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## A Cognitive-Social Approach to Personality

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### An Interdisciplinary Approach to Personality

Personality psychology seems to be caught among conflicting goals, themes, and forces. On the one hand it is a psychology of "individual differences" with a commitment to an idiographic approach. On the other hand, the study of individual differences requires (at least initially) a focus on general processes, mechanisms, and dimensions of behavior (e.g., nomothetic traits, general principles of social learning). Similarly, personologists have been mainly attentive to the search for intraindividual stability, with the person as the main unit of analysis. Intraindividual behavioral stability, however, turns out to be heavily dependent on the social-situational context and subject to variation as a function of both cognitive and social-situational factors. Personality theorists increasingly embrace the view that individual social behavior is partially shaped by the expectations and observation of actors in social interaction settings (Magnusson & Endler, 1977; Mischel, 1973). Behavior may be determined as much by the inferences an actor draws about his/her own dispositions, the requirements of a situation, and the behavior of others as it is by fully formed predispositions or traits. A social psychological interpretation of personality focuses on the *dynamic* growth and development of consistent patterns of behavior over the course of a social interaction sequence (Darley & Fazio, 1978; Snyder & Swann, 1978a). A cognitive-social psychological interpretation supplements this position by focusing on the role of prior inferences and current perceptions about the self and others and the situation in shaping an individual's social responses.

The current broadening of personality psychology results in a discipline concerned as much with general processes as with specific dimensions of individual

differences, a discipline as sensitive to the dynamic, interactional character of social behavior as it is devoted to finding underlying stability and generality (Magnusson & Endler, 1977). Personality psychology in its broadened form shares substantially with both social and cognitive psychology. The focus on cognitive mediation, the role of goals, expectations, and interpretations in shaping behavior joins personologists and cognitivists in common cause. Social and personality theorists similarly join forces in a concern with the subtle control of situational variables over behavior and the interactive, dynamic nature of social behavior. The intersection of the interests of all three areas involves the fundamental interaction between relatively long-term person variables like knowledge structures or dispositions and relatively short-term and immediate social-situational conditions as they conspire together to shape cognitive activity and social behavior (see, for example, the distinctions in the cognitive literature between top-down and bottom-up processing, the social psychological treatment of self-fulfilling prophecies, and the person-situation interactionism debate in personality psychology). Behavior occurs in a social context with other people, over time, and in actors who have well-structured beliefs and expectations about situations, people, and their typical behavior in similar social interactions. Dynamic interactionism involves sometimes complementary, sometimes conflicting interests—forces of the individual and the social situation, prior beliefs and the immediate reality, long-term stability and short-term specificity, as well as the constant interplay between affective reactions and cognitive mechanisms. The determinants of behavior are so multifaceted and complex that the study of social behavior and personality seems to beg for an interdisciplinary psychological approach.

#### FIGURE-GROUND MODEL OF SOCIAL BEHAVIOR

Actors in a social interaction are constantly (and probably automatically) engaged in categorizing, testing, changing, and updating their theories about the ongoing "event" (its actors, setting, goals, outcome, etc.). A figure-ground model of personality sees social behavior as figure against a background of cognitive and affective activity within the individual. Such background cognitive activity may sometimes be in the direct service of planning behavior, but it may also simply be part of social reactions and occur almost automatically and quite nonstrategically. Social reactions are to some degree "theory driven"; we enter situations with expectations, form impressions of people quite quickly, and shape behavior with these in mind. However, there is also a fine and complex interplay between prior expectations and current perceptions. As the interaction unfolds, we are sensitive to the actual stimuli in the present context; expectations are changed and behavior is planned to fit both prior beliefs and current reality. The

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cornerstone of such a model is the dynamic interaction of prior beliefs/expectations and current social conditions and perceptions. Consider the following personal example of behavior born of such an interaction.

