The methodology discussed is used in ongoing research to contrast the effectiveness of several patterns of parental authority with the same children at different ages. The first characteristic of these methods is the use of trait and behavior ratings to assess dispositional tendencies. The construct of a dispositional trait is used to account for continuity and stability within the personality. Situation, particularly a laboratory setting, can strongly affect behavior, but the extent to which an individual's behavior is situation-specific is itself a dispositional property. The validity of ratings partly depends upon the observer's ability to project himself into the position of the subject. The second characteristic of this methodology is the use of multiple stimuli and behavior settings. The three measures used here are self-report, interview and observation. Self-report avoids the problem of observer reactivity, but not of response set. Interview is useful in conjunction with observation; the symbolic meaning to the parent or child of the observed behavior is explored. The observational procedures used are laboratory experimental procedures, structured observations, and naturalistic observation. Safeguards to protect against bias in naturalistic observation are: explication of expectations in clear hypotheses, definition of hypothetical constructs, direct confrontation during data collection in which staff members correct each other's biases, and use of overlapping and intersecting sources of data. (KM)
Introduction

The objective of my ongoing program of research is to contrast the effectiveness of several patterns of parental authority with the same children at different ages. This talk will focus upon metamethodology and methods rather than findings since conclusions concerning these children at ages 3 and 4, and their parents, have been fully reported (Baumrind, 1971a, 1971b, 1972) and data at ages 8 and 9 are just now being collected. There are two characteristic features of the methodology employed and it is these that I will discuss: first, trait and behavior ratings are used extensively; second, the individual is observed frequently, over time, with multiple stimuli and in many behavior settings in order to broaden the bases for rater judgments, a strategy which Denzin (1970) calls Multiple Triangulation. These features follow from the view that a study of human socialization should focus on what is uniquely human to Man's experience: first, that man is strongly affected by the symbolic meaning he gives to things and events. To quote von Bertalanffy: "The monopoly of man is the creation of symbolic universes in language, thought, and all other forms of behavior. Man's unique position in nature is based upon the predominance of symbols in his life (1959, p. 68)." A scientific understanding of a man's actions must

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include, although not be restricted to, his comprehension of that activity. Second, that man is consciously concerned with defining his essence, in developing a sense of ego identity. "The sense of ego identity," to quote Erikson, "is the accrued confidence that the inner sameness and continuity prepared in the past are matched by the sameness and continuity of one's meaning for othe-rs (1972, p. 26)." Third, that man alone among living beings is centrally motivated to experience himself as the cause of his actions. Man is characterized by what Heider (1958) and de Charms (1968) call personal causality and Brehm (1966) calls psychological reactance.

Individuals differ in the degree to which they can be characterized by each of these three uniquely human qualities. A broad range of experimental settings will facilitate the identification of these individual differences.

**Traits and Trait Ratings**

I will now discuss the first salient feature of the methodology employed in this program of research, namely, the use of trait ratings to assess dispositional tendencies.

1. **Trait Definition**

By *trait* I refer to a relatively enduring characteristic of an individual manifested within a broad range of circumstances by means of which he can be distinguished from another. The construct of a dispositional trait is used to account for continuity and stability within the personality (Emmerich, 1964) and does not require that the characteristic referred to be invariant, except within certain stateable conditions.

Individuals should differ in the stability of their trait ratings, depending upon their age, malleability, and history. The sources of inner sameness or continuity within an individual personality which are called his identity develop in relation to certain stimulating conditions. They are not fixed during the preschool years; new conflicting stimulating experiences may well affect their future status. To that extent that the
individual is not old enough to have developed a sense of identity or suffers from identity diffusion, such opposing environmental forces may dramatically alter his personality structure. Traumatic experiences such as the death of a loved one should threaten the stability of most children. An adult with a highly developed sense of identity might remain intact when threatened by a series of traumatic events where a child could not.

Children differ in the ease with which their characteristic previous responses can be altered by an abrupt change in reinforcement contingencies. Thus, we noted that the small subgroup of children whose parents reward tantrum behavior in the home appeared aggressive in the home setting but became subdued, even ingratiating, when exposed to a traditional school setting where their means-end expectancies were disconfirmed. By contrast, there were children observed whose aggressive or friendly behavior generalized across settings characterized by opposing reinforcement contingencies; these children seemed motivated to resist actively contingency management and to preserve their behavioral freedom, the motive referred to by Brehm (1966) as psychological reactance.

