

1 Personality and Cognition: Something Borrowed, Something New?

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I hope that this volume is a step toward the increasing integration of orientations, insights, and methods from the subdisciplines of personality, cognitive, and social psychology. Like most (or all?) scientific developments, the progress reflected in the contributions that follow combines the new and old, a mix of innovation and recreation of elements whose historical roots may be discerned in earlier movements. In viewing these contributions, a proper evaluation of their originality lies somewhere between "déjà vu" and "revolutionary." To help arrive at a reasonable perspective, I begin by commenting on what I see as some of the highlights of the field of personality, especially as they may relate to some of the major themes in the present volume.

SEARCHING FOR TRAITS

Historically, the field of personality has been influenced by a few main positions, of which one of the oldest and most enduringly influential is trait psychology. Beginning about the turn of the century, and inspired mostly by the success of the intelligence testing movement and especially by the work of Alfred Binet, psychologists became interested in seeing whether the success achieved with mental (i.e., "cognitive") measurement might be repeated if one tried to quantify social characteristics.

The trait theories of the 1920s and 1930s were primarily a psychology of common sense, in which the layperson's "natural," everyday theory of what people are like became the scientific theory of what people are like. People were held to differ on dimensions such as friendliness, honesty, conscientiousness,

and aggressiveness. The scientific innovation—and it was a most important one—was the development of statistical methods to give dimension to these qualities systematically and to quantify them rigorously and carefully. The responses of the subject were primarily self-reports, sometimes ratings by others, represented by check marks on multiple choice or true-false inventories and questionnaires. Recall, for example, the Bell Adjustment Inventory, or the Woodworth Personal Data Sheet in World War I (“I am a good mixer”; “I am at ease with people”). These efforts began in a very reasonable way, intended as shortcuts for the actual sampling of behavior (for instance, the psychiatric interview).

I think a giant conceptual leap was taken at that time, perhaps without full realization of just how big a leap it was. This was the shift from sampling people’s relevant specific *performance* by assessing what they could do (which was the heart of intelligence testing) to asking people to report about what they were like, in general, on such broad situation-free dimensions as friendliness, conscientiousness, or introversion. These responses were used not as *samples* of the respondents’ relevant behavior but as *signs* or indicators of their generalized dispositions. This leap was not carefully thought through, and we have seen its implications over the last 10 or 20 years as we began to realize the conceptual and methodological problems that one gets into if one does not distinguish very carefully between people’s subjective judgments about themselves and an objective sampling of what they actually do (their performance under specific circumstances). We see what people do, for example, when we ask them to count the beads or arrange the blocks or say the digits backward, or when we directly observe their behavior as it unfolds. Such specific behaviors are very different from how people characterize themselves globally as introverted, aggressive, or friendly, and the differences have serious measurement implications (Mischel, 1968).

Early trait psychology was a psychology guided mostly by words in the dictionary, as in Allport’s (1937) search, yielding the hundreds of terms finally culled from an even larger number of adjectives. Other trait psychologists attempted to find ways to hone down this list more finely, using a variety of often ingenious techniques, most notably factor analysis. The struggle became an attempt to find a finite and, hopefully, relatively small taxonomy of the basic dimensions of personality and social behavior. This remains one of the main objectives of the field, with a distinctive methodology and, I think, with distinctive uses, contributions, and limitations.

The lone voice speaking out against this dimensionalization of personality with numbers was Gordon Allport, who, beginning in the 1930s, insisted on each person’s uniqueness and individuality. Most who heard Gordon Allport were excited by the idiographic approach he espoused. But, curiously, his own work (Allport, Vernon, & Lindzey, 1960) inspired still more attempts to categorize people on slots or dimensions that were the preferred yardsticks of the psycholo-

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gist rather than on the equivalence classes of the person being assessed. More forcefully than others before him, Allport (1937, p. 3) articulated the essence of the trait position, claiming that the individual is an "amazingly stable and self-contained system" that contains enduring generalized dispositions. Our task, in his view, was to search for those stable broad dispositions as manifested behaviorally, and that has been the major mission of trait psychology for many decades.

How fruitful has this search been? In trying to answer this question it is important to discriminate clearly between demonstrations of temporal stability on the one hand and cross-situational generality or consistency on the other. More than a decade ago the available research provided evidence for significant temporal stability but also—and far more surprising at the time—for discriminativeness or "specificity" in how behavior varies across situations. Summarizing those findings, I concluded: "Although behavior patterns often may be stable, they usually are not highly generalized across situations [Mischel, 1968, p. 282]."

In the long debate on this topic no one seriously questions that lives have continuity and that we perceive ourselves and others as individuals who maintain a stable identity over time, even when our specific actions change across situations (Mischel, 1968, 1973, 1977). Although temporal stability in the patterning of individual lives, in self-perceptions, and in how others view us seems evident, there is room for serious disagreement about the nature, degree, and meaning of the "erratic and uneven" relationships typically found when cross-situational consistency is studied with objective measures of behavior. To be sure, this result may reflect measurement problems, as Block (1977) and Epstein (1979) suggest. Better measures will surely provide better support for the existence of meaningfully organized behavior patterns. But, in my view, better measures and more fine-grained analyses should also make it even more apparent that individuals discriminate among situations according to subjective equivalences. Individual behavior is organized in terms of these personal meanings, not those of the trait psychologist. Although sometimes the subject's equivalences will coincide with the nomothetic trait categories of the assessor, often they will not (Mischel & Peake, work in progress). Whether or not the degree of correspondence is judged adequate and useful depends on a host of considerations, and especially on one's purpose (Mischel, 1979).

