1982

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©Academy of Management Review 1982, Vol. 7, No. 3, 380-391

An Idiographic Approach to Organizational Behavior Research: The Use of Single Case Experimental Designs and Direct Measures[1]

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The underlying assumptions of the dominant nomothetic (group-centered, standardized, and controlled environmental contexts, and quantitative methodologies) and idiographic (individual-centered, naturalistic environmental contexts, and qualitative methodologies) research perspectives are examined. An interactive theoretic (i.e., real people interacting in real organizations) for organizational behavior is suggested—a theoretic assumption that lends itself to an idiographic approach. Intensive single-case experimental designs and direct observational measures are proposed as a potentially powerful methodology for idiographic research of organizational behavior.

More than 40 years ago Gordon Allport introduced the terms *idiographic* and *nomothetic* to represent two perspectives and methodologies for doing research in psychology. He borrowed the terms from the neo-Kantian philosopher Windelband and defined them as follows:

> The nomothetic approach...seek only general laws and employ only those procedures admitted by the exact sciences. Psychology in the main has been striving to make of itself a completely nomothetic discipline. The idiographic sciences...endeavor to understand some *particular* event in nature or in society. A psychology of individuality would be essentially idiographic (1937, p. 22).

Allport's purpose was to remind psychologists of the time that they were going down the path of group-centered nomothetic research and were ignoring the individual-centered idiographic perspective. This observation produced a spark for controversy and debate in psychology over the ensuing years (Beck, 1953; Endler, 1973; Falk, 1956; Harris, 1980; Holt, 1962; Skaggs, 1945). Except for some related concerns surrounding quantitative versus qualitative research (Argyris, 1979; Behling, 1980; Mintzberg, 1979; Morgan & Smircich, 1980; Van Maanen, 1979) and what Evered and Louis (1981) label "inquiry from the inside" and "inquiry from the outside" that very recently have surfaced in the literature, the idiographic versus nomothetic controversy has not really been evident over the years in the field of organizational behavior.

The nomothetic versus idiographic approaches currently are not a "hot" methodological issue in the organizational behavior field because, like in Allport's time, there is almost a singular preoccupation with the nomothetic approach. With but a few exceptions—for example, Dalton (1959), Mintzberg (1973), Pettigrew (1973), Van Maanen (1973)—there is a notable absence of what could be labeled as idiographic research reported in the organizational behavior literature. In the field's rush for scientific respectability, the traditional case study design generally has been degraded and excluded for not being scientific enough. From a scientific perspective this may be justified. Not justified is the

[1]The research program leading to this paper was supported in part by Organizational Effectiveness Research Group, Office of Naval Research (Code 442), under Contract No. N00014-80-C-0554; NR 170-913 (Fred Luthans, principal investigator).

exclusion (or perhaps it is unawareness) of some potentially powerful causal experimental designs (e.g., intensive single case experimental designs) and direct methods (e.g., systematic participant observation) that can flow from and be compatible with an idiographic perspective.

The purpose of this paper is not to polarize the field of organizational behavior into a classic idiographic versus nomothetic debate. There already is enough controversy in areas such as motivation and leadership and, as Evered and Louis have noted, "the idiographic/nomothetic dichotomy has been dysfunctional for the development of the social sciences, because it carries the presumption that only nomothetic research can yield general laws" (1981, p. 391). Instead of this dichotomy, the perspective taken here is that both nomothesis and idiography have a place and can contribute to our knowledge of organizational behavior. Even when Allport made the original distinction he vainly tried to point out that the two approaches were "overlapping and contributing to one another" and that "a complete study of the individual will embrace both approaches" (1937, p. 22). This conciliatory message, of course, generally fell on deaf ears, and the same may happen here. The position taken here is that research in organizational behavior needs to proceed both from the idiographic to the nomothetic and from the nomothetic to the idiographic and not just from the nomothetic approach alone. For instance, it is felt that a strong argument for better understanding of organizational behavior can be made by intensive study of one or a few cases of real employees interacting in real organizations before attempting to study a large number of subjects across controlled and standardized environments. Once again, however, it is not suggested that the nomothetic approach be dropped or deemphasized. Rather, as Allport saw it years ago, there is a need for both approaches, and going back and forth from one to the other may yield the best results for the field of organizational behavior.

