search for the "inner" life which causes behaviour. Only by abandoning the search for the cause of motion itself and restricting himself to explaining changes in motion, was Newton able to advance the science of physics. So too, Skinner, by assuming that by nature man "behaves", is he able to disregard the very confused notions of motives (de Charms, 1968), drives (Berlyne, 1975), needs (Maslow, 1968), desires (Freud, 1959), will (James, 1890), and the like, in which the many students of personality have had their vision and imagination imprisoned. Thus, Skinner does not need to assume that man is active towards any particular ends as did Maslow for example, who, in his zeal for establishing a business delivered pax-Americana (Wilson, 1972), treated us to his fanciful notions about self-actualization (Maslow, 1968).

A second of Skinner's assumptions, namely that man is by nature an organism that learns from the interaction with his environment,
holds within itself the concept of interactionism that has recently re-emerged in personality theory. This truism that behaviour is a function of the organism's interaction with its environment, has been stated in personality theory to mean that behaviour results from the interaction between person factors and situational variables (Endler, 1973).

A third postulate in Skinner's philosophy about the nature of man, can be seen as the percipitate that results from the juxtaposition of the first two assumptions, namely, that man is nothing more or nothing less than an active learning organism. Such a conception of man is useful for research because it allows one to de-emphasize the role of needs, drives, constructs and so forth, and accordingly, effort and attention can be shifted to the systematic gathering and classification of human behaviours that are emitted in situations of particular interest. In other words, such an assumption allows a science which, in this case, endeavours to undertake functional analyses of behaviour, to steer away from the fascination with an "inner life".

Skinner, both fortunately and unfortunately, has dealt mostly with carefully and deliberately circumscribed constellations of molecular behaviour and has made a conjectural extrapolation of a fairly fancy sort in asserting that all behaviour can be functionally analyzed as a history of the reinforcement patterns of an individual. Moreover, while the concept of interactionism is not only present, but central to Skinner's theoretical framework (Skinner, 1953), his methodology has been one that
almost exclusively focused on one organism at a time. Employing this strategy makes it virtually impossible to see how different situations (especially those entailing the presence of other persons) affect different individuals differently. The very possibility of an interaction term disappears. The shortcomings of a Skinnerian functional analysis of behaviour has clearly been pointed out by Bowers (1973) such that an explanation of molar behaviours in these terms, becomes as tenuous as does explanations offered by trait theorists.

Nevertheless, the adoption as a first postulate of the proposition that man by nature is nothing more than an active learning organism, allows one to take the first step towards the construction of a theory of human behaviour which avoids the pitfalls that apparently inhere in approaches which center on hypothetical inner states and traits. Then, adopting such an approach, we can, as Newton did, abandon the search for causal factors of action and declare as our motto: Hypotheses non fingo.¹

¹Philosophers from Aristotle through to Kepler had been concerned with the question of why objects, particularly celestial bodies, move. Attempts to answer such questions invariably led to the construction of a Grand Theory which attempted to explain everything and as a consequence, ultimately explained nothing. The early Greek philosophers, to offer such explanations, found it necessary to invoke such concepts as God or a First Cause and Newton's resolute "Hypotheses non fingo" was intended to underscore the fact that he was abandoning the search for a first cause as a means of explaining motion. The parallel drawn here is intended to indicate that personality theorists have typically fabricated all encompassing theories, wherein, they have found it necessary to attempt to discover the nature of an "inner life". As Skinner (1975) has reminded us, this search for an inner system "has proved to be one of the most fascinating attractions along the path of dalliance" (p.43).

Although personality theory is in no position at the present to offer laws and generalizations about causal factors that change behaviour, we are in a position to systematically gather and classify human behavioural patterns which are general and of interest in their own right. Elms (1975) stresses this need for gathering behavioural census data as do other writers (Bronfenbrenner, 1976; Fiske, 1974; Goldfreid & Kent, 1972; Phares & Lamiell, 1977; Sechrest, 1976; Tunnel, 1977; Wallach & Legget, 1972). This approach involves combining controlled experimentation in standardized conditions (Cronbach, 1975) with extensive field observations in naturalistic settings. Another element of this approach involves keeping permanent records on film or videotape and audio tapes as well as other recording procedures. This is basically an approach using the techniques borrowed from the study of animal behaviour which has been recently extended by Eibl-Eibesfeldt (1970). The application of ethological methods to human behaviour allows for systematic gathering of data about behavioural patterns. Such analysis simultaneously allows the classification of situations and behaviour that in short, is the content of behavioural census. Since the observer is essentially a recorder and not primarily a synthesizer or interpreter, the difficulties presented by traditional personality assessment can be circumvented. Thus, criterion behaviours of interest can be observed directly and a fuller understanding of them can be gained in relation to situational variables. Furthermore, behavioural tests may ultimately be developed by working backwards from criterion measures. A sampling is obtained first, after which an attempt is made to develop efficient measurement proce-
dures for assessing these behaviour-environment interactions (Goldfreid & Kent, 1972).

Tunnell (1977) offers an expanded definition of field research which incorporates three theoretically independent dimensions commonly used in field designs -- "natural" behaviour, "natural" settings and "natural" treatments. A natural behaviour is one that is not established or maintained for the sole or primary purpose of conducting research; the behaviour is part of the person's existing response repertoire. The traditional methods of data collection in personality involving self-reports are not considered to be "natural" behaviours because experimentally induced self-reports are artificial since persons in real life rarely respond to adjective checklists or questionnaires, even if the instrument is designed to assess some "natural" behaviour in the person's past (Tunnel, 1977). A "natural" setting is considered to be one that is perceived as not having been established for the sole or primary purpose of conducting research. The "natural" treatment refers to naturally occurring discrete events that the subject would have experienced with or without the presence of the observer.

Investigations that combine these three dimensions of "naturalness" greatly increase both mundane and experimental realism (Aronson & Carlsmith, 1968). Accordingly, at least three advantages have been accrued by these kinds of investigations: 1) new empirical laws have been discovered, 2) the research has been made more credible to participants thereby increasing internal validity, and 3) the research has been given greater external validity (Tunnell, 1977).

Bronfenbrenner (1976), restricting himself to educational settings,
outlines three basic requisites that are to be met if progress is to be made in the scientific study of educational systems and processes. The first requirement is that research must be carried out in real life settings and must not be restricted only to the laboratory. This is essentially equivalent to Tunnell's (1977) dimension of naturalness that requires the employment of natural settings for data collecting. The second criterion, designated the ecology of education, requires the investigation of the relations between the characteristics of the learner and his environment, both in the formal educational setting and in situations which are outside the school. The ecological experiment constitutes Bronfenbrenner's third and final prerequisite and involves the investigation of person-environment factors simultaneously.