LIMITATIONS OF THE CLASSICAL APPROACH

The impact of trait psychology has been limited seriously because human consistencies and psychological equivalences are more complex and cognitively constructed than nomothetic trait theory suggests. Traditionally, the search for consistent personality traits and types has assumed well-defined, distinct, and nonoverlapping categories in which each member of a personality category has

all the defining features of that category. But although such neatness and equality may be built into artificial, logical taxonomies, it does not seem to characterize the categories of objects, people, and situations encountered in the natural world. As Wittgenstein (1953) first noted, the members of common everyday categories do not share all of a set of singly necessary and jointly sufficient features critical for category membership. When one examines a set of natural objects all labeled by one general term, one will not find a single set of features shared by all members of the category; instead, one finds a *pattern* of overlapping similarities, a *family resemblance* structure.

Many linguists, philosophers, and psychologists following Wittgenstein (Labov, 1973; Lakoff, 1972; Lehrer, 1970; Rosch, Mervis, Gray, Johnson, & Boyes-Braem, 1976; Smith, 1976; Tversky, 1977) now suggest that natural semantic categories are "fuzzy sets" that violate the expectations of the classical all-or-none position: Natural categories are organized around *prototypical* examples of focal stimuli (the best examples of a concept), with less prototypical members forming a continuum away from the central prototypic exemplars (Rosch, 1975). Guided by this *prototypicality* view, and recognizing that person categories are "fuzzy sets," Nancy Cantor and I have been exploring the rules people use in making judgments about the clearest or most prototypical exemplars of such person categories as extraverts (Cantor, this volume; Cantor & Mischel, 1979). It is to be hoped that such studies of prototypicality rules and "family resemblance" principles will ultimately allow a better understanding of the nature of consistency and coherence extracted from variations in behavior. Someone who has seen a thousand Picassos, each of which is unique, can determine (usually quite easily) whether a previously unseen work is a true Picasso, an imitation, or the work of someone else. The same processes that allow this kind of pattern recognition—extraction of a central distinctive gist or unity from great diversity—must surely be basic for our recognition of identity and coherence in the face of behavioral variability.

Trait psychology has also been limited because its focus is not addressed at the flow of behavior nor in any way linked to the dynamic interactions that go on where people actually are living their lives. It has to do instead with the effort to taxonomize the world, to cut up human qualities and the stream of actions into neat dimensions, and to provide some kind of taxonomy which cuts people in their places—but on the psychologist's theoretically preferred favorite dimensions rather than on the person's. The result is a focus on between-person differences, between-person variance, rather than on *within-person* variance as it relates to environmental changes. These efforts have consumed much energy and yielded many interesting useful classification schemes (Guilford, 1975). Unfortunately these efforts do not address the processes underlying personality, tending rather to classify subgroups or people than to capture and explain the ongoing flow of their behavior.

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Stimulated especially by the thoughtful writings of such personologists as Henry Murray (1938) and David McClelland (1951), some psychologists have long recognized these limitations and tried to move away from an exclusive person-focus to study the interactions of persons with their worlds in a more process-oriented fashion. Perhaps most influential in the discovery of the role of social contexts was Kurt Lewin's (1951) articulation of the field of forces operating in any given situation at the moment. Disappointment with the bundles of correlation coefficients yielded by traditional trait psychology added to the appeal of the experimental approach to the analysis of "basic processes" influencing attitudes and behavior espoused by the mainstream social psychology of Lewin's disciples (Festinger, 1957). Unfortunately, the personological concerns of this new breed of experimental social psychologists were generally limited to throwing in a few "personality measures" (often homemade and usually of unknown reliability) while searching for experimentally manipulated main effects in laboratory studies of interesting pieces of social behavior. For many social psychologists, individual differences at best became ancillary, minor data; at worst, they were error variance to be obviated by cleaner methodology and more potent independent variables. In the 1950s and 1960s, those who studied social processes experimentally thus tended to have little interest in personality, whereas those who were committed to studying persons found it most convenient to study them in relative isolation with the nonexperimental (i.e., correlational) methods. The rift between personality and social psychology widened, to the detriment of both endeavors.

THE PSYCHODYNAMIC SEARCH FOR UNDERLYING DISPOSITIONS

It is, I think, because of the static, descriptive, and nonanalytic quality of trait psychology that many of us were so excited when we first came across the psychodynamic approach. We found the writings of Freud and his followers to be an enormously stimulating, invigorating way of getting beyond labeling or groupings and into each person's unique psyche. For me, the appeal of the psychodynamic approach, when I first encountered it as a graduate student in the 1950s, was that at last there seemed to be a way of finding consistencies as they exist for the individual in a way that was not obvious at the level of surface behavior. These equivalencies were not documented by the kind of counting of specific behavioral similarities that characterized the work of Hartshorne and May (1928), who hoped to show that the child who is honest about not cheating when it comes to an arithmetic test is also honest about not cheating when it comes to a spelling test. Instead, psychodynamic theorists asserted that the relationship between indicators, intrapsychic dispositions, and overt behavior

may not be cumulative and additive, as the trait approach had assumed. Rather, the relationship between sign and disposition may be subtle, indirect, and contradictory and may involve all kinds of transformations.