The concern here is that the idiographic perspective and some of its possible accompanying designs and methods have somehow been lost or misunderstood in the development of the field of organizational behavior. The purpose of this paper is to bring an understanding of the need for an idiographic perspective and to describe and analyze some designs and methods that can be used systematically and intensively to study single cases in naturally occurring situations.

Assumptions of Nomothesis and Idiography

Recently there has been some interest and concern about the underlying assumptions of social science knowledge in general and organizational inquiry in particular. Burrell and Morgan, for example, divide the ontology, epistemology, human nature, and methodology assumptions into subjective-objective dimensions. In particular, the subjectivist approach to social science includes a nominalism assumption for ontology, an antipositivism assumption for epistemology, a voluntarism assumption of human nature, and, importantly, an idiographic assumption for methodology. The objectivist approach, on the other hand, assumes a realistic ontology, a positivist epistemology, deterministic human nature, and a nomothetic methodology. Thus, in this classification scheme idiographic represents a subjectivist approach to social science methodology, and nomothetic represents an objectivist approach to social science methodology.

More specifically, Burrell and Morgan state that the idiographic approach

> is based on the view that one can only understand the social world by obtaining first-hand knowledge of the subject under investigation. It thus places considerable stress upon getting close to one's subject and...emphasizes the analysis of the subjective accounts which one generates by "getting inside" situations and involving oneself in the everyday flow of life—the detailed analysis of the insights generated by such encounters with one's subject and the insights revealed in impressionistic accounts found in diaries, biographies and journalistic records (1979, p. 6).

In other words, this is a "subjective" approach to methodology according to Burrell and Morgan or what Evered and Louis (1981) would call "inquiry from the inside," and it depends on what has become known as "qualitative" data gathering techniques. The nomothetic approach to methodology, according to Burrell and Morgan, is

> basing research upon systematic protocol and technique. It is epitomised in the approach and methods employed in the natural sciences...It is preoccupied with the construction of scientific tests and the use of quantitative techniques for the analysis of data. Surveys, questionnaires, personality tests and standardized research instruments of all kinds are prominent among the tools which comprise nomothetic methodology" (1979, pp. 6-7).

Nomothesis

Although qualitative methodologies have very recently been given attention in the field of organizational behavior (for example, the December 1979 issue of *Administrative Science Quarterly* is devoted entirely to qualitative methodology, and some recent sessions of the Academy of Management meetings have been devoted to the issue of qualitative versus quantitative research), quantitative methodologies have unquestionably dominated. "Good" research in organizational behavior (and probably more accurately the *only* research allowed in the most respected journals) has tried to follow the widely accepted criteria for internal and external validity (Campbell & Stanley, 1966; Cook & Campbell, 1976, 1979). Sophisticated inferential statistics are used to analyze the data, test hypotheses, and draw conclusions. This dominant form of research is almost a pure nomothetic approach.

Control *group* experimental designs that depend on representative sampling from the population and make random assignments to the experimental and control *groups* and then make *group* comparisons on the statistical analysis obviously are a group-centered, nomothetic approach to research. In this highly popular approach, individual behavior is *averaged,* environmental conditions are controlled and standardized as much as possible, and the person-environment *interaction* generally is ignored. Usually, highly abstract variables in organizational behavior (e.g., leadership, motivational or attitudinal states, and job design or oganizational structural variables) are isolated for analysis over a large enough N to give appropriate statistical power. This dominant approach is not designed for, nor is it particularly effective in, the systematic analysis of holistic interactions of real people in real organizations.