Accordingly, the approach taken in this study attempts to combine the "dimensions of naturalness" with the direct assessment of behaviours in situations of particular interest. This is the strategy (which has been paid little attention in personality research) of observing what people actually do in certain circumstances. Sheridan (1971) suggests that the retardation of the investigation of actual behaviour is due to the "unfounded insistence" that human behaviour is unmanageably complex. However, "...if one looks at human behaviour with an unbiased eye, he cannot help but recognize a remarkable simplicity" (Sheridan, 1971, p. 24). The mystification of behaviour by traditional personality theorists as well as by current interactionists with their reliance on hypothetical causal entities, obscures this "remarkable simplicity" of behaviour and therefore seems to beckon Occam's razor: Entia non sunt multiplicanda praeter necessitatem.
Some recent recommendations (Fiske, 1974; Phares & Lamiell, 1977; Sechrest, 1976) which urge the necessity for shifting interest to the accumulation of "behavioural census" data on behaviours which are generalizable, global and predictable within a theoretical framework, may indicate a means of circumventing conceptual and methodological confusions. The role of the so-called reactive variables then, would change from that of being merely "signs" or "tests" of underlying dispositions to that of becoming the primary units of interest. This is fundamentally different from both the received interactionist and the more conventional trait and psychodynamic procedures.

Transformationalism: Personality

in Behavioural terms

The purpose of this section is to present and synthesize evidence from various domains of inquiry which are apparently, disparate. A "personality dimension", behavioural orientation or "style" which appears at the most general level of analysis, an interesting unit of behaviour, is indicated by this synthesis. Accordingly, a reconceptualization of personality that seems to account for this evidence, is proposed

Concepts from Environmental Psychology

A major theme which underlies much of the research in environmental psychology and which is useful for present purposes, is that of human-environment optimization (Stokols, 1978). This concept is based on a cyclical, feedback model of human behaviour and pertains broadly to human transactions with the sociophysical environment. Specifically, the optimization theme suggests that people orient
to their environment in terms of existing goals and expectations such that they operate on their environment in an attempt to transform those conditions which are incongruent with certain expectations in order to "optimize" their environment. This "optimal environment" of course, is an ideal state which, because of myriad constraints, can never be achieved. The best that can be done is to adapt to existing conditions or to "satisfice" (Stokols, 1978) — to achieve less than optimal improvements of the surroundings.

In this view, people are seen to act on their environment and their environment, in a reciprocal fashion, acts on them. In short, the person acts on the environment and the environment (situational stimuli) acts on the individual with effects on subsequent behaviour. The emphasis here then, is placed on person-environment transactions and is essentially equivalent to the "interactionist" view of human personality discussed above.

For the purpose of the present discussion, the major interest lies in the "modes" or "styles" of orientation to the environment that can be discerned among various people. The different styles then, represent "personality" categories viewed in behavioural terms. As is outlined in the following pages, the accumulated evidence seems to suggest that at the most general level of analysis, there are two distinct categories of personality which can be viewed in behavioural terms.

Evidence from Personality Research

McFarlane (1963, 1964, 1975) reported longitudinal studies in which a large sample of subjects were studied from infancy to adulthood wherein, the most consistent dimension obtained by clusters of variables over a long time span
(2 to 16 years) related to styles of behaviour: namely, "reactive-expressive" or "retractive-inhibited". Consistency and predictability were otherwise low for every other "personality" dimension measured. Thomas, Chess and Birch (1970) turn up similar evidence in a report on their New York Longitudinal study on the temperament of the "easy", "slow to warm up" and "difficult" children. The most clear-cut and enduring factors that they found were the "approach-withdrawl" and the adaptability dimensions. The approach or withdrawl category describes the tendency for a child to move toward--approach--new stimuli or to move away -- withdraw -- from such stimuli. Adaptability refers to the ease or difficulty that a child has in adjusting to a new situation. In this same stream, Campus (1974) shows that individuals can best be characterized by one of two "styles": a) an active coping style, or b) a passive coping style.

Seeking the extent to which "personality" characteristics transcend culture, Butcher and Pancheri (1976) in an ambitious undertaking, revealed that, in the parlance of the MMPI, Overcontrol and Social Introversion were two factors that showed very similar structures in samples of seven countries (Pakistan, Israel, Italy, Japan, Mexico, Switzerland and the U.S.) Moreover, mean profile differences for many other factors (e.g. factors on the clinical and validity scales) were markedly different for various cultural groups.

Overcontrol in other words, refers to active or approach behaviour while Social Introversion can be otherwise termed passive or withdrawl behaviour in relation to other people. Apparently then, this evidence supports the notion of the generality and culturally independent nature of the "active-passive" dimension while many other factors on the MMPI appear to be culturally bound.
Another interesting piece of work casts these same ideas in different terminology. Salter (1961) recognized two major categories of personality which he called the "excitatory personality" and the "inhibitory personality". The excitatory person is "direct. He responds outwardly to his environment. When he is confronted with a problem, he takes immediate constructive action" (p. 45) while the inhibitory person displays an undue "desire for acceptance by his environment" (p. 48). According to this conception then, an excitatory person acts on his environment to transform unpleasant and bothersome conditions while the inhibitory person acquiesces to environmental conditions in an attempt to cope with bothersome conditions or he may withdraw from them altogether.

Taken on prima facie basis, the foregoing evidence seems unrelated. However, the various works all incorporate material which supports the notion that there are two broad categories of behavioural styles. Whether called "reactive-expressive - retractive inhibited", passive-active, Over-control-Social Introversion, excitatory-inhibitory or "approach-withdrawl", these descriptions all support the same underlying notion of behavioural styles. The first category of mode of orientation includes those behaviours wherein an individual actively transforms or attempts to transform the external environment by intervening in events occurring around him and hence the term "transformational interventionist" will be used here to refer to this dimension. The second category of personality is represented by the transformational noninterventionist orientation wherein individuals do not actively engage in changing noxious environmental stimuli but rather they acquiesce to them or withdraw from them.
Using a Freudian (1959) psychoanalytic analysis, the difference between these two personality categories become clearer. The noninterventionist simply makes more use of defense mechanisms to transform, repress, distort, deny or otherwise alter the objective reality intrapsychically so that events and conditions can be readily assimilated. Accommodation within both intellective and affective structures can be made so that reality with its often troublesome conditions can be made more palatable. Conversely, the transformational interventionist appears less ready to make extensive and continued use of elaborate defense mechanisms, but rather, he views reality more objectively. Accordingly, he actively engages in attempts to alter conditions which are noxious and bothersome. Both personality types then, alter the objective reality; the noninterventionist does so intrapsychically; the interventionist attempts to change the actual environment. This is not to say of course, that people make exclusive use of only one mode of orientation; both modes can be employed and which mode is used, may be greatly affected by situational qualities. The predominance or frequency with which persons orient themselves to situations of all sorts allows us the opportunity to discover the extent to which the typology has use value.