Indeed, much of the excitement of the psychoanalytic approach was that it provided the notion of transformation—the notion that the same motive could manifest itself in all sorts of ways, displaying a wide range of vicissitudes. Thus Joe, who repeatedly says he is very aggressive on questionnaires, may not be more aggressive than Charles, who claims to be unaggressive and endorses mostly timid adjectives; indeed, the more Joe insists on his aggressiveness, the *less* aggressive and the more passive-dependent he might really prove to be, whereas Charles, the ostensibly passive one, may indirectly reveal himself to be a cauldron of stifled aggressive impulses. The hope was that recognition of underlying “genotypic” equivalences would enable one to see the similarities uniting all kinds of phenotypic surface variations and seeming contradictions in behavior. The excitement here was that at last there was attention to causal dynamics, with a recognition that what people do is selective, motivated, and full of conflict, and has to be decoded in terms of what it really means rather than how it merely seems (Erdelyi & Goldberg, 1979).

Unfortunately, the initial exuberance and high promise of the psychodynamic approach was soon followed by a sobering and generally dismal empirical flood of studies that deeply questioned the nature, importance, and even the very existence of such basic psychodynamic processes as repression (Mischel, 1976). But because the studies themselves could readily be accused, often justifiably, of flaws and limitations in scope and in method, the psychodynamic approach itself tended to withstand the empirical assaults on its key constructs. The most serious disillusionment with psychodynamic approaches began to arise, in my view, not so much from the failure to validate crucial constructs experimentally as from the clinical experiences of the 1950s and early 1960s with clients seeking help. It was in that clinical context, not in the laboratory, that clinicians became increasingly dubious about the value of the psychodynamic portraits to which they were devoting so much of their time (Mischel, 1968; Peterson, 1968; Vernon, 1964).

Guided by the view that test responses are merely indirect manifestations of underlying psychodynamic processes, assessors had for years elicited signs such as picture drawings, associations to inkblots, or stories told to ambiguous pictures, whose demonstrable empirical relations to the individual's important life behaviors tended to be tenuous and remote. Skepticism about the utility of such assessments arose from a growing worry that the resulting psychodynamic personality diagnostics, too often formulated with little regard for the client's own construction of his life and his specific behaviors, might (like those of trait psychology) be exercises in stereotyping that miss the uniqueness of the individual and pin people instead on a continuum of theory-supplied labels while slighting their everyday problems of living. But a focus on the immediate behavioral troubles of the client was for many years widely regarded as naive and

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hazardous because these problems (phobias, sexual dysfunctions, fetishes) were construed merely as "symptoms" and even as manifestations of "resistances." Traditionally, the clinician's task had been to go beyond behavioral complaints to underlying psychodynamics, and the fear of symptom substitution led many to eschew direct behavior intervention. But these fears of "symptom substitution" turned out to be largely unjustified (Grossberg, 1964). Clients whose maladaptive behaviors were directly alleviated, rather than becoming victimized by substituted symptoms, appeared more likely to show generalized gains from overcoming their original handicaps (Bandura, 1969).

In the 1950s and 1960s many empirical studies carefully investigated clinicians' efforts to infer broad dispositions indirectly from specific symptomatic signs and to unravel disguises in order to uncover the hypothetical dispositions that might be their roots. The results generally indicated that the disillusionment beginning to be expressed by skeptics was empirically justified. The total findings questioned the utility of clinical judgments even when the judges were well-trained expert psychodynamicists working with clients in clinical contexts and using their own preferred techniques. On the whole, clinicians' assessments of underlying genotypic dispositions have not predicted behavior better than the person's own direct self-assessment, simple indices of directly relevant past behavior, or demographic variables (Mischel, 1968, 1972; Peterson, 1968). Moreover, to some degree, psychodynamic inferences, like dispositional attributions, appear to reflect illusory correlations perpetuated by shared semantic organizations and belief systems (Chapman & Chapman, 1969; D'Andrade, 1970; Shweder, 1975). Increasingly it appeared that the intriguing psychic structures and dynamics that clinicians elaborated at case conferences may have added more to the weight of the clients' diagnostic folders than to the design of treatments tailored to their specific needs and circumstances. As distressing as the failure to demonstrate the utility of the inferences and predictions of psychodynamically oriented clinicians was the evidence on the limitations of psychodynamic treatments. Although sometimes psychodynamic psychotherapy seemed better than no treatment at all, the approach lacked efficacy when compared to more parsimonious alternatives (Bandura, 1969; Kazdin & Wilson, 1978). Moreover, skeptics noted perceptively that dynamic therapy might lead to an ideological conversion to the belief system of the therapist rather than to a solution for the client's problems.