Not until the child reaches the cognitive level of formal operations should certain dimensions which may show high structural continuity in adulthood emerge as factorial entities. Thus, in adolescence, I would look for the emergence of such dimensions as: (1) the consciousness-subconsciousness dimension which would measure to what extent the individual examines the premises of his own behavior and invests his activities with symbolic meaning; or (2) the coherence-incoherence dimension which would measure to what extent the individual represents himself as a unified, coherent, stable whole with a self-defined individuality and identity. Similarly, true
autonomy or self-sufficiency cannot possibly characterize the actions of the preschool child. What we choose to call independence at age 3 and age 18 probably reflect quite disparate dispositional properties within the individual.

George Kelly (1955) made the important point that men construe themselves using different templets. While the observer must rate the subject in terms of a theoretical construct which has meaning to him as a scientist, e.g., aggression or delay of gratification or dishonesty, he must also be aware that there are variations in the way subjects construe reality and not all may mesh equally with the investigator's theoretical constructs. For the subject's unique disposition to become manifest, the observer will be required to observe him carefully in many situations. For example, suppose the observer's task is to rate each child on the trait aggression. One child is aggressive in the sense that he resists domination from stronger children. A second child resists domination by other children and is aggressive only in the presence of bullies and intruders capable of interfering with his ongoing activities. Towards weaker children, he may be protective. A third child is aggressive across most behavior settings; he will go after what he wants whether the other is weaker or stronger, friendly or unfriendly, adult or child. Were each child to be observed in a variety of situations and behavior settings, by a highly discriminating observer, his behavior might well be predicted reliably as aggressive or bullying or resisting domination. In an experimental situation or brief period of observation, the way these various children discriminate among eliciting stimuli in the service of a personal motive might not be noticed although each child's behavior is probably quite predictable to his agemates, who are attuned to context by
their personal needs.

There are features of the test situation which affect its power as a determinant. Settings which are nonpermissive or deceptive, or which are peculiar, unfamiliar, and ambiguous in their demands, or which place the individual in externally defined moral or cognitive dilemmas should increase the power of the situation to affect behavior. The laboratory setting in which much social experimentation takes place frequently possesses the above characteristics and may result in the impression (Mischel, 1968) that the crucial determinants of behavior are situational where observation in natural settings would not. I conclude from observation in multiple settings that the extent to which an individual's behavior is situation specific is itself a dispositional property, but that in general when the situation changes, the individual adjusts his acts in order to achieve the same end. It is the ends which the observer must focus upon and not the acts if he is to understand the subject's perspective and thus describe him reliably using trait ratings. These ends are personal to the subject so that similar acts may lack functional equivalence and dissimilar acts possess functional equivalence.

2. Objectivity of Trait Ratings

This brings us to a consideration of the objectivity of trait ratings. If by objective is meant existing independently of the mind of the rater, trait ratings are not objective. It should be noted, however, that the positivist Bridgman defines knowledge achieved through projection and intuition as objective. To quote Bridgman:

"I 'project' myself into your position, that is, I imagine myself in
your position, and I ask myself what I would be saying or doing in such a position. . . . It is natural to think that the ability to perform the operation (of projection) is the product of evolutionary pressure. . . .

It is what a physicist would call a first approximation. . . . We correct the operation of projection by using the specific knowledge that we have acquired of the particular individual with whom we are dealing. If our acquaintance with the individual has been intimate and prolonged, we know intuitively what to expect of him. . . . (1959, pp. 220-221).

This process is akin to what Polya (1968) calls "tacit knowing," and which he claims underlies scientific discoveries as well as ordinary perception.

The validity of ratings depends to some extent upon the role-taking ability of the observer, that is, upon his ability to project himself into the position of the other in order to identify the intended result from the person's constantly varying acts. The human mind is both source and object of knowledge in psychology. The anthropomorphic approach to the study of persons is appropriate and informative, while the zoomorphic approach, in which man is depicted with only the characteristics of subhuman species, is not. The human observer, unlike a machine, is capable of discounting acts produced by a fleeting mood, and of equating different acts which produce the same result. He uses projection and triangulation to help him calculate what he cannot palpate. However, rater judgements are not subjective in the sense that the bases on which these calculations are based may remain private. The rater must be able to communicate to another the evidence on which his ratings are based.
For him to do this, the rating items must be extremely well defined. Each item should be tied at one end to a theoretical construct, and, at the other end, to concrete specific behaviors typically elicited in each specific behavior setting.

**Multiple Triangulation**

The second central feature of the methodology employed in this program of research is its use of multiple stimuli and behavior settings, or what Denzin calls multiple triangulation. No research method can assess all aspects of the empirical reality under investigation, and each has its characteristic strengths and weaknesses. Within the limits of a given budget, an attempt should be made to assess numerous aspects of the subject's psychological reality. Subject characteristics interact with those of the behavior setting. Observers and investigators screen selectively on the bases of personal preference, training, life history, and theoretical orientations. A contingent means of triangulating one's course through the psychological reality of the subject must be devised. The measures used in this investigation can be divided conveniently into three categories depending upon which aspect of the psychological reality of the subject is being observed: (a) Self-Report; (b) Interview; and (c) Observation.