The noninterventionist's general style of adapting to the environment by acquiescing to or withdrawing from noxious conditions may, in part, be due to the phenomenon of learned helplessness. Seligman (1975) suggests that because of an inability to control certain events people learn to behave helplessly in the face of these events and hence make no attempts to change them. When events are noncontingent upon attempts to manipulate
aversive stimulation, helplessness is learned. Furthermore, Hiroto and Seligman (1975) suggest that learned helplessness generalizes from one situation to another. That is, failure to control events in one stimulus setting produces "helplessness" behaviour in other stimuli settings. The implication here then, is that because of repeated impotence in changing or altering certain environmental conditions, individuals will adopt a general style of "helplessness" or withdrawal in adapting to their environment (de Charms & Muir, 1978).

Political Activism and Personality

Probably the most clear-cut example of the interventionist-noninterventionist personality types is in the area of political activism. It is well known that certain individuals readily participate and actively engage themselves in attempts to change, via political activism, the social milieu in which they live. The vast majority of others simply withdraw from, or acquiesce to and become passive with respect to certain existing conditions which may be unpleasant. They make no attempt to alter these conditions. In light of this, one may very well ask who the active minority are and what factors characterize them.

Travis (1975), in a detailed analysis, concluded that the interventionists may best be characterized as being generally "wealthier, better educated, politically and culturally critical, articulate, expressive and deviant in a progressive direction" (p. 245) than are the noninterventionists. Generally, the active elites in political matters, are those who possess socio-economic advantages which confer power on their possessors. According to the thesis developed here, we should expect the wealthy hence powerful people to exhibit different "personalities" than do their less powerful
counterparts. The wealthy do not learn helplessness. Quite the contrary because,

The possession of power enables one to produce effects. People who possess such power might be expected to acquire the habit of using it (Travis, 1975, p. 259).

Since changes resulting from exercise of power are apparently reinforcing, (Mahoney & Thorensen, 1974) it is expected that the probability of the manifestation of subsequent instrumental behaviour will be increased after a reinforced action. The less wealthy (and hence less powerful) people in society are often ineffectual in gaining changes in conditions that are unpalatable and hence do not acquire the habit of behaving in an instrumental way. The wealthy and powerful then, are more likely to employ an interventionist mode of orientation while their less privileged counterparts are more likely to be noninterventionists.

Perseveration

Gaining changes in environmental conditions is, largely, contingent upon perseverating behaviour. That is, the more persistent one is in attempting to alter environmental conditions, the greater the likelihood that one will produce changes. The interventionist who is in the habit of producing effects, would, one can conjecture, exhibit more behavioural persistence than a person who does not intervene. This behavioural persistence might be considered in relation to achievement motivation theory.

McClelland, Atkinson and co-workers have developed a theory of achievement motivation wherein they posit the existence of an achievement motive or the need for achievement (Atkinson, 1964). In this conception, it is assumed that
in an achievement situation, i.e. a situation in which persons not only see themselves as responsible for a somewhat uncertain outcome but know that the outcome for which they are responsible will be evaluated against a standard of excellence — two conflicting predispositions will be energized: a motive to avoid success and a motive to avoid failure. These conflicting motives are assumed to be part of the person's enduring personal orientation and that the relative strength of these two motives will vary from person to person.

The empirical data that has accumulated over the years based on this theory, has been largely equivocal and the theory of achievement motivation has fallen from its former level of preeminence. The major criticisms that have been levelled at achievement motivation research may be summarized as follows: (see Weiner, 1972; also Maehr & Sjogren, 1971)

1) poor instrumentation for measuring the variables in the proposed models,
2) lack of cross-cultural generalizability of the "achievement motives",
3) confounding of the self-competitive and socially competitive variables; that is, are the behaviours of people who like to win (over others) being described, or simply, as is implied in the theory, are the behaviours of people who like to do well in terms of either external or internal standards being described?
4) lack of predictability for women using the proposed model, and
6) lack of practical applicability.

In short, the theoretical propositions which are logically implicated by the assumption of a "need" for achievement have not gained convincing empirical support. The whole notion of the existence of a "success motive" and a "failure
motive" has been thrown into serious doubt.

De Charms (1968) developed a theory of motivation wherein he suggested that the manipulation of the environment alone may determine "achievement motivation". Thus, the proffered "need" for achievement is actually a learned phenomenon rather than a basic or universal motive. Those who are impotent in controlling their environment are made to feel like "pawns" and they will therefore be less achievement oriented than those whose behaviours are instrumental i.e. are reinforced by the completion of a task.

In any case, whether or not striving for achievement is the manifestation of a "need" or is simply a learned predisposition, we note that certain people are high in "need achievement" while others show little desire to gain changes in their environment or otherwise attempt to achieve standards of excellence. Cast in the terms of the proposed typology, one would expect that the interventionist, who would be in the habit of having his instrumental behaviour reinforced by the effects he produces, would become high in "need achievement" and consequently see tasks through to their completion. Now, it has been amply demonstrated that those who are high in need achievement -- success oriented as opposed to failure threatened in the jargon of achievement motivation theory -- persist longer at tasks which are difficult and require effort and perseverance (Feather, 1962; Halisch & Heckhausen, 1977; Revelles & Michaels, 1976; Weiner, 1974). Accordingly, the interventionist personality may also be characterized by high behavioural persistence while the noninterventionist may show low perseverating behaviour.
Learned "Personality"

It is expected that those adults who are active, assertive, expressive and interventionist will influence their offspring to develop similar characteristics while their more passive, acquiescing and withdrawing counterparts are also expected to pass on these characteristics to their children. This proposition is derived from social learning principles (Travis, 1975) as enunciated by Bandura (1969, 1971, 1977) and by Bandura and Walters (1963). These researchers, together with their associates, have amassed impressive empirical evidence which demonstrates that behaviour can be modified through observational learning or modelling as well as by classical conditioning, operant conditioning, extinction procedures and discrimination training. Observational learning, otherwise labelled "imitation" and "identification" in other realms of psychology, is that process whereby one person reproduces the actions, attitudes or emotional responses exhibited by a real-life person or a symbolic model. A model that is especially visible, attractive, expressive, assertive, successful, prestigious, powerful, the recipient of adulation as well as other social reinforcers, is more likely to be emulated by an observer than would be a model who lacks these characteristics. The imitators of these models are those who are attentive, dependent, relatively ineffectual, emotionally labile persons who have been reinforced in the past for imitating the less introverted models described above (Bandura, 1977, p.22-29). Thus, observers who are dependent and who are relatively ineffectual tend to imitate models who possess rewarding power and who are observed to be more
competent and successful in procuring reinforcers that the observer is ineffectual in procuring for himself.