CONTEMPORARY COGNITIVE SOCIAL-LEARNING APPROACHES

With the nomothetic trait orientation and the psychodynamic approach as the prevailing forces in personality and clinical psychology, the advent of social behavior theory in the 1960s seemed especially refreshing for many who were

increasingly frustrated by both their correlation coefficients and their treatment experiences. For me, the original excitement of the social-learning behavior approach¹ (Bandura, 1969; Bandura & Walters, 1963; Mischel, 1968; Rotter, 1954; Skinner, 1953) lay in its promise to focus on the client-defined problematic behavior in its context rather than on the clinician's inferences about the symptomatic meaning of that behavior as a sign of generalized dispositions or psychodynamics. At last a person who complained, for example, of sexual performance problems or of fears of going outdoors might achieve help with the behaviors of concern rather than be given insights of uncertain validity into their hypothetical origins or symptomatic significance. In spite of all the ugly stereotypes so often associated with it, the behavioral approach at its best promised to pay more than lip service to each individual's uniqueness and to deal with behavior at the level at which the person categorized and lived it.

A behavior theory contribution of special interest for personality psychology is the view that behavioral discontinuities—real ones and not merely superficial or trivial surface changes—are part of the genuine phenomena of personality (Mischel, 1968, 1973). This perspective suggests that an adequate conceptualization of personality has to recognize that people change as the conditions of their lives change and that these changes are genuine, not merely phenotypic. In that view, an adequate account of human personality must have as much room for human discrimination as for generalization, as much place for personality change as for stability, and as much concern for one's self-regulation as for his or her victimization by either enduring intrapsychic forces or by momentary environmental constraints.

Early versions of the behavioral approach tended to focus on the role of external variables in the regulation of behavior (and hence emphasized contingencies in the environment). The rapid growth in recent years of the behavioral approach was soon accompanied by an increasing focus on the social and psychological environments in which people live, making distinctions between clinical-personality and social-experimental psychology increasingly ambiguous. As is true in most new fields, a first concern in the study of environments has been to try to classify them and provide taxonomies. Depending on one's purpose, however, many different classifications are possible and useful (Magnusson & Ekehammar, 1973; Moos, 1973, 1974). It may be as futile, then, to seek any single "basic" taxonomy of situations as it is to search for a final or ultimate taxonomy of traits: We can label situations in at least as many different ways as we can label people. We must not settle simply for a trait psychology of situations in which events and settings, rather than people, are subject to labeling. The naming of situations is no substitute for analyzing the process of *how*

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¹I refer here to the behavioral-learning approaches that began with an explicit break from the earlier Miller-Dollard translations of psychodynamic theory into the language of learning and that have become increasingly cognitive and social in orientation (Mischel, 1976).

conditions and environments interact with the people in them. That is, we must go beyond descriptions of the environment to the psychological processes through which environmental conditions and people influence each other reciprocally.

In the analysis of this interaction, contemporary behavior theorists moved rapidly beyond the objective environment and took increasing account of cognitive-symbolic processes, both as vital for social learning (Bandura, 1969) and as key components of individuality (Mischel, 1973). Moving beyond the habit-learning and drive formulations of earlier learning models, a focus on cognition generally and, specifically, on the role of subjective expectancies, values, and goals (Rotter, 1954) and of self-instructions, plans, and self-regulatory systems (Bandura, 1977; Meichenbaum, 1977; Mischel, 1973) has increasingly characterized applications of the behavioral approach to the study of persons.

Contemporary versions of behavior theory emphasize that what one does and experiences depends on self-evaluative processes, self-standards, and self-estimates and not merely on environmental and external circumstances (Bandura, 1977; Kanfer, 1975). They continue to cognitivize traditional behavior theory by emphasizing that how events are interpreted may be more crucial than the events themselves. Likewise, they view the individual's awareness of the contingencies in the situation (his or her understanding of what behavior leads to what outcome) as a crucial determinant of the resulting actions and choices. Finally, they stress that any given stimulus condition may have a variety of effects, depending on how the individual construes and transforms it (Mischel, 1974). The result is a much simpler and less mechanical view of the individual, with further evaporation of the boundaries between the personological, social, and cognitive domains. The result also is an emerging view of the person as a cognitive creature with both impressive cognitive competencies and substantial judgmental fallibilities.

For me, especially compelling evidence for the cognitive competencies of people (which we psychologists so easily underestimate) is found when we study young children's growing understanding of psychological principles underlying social behavior. Many of us have quipped at cocktail parties about how our grandmothers knew most of the things that psychologists labor so heavily to discover empirically. Lacking grandmothers, but having good access to young children, we decided to see which findings, if any, from the bedrock principles of our field would become known to youngsters early in the course of development (Mischel & Mischel, 1979). We constructed objective multiple choice tests that confronted children from preschool age through the sixth grade with highly specific questions requiring them to predict the probable outcome of classical experiments in psychology that we carefully described in detail, stripped of jargon, and phrased in age-appropriate ways. These experiments ranged from Asch's study on conformity through Bandura's work on modeling, Pavlov's classical conditioning, and Skinner's studies of reinforcement schedules. Perhaps

we were naive, but we were surprised to find that by the time the children reached about age 10, they knew an impressive amount of psychology. They knew, for example, about the aggression-facilitating effects of watching aggressive models; they knew that live modeling with guided participation is a more effective treatment for phobias than either systematic desensitization or symbolic (film-based) modeling; they knew that Harlow's frightened monkeys would cling to the milkless terry cloth mother more than to the wire one with milk. And although fourth graders did not know that a bystander will be more likely to help when alone than when in a group, this ostensible nonobvious insight of social psychology was known to children by the time they reached the sixth grade.