(a) **Self-Report** taps the symbolic nonreactive aspect of the subject's reality. Self-report avoids the problem of observer reactivity, but not of response set. Self-report measures included in this study were Rotter's Internal vs. External scale (1966), Hogan's Survey of Ethical Attitudes (1970), Crandall's Intellectual Achievement Responsibility
Questionnaire (Crandall, 1969; Crandall & Battle, 1970), and Social Desirability Scale (Crandall, Katkovsky, & Crandall, 1965), and an ad hoc test in which parents rate themselves, their spouse, and their ideal self on the fifteen theoretical constructs of parent-child interaction. We have continued to use a self-report inquiry because of the aforementioned advantages, although self-report is the method least acceptable to subjects, particularly to those who most value self-determination. Self-report cannot replace interview or direct observation, but may add a valuable perspective.

By contrast, the method most acceptable to our subjects was exploration of the symbolic interactive aspect of his psychological reality through (b) interview. Interview has been roundly criticized, with justification, as a means of obtaining retrospective reports concerning the parent's own behavior or, worse still, the child's behavior. Parent and child behavior should be observed, but the symbolic meaning to the subject of the observed behavior should be explored in interview. The interactive nature of the interview stimulates the respondent to think through his cosmology and provides a rewarding intimate experience for both participants in which the observer has the opportunity to experience directly the interpersonal impact of the subject. In this study, parents' socialization practices, political views, and personal aspirations are probed during a three-hour interview. Additionally, by interviewing the parents after the home visits are complete, it is possible to use the parents' perspective of these events to supplement that of the observer. A one-hour personal interview with the child focuses on his attitudes to school and family, his self-definition, and his likes and
dislikes. There is, in addition, a moral judgement interview for each parent and child using Kohlberg's approach. During both interviews, the interviewer confronts the belief or line of reasoning presented by the subject with a plausible antithesis. This limit testing helps the observer to differentiate source from surface beliefs, and to evaluate the level of the respondent's reasoning.

The behavioral aspect of the subject's reality is assessed by (a) observational procedures which place varying constraints on subjects' behavior; these range from laboratory-experimental procedures, which are most constraining, to naturalistic observation, which is least constraining.

Experimental events in laboratory-experimental procedures occur at the discretion of the experimenter; competing sources of variance are controlled in order to exclude rival causal factors. However, laboratory manipulations frequently reduce the validity of observation by these controls. Laboratory experiments in which events occur at the discretion of the experimenter may reveal how the subject reacts when he is part of an externally caused sequence of events rather than the source; he may acquiesce to or he may attempt to cancel the effects upon him of the experimentally induced controls. Naturalistic methods, by contrast, should stimulate neither an acquiescent nor a reactant set. Normally, men define their own ends and, to a lesser extent, the means which they use to achieve these ends. In situations where this is done for them (especially when the rules of the game are unilaterally determined and novel) the meaning of the experience to the participants is transformed,
usually in unknown ways and with unknown effects, thus limiting the applicability of findings to complex social reality. Psychological tests pose similar problems. Measures of creativity, for example, appear affected in important ways by the experimental instructions and setting. In using the Wallach and Kogan instructions (1965) intended to produce a spontaneous, playful attitude, we have been unable so far to convince many of our bright subjects that the creativity measure is not a test, which of course it is. While frequency, an index of creativity highly related to IQ, is less affected, originality and flexibility appear to be much affected by the test instruction and setting. We continue to use this test of creativity, however, because, while spontaneous expressions emitted during play are undoubtedly more representative, they are much harder to obtain and evaluate. On the other hand, test procedures such as the Witkin Rod and Frame Test and the Stanford-Binet IQ tests seem to involve subjects, and may generalize more highly from the experimental to the natural setting.

Structured observations introduce fewer constraints than experimental procedures, and those which are introduced are intended to be experienced by subjects as unobtrusive and natural. The investigator devises a standard set of arousal stimuli designed to elicit theoretically relevant but typical modes of interaction within a given time period. Thus, when parents in our study are asked to teach their children difficult concepts of conservation of matter in a playroom setting, the situation has been structured to stimulate parent-child conflict whose resolution can then be observed. By deciding in advance on general categories of behavior,
the investigator can then concentrate his observations upon instances of behavior which fit these categories. If structured observational situations are videotaped, as they are in this study, the construction of specific coding categories for sequential analyses can be left until later. In this study, two such situations were devised to assess child behavior, and two to assess parent-child interaction. The parent-child situations consist, first, of a teaching situation in which the mother is asked to use materials we provide to teach the child concepts of conservation of quantity, weight, and volume in the playroom setting. In addition to the contrived distractions which the playroom setting introduces, most parents do not realize that the concept of conservation of volume is not one already well-established in the minds of their 8-year-old children; disharmony of expectations is thus produced by the experimental task. The second structured parent-child observation involves the mother, father, and child in a three-way discussion of two of the ethical dilemmas to which each participant has already responded. Once again, most parents are surprised to discover that there are sharp discrepancies between their child and themselves in the reasoning used to justify a judgement, even when the judgement is the same. Participants must then handle during the discussion the effects on communication of these different levels of reasoning.