*A New York Subway Experience*

Having read newspaper articles claiming an increase in subway crime in New York, I go in to the city and spend my entire time identifying potential muggers, rapists, and murderers. Riding downtown in the subway, I carefully consider each new person who enters the subway car, trying to abstract a total picture—physical appearance, facial expression, clothes, place that he/she got on, shopping bag that he/she is holding. I consider the various categories into which he/she might fit—for example, criminal type, ex-mental patient, or disgruntled graduate student down in the dumps over a rejection slip from *Journal of Personality and Social Psychology*. Having considered the possibilities, having matched the person's attributes to my prototype for each of these categories, and having seen that he/she better fits my criminal-type prototype than my angry-graduate-student one, I calmly inspect the distance between us, decide that he/she is ominously close, make a sudden decision to get off at Macy's instead of hitting the galleries in Soho, and leave the subway. As I exit, slipping calmly past the supposed criminal, I find that the suspicious looking shopping bag contains a plant, cat food, and the latest copy of *Science* magazine; that the ragged clothes are a N.Y.U. jogging outfit; and that the grubby haircut is the eastern version of the California laidback look. Thoroughly embarrassed, I stand like an idiot waiting for the next train and trying to think of a plausible excuse to give for my 20-minute delay enroute to Soho. Having totally failed in my "New York subway script," I vow to be more thorough in my assessments next time and consider revising my associations among the shopping bag, ragged sweat shirt, and the prototype for a criminal at large in New York—after all, New York criminal types are bound to be clever, having had so much experience, and I had better rethink their likely appearance in preparation for the ride home.

I am primarily concerned here with the cognitive components underlying social behavior. From this perspective the preceding example can be analyzed into at least three components: the structure of the cognitive system, the structure of the social context, and the cognitive processes operating on prior beliefs/expectations and current social stimuli and perceptions that lead us from thought to action. The present chapter touches briefly on each of these three "cognitive" components; I use the "subway example" and references to empirical work on social categorization and theory-testing processes in order to illustrate the hypothesized role of each component in shaping an individual's social behavior. The empirical work places particular emphasis on three domains of social perception and interaction in which categorization and theory-testing processes seem salient: making psychiatric diagnoses, labeling other people as certain "types" and categorizing types of everyday situations. For example, I am concerned with the role of "cognitive structure," "input data," and "cognitive categorization

processes" as they determine the psychiatrist's choice of the label "manic-depressive" for a patient, the layperson's view of a friend as "hyper," and my belief that New York subways are "hectic-dangerous-stressful" situations.

### COGNITIVE STRUCTURE

The component labeled "cognitive structure" is clearly a broad and vaguely defined one; it should include the person's belief system and knowledge practically in its entirety. For the present purposes, it is used to refer to social *generalizations* that the actor-observer has drawn from direct personal experience or indirect exposure through the media and other institutions of culture. In particular, a categorical analysis of social knowledge focuses on the multiple categorization schemes that people frequently apply to people, to everyday social situations, and to their own feelings and behaviors. Associated with these social categories are beliefs about the attributes typically descriptive of category members. According to this view, cognitive-social structure consists of the (multitude of) "bins" into which the observer might sort his/her social experience and the *expectations* that are associated with each social category. For empirical research, cognitive-social structure can be sliced small or large. For example, one could study individual social categories such as beliefs about the class of extraverts (Ashmore & Del Boca, 1979; Cantor & Mischel, 1977; Cohen, 1977) or whole social taxonomies with multiple, interrelated categories of different amounts of inclusiveness (Cantor & Mischel, 1979; Taylor, 1979). Similarly, the expectations or generalizations about the typical category exemplar (member) are only relatively stable; they change and shift over the course of an individual's life, a culture's development, and even a single psychology experiment.