Such a relationship — powerful model and an ineffectual observer — is typified by the parent-child relationship. The child, vis a vis the parent, is dependent, passive, and ineffectual and hence is likely to reproduce those behaviours of the parents for which reinforcement is gained. Hence the children of wealthy, powerful, assertive and coercive parents who are the "shakers" and "movers" of the world, are likely to develop similar behavioural characteristics. Accordingly, we observe that the political activists in the late 1950's and the early 1960's were comprised of tiny elites who were the sons and daughters of parents that were generally wealthy, highly educated, politically and culturally critical (Travis, 1975, p.245). These qualities of the early activists were inherited (following social learning principles) from their parents who were regarded as being highly nurturant. And the less powerful and less socially assertive majority appear to reproduce themselves by passing on their passive and intra-psycho defensive styles to their offspring.

That children of economically advantaged circumstances are able to develop personalities unique to the wealthy, due to their privileged circumstances, is supported by Coles' (1977, 1978) extensive studies of affluent families. Coles (1977) insists that,

...wealth does govern the minds of privileged children, gives them a peculiar kind of identity which they never lose...There is, I think, a message that virtually all quite well-off American families transmitt to their children — an emotional expression of those familiar, classbound prerogatives, money and power (p.54)
Coles calls this emotional expression "entitlement" (1977, p. 55). When these children take their power and advantaged circumstances for granted, their social surroundings are assimilated and transformed into a psychological phenomenon.

In support of Coles contentions, Weinstock's (1967) empirical investigation can be cited. Weinstock shows that coping styles and adaptive techniques of children are closely related to the family circumstances. Furthermore, these early acquired "styles" may become relatively fixed aspects of the adult character structure. Passivity in the father in the early family environment results in the heavy reliance on denial and repression as coping styles of the children. Expressive coping styles of the father is likewise transmitted to the children.

Such evidence suggests then, that behavioural styles that are adopted by individuals are influenced by the family environment.

General Conclusions and Summary

From the foregoing discussion, several conclusion may be drawn:

1) A fully adequate understanding of human behaviour may be substantially advanced by further studying person-environment transactions,

2) Actual behaviour is a function of a continuous process of multidirectional interaction between persons and the situations which they encounter; and other people may comprise part of the situation,

3) Evidence from various sources indicates that two major "personality" types can be recognized at the most general level of analysis: a) transformational interventionist, and b) transformational noninterventionist,

4) In the realm of political activity, the transformational interventionist personality is usually associated with economic advantage, higher education,
and above average intelligence, and

5) Behavioural styles can be and are learned through two major ways:
   a) modelling effects, and b) through instrumental learning processes.

Other Characteristics that are Associated
   with Transformationalism

Research in other areas of inquiry is also helpful for providing
evidence as to which characteristics are associated with the interventionist
personality. As has already been mentioned, power derived from wealth
is such a characteristic. In our society, intelligence is also associated
with wealth. That is, it is widely recognized that intelligence as it is
generally conceived is strongly correlated with socioeconomic status (e.g.
Henderson, 1976). Although it is not altogether clear why people from
privileged circumstances generally appear to be more intelligent than others who
are not so privileged, Henderson (1976) argued forcefully that it is
probably these very circumstances that are responsible for higher intelle-
ligence. He concluded:

   ...it is due to their privileged position that
   people are intelligent... [and] they are therefore
   able to ensure that their children become intelligent
   (p. 148).

Furthermore, it is the advantaged classes that define intelligence and so
intelligence is defined in relation to those behaviours that the ruling
class holds as being important.

Related to both intelligence and socioeconomic status is achievement.
It is well understood that high achievers in educational settings are pre-
dominantly those from privileged economic conditions (e.g. Bowles, 1976;
Karier, 1973) who are also more intelligent than their less economically privileged counterparts. And of course, related to high achievement is behavioural persistence. The interventionist one might guess, is he or she who can persist at a task for long periods of time and pursue it to its completion with gusto and endurance, and so is more likely to achieve standards of excellence than is the noninterventionist who quickly gives up in the face of difficulty.

Finally, it is expected that there should be sex differences in the interventionist-noninterventionist personality dimension. Generally, males tend to be more active and domineering than females in controlling events which affect them (Bem, 1974; Shields, 1975). Breer (1960) (as cited in Argyle & Little, 1972, p.52) found that the variables of importance in predicting who would dominate whom in a social situation are: age, sex, and social class. Thus an older, more upper-class male usually dominates a younger, more lower class female. It is of course as yet unknown what kind of interactions will occur between sex and the interventionist-noninterventionist personality dimension.

From the foregoing broad formulations, a series of specific predictions can be made:

1) Two types of personality can be found or identified by distinct patterns of behaviour. These are: a) transformational interventionist, and b) transformational noninterventionist.

2) Interventionists will show higher behavioural persistence than will noninterventionists.

3) Interventionists will be more likely to actively engage in attempts to
control the parameters of situations in which they find themselves than will the noninterventionists who will be more passive and withdrawing.

4) The interventionist personality is associated with higher socioeconomic status.

5) The interventionist personality is associated with above average intelligence.

6) The interventionist personality is associated with above average achievement.

7) Sex differences exist in relation to this personality dimension.
CHAPTER IV

SUMMARY OF QUESTIONS AND RESEARCH DESIGN

The research hypothesis and experimental design are detailed in this chapter. But first, since throughout the foregoing discussion, several important questions and issues have either been implicitly or explicitly raised, it is appropriate to now list and summarize these issues and questions.

The Instrumentation Issue

The usual procedures of assessing personality has been to use either projective techniques or tests and questionnaires. As has been amply demonstrated throughout the proceeding chapters, these assessment procedures have not produced particularly useful sorts of data. In light of this, might it not be more productive to attempt to assess behaviour directly? That is, a useful alternative approach to the usual test and questionnaire assessment of personality may be the collection of "behavioural census" data in situations of particular interest. Since in this conceptual framework assessment is of behaviour per se rather than of hypothetical abstractions, the connection between theory and observations may be more readily made. In this way it may be possible to circumvent the measuremental difficulties which have heretofore bedevilled us. Accordingly, a solid data base collected within this theoretical framework may allow for more accurate and systematic predictions of behaviour. Analysis of the behavioural census data for each person may yield patterns, styles or order which have
been hypothesized but which have been extremely elusive when data has been gathered by indirect assessment procedures.