Naturalistic observation is the least constraining assessment at the behavioral level. While the experimental situation is characterized by unfamiliarity of people, setting, and stimuli, the natural setting is familiar. The normal power relations between participants can be observed
in the natural setting, while in the laboratory setting the normal balance is upset by the experimenter and his instructions. In the natural setting, the subject has an *investment* in what he is doing, while in the laboratory he may not. As we are concerned with the ways in which subjects are instigators of their own actions, naturalistic settings are essential loci of observation. In the naturalistic setting, as in the interview setting, the observer has direct, if vicarious, access to the social phenomena he is observing. In this study, parent-child interactions are observed in the home during two three-hour evening visits. The child's school was selected as the natural site in which to observe his behavior. Three visits, each of at least three hours, are made to each child's classroom; in addition, the child's teacher is interviewed in an effort to help the observer interpret the representativeness of what he has observed. Naturalistic observation, like all other methods, has serious limitations. It is expensive, arduous, and requires great skill and tact on the part of the observer. As a result of being self-conscious, the child, with increasing age, interacts less naturally with his parents, thus reducing the special usefulness of naturalistic observation in the home.

**Experimental Objectivity**

The experimental paradigm, by comparison with naturalistic observation, offers an efficient and precise format, with the important advantage that findings can more easily be replicated and in that sense are more objective. However, when results are generalized to include real life settings, the bases on which this is done may well rely on an
entirely subjective estimate of the comparability of the two settings. Moreover, the assumptions of the experimental paradigm are seldom met by social science that is: (a) human beings, although treated as interchangeable, are not; they are instead affected selectively by the experimental conditions; (b) so-called independent and dependent variables are really interdependent and thus contaminated; and (c) the relationship between variables is seldom the same for all subjects, so that only certain subjects may be responsible for the positive findings. What principle explains those who are not?

Scientific safeguards such as the following protect against bias in naturalistic observation, although they are not intended to (nor could they) meet behaviorist criteria of objectivity:

(1) The explication of foreknowledge or prescience in which expectations concerning findings, where they exist, are made explicit by clearly formulated hypotheses, in order that they may be falsified and corrected by the data.

(2) The precise definition of hypothetical constructs, both conceptually and operationally, so that the critical reader of a scientific report knows exactly how the terms in the result section are being used.

(3) Direct confrontation and feedback during the process of data collection, in which staff members with diverse views and from different disciplines expose and correct each other's biases throughout the period of data collection and analyses, and bring the perspective of subjects directly to the attention of the investigator.

(4) The use of multiple, overlapping, and intersecting sources of data so that the object of investigation can be known in the round and
on many levels. Since each method distorts certain aspects of reality while clarifying others, a valid picture can best be achieved by employing multiple methods to analyze the same empirical events.

There is no strategy of research in the behavioral sciences which can eliminate the investigator's subjectivity in the sense of his involvement with the object of his inquiry. Many current philosophers of science, such as Polanyi (1958), von Bertalanffy (1959), and Harré (1972) reject positivism with its insufficient view of Man as a passive and finished object, and of the scientist as a neutral inquirer into what is, rather than what can be. These philosophers of science affirm the importance of personal knowledge as a guide both to observation and interpretation, and claim that the elimination of personal participation in the process of gaining knowledge is neither possible nor desirable. Man, who is the object of inquiry, is seen as a purposive, motivated, moral being engaged in the effort of self-construction. Man as psychologist is seen as a purposive, motivated, moral being engaged in the effort to understand the psychological reality of those he studies, so that he can master those aspects of social reality which have the most meaning to him. Scientific meaning dictates the investigator's choice of methods, measures, constructs, and hypotheses, and is contained in his inferences and interpretations. The scientist's perspective guides his selections from among the indefinitely large number of properties of an object, those which he regards as most worthy of being known. The purpose of his research activities is to partially confirm, correct, or falsify his initial hypotheses. The research endeavor is the means by which the scientist transcends his subjective experience and differentiates the universal from the idiosyncratic aspects of his personal knowledge.
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