Let us decide to rely exclusively on our children's psychological knowledge, let me emphasize that their knowledge was not limitless: They were systematically wrong, for example, about conformity in the Asch situation and about the effects of cognitive dissonance, and they did not know Pavlov's discovery about classical conditioning. They did, however, know that intermittent reinforcement makes Skinner's pigeons peck longer after the food stops. The fact that by grade six we get correlations as high as .93 ($N = 10$) between knowledge and intelligence test scores makes us feel that spontaneous knowledge of psychological principles about social behavior may indeed be an important ingredient of personal and cognitive competence, and its developmental course may be worth pursuing systematically.

In my own version of the cognitive-social learning approach (Mischel, 1973, 1979), the person variables of special interest are the individual's competencies, encoding strategies, expectancies, values, plans-rules, and self-regulatory systems.² Even the mere listing of these variables should make it clear how far such a position is from the stereotyped view in which behavioral approaches leave the person a personality-less victim of every momentary situation and how heavy the reliance on cognitive constructs has become. It is equally far from the attempt to develop an exhaustive listing of individual-difference dimensions, motives, and defenses that characterized trait and psychodynamic approaches to personality. Nevertheless, it must be emphasized that the impact of these person variables on behavior hinges on specific interactions between the individual and the psychological conditions of his or her life. In my view, perhaps the greatest resistance to situational forces is shown by some of the individual's personal constructs. The "theories" we form about behavior (as in people's implicit personality theories about self and others) may be some of the most stable and situation-free constructions. That has double-edged consequences. On the one

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²In my current research program I am especially concerned with how encoding strategies are influenced by affective states (Lewinsohn, Mischel, Chaplin, & Barton, 1980; Mischel, Ebbesen, & Zeiss, 1976) with the nature of everyday person-categories and their functions (Cantor & Mischel, 1979); and with the development of the individual's own knowledge and understanding of self-regulatory processes in particular and psychological principles more generally (Mischel, 1979).

hand, the tenacity of these constructions provides a needed degree of stability in an otherwise excessively complex, disorganized, and unstable world. On the other, they also may become hard to disconfirm and may lead us to badly misinfer, as we know from studies of the fallibility of the human judge and intuitive predictor (Nisbett & Ross, 1980).

COGNITIVE ECONOMICS

The same lines of research that help illuminate the nature and limitations of thought and judgment also are helping to clarify some of the puzzles that have made progress in personality and clinical psychology especially difficult. Studies of both clinical judgment and everyday social perception are teaching us much about how the constructs and expectations of the judge and structure interact with whatever data there might be "out there" in the world of the perceived. That is one of the fundamental, enduring messages that emerges from the fields of both personality and cognitive psychology. Indeed, beginning in the late 1940s with the "new look" (Bruner, 1957), we have come to recognize that there are cognitive heuristics (distortions, simplifications, and biases that channel what we expect and how we act) through which we go rapidly beyond the information given. Much in the present volume testifies to the continuation in new forms of this insight.

Especially in the last decade, research in cognitive and social psychology, most notably investigations of how people categorize, simplify, and process information when making social judgments, has begun to illuminate the cognitive bases for many of the enduring paradoxes and historical dilemmas of personality and clinical psychology (Nisbett & Ross, 1980; Tversky & Kahneman, 1971, 1974, 1979). For example, such studies have shown elegantly how certain everyday heuristics of inference may bias the judge (whether layperson or trained scientist) to ignore base rates (unless they are causally relevant) and the reliability of evidence. The "representativeness" heuristic, for instance, leads one to predict incorrectly extreme values and low probability events when they happen to resemble what one is trying to predict. The same heuristic also helps to account for other common judgmental embarrassments found in the literature on clinical inference (Mischel, 1968, Chapter 5). Thus the "illusion of validity" (Kahneman & Tversky, 1973, p. 249) arises and persists because the very factors that enhance the judge's subjective confidence—such as the consistency and extremity of the data—often are correlated negatively, in fact, with the accuracy of predictions, creating the paradox of confident predictors who persist in practices that are objectively unjustifiable. Moreover, the layperson, like the clinician, eagerly seeks *causal* explanations of events (Tversky & Kahneman, 1979) and in these explanations tends most readily and naturally to attribute causality to the enduring dispositions of actors rather than to the particular circumstances in

which they act. The growing insights into our cognitive processes and our fallibility as intuitive psychologists are an important part of the general recognition of what might be called "cognitive economics": the recognition that people (including scientists) are flooded by information that somehow must be reduced and simplified to allow efficient processing and to avoid an otherwise overwhelming overload.