Policy Research

Some may argue that although idiographic research is not being done in the mainstream of the organizational behavior field, it is being done in the so-called "policy" area of management. The research of Mintzberg in particular (Mintzberg 1973, 1978; Mintzberg, Raisinghani, & Theoret, 1976) does represent an idiographic approach. Although some policy researchers are following the innovative lead of Mintzberg—for example, Sarrazin (1977-78)—most of the others seem to be following a nomothetic approach. For example, recognized policy researchers such as Schendel and Cooper stress the need for and use of nomothetically-based quantitative models for business strategy. See Hatten, Schendel, and Cooper, (1978). Overall, however, it is probably true that policy research and to an extent more sociologically-based macro-oriented organizational theory concerns (Downey & Ireland, 1979) have recognized the need for and have to date used an idiographic research approach more so than has the psychologically-based, micro-oriented organizational behavior field.

The "Sameness" Assumption

Although Burrell and Morgan (1979) or Evered and Louis (1981) recognize the subjective/inside and objective/outside philosophy of science assumptions for idiographic and nomothetic methodologies, perhaps even more important to the understanding and the actual conduct of research on organizational behavior are the theoretical assumptions that are made. For example, the nomothetic approach is appropriate and necessary for certain research questions in organizational behavior given certain theoretic assumptions. By the same token, for other research questions under other theoretic assumptions, the nomothetic approach becomes less useful and an idiographic approach seems needed. Marceil (1977) notes that the "true nomothetic" stance would be using a method of selective examination of many subjects under the theoretic assumption that individuals are more similar than different.

This sameness theoretic or "average is beautiful" assumption of nomothesis goes way back to the Belgian astronomer Adolphe Quetelet. He asserted that human traits followed a normal curve, and that nature strove to produce the "average" person but failed for various reasons, resulting in errors or variations in traits that grouped around the average (Stilson, 1966). As Hersen and Barlow note:

> If nature were "striving" to produce the average man, but failed due to various accidents, then the average, in this view, was obviously the ideal. Where nature failed, however, man could pick up the pieces, account for the errors, and estimate the average man through statistical techniques (1976, p. 5).

In other words, the averaging approach has a great deal of popular appeal to the researcher because it

assumes that variability or error can be accounted for or averaged out in a group. The catch to this logic is that there is no such thing as an average individual. As Kurt Lewin noted almost 50 years ago, "the only situations which should be grouped for statistical treatment are those which have the individual rats or for the individual [human subjects] the same psychological structure and only for such period of time as this structure exists" (1933, p. 328).

Not only the basic averaging assumption of nomothesis but also the popular statistical techniques flowing out of this approach can be questioned. For example, Marceil makes the following observation of the currently widely used factor analysis technique:

> The R technique [correlational technique associated with factor analysis] involves the correlation of the results obtained from many persons taking two (or more) tests on one occasion. The goal of this correlational procedure is to determine which test items cluster together across individuals, the implication being that such clusters represent functional entities. Whether these clusters are the actual factors hypothesized by factor analytic theory or are merely statistical quirks is not known (1977, p. 1050).

Not only factor analysis, but the commonly used control group experimental designs and the accompanying multivariate statistical techniques in general fall under the theoretic assumption of sameness and the methodologic assumption of controlled examination of many subjects.

An alternative (and some would argue opposing) set of assumptions more in line with an idiographic approach is not being given attention in the field of organizational behavior. Specifically, an alternative methodologic assumption based on intensive examination of one or a few cases under the theoretic assumption of dynamic interactionism is, with the few possible exceptions that have already been noted, missing in the organizational behavior literature. These alternative underlying assumptions suggest the need to explore further the theoretical foundation of organizational behavior and the feasibility of alternative methodologies of research.

An Interactive Theoretical Foundation

An increasing number of psychologists are questioning the "sameness" assumption and are proposing the alternative *interaction* notion. This is not new. Pioneering behavioral scientists such as Georg Simmel (1950), George Herbert Mead (1934) and Kurt Lewin (1951) recognized an interactionist framework long ago, and others such as Sells (1963) have been proponents for a long time. But the ideas of interactional psychology have surfaced in the literature with renewed enthusiasm (Ekehammar, 1974; Magnusson & Endler, 1977; Terborg, Richardson, & Pritchard, 1980).