The Consistency-Specificity Issue

The data collected in conjunction with the "consistency-specificity" issue has been used to raise doubts about some of the assumptions central and fundamental to the trait position in personality psychology. This data however, has been, for the most part, data from tests and questionnaires in attempts to assess hypothetical constructs. The ensuing conclusions based on this data is that behaviour is largely situation specific. In one of the earliest studies carried out in relation to this question (Hartshorne & May, 1928; see Chapter II) a series of complex behaviours were observed in an attempt to assess a hypothetical construct called "honesty". In this study, the actual observed behaviours did not hold any interest in and of themselves but were used as "signs" and "tests" of "honesty". Based on their results Hartshorne and May (1928) concluded that "honesty" is largely situation specific. This study is representative of more recent studies (see Chapter II) which arrive at similar conclusions about behaviour based on the assessment of hypothetical constructs. However, such conclusions may be unwarranted since discovering that a theoretician's hypothetical construct (e.g. honesty, anxiety, aggression, and the like) doesn't show transsituational consistency still doesn't address the question of the consistency-specificity of behaviour per se.

In attempts to reconcile these recent developments in personality
research, a number of investigators (Endler, 1977; Endler & Magnusson, 1977; Rushton & Endler, 1977) suggest that the consistency of mediating or intervening variables depend on whether such variables are content, structural, or motivational in nature. In this formulation, content variables refer to situationally determined information (e.g. the content of anxiety arousing situations); motivational variables refer to motives, drives, needs and the like; structural variables refer to information processing variables such as intelligence. These researchers assert that structural variables show high transsituational consistency while content and motivational variables are situation specific. However, since behaviour, in relation to this issue, has been heretofore assessed only indirectly, one may very well ask whether this apparent situational specificity might not be an artifact of the measuring instruments used in relation to ill defined and vague hypothetical constructs rather than a general property of behaviour itself. Based on the usual indirect assessment procedures it has been concluded by some (see Chapter II) that behaviour is largely situation specific. To shed some light on this question, the obvious step is to assess some behaviours which are socially significant and of interest in their own right, directly, across varied situations. In this way an initial attempt to pursue the question of what kind of consistency-specificity evidence arises from direct assessment of behaviour can be made.

Based on casual observations and anecdotal information, Bem and Allen (1974) argued that behaviour manifested from underlying "personality traits" is somewhat more consistent across different situations than the data reported by some might suggest (Endler & Magnusson, 1977; Endler & Okado, 1975;
Mischel, 1968; Rushton, 1976). However, no convincing empirical data has been reported to substantiate these claims. Clearly, more behavioural census data of the kind described above is required.

**Personality as Behavioural Style**

Should this behavioural census data provide evidence to indicate that behaviour is not as situation specific as the indirectly collected data suggests, then this is a good base upon which to suppose that "personality" can be cast in terms of behavioural styles. Based on the kind of data that suggests that behaviour is highly situation specific, it would make little sense to attempt to assess personality in terms of behavioural styles since no such styles would be measureable. Should directly assessed behaviour however, indicate a fairly high degree of transsituational consistency, then it would be promising to attempt the assessment of personality in terms of behavioural styles.

In this conceptualization, the theoretical point of departure from trait psychology is small. Traits, rather than being cast in terms of such hypothetical constructs as altruism, honesty, anxiety, shyness and the like, which must, by definition, be measured indirectly, can be recast in terms of "styles" of behaviour. Styles of behaviour then, will be used as the units of personality description and assessment in personality psychology. These behavioural styles, since they can be observed and measured directly, may be more readily tied to theoretical formulations thereby avoiding the measurement difficulties inherent in traditional personality psychology.
More specifically, the propositions in Chapter III about the existence of the two categories of behavioural styles at the most general level of analysis -- i.e. transformational interventionist and transformational non-interventionist -- may be submitted to empirical tests. This kind of assessment procedure in terms of behavioural styles would allow for the observation, recording and classification of behavioural patterns within this framework that may eventually lead to the extrapolation of systematic patterns and empirical laws. In this way a solid data base upon which more accurate predictions can be made, might be generated.

The importance of providing such a data base is obvious. Not only may a more complete and precise understanding of human behaviour in general be gained, but also some light may be shed on the etiology of heretofore puzzling maladaptive behavioural patterns. King (1978) for example, stresses that in the absence of such a data base, the etiology of socially pathological behaviour may never be understood. Of special methodological concern in dealing with psychopathology is the whole issue of cross-cultural comparability. This issue has been dealt with mostly in terms of the assessment of personality by tests and questionnaires across various cultures. King (1978) concludes:

Can behaviour be predicted from any of these approaches? The answer is an unqualified no...We have only scattered islands of hard data based on sound procedures, fragments of uncoordinated valid information whose significance is obscure. So perhaps the first immediate implication is the need to correct the methodological problems now so pervasive in the literature (p.425-427).
A unified and comprehensive data base developed by assessing personality in terms of behavioural styles may be of valuable assistance in providing clues about the etiology of some pathological behavioural patterns.

In educational settings, a clearer understanding of contrasting styles of adapting to taxing situations would also prove helpful. An understanding of who does what and how much under a variety of conditions may allow us to determine the limits of situational determinants of behaviour. Educators however, have commonly presumed that motivational deficits are entirely remediable through alterations of the situations in which students are expected to learn. The evidence, together with the aforementioned insight that behaviour is an interactional function of the person and situation (see Chapter II) suggests that the educators' presumption should be studied critically. For no matter how we structure the situation, people seem to sort themselves in consistent patterns with regard to level of activity, interest, performance and achievement. For these reasons, it is necessary to directly study the person factor (in the person-situation function) more closely. A data base collected within this framework may lead to a better understanding as to the limitations of the customary practice of concentrating attention on the alteration and modification of environmental parameters with the assumption that motivational deficits are entirely remediable by such intervention.
The Questions

In any case, there are good reasons both from a theoretical and a practical point of view to investigate the transsituational consistency of directly assessed behaviour. The contrasting styles of adapting to taxing situations which have been discussed above and more thoroughly in Chapter III, appear to be related to or entail behavioural persistence. This proposition is, in part, derived from the work of Feather (1962) and Weiner (1974, 1972). These researchers have shown that, in the terminology of achievement motivation theory, subjects who are success oriented show consistently higher persistence of behaviour on tasks which they have either undertaken on their own or to which they have been assigned, than do failure oriented subjects (Weiner, 1972, p.241-247). The failure threatened subjects are more likely to give up on, and declare frustration with, tasks that are not easily completed or solved through relatively simple actions, than are the success oriented subjects who, in fact, when given a choice, prefer to undertake relatively more complex and difficult tasks (Weiner, 1972, 1974). Failure threatened subjects on the other hand, are more likely to prefer relatively simple tasks when given a choice among tasks that vary in degree of difficulty.