These cognitive economics are a mixed blessing. On the one hand, categorizations are the units essential for any kind of generalizing, providing the foundation of efficient information processing and thought. On the other hand, a reliance on preconceived typologies has its costs as well as its value, potentially encouraging attributions of the characteristics associated with a category to each member, even when those characteristics may not fit the individual. Such gratuitous attributions may constrain the subsequent behavior of the perceived as well as bias the perceptions and actions of the perceiver (Snyder, this volume; Snyder, Tanke, & Berscheid, 1977). A summary of the gist of diverse behaviors may undermine attention to their specific details and nuances. A tendency to exaggerate and overgeneralize the structure that actually exists in the individual's behavior may lead us to underestimate the incompleteness and flexibility in that structure. By searching for "good fits" to our general type categories, we may misjudge—and mistreat—people who poorly fit our preconceptions. The advantage of categorizing is that it allows thought and prevents us from being overwhelmed by a flood of stimuli. The disadvantage is that it allows stereotyping and may lead us to view and treat people on the basis of the types or categories into which we squeeze them rather than on the basis of each individual's uniqueness.

Much confusion in theorizing about personality may reflect a failure to recognize that categorizations are an inevitable, fundamental, and pervasive aspect of information processing, built into our cognitive economics. Such categorizations can be made at different levels, for different goals, and with distinctive gains and losses (Mischel, 1979). Categorizations about people at a fairly molar or global level, as in broad-trait ratings, can provide widely shared characterizations of what individuals "are like in general," and these characterizations of gist or central tendency may be stable and reliable over long periods of time. However, such broad categories will obscure the subtle interactions of the particular individual's behavior with particular contexts. Categorizations at a more molecular, context-bound, and behavioral level, on the other hand, tend to highlight the discriminativeness of behavior in relation to changes in the specific psychological situation, focusing on the within-person variance in behavior rather than on the mean (Mischel, 1968, 1973). A category that greatly helps us to see the fine-grain nuances of someone's behavior as it shifts with changes in life conditions may actually make it more difficult to see the overall gist of what they are doing "on the whole." In recent years, the importance of these categorization

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processes in everyday person perception has begun to be recognized, and provides one of the clearest interfaces of personality, social, and cognitive psychology (Cantor, this volume; Cohen, this volume; Higgins, this volume; Jeffery & Mischel, 1979).

For example, some research suggests that the strategy that perceivers use to process information about a person is affected importantly by their particular purposes. When their purpose is optimal recall, perceivers take account of both unifying traits and unifying contexts to the degree that they are "built-in" (intrinsic) to the actual structure of the information (Cohen, this volume; Jeffery & Mischel, 1979; Mischel, Jeffery, & Patterson, 1974). But when their purpose is either to form an impression or to make specific predictions, they tend to focus primarily on unifying traits, on the attributes of the person, glossing over common contexts. The cost of this strategy may be reduced recall of information about contexts or situations; the gain may be greater cognitive economy in the formation of a coherent person impression.

It also has become increasingly plain that the lay perceiver has a well-structured system of expectations in the form of "implicit personality theories" about what behavioral signs go with what dispositional qualities and about how these qualities, in turn, tend to cluster and co-occur in different kinds of people (Schneider, 1973; Shweder, 1975). There has been much debate about whether or not these configurations are merely illusions in the head of the perceiver. In my view, there certainly are significant, meaningful correlations among person attributes in the real world. For example, there probably is a tendency for sociable behavior to co-occur with talkative and active behavior in certain types of persons (e.g., extraverts), just as sweet songs, feathers, and wings tend to co-occur in certain kinds of animals (e.g., canaries). Structure, I believe, exists neither "all in the head" of the perceiver nor "all in the person" perceived; it is instead a function of an interaction between the beliefs of observers and the characteristics of the observed, in the person domain as well as in the common object domain. While I doubt the utility of broad-trait inferences for many purposes, and certainly do not regard traits as adequate units for the psychological explanation of behavior, I do not question their roots in the behavior of the persons perceived as well as in the cognitive structures of those who perceive them. Perceivers surely go beyond the information they are "given," but they just as surely do not invent regularly the information itself. Information in the head of the perceiver and in the world of the perceived interacts in the course of person perception. Thus, perceivers expect that certain behaviors go together: To some significant extent these co-occurrences do occur more often than by chance; in the search for the gist of another person's qualities, perceivers can discount molecular inconsistencies and exaggerate observed invariances to build meaningful coherences about the individual's distinguishing characteristics (Cantor, this volume). Instead of debating the existence or reality of such coherences, we need

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In sum, the term "personality psychology" does not need to be limited to the study of differences between individuals in their consistent attributes, as it has been traditionally. Personality psychology ultimately must also encompass the study of how people's cognitive and behavioral activities, their understandings and actions, interact with—and shape reciprocally—the conditions of their lives.

A comprehensive approach to personality psychology, in my view, must emphasize the interdependence of behavior and conditions, mediated by the constructions and cognitive activities of the person who generates them (Mischel, 1973). It must recognize the human tendency to invent constructs and to adhere to them as well as to generate subtly discriminative behaviors across settings and over time. It must take account of the crucial role of situations (conditions) but recognize that they serve as informational inputs whose effect on behavior depends on how they are processed. Moreover, such an approach needs to recognize that the person's behaviors and expectations change situations as well as being changed by them in a reciprocal interaction (Athay & Darley, this volume; Snyder, this volume). The present volume should help to illuminate those reciprocal interactions while simultaneously bridging arbitrary divisions between personality, social, and cognitive psychology. The work reported in the following pages should nicely document the increasing fuzziness of those categories. I hope that this work also points toward a future in which both cognitive and social processes will become fully integrated into a coherent and comprehensive view of the person.