The Person-Situation

One of the leading spokespersons for the movement away from concentrating on abstract general variables in situation-free environments to examine person-situation interactions in naturalistic settings has been the personality theorist/researcher Walter Mischel (1973, 1976). Mischel (1973) states that the emphasis should shift (1) from attempting to compare and generalize about what different individuals "are like" to an assessment of what they *do* behaviorally and cognitively—in relation to the psychological conditions in which they do it; (2) from describing situation-free people with broad trait objectives to analyzing the specific interactions between conditions and the cognitions and behaviors of interest. In other words, with the first point Mischel is questioning the sameness theoretic assumption taken by the nomothetic approach, and with the second point he questions the standardized, "situation-free" assumption made when using nomothetic designs and methods.

By definition organizational behavior is not situation free. Organizational participants do not operate in a highly controlled, standardized environment. In a recent article Mintzberg forcefully points out:

> We shall never have closure so long as we pretend that other things can be held constant. We live in a world of dynamic systems. (A colleague of mine claims that everything in the world correlates with everything else at 0.3)...it is somewhat a matter of luck whether a two-variable cross sectional study manages to capture the structure that reflects today's situations—which it typically measures—or yesterday's, which it typically does not (1979, p. 588).

What has been missing in organizational behavior is the theoretic assumption recognized by the interactional psychologists that both people and situations vary and that the behavior of a particular person in a particular situation is a result of the joint characteristics of both (Terborg et al., 1980).

An Interactive Perspective

Over a decade ago John Campbell and his colleagues (Campbell, Dunnette, Lawler, & Weick, 1970) in their comprehensive review of research on managerial behavior and performance concluded that an "interactional" or "interactionist" perspective was needed. In organizing the literature on managerial behavior up to that time they identified three categories of variables—person (individual trait characteristics), process (behavior descrip ion variables), and product (outcome variables). They were critical of these three variables being studied separately and concluded that "all three must be considered concurrently, and the effects and moderating influences of different organizational environments must be included as well" (Campbell et al., 1970, p. 12).

This recognition for an interactive perspective for organizational behavior also has been made by a few others. For example, see Roberts, Hulin, and Rousseau (1978) for an overall interactive framework that proposes organizational behavior to be a function of the characteristics of the responding unit, the characteristics of the environment in which the unit operates, and the interaction of unit and environmental characteristics. But they all stop short of carrying this theoretic assumption to its logical conclusion. They do not provide a clear account of guidelines for *how* these variables can be examined interactively. They do not suggest methodologic designs or methods to do interactive research. For example, after calling for an interactive perspective, Roberts, Hulin, and Rousseau lament that

> New methodological models are clearly needed to take into account the summary nature of variables, their relative attachment to particular units of analysis, and their causal reciprocity. No entirely adequate solutions to the measurement problems introduced here have been developed (1978, p. 99).

They also defend and advocate the use of nomothetic studies and discount the use of single case studies to test hypotheses.

> If generalization from nomothetic studies proves invalid, the damage caused by conducting such research is inexpensively repaired. Information about single organizations can always be drawn from compiled data gathered in a nomothetic study, through disaggregation. The opposite is usually not possible.... Case studies should be used to generate hypotheses, not to test them (1978, p. 69).

Social Learning B-P-E Interaction

Most recently social learning theory has been proposed as a theoretical foundation for organizational behavior (Davis & Luthans, 1980). Borrowing from Bandura's (1976, 1977) notion of reciprocal determinism, the social learning theoretic assumes a continuous, dynamic interaction among the person (including internal cognitions and traits), the environment, and the behavior itself. This social learning approach goes one dimension beyond the person-environment interaction and adds the behavior itself as an interactive variable. Unlike the earlier Campbell et al., (1970) or Roberts et al. (1978) interactive proposals, this behaviorally oriented behavior-person-environment or simple B-P-E interactive notion from social learning theory does suggest some proven research designs and methods for helping determine the nature of causal reciprocity and the meaningful testing of hypotheses.