Returning briefly to my "subway experience": I had three categories of person types, I had primed my image of myself as a spineless weakling (and short to boot), and I had activated my category of stressful-dangerous situations—all this before I even entered the subway car. Further, I had activated abstract images (prototypes) of the physical and behavioral attributes common to these different types of people and situations. I had in my head a set of attributes that typically co-occurred with criminal types, depressed graduate students, and emotional patients, and I had a prototype for stressful situations like subways. In fact, my prototype of a "criminal type" is so strong that I would have been quite surprised to find one without a twitching face, shopping bag, and grubby appearance. I also have a clear affect—fear—associated with this collection of people. All this information was easily accessible and organized on the basis of previous experience, either direct or based on TV news and movies.

Turning from personal experience to empirical work, my research on cognitive structure has been primarily concerned with categories of psychiatric disorders, types of personalities, and everyday social situations (Cantor, 1979; Cantor

& Mischel, 1979; Cantor, 1978; Smith & Medin, 1978). Research has been to for the representation tables, cars, etc. The categories may be in the category. The category has been defined in come to depend on the variously defined as: as the mean value of sion (Posner & Keele, 1970) the category (Ebbesen, 1979; Walker, 1975) members of a category of association with the Rosch & Mervis, 1975).

So, according to the would be a single known "criminal type 2.3 children, be .25 on. This central ten individual. By contrast category of "criminal Sam killer" or Charles of a compromise between features (like "shop face") abstracted on tative of "criminal type person types (e.g., people with it to indicate that occur in this category possess all these features describe a real "criminal set prototype seems situations. It is described average value one). features, it is less an abstract prototype can be found in different people feature set prototype has emphasized this person to store in memory

& Mischel, 1979; Cantor, Smith, French, & Mezzich, 1979). The strategy in this research has been to draw on work in the domain of object perception (Rosch, 1978; Smith & Medin, 1979; Tversky, 1977), particularly with regard to models for the representation and organization of knowledge about common objects like tables, cars, etc. The basic notion in this research has been that knowledge about categories may be internally represented and structured in terms of *prototypes* for the category. The category prototype, representing the meaning of the category, has been defined in many ways. The best choice of definition may ultimately come to depend on the domain under study. For example, prototypes have been variously defined as: (1) the central tendency of a set of geometric forms, defined as the mean value of the set of stimulus objects on each relevant feature dimension (Posner & Keele, 1968; Reed, 1972); (2) a representative set of exemplars of the category (Ebbesen & Allen, 1979; Medin & Schaffer, 1978; Smith & Medin, 1979; Walker, 1975), or (3) an abstract set of features commonly associated with members of a category, with each feature assigned a weight according to degree of association with the category (Cantor et al., 1979; Cantor & Mischel, 1979; Rosch & Mervis, 1975; Smith & Medin, 1979).

So, according to the *average value* view, my prototype of a "criminal type" would be a single composite representing the central tendency of the set of known "criminal types." Such a figure might have 8.7 years of education, have 2.3 children, be .25 white and .75 male with .35 of a twitch on its face, and so on. This central tendency prototype would not be descriptive of any actual individual. By contrast, the *exemplar* view would represent my knowledge of the category of "criminal types" by actual prototypical exemplars like "the son-of-Sam killer" or Charles Manson. The *abstract feature set* prototype is somewhat of a compromise between these two other views. It would contain a large set of features (like "shopping bag," "grubby appearance," and "twitch on the face") abstracted on the basis of direct or vicarious experience as both representative of "criminal types" and likely to distinguish criminals from other related person types (e.g., psychotics). (Each feature might also have a weight associated with it to indicate the frequency with which a particular feature is believed to occur in this category.) Although no individual criminal would be expected to possess all these features, any subset of features in the prototype might well describe a real "criminal," recognizable to all on the street. The abstract feature set prototype seems particularly suited to the domain of persons and social situations. It is descriptive of *real* people and situations (as contrasted with the average value one). Moreover, because it contains a large and varied set of features, it is less restrictive than one based on a few known exemplars; the abstract prototype can better represent the *variety* of possible subsets of features found in different persons or situations. For these reasons, I view the abstract feature set prototype as best suited to the social domain and my empirical work has emphasized this later conceptualization. (Of course, I would also expect a person to store in memory descriptions of highly familiar exemplars of particular

person categories. I have a clear idea of the particular attributes of Charles Manson, in addition to thinking that a large set of attributes is descriptive of the general class of "criminal types.")