ACKNOWLEDGMENTS

I deeply appreciate the helpful comments of Nancy Cantor and John Kihlstrom on earlier versions of this chapter.

Preparation of this chapter was facilitated by Grant MH06830 from the National Institute of Mental Health and by Grant HD MH09814 from the National Institute of Child Health and Human Development.

Portions of this chapter are adapted from Mischel, 1979.

REFERENCES

- Allport, G. W. *Personality: A psychological interpretation*. New York: Holt, Rinehart & Winston, 1937.
- Allport, G. W., Vernon, P. E., & Lindzey, G. *A study of values* (3rd ed.). Boston: Houghton Mifflin, 1960.

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- Bandura, A. *Principles of behavior modification*. New York: Holt, Rinehart & Winston, 1969.
- Bandura, A. *Social learning theory*. Englewood Cliffs, N.J.: Prentice-Hall, 1977.
- Bandura, A., & Walters, R. *Social learning and personality development*. New York: Holt, Rinehart & Winston, 1963.
- Block, J. Advancing the psychology of personality: Paradigmatic shift or improving the quality of research. In D. Magnusson & N. S. Endler (Eds.), *Personality at the crossroads: Current issues in interactional psychology*. Hillsdale, N.J.: Lawrence Erlbaum Associates, Erlbaum, 1977.
- Bruner, J. S. On perceptual readiness. *Psychological Review*, 1957, 64, 123-152.
- Cantor, N., & Mischel, W. Prototypes in person perception. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 12). New York: Academic Press, 1979.
- Chapman, L. J., & Chapman, J. P. Illusory correlations as an obstacle to the use of valid psychodiagnostic signs. *Journal of Abnormal Psychology*, 1969, 74, 271-280.
- D'Andrade, R. G. Cognitive structures and judgment. Paper prepared for T.O.B.R.E. Research Workshop on *Cognitive Organization and Psychological Processes*, Huntington Beach, Calif., August 16-21, 1970.
- Epstein, S. The stability of behavior: I. On predicting most of the people much of the time. *Journal of Personality and Social Psychology*, 1979, 37, 1097-1126.
- Erdelyi, M. H., & Goldberg, B. Let's not sweep repression under the rug: Towards a cognitive psychology of repression. In J. F. Kihlstrom & F. J. Evans (Eds.), *Functional disorders of memory*. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1979.
- Festinger, L. *A theory of cognitive dissonance*. Stanford, Calif.: Stanford University Press, 1957.
- Grossberg, J. M. Behavior therapy: A review. *Psychological Bulletin*, 1964, 62, 73-88.
- Guilford, J. P. Factors and factors of personality. *Psychological Bulletin*, 1975, 82, 802-814.
- Hartshorne, H., & May, M. A. *Studies in deceit*. New York: Macmillan, 1928.
- Jeffery, K. M., & Mischel, W. Effects of purpose on the organization and recall of information in person perception. *Journal of Personality*, 1979, 47, 397-419.
- Kahneman, D., & Tversky, A. On the psychology of prediction. *Psychological Review*, 1973, 80, 237-251.
- Kanfer, F. H. Self-management methods. In F. H. Kanfer & A. P. Goldstein (Eds.), *Helping people change*. New York: Pergamon, 1975.
- Kazdin, A. E., & Wilson, G. T. *Evaluation of behavior therapy: Issues, evidence and research strategies*. Cambridge, Mass.: Ballinger, 1978.
- Kelly, G. A. *The psychology of personal constructs* (Vols. 1 & 2). New York: Norton, 1955.
- Labov, W. The boundaries of words and their meanings. In C. J. Bailey & R. Shuy (Eds.), *New ways of analyzing variations in English*. Washington, D.C.: Georgetown University Press, 1973.
- Lakoff, G. Hedges: A study in meaning criteria and the logic of fuzzy concepts. *Papers from the 8th Regional Meeting, Chicago Linguistics Society*. Chicago: University of Chicago Linguistics Department, 1972.
- Lehrer, A. Indeterminacy in semantic description. *Glossa*, 1970, 4, 87-109.
- Lewin, K. *Field theory in social science; selected theoretical papers*. D. Cartwright (Ed.), New York: Harper & Row, 1951.
- Lewinsohn, P. M., Mischel, W., Chaplin, W., & Barton, R. Social competence and depression: The role of illusory self-perceptions? *Journal of Abnormal Psychology*, 1980, 89, 203-212.
- McClelland, D. C. *Personality*. New York: Holt, Rinehart & Winston, 1951.
- Magnusson, D., & Ekehammar, B. An analysis of situational dimensions: A replication. *Multivariate Behavioral Research*, 1973, 8, 331-339.
- Meichenbaum, D. *Cognitive-behavior modification*. New York: Plenum Press, 1977.
- Mischel, W. *Personality and assessment*. New York: Wiley, 1968.
- Mischel, W. Direct versus indirect personality assessment: Evidence and implications. *Journal of Consulting and Clinical Psychology*, 1972, 38, 319-324.
- Mischel, W. *Toward* *Review*, 1973, 8.
- Mischel, W. *Proces* *social psycholog*
- Mischel, W. *Introd*
- Mischel, W. *The in* *Personality at th* *ence Erlbaum A*
- Mischel, W. *On th* *American Psych*
- Mischel, W. *Georg* *(Ed.), Psychoth*
- Mischel, W., *Ebbes* *of Consulting ar*
- Mischel, W., *Jeffer* *tion to predict b*
- Mischel, W., & *Mi* *preparation, Sta*
- Mischel, W., & *Pe* *University, 197*
- Moos, R. H. *Conc* *665.*
- Moos, R. H. *Syste* *& P. M. Insel (I*
- Murray, H. A. *Exp*
- Nisbett, R. E., & *I* *Century Series*
- Peterson, D. R. *Th*
- Rosch, E. *Cognitiv*
- Rosch, E., *Mervis* *categories. Cog*
- Rotter, J. B. *Socia*
- Schneider, D. J. *In*
- Shweder, R. A. *Ho* *ity*, 1975, 43, *-*
- Skinner, B. F. *Sci*
- Smith, E. E. *Thec* *cognitive proce*
- Snyder, M., *Tanke* *self-fulfilling na* *35, 656-666.*
- Tversky, A. *Featu*
- Tversky, A., & *Ka* *76, 105-110.*
- Tversky, A., & *Ka* *185, 1124-113*
- Tversky, A., & *K.* *(Ed.), Progres*
- Vernon, P. E. *Per*
- Wittgenstein, L. *F*