An interactive theoretic such as B-P-E from social learning does not fit the nomothetic mold for group-centered designs and methods in standardized environments. Instead, intensive analysis of single cases in natural environments is called for. Qualitative methodologies are an obvious answer. However, the problem with the commonly used impressionistic accounts of qualitative research is that it does not provide causal conclusions or meaningful testing of specific hypotheses. On the other hand, single case experimental designs have been used by behavioral researchers for intensive study of subelements of partial B-P-E interactions or the holistic B-P-E interactive dynamic in naturalistic settings. For example, see Komaki, Waddell, and Pearce (1977). In addition, unlike the qualitative methods used in idiographic research, the single case experimental designs and systematic observation methods can lead to causal conclusions and be used to test specific hypotheses.

Single Case Experimental Designs

Single case experimental designs first of all must be distinguished from the so-called "case" approach used in clinical psychology, sociology, and business policy and strategy. Whereas all make an intensive analysis of one or a few cases, the traditional case approach used in these other applications is not an experiment. In other words, in traditional case analysis an independent variable(s) is not

manipulated to determine its causal effect on a dependent variable(s). By the same token, the single case *experimental* design should be evaluated against the standards for internal and external validity that are used for pure or quasiexperimental control group designs commonly used in nomothetic research.

Background

Single case experimental designs certainly are not new. They have a long history in experimental psychology. For example, the famous studies by Pavlov used single subject experimental designs and, of course, Skinner (1953) is on record as stating that he would much prefer a study with a thousand replications of a single subject than one study of a thousand subjects in order to understand human behavior. Only recently, however, have single case experimental designs been developed for use in applied settings. The works of Sidman (1960), Allport (1962), Dukes (1965), Baer, Wolf, and Risley (1968), Bergin and Strupp (1970), Lazarus and Davison (1971), Kazdin (1973), and, especially, Hersen and Barlow (1976) have contributed to the development of workable single case experimental designs that can be adapted to research of interactive organizational behavior in natural settings.

Reversals or ABAB Designs

The specific designs that have evolved out of the above cited development are commonly called reversals (or ABAB) and multiple baseline designs. Briefly, summarized, the reversal or ABAB design is performed as follows:

(A) First a baseline measure is obtained on the dependent variable. This is usually some type of individual (or even group) dependent variable measure.

(B) After the baseline is obtained, an intervention is made (the independent variable) and the dependent variable is measured (usually through systematic observation) until the change stabilizes.

(A) At this point of stabilization the intervention is withdrawn and base-line conditions are reestablished. In other words a reversal is attempted.

(B) Once the dependent variable measure stabilizes under the baseline conditions, then the intervention is made again and the impact is measured.

The major advantage of this reversal design is that the subjects serve as their own controls. Thus, the problem of intersubject variability that plagues the popular control group experimental group experimental designs is eliminated. The major drawback is that it assumes that the dependent variable being measured is capable of being reversed when the intervention is withdrawn and baseline conditions are reestablished. To overcome this potential problem, the multiple baseline design can be employed.

Multiple Baseline Designs

Briefly summarized, the steps of the multiple baseline design are as follows:

1. Baseline data are obtained on two or more dependent variables. (These dependent measures, usually obtained by systematic observation, could be gathered on individuals, groups, or even situations.)
2. The intervention (independent variable) then is made on one of the dependent variables, but baseline conditions are maintained on the other(s), and the impact is measured.
3. Once the dependent variable has stabilized after the intervention, the next dependent variable receives the intervention and the impact is measured.
4. These staggered interventions continue until all the dependent variables are brought under the intervention.

This multiple baseline design eliminates the practical problems of attempting to reverse a dependent variable but makes the assumption of noninterdependence of the dependent variables.

An Example

Although these single case designs may be viewed in opposition to the between-group comparison designs used in the nomothetic approach, both have their strengths and weaknesses that make them suited or unsuited to the particular research problem at hand. Two studies by Komaki et al. (1977) clearly demonstrate how such single case designs can be successfully applied to organizational behavior research.