This evidence seems to be useful when considering the interventionist - noninterventionist personality dimension. The interventionists (some of whom may be success oriented) have, apparently, learned, both through exposure to successful models and because of the instrumental effects of some of their past behaviour, to undertake relatively difficult and
challenging tasks on which, they show high behavioural persistence. Conversely, the noninterventionists may not have had sustained exposure to successful models and may have had experienced generally negative instrumental effects consequent to much of their past overt behaviour, so that they have adopted a preference for simple and relatively nonchallenging tasks which do not require high levels of perseverance.

Behavioural persistence is also of interest in its own right because it is important in determining performance on difficult tasks (Cartledge & Milburn, 1978; Gilmor, 1978; Maehr & Sjogren, 1971, p. 147). Accordingly, since the persistence of behaviour appears to be related to, or be entailed in, the contrasting orientations to the environment which have been discussed above; and since it is of interest in its own right, this variable was chosen for investigation in an initial attempt to address the consistency-specificity issue by direct behavioural assessment.

Furthermore, it was suggested in Chapter III that a constellation of variables that may be associated with the transformational interventionist-transformational noninterventionist personality, can be explored. It was suggested that two important variables that seem to be associated with this personality dimension are achievement and abilities.

For the purpose of this study, the personality dimension that was conceived as being manifest in the contrasting styles of adapting to taxing situations, was behavioural persistence. Accordingly, it was expected that achievement and abilities should be positively correlated with high behavioural persistence.
That is, those subjects who show high persistence at a difficult task are expected to be those subjects who are above average in intelligence and above average achievers in school related work. Three basic questions then, were addressed:

1) What kind of data can be produced by direct assessment of behaviour in relation to the consistency-specificity issue?
2) What is the relationship between interventionist-noninterventionist behaviour (as manifested by behavioural persistence) and achievement?
3) What is the relationship between interventionist-noninterventionist behaviour (as manifested by behavioural persistence) and abilities (e.g., IQ)?

Questions of this nature might appropriately be addressed by an exploratory study of the consistency with which given persons exhibit behavioural persistence in different situations. Furthermore, such an exploratory study might provide a means of deriving some preliminary indication of the character of data large scale studies (entailing direct assessment of behavioural continuities and discontinuities across situations) might yield. Specifically, an exploration of the extent to which given children exhibited consistent patterns of behavioural persistence in three different situations was assumed to be a reasonable way of exploring the merits of undertaking large scale direct assessment studies of behaviourally defined personality dimensions. It was assumed that the extent of intrasubject consistency of behavioural persistence across three situations would be indicated by the extent to which intersubject rank order of behavioural persistence in each of these same three situations, was maintained.
When personality dimensions are behaviourally defined and directly assessed, we might expect to find indices of cross-situational consistency of behaviour to differ from the usual ±0.30 correlation indices yielded by studies entailing indirect assessment of personality dimensions of the more usual abstract sort. If such indices yielded by correlational analysis of the data from the present study are greater than ±0.30, we will take this as evidence that this exploratory study provides some justification for expending greater time, effort and resources on large scale studies designed to explore the viability of some of the ideas about the proposed interventionist-noninterventionist personality dimension.

Based on the foregoing discussion and the discussion throughout the preceding chapters, specific hypotheses are proposed.

Hypotheses

1) Direct assessment of behavioural persistence at difficult tasks across varied situations (described below) will produce correlation coefficients (the indices of intrasubject consistency described above) which exceed the typical ±0.30 coefficients produced by the usual indirect assessment techniques,

2) Achievement as measured by standardized achievement tests (e.g. the Metropolitan Achievement Test) will be positively correlated with behavioural persistence, and

3) Abilities (e.g. I.Q. as measured by the Goodenough-Harris Draw a Man Test) will be positively correlated with behavioural persistence.
METHOD

Subjects

A complete set of data for 22 of the 48 children enrolled in the second grade of a public elementary school in East Vancouver, was procurable. Due to absenteeism and failure to gain parental consent for subject participation in the study, only partial or no data was available for 26 children. However, since there was no apparent basis for suspecting a systematic effect of a unidirectional sort due to this sample size diminution, and since this initial study was an exploratory one, the complete data yielded from the 22 subjects was thought to be adequate for present purposes. Accordingly, only these 22 children (10 males and 12 females) were included in the study. The ages of the children ranged from 79 to 109 months with a mean age of 95.46 months and a standard deviation of 6.79 months.

Outline of Procedures

All Ss were: a) tested for a measure of intellectual ability, and b) exposed to three different situations wherein an index of behavioural persistence was procured for each S.

Situation 1

A pencil and paper maze puzzle was administered to all Ss as a group. Each S was to trace a line beginning at the "start" through the appropriate channels to arrive at the "end". The maze was judged by both the regular classroom teacher and the two experimenters present, to be too difficult for the Ss. This assumption was supported by the fact that no Ss successfully completed the maze. The following instructions were given to the Ss:

"Here is a puzzle I would like you to try and solve. The puzzle you have is like this one (indicating a large version of a similar maze at the front). You start here (indicating the start) and trace along the paths to
the centre where you will find the treasure. These are fences and these are gates. You can only go through a gate but not through a fence. Can I go here (indicating a solid line)? Can I go here (indicating a space between the lines)? Now watch carefully as I find the treasure in this puzzle. I would like you to find the treasure on your maze. When you have found the treasure on the first maze or when you have tried your best to find the treasure, turn the page over and try to find the treasure on the second maze".

Time working on the first maze, operationally defined as terminating when the page was turned over (a different maze was printed on the reverse side of the page), was taken as an index of behavioural persistence. Two experimenters, each with a stopwatch and a seating plan of the classroom, recorded the time to termination of task for each S.

Situation 2

Each S, in a private room with only experimenter A present, was asked to solve a wire puzzle. The solution of the puzzle occurred when two metal rings were taken apart. This puzzle was also judged to be difficult beyond the Ss's capabilities and this assumption was again supported by the fact that no Ss successfully solved the puzzle. The following instructions were given to each S:

"Here is a sheet of paper (Goodenough-Harris Draw a Man Test). On the paper I would like you to fill in the blanks with your name, whether you are a boy or a girl, your age and your birthday". After the child had completed the task as described, the experimenter proceeded with
the following remarks: "On this page I would like you
to draw a picture of a man. Draw the best man that you can. But first I
would like you to try and solve this puzzle. Now watch carefully as I take
the rings apart. See how easy it is! I will put them together again. Now
once more -- here is how they come apart. See, I didn't force them or bend
them. You must not force them because that is cheating. They come apart
easily if you do it right. Remember no forcing. When you have taken the
rings apart or have tried your best to take them apart, put them down here
and go ahead and draw the picture of the man".