- Mischel, W. Toward a cognitive social learning reconceptualization of personality. *Psychological Review*, 1973, 80, 252-283.
- Mischel, W. Processes in delay of gratification. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 7). New York: Academic Press, 1974.
- Mischel, W. *Introduction to personality* (2nd ed.). New York: Holt, Rinehart & Winston, 1976.
- Mischel, W. The interaction of person and situation. In D. Magnusson & N. S. Endler (Eds.), *Personality at the crossroads: Current issues in interactional psychology*. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1977.
- Mischel, W. On the interface of cognition and personality: Beyond the person-situation debate. *American Psychologist*, 1979, 34, 740-754.
- Mischel, W. George Kelly's anticipation of psychology: A personal tribute. In M. J. Mahoney (Ed.), *Psychotherapy process: Current issues and future directions*. New York: Plenum, 1980.
- Mischel, W., Ebbesen, E., & Zeiss, A. R. Determinants of selective memory about the self. *Journal of Consulting and Clinical Psychology*, 1976, 44, 92-103.
- Mischel, W., Jeffery, K. M., & Patterson, C. J. The layman's use of trait and behavioral information to predict behavior. *Journal of Research in Personality*, 1974, 8, 231-242.
- Mischel, W., & Mischel, H. N. *Children's knowledge of psychological principles*. Manuscript in preparation, Stanford University, 1979.
- Mischel, W., & Peake, P. *Correlates of children's delay behavior*. Work in progress, Stanford University, 1979.
- Moos, R. H. Conceptualizations of human environments. *American Psychologist*, 1973, 28, 652-665.
- Moos, R. H. Systems for the assessment and classification of human environments. In R. H. Moos & P. M. Insel (Eds.), *Issues in social ecology*. Palo Alto, Calif.: National Press Books, 1974.
- Murray, H. A. *Explorations in personality*. New York: Oxford, 1938.
- Nisbett, R. E., & Ross, L. D. *Human inference: Strategies and shortcomings of social judgment*. Century Series in Psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1980.
- Peterson, D. R. *The clinical study of social behavior*. New York: Appleton, 1968.
- Rosch, E. Cognitive reference points. *Cognitive Psychology*, 1975, 1, 532-547.
- Rosch, E., Mervis, C., Gray, W., Johnson, D., & Boyes-Braem, P. Basic objects in natural categories. *Cognitive Psychology*, 1976, 8, 382-439.
- Rotter, J. B. *Social learning and clinical psychology*. Englewood Cliffs, N.J.: Prentice-Hall, 1954.
- Schneider, D. J. Implicit personality theory: A review. *Psychological Bulletin*, 1973, 73, 294-309.
- Shweder, R. A. How relevant is an individual difference theory of personality? *Journal of Personality*, 1975, 43, 455-485.
- Skinner, B. F. *Science and human behavior*. New York: Macmillan, 1953.
- Smith, E. E. Theories of semantic memory. In W. K. Estes (Ed.), *Handbook of learning and cognitive processes* (Vol. 5). Potomac, Md.: Lawrence Erlbaum Associates, 1976.
- Snyder, M., Tanke, E. D., & Berscheid, E. Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology*, 1977, 35, 656-666.
- Tversky, A. Features of similarity. *Psychological Review*, 1977, 84, 327-352.
- Tversky, A., & Kahneman, D. Belief in the law of small numbers. *Psychological Bulletin*, 1971, 76, 105-110.
- Tversky, A., & Kahneman, D. Judgment under uncertainty: Heuristics and biases. *Science*, 1974, 185, 1124-1131.
- Tversky, A., & Kahneman, D. Causal schemata in judgments under uncertainty. In M. Fishbein (Ed.), *Progress in social psychology*. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1979.
- Vernon, P. E. *Personality assessment: A critical survey*. New York: Wiley, 1964.
- Wittgenstein, L. *Philosophical investigations*. New York: Macmillan, 1953.