Their first study involved the analysis of the performance behavior of an attendant in the gameroom store in the downtown area of a metropolitan city. It illustrates the use of the reversal or ABAB single case experimental design. This design was adaptable to the idiographic study of an employee, environment, behavior, interactive dynamic in a natural setting and provided powerful evidence for concluding that there was a causal rela-

tionship between the independent variable and the dependent variable. The subject acted as his own "control," and the research was grounded in the organizational setting in which the individual behavior actually took place. In a second study the researchers analyzed the behavior of two clerks in a neighborhood grocery store. Instead of the reversal, this latter study utilized a multiple baseline design. The controlling influence of the intervention on three dependent variables offers convincing evidence that the independent variable did indeed cause the change in the dependent variables.

A few other organizational behavior studies also have demonstrated the applicability of reversals (Gupton & Le Bow, 1971; Kreitner & Golab, 1978; Luthans & Bond, 1977; Luthans & Davis, 1979; Luthans & Maris, 1979; Marholin & Gray, 1976) and multiple baseline designs (Kreitner, Reif, & Morris, 1977; Lamal & Benfield, 1978; Luthans & Davis, 1979; Van Ness & Luthans, 1979). In other words, although considerably more studies need to be done in the future, already there is some evidence that idiographic research of interactive organizational behavior in real settings can be done effectively by single case experimenal designs.

Internal and External Validities

In a separate comprehensive analysis, Komaki (1977) has shown clearly that the threats to internal validity in experimentation identified by Campbell and Stanley (1966) either are ruled out by the procedures adopted in reversal and multiple baseline designs or do not present a major problem. The additional potential threats to internal validity later noted by Cook and Campbell (1976) are not covered by the Komaki analysis—that is, diffusion or imitation of the treatment, compensatory equalization of treatment, compensatory rivalry, resentful demoralization of respondents receiving less desirable treatments, and local history—also can be ruled out by these designs because they do not utilize a control group, which mainly contributes to these additional threats.

Some of the major threats to external validity identified by Campbell and Stanley (1966) and Cook and Campbell (1976, 1979) such as the interactive effects of testing, the reactive effects of experimental arrangements, and the effects of mulitple-treatment interferences also are of no major problem. But other factors, such as *demand characteristics, experimenter effects,* and *expectations,* are a potential problem in single case designs as they are, at least to some degree, in all research and need to be carefully considered. The main argument against single case designs is the weakness that this approach shares with most group comparison research: the problem of generalizing the findings to a given population.

Most contemporary researchers in organizational behavior would argue that a sample of only one or two individuals or cases/groups makes any attempts to generalize the finding unreasonable. However, as Edgington points out:

> The belief that you cannot statistically generalize to a population of individuals on the basis of measurements from only one subject is certainly correct. However, it is also correct that you cannot statistically generalize to a population from which you have not taken a random sample, and this fact rules out statistical generalization to a population (at least to a population of some importance) for virtually all psychological experiments, those with large samples or small (1967, p. 195).

The major solution to this generalization problem, as Skinner (1953) first recognized and Hersen and Barlow (1976) have more recently emphasized, is replication. Like all research findings, those obtained by single case designs need to be tested in a variety of settings under a variety of conditions. Replication will allow the researchers to generalize realistically from one setting to another with some degree of confidence.

Judgmental External Validity

It also must be remembered that external validity is a judgmental process, not, as it is often portrayed, a binary (yes or no) decision. Because it is judgmental, specific criteria for assessing the generalizability of replicated single-case studies can be developed and used. For example, Kennedy (1979) suggests the following evaluative criteria for the attributes of the sample cases: (1) wide range of attributes across the sample cases; (2) many common attributes between sample case(s) and the population of interest; (3) few unique attributes in the sample case(s); and (4) relevance of attributes. She also suggests the following evaluative criteria for attributes of the treatment in judging external validity: (1) wide range of treatment attributes across replications, (2) common patterns of treatment outcomes across sample cases; and (3) com-

mon treatment functions across cases.