Time attempting to solve the puzzle was operationally defined as begin­
ning when Ss were handed the rings and terminating when Ss put them down.

Situation 3

Each S, in a private room with only experimenter A present, was asked
to reproduce, to the best of his capabilities, a printed colour picture. The
following instructions were given to each S:

"I would like you to listen to a tape on this cassette recorder. There
are funny jokes and music on the tape. I would like you to listen to the
music and the jokes and then tell me if you like them. But first, I would
like you to draw a picture. Here is a picture in this book that I would like
you to draw. We are having a contest to see who can draw a picture that
looks the most like this one. The child who draws a picture that looks most
like this one will win a surprise prize. Here is a sheet of paper and here
are some crayons. When you have drawn the best picture that you can, you can
listen to the tape".

Time on task was taken as an index of behavioural persistence and was
operationally defined as beginning when Ss put the crayon on the paper and terminating when Ss declared completion.

The Metropolitan Achievement Test

Scores on the Metropolitan Achievement Test which was administered to the Ss shortly after the procedures outlined above were carried out, were procured from the school records.

Analysis

Scores of behavioural persistence (as defined above) were procured for each S in situation 1, situation 2, and situation 3. From this a mean persistence score (MPS) was computed for each S. The aggregate scores across the three situations were then intercorrelated using the Pearson product-moment correlation coefficient.

Scores obtained from the Metropolitan Achievement Test (ACH) were correlated (Pearson product-moment correlation coefficient) in turn to situation 1 scores (S1), situation 2 scores (S2), situation 3 scores (S3) and MPS scores. Similarly, scores from the Goodenough-Harris Draw a Man Test (IQ) were correlated to S1, S2, S3, and MPS scores. In addition, descriptive statistics (mean, mode, variance, standard deviation, skewness, kurtosis and range) for age, ACH, IQ, S1, S2, S3, and MPS were calculated.

The correlation coefficients produced when S1, S2, S3, were intercorrelated were taken as indices of transsituational consistency.
CHAPTER V
RESULTS AND DISCUSSION

This final chapter is broken down into two major parts -- a presentation of the results followed by a discussion. The results are presented in two parts. In both parts the Pearson product-moment correlation coefficient was used to assess the significance of the findings. This parametric statistic was used for two reasons. First, the purpose of the analysis was to ascertain the degree of covariation that existed between particular variables and second, there were no reasons to suppose that the variables were related in other than a linear manner.

Part one is an evaluation of the first hypothesis in terms of an analysis of the "persistence" data across the three situations. Part two is an evaluation of hypotheses two and three in terms of an analysis of the data from the Metropolitan Achievement Test, the Goodenough-Harris Draw a Man Test, and the persistence data across the three situations. A mean persistence time for each S was calculated from the three persistence scores. The descriptive statistics for all the variables are shown in Table I.

Analysis of Data, Part One: Evaluation of Hypothesis One

The first hypothesis predicted that correlation coefficients obtained by examining data from direct behavioural assessment of behavioural persistence across 3 situations, would be greater in magnitude than the typical ±0.30 correlation coefficients produced by the usual indirect assessment procedures. The intercorrelation matrix produced from the data obtained in situation 1 (S1), situation 2 (S2), and situation 3 (S3) is shown in Table II.
<table>
<thead>
<tr>
<th></th>
<th>Metropolitan Achievement Test</th>
<th>Goodenough-Harris Draw-a-Man Test</th>
<th>Age (months)</th>
<th>Situation 1 (seconds)</th>
<th>Situation 2 (seconds)</th>
<th>Situation 3 (seconds)</th>
<th>Mean Time (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.2</td>
<td>98.46</td>
<td>95.46</td>
<td>357.91</td>
<td>536.86</td>
<td>1223.41</td>
<td>706.72</td>
</tr>
<tr>
<td>Variance</td>
<td>0.44</td>
<td>555.21</td>
<td>46.07</td>
<td>58209.89</td>
<td>819522.0</td>
<td>13222.7</td>
<td>258117.63</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.66</td>
<td>23.56</td>
<td>6.79</td>
<td>241.27</td>
<td>286.27</td>
<td>114.99</td>
<td>508.05</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.22</td>
<td>-0.22</td>
<td>-0.15</td>
<td>2.05</td>
<td>1.29</td>
<td>1.79</td>
<td>1.61</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-0.51</td>
<td>-1.09</td>
<td>0.81</td>
<td>5.31</td>
<td>0.51</td>
<td>2.83</td>
<td>1.78</td>
</tr>
<tr>
<td>Range</td>
<td>2.37</td>
<td>82.00</td>
<td>30.00</td>
<td>1102.0</td>
<td>952.0</td>
<td>4013.00</td>
<td>1773.0</td>
</tr>
</tbody>
</table>

*n = 22
Table II
Intercorrelation Matrix of Persistence Data*

<table>
<thead>
<tr>
<th>Situation 1 (Maze)</th>
<th>Situation 2 (Puzzle)</th>
<th>Situation 3 (Picture)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.81</td>
<td>.48</td>
</tr>
<tr>
<td>Situation 2 (Puzzle)</td>
<td></td>
<td>.56</td>
</tr>
<tr>
<td>Situation 3 (Picture)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*n = 22
These data clearly indicate support for the first hypothesis. The difference in magnitude of the correlation coefficients is worth noting. It is not surprising that the correlation between situation 1 data and situation 2 data is the largest in magnitude since the tasks in situation 1 (maze) and situation 2 (puzzle) shared unambiguous terminal solutions or ends whereas the task in the third situation (picture) was not so clearly one which was unequivocally and unambiguously dissolved through relatively simple actions. Nevertheless, these data clearly indicate support for the first hypothesis and the transsituational consistency of behavioural persistence in relation to the situations as designed is remarkable when compared to the usual indirectly produced data. The major parameters which describe the situations and their contrasting differences and similarities are shown in Table III.

Analysis of Data, Part Two: Evaluation of Hypotheses Two and Three

The second hypothesis predicted that achievement as measured by the Metropolitan Achievement Test would be positively correlated to the acquired index of behavioural persistence. The third hypothesis predicted that intelligence as measured by the Goodenough-Harris Draw a Man Test would also be positively correlated with the acquired index of behavioural persistence. The intercorrelations between achievement (ACH), intelligence (IQ), S1, S2, S3 and mean persistence time (MPT) are shown in Table IV.