I have looked for evidence of rich and well-structured *consensual prototypes* (defined as sets of attributes that lay people tend to generate and agree upon in describing typical category members) in a variety of different social domains. For instance, Cantor and Mischel (1979) found that undergraduates can generate with relative ease lists of features common to exemplars of a variety of different personality categories like "jocks," "geniuses," "extraverts," and "phobics." The consensual features taken from these lists collectively characterize the category. We define the consensual feature list as the category prototype (Rosch, 1978). The individual features in the prototype list can also be assigned differential weight according to the number of subjects who had originally generated the feature or the percentage of category members with whom the feature is associated. Similar methods have been used to obtain prototypes in the psychiatric domain. Psychiatrists generate fairly rich consensual prototypes for standard diagnostic categories, prototypes that contain many clinical features not found in the professional diagnostic manuals (Cantor et al., 1980). Analyses of the content of the prototypes suggest that perceptual (visual appearance), functional (behavioral), and more abstract (dispositional) features are associated with categories in these domains. Prototypes can also be generated for categories of everyday social interaction situations—parties, classes, and political demonstrations. Content analysis suggests that our knowledge or beliefs about situation categories is tied in great measure to the (proto)typical behavior observed in these situations as opposed to other non-person-oriented features of a situation such as its physical structure (Cantor, 1979).

Pursuing this approach further, it is fruitful to analyze larger chunks of cognitive structure in each domain. One can compare the content, richness, and distinctiveness of prototypes for categories at different levels of inclusiveness in whole taxonomies. For example, Cantor and Mischel (1979) found that the lower levels of inclusiveness of social categorization (i.e., subordinate categories) emphasize the more perceptual and less abstract classes of features. Considering the three taxonomies illustrated in Table 2.1, more information about the typical visual appearance and function or behavior of category members is represented in the consensual prototypes for the less inclusive categories in these taxonomies (kitchen chair, door-to-door salesman, paranoid schizophrenic). The category prototypes for the most abstract categories in these taxonomies (furniture, extravert, functional psychotic) not only are less rich in concrete details but also are less rich in total number of features as well (Cantor et al., 1980; Cantor & Mischel, 1979; Rosch, Mervis, Gray, Johnson, & Boyes-Braem, 1976). The "middle"-level categories in these taxonomies (chair, p.r. type, schizophrenic) have both rich and distinctive prototypes. The prototypes for these categories were richer than those obtained for the most inclusive categories, and there was