The above criteria for assessing the external validity of single case studies still depend on replication. However, Kennedy (1979) also makes the point that even without replication the judgment of generalizability could be shifted to the user of the case data rather than the researchers who produce the data. This is what is done in legal and clinical generalizations. However, in order to generalize meaningfully from one case to another, the user must have full, rich information. That is, an intense, in-depth case analysis is needed. To the extent that the information is there, single case studies may prove to be more valuable to management practitioners than nomothetically oriented group studies because, as Kennedy (1979) points out, group comparisons may not generalize to individual cases. It is these individual, single cases that practitioners must deal with on a day to day basis.

Statistical Analysis

The role played by inferential statistics should be examined, and visual inspection of the data should not be ruled out. Group-centered research designs, of course, greatly depend on inferential statistics. Statistics serve as the gatekeepers for inferring causality in nomothetic research. However, as Cook and Campbell point out: "Unfortunately, they are fallible gatekeepers even when they are properly used, and they fail to detect both true and false patterns of covariation" (1976, p. 225). They then propose a taxonomy of threats to what they call statistical conclusion validity. This validity can be improved by watching for statistical power, fishing and the error rate problem, reliability of measures, reliability of treatment implementation, random irrelevances in the experimental setting, and random heterogeneity of respondents. Such attention recognizes some potential problems and gets away from the blind acceptance of statistical conclusions in experimental research.

Because of the limitations of inferential statistics, some single case researchers build a case for the exclusive use of careful graphing of data and visual analysis methods. See Kratochwill (1978) for papers that take this position. Others suggest and use both conventional (e.g., modified analysis of variance models) and more specialized (e.g., time series analysis) statistical analysis techniques. Kazdin (1976) gives a comprehensive overview of the statistical techniques that can be used in single case experimental designs. Once again, however, a polarized, mutually exclusive either-or situation has tended to develop. Nomothetic research depends on and almost exclusively uses inferential statistics. Because this approach dominates the field of organizational behavior, too often the outcome is that all research must use inferential statistical analysis to be accepted. Idiographic research, on the other hand, which depends on qualitative data in general and much more on descriptive statistics and simple visual inspection of quantitative data in particular, may be, out-of-hand, deemed to be unacceptable. Yet, as has been stressed throughout this paper, such polarization is dangerous and unwarrented. As Elashoff and Thoresen state:

> doctrinaire positions that unequivocably advocate just one strategy and condemn others (e.g., all experiments require randomized groups or applied time-series data must avoid any inferential statistics) do far more harm than good. Any statistical method, descriptive or inferential, serves as a tool that may or may not be useful, depending on the task at hand.... Statistical and visual methods should be partners in the analytic endeavor (1978, pp. 290-291).

Data Collection

As noted earlier, nomothetic research, because of its assumptions, has depended largely on self-report surveys, questionnaires, and interviews as data gathering techniques. For example, Martinko and Carter (1979) found that practically all the studies reported in the *Academy of Management Journal* in a recent 10-year period used questionnaires, self-reports, and interviews as the data collection procedure. There is growing recognition that these methods have severe problems. For example, the reactivity and obtrusiveness of self-reports and questionnaires is well documented (Webb, Campbell, Schwartz, & Sechrest, 1966), as are the social desirability biases (Arnold & Feldman, 1981; Golembiewski & Munzenrider, 1975). In addition, there is a host of practical problems in administering questionnaires (Petry & Quackenbush, 1974) as well as psychometric problems such as anonymity, language, and external response sets. Even though the widely accepted standardized questionnaires used in organizational behavior research may have acceptable reliabilities, they have been found to have questionable construct validity (Schreisheim & Kerr, 1977; Schreisheim, Bannister, & Money,

1979). Interviews also are widely used as a data gathering technique, but they generally are recognized to have even more problems than self-report surveys and standardized questionnaires (Schwab, 1969; Valenzi & Andrews, 1973).