None of the coefficients are impressive. Neither of these two hypotheses were clearly supported. This fact may be explained by two considerations: 1) The subjects were very young (mean age = 95.46 months) and accordingly, their behavioural persistence "style" may not as yet have become integrated
Table III

Situational Parameters

<table>
<thead>
<tr>
<th>Situation 1</th>
<th>Situation 2</th>
<th>Situation 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group administered</td>
<td>Individually administered</td>
<td>Individually administered</td>
</tr>
<tr>
<td>Maze (Clear terminal solution)</td>
<td>Puzzle (Clear terminal solution)</td>
<td>Picture (No clear terminal solution)</td>
</tr>
<tr>
<td>Two experimenters and teacher present</td>
<td>Experimenter A present</td>
<td>Experimenter A present</td>
</tr>
<tr>
<td>No incentive</td>
<td>No incentive</td>
<td>Incentive (listen to music, prize)</td>
</tr>
<tr>
<td>S in regular classroom seats</td>
<td>S in private room</td>
<td>S in private room</td>
</tr>
<tr>
<td>Pencil and paper task</td>
<td>Not pencil and paper task</td>
<td>Pencil and paper task</td>
</tr>
</tbody>
</table>
Table IV
Intercorrelation Matrix of Persistence Times, IQ and Achievement*

<table>
<thead>
<tr>
<th></th>
<th>ACH</th>
<th>IQ</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>MPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACH</td>
<td>—</td>
<td>.35</td>
<td>.04</td>
<td>.31</td>
<td>.24</td>
<td>.23</td>
</tr>
<tr>
<td>IQ</td>
<td>—</td>
<td>.23</td>
<td>.14</td>
<td>.30</td>
<td>.21</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>—</td>
<td>.81</td>
<td></td>
<td>.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td>—</td>
<td></td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*n = 22
with respect to their abilities and achievement. To probe the validity of this interpretation it will be necessary to conduct similar transsituational behavioural persistence studies with older subjects.

2) The validity of the intelligence data from the Goodenough-Harris Draw a Man Test is suspect. This assertion comes from two considerations: a) the test was administered in an unusual fashion in that the children undertook another task between the time instructions for the Draw-a-Man Test were given and the time when the actual drawing was done, and b) the IQ scores correlated only 0.35 (Table IV) with the achievement data -- an unusually low correlation for these variables. Furthermore, the scores from the Goodenough-Harris, indicated that 3 of the subjects would be classified as profoundly retarded while 6 more would be classified as mildly retarded. All these subjects however, scored above their grade level on the Metropolitan Achievement test and reports from the classroom teacher indicates that these subjects are normal in their intellectual functioning. These facts indicate that the data from the Goodenough-Harris are probably invalid. In any case, neither hypothesis three nor hypothesis 2 gained any clear-cut support.
Discussion

The present study was an attempt to develop the thesis that received personality theories and their respective measurement models have not shown themselves to be very fruitful as bases for research, and that an alternative approach is both called for and contrivable. This problem was addressed in three parts. The first part was an attempt to outline, delimit and analyze the major conceptual and methodological problems that are inherent in the trait and psychodynamic positions. The second part was an attempt to develop the argument that a more useful and fruitful approach to personality study may be found through the direct assessment of behaviour. It was conjectured that such behavioural census data may yield behavioural "styles" which might comprise the rudiments of a reconceptualized personality typology. The third part was an empirical investigation designed to explore further the "consistency-specificity" issue in terms of behaviour which is directly assessed.

The results of the empirical investigation indicate that the conclusion that behaviour is largely situation specific (Argyle, 1975; Argyle & Little, 1972; Endler, 1973, 1975, 1976, 1977; Mischel, 1968, 1973a; Pervin, 1968) may be premature due to the nature of the data produced by the usual indirect assessment procedures. Clearly, at least the personality variable investigated in this study (behavioural persistence) shows much higher trans-situational consistency than would have been predicted based on the data collected in conjunction with the trait and psychodynamic models of personality. The apparent specificity of behaviour that has shown up from these kind of data may be, as has long been suspected (e.g. Wallach & Legget, 1972), artifacts
of the pencil and paper and projective assessment techniques. Thus, there is not only a theoretical basis for attempting to assess personality by direct observation of behaviour, but there is now also a modest empirical basis for supposing that behaviour itself may show much higher transsituational consistency than some of the data that has been reported heretofore, would suggest.

Furthermore, predictions based on the Endlerian scheme of personality (Endler, 1977; Magnusson & Endler, 1977; Rushton & Endler, 1977) would have suggested that behavioural persistence across the three situations outlined in this study, would show little transsituational consistency since persistence on these tasks was supposedly determined by content and motivational variables which, according to this conception, should be highly situation specific. Clearly, the jury is still out on such matters and the adequacy of the Endlerian scheme must await further investigation especially of the type discussed in this paper.

At least three conclusions are warranted on the basis of this study.

1) Behaviour may be much less situation specific than the data produced by indirect assessment of personality based on the trait and psychodynamic models might suggest.

2) Actual human behaviour is a function of a continuous process of multi-directional interaction between persons and the situations which they encounter. That is, behaviour is an interactional function of person and situation factors. Accordingly, an adequate understanding of human behaviour might be advanced by simultaneously examining both the person
and situation factors. In this way, it may be possible to explain the nature of the interactions between situations and persons and how these interactions occur psychologically. This is a monumental task because unfortunately, the clarity of our understanding of both persons and situations is less than brilliant.

3) Attempts to understand the person factor in the interactional unit has heretofore, relied for the most part, on the psychodynamic and trait models of personality. As a result of the indirect assessment procedures that have been used to study the person, we have only a vague and unreliable understanding of the person factor. To gain a clearer understanding of the person factor, we might more profitably focus our attention on studying relevant and socially significant behaviours directly so that a better description of the morphology of personality may be achieved. One possibility to accomplish this goal may be to recast personality in terms of behavioural "styles" -- perhaps in terms of the transformational interventionist-transformational noninterventionist dimension as proposed. Within this theoretical framework, behaviour can be studied directly. Thus, "behavioural styles" would replace traits as the units by which personality is to be described and assessed. Only further empirical investigation can shed some light as to the promise held in this approach.

Unfortunately, for the empirical investigation carried out in this study, no specific socioeconomic data was available for the subjects. However, to begin to explore the kinds of relationships about behavioural
persistence and socioeconomic status, it will be necessary to procure
detailed S.E.S. data for subjects participating in "behavioural census"
studies of the kind described in this thesis. A contrasting examination
of subjects from the extreme ends of the S.E.S. distribution in relation
to behavioural persistence, may prove particularly interesting.

To summarize then, the investigation carried out in this study indicates
that assessment of personality in terms of directly observable behaviour
may be promising. The next step must be the systematic observation and
classification of human behaviour which is socially significant in
situations of particular interest. Admittedly, this is no easy task,
but in this way as Skinner noted, we may return to the "straight and
narrow path" towards a science of human behaviour from which we have
been diverted, and possibly gain "the better understanding we so
desperately need" (1975, p. 42).
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