Despite the recognized problems with self-report surveys, standardized questionnaires and interviews, their use continues unabated. Mintzberg (1979) tells of a doctoral student who was not allowed to observe managers because of the "problem" of sample size. He was required to measure what managers did through questionnaires, despite ample evidence in the literature—for example, Harper (1968)—that managers are poor estimators of their own time allocation. Mintzberg asks the question: "Was it better to have less valid data that were statistically significant?"

Obviously, for researchers under pressure to publish and operate with limited resources, it is much easier to ask (via questionnaires or interviews) than it is to observe. In addition, of course, when abstract constructs such as motivation or perceptions are the unit of analysis for the research, indirect measures are required. On the other hand, when dynamic B-P-E interactions are the unit of analysis, then qualitative methods in general and observational measures in particular become required. As Kerlinger points out, "Observations must be used when the variables of research studies are interactive and interpersonal in nature" (1973, p. 554).

Qualitative methods are not as precisely defined and identifiable as are quantitative methods, but rather, as Van Maanen explains, "is at best an umbrella term covering an array of interpretive techniques which seek to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world" (1979, p. 520). Most qualitative researchers (Sanday, 1979) use direct techniques such as observation. However, some do not. Bruyn (1967) explains that in some phenomenological studies the researcher may not enter the actual setting but instead may examine symbolic meanings as they constitute themselves in human consciousness. If the intensive, single case experimental design is used to analyze interactive organizational behavior in natural settings, then observational measures can become an especially useful data gathering technique (Bijou, Peterson, & Ault, 1968).

Observation, however, is not the only measurement technique available for idiographic research. For example, a number of behavioral (Johnston, Duncan, Monroe, Stephenson, & Stoerzinger, 1978) and unobtrusive (Webb & Weick, 1979; Webb et al., 1966) measures found in today's organizations, as well as other qualitative impressions derived from diaries or archival records, could be profitably employed. In addition, quantitative methods could be used in combination with observation and other qualitative methods to produce as much and as reliable data as are possible. Once again, the position taken here is that the key to advancing knowledge in organizational behavior is not to exclude any measurement techniques (those normally associated with nomothetic or idiographic research) but instead to draw from all techniques in a multiple measures approach (Jick, 1979; Lockwood & Luthans, 1980).

A Final Word

This paper has suggested that an idiographic approach with its accompanying designs and methods may be used profitably in researching organizational behavior. Presently, the study of organizational behavior depends largely on a comparison of the group and/or average individual under highly controlled, standardized environments because of the popular nomothetic control group experimental designs, inferential statistical analysis, and the self-report, questionnaire, and interview methods of data collection. This approach, of course, is appropriate and necessary under the theoretic assumption that people basically are the same and operate in a constant environment. However, under an interactive theoretic assumption of behavior-person-environment (B-P-E), that is, the holistic interaction of the behavior itself, the person, and the naturalistic environment, then idiography takes on special importance as a methodological approach. In particular, the idiographic approach may be used profitably in combination with the more commonly used nomothetic approach. For example, first the idiographic perspective would be used to gain an in-depth understanding and explanation. This then may be followed by the more traditional nomothetic approach.

Although the designs and methods of the nomo-

thetic approach are well known to organizational behavior researchers, designs and methods adaptable to idiographic research are not. Central to an idiographic approach to interactive organizational behavior studies in natural settings that intends to examine and make causal conclusions and test specific hypotheses are intensive single case experimental designs and direct methods such as systematic participant observation. When understood and on close examination, it turns out that these designs and methods hold up as well (and some idiographic researchers would argue better) to the same evaluative criteria for scientific research that currently are being used by nomothetically-based researchers. However, the purpose of this paper was not to pit one research perspective and methodology against another. Instead, it was to point out, and learn about, another approach to research on organizational behavior. This purpose perhaps is best expressed in a conversation that reportedly took place between two famous psychologists. Edward Tolman stated: "I know I should be more idiographic in my research, but I just don't know how to be," and Gordon Allport replied: "Let's learn!" (Hersen & Barlow, 1976, p. xiii). This conversation seems very relevant to the field of organizational behavior today.

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