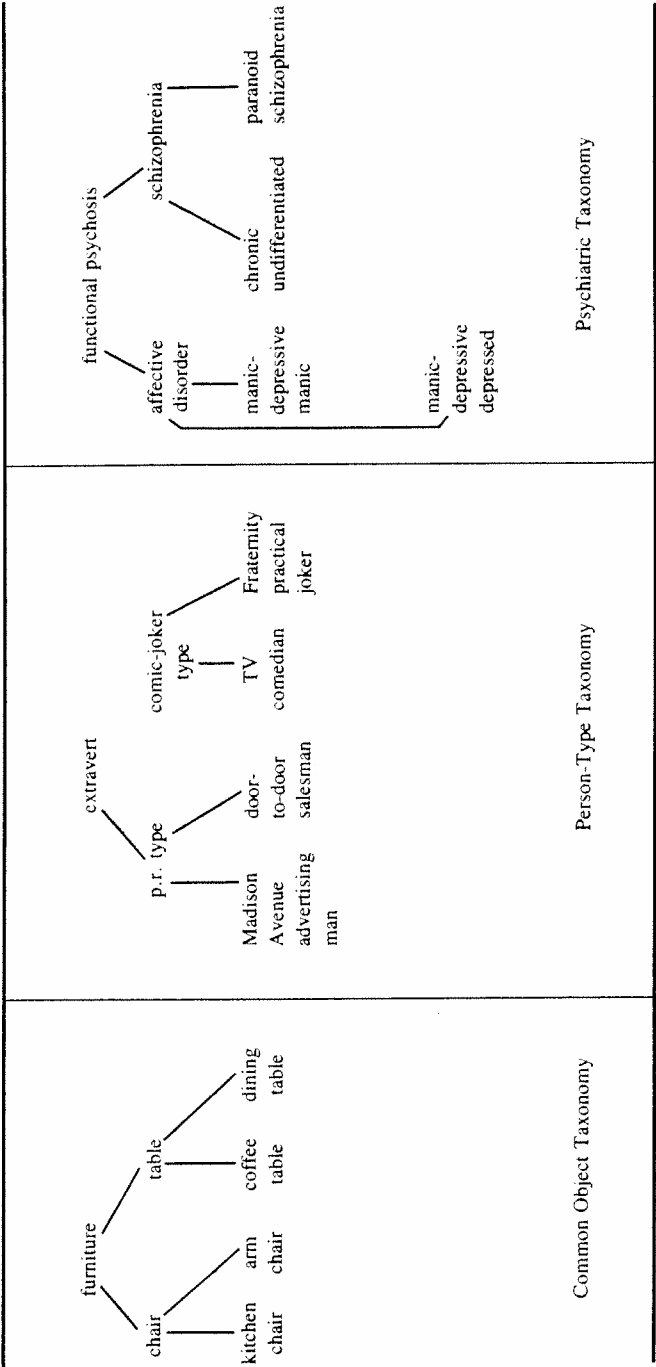
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less overlap between the attribute lists for neighboring categories at this middle level than at the more detailed level of subordinate categorizations. Thus the middle level of categorization seems to be the one that provides rich, distinctive, and vivid social prototypes—a level that people presumably may find easiest and most convenient to use in everyday communication and thought. Research on this question may provide solutions to practical problems such as the most appropriate and useful levels of analysis for psychiatric diagnosis or personality assessment.

In addition to multiple levels of categorization, social experience can also be chunked and structured according to entirely different categorical schemes. The same experience can be organized, for example, around a "person focus"—serving to highlight different types of persons—or a "situation focus," which emphasizes the physical and psychological features of the interaction context. The potential for alternative constructions of the same social world raises again the issue of the relative utility of different categorical foci. In this case, utility is not measured by successful diagnosis or assessment procedures but rather by rich and easily accessible descriptions of social experience that might serve as guidelines for planning social behavior.

Reaction-time (RT) paradigms in which subjects are asked to form an image as quickly as possible describing a certain type of person or situation can provide a handle on questions of "construct accessibility" (see Higgins, Chapter 4, this volume) and the relative utility of constructive alternativism—"thinking in different ways" with different categorical organizations. These imagery-RT paradigms provide at least three sources of relevant data: (1) *Reaction-time* data can be used to assess ease of access of the relevant information via one or more types of categorical organization (e.g., person or situation images); (2) Data on the *length* of the images and the *number of information units* provide measures of the degree of articulation of these various categories of information; (3) *Content analyses* provide a measure of the kinds of attributes that one type of categorical focus (e.g., a focus on situations) would highlight as compared with an alternate categorical organization (e.g., a focus on people). Together, these data can provide some indication of the consequences of adopting a person or an environmental focus upon entering an everyday social interaction.

For example, Cantor, Mischel, and Schwartz (Cantor, 1979) recently asked people to use different categorical schemes to access social information. Specifically, they were asked to form visual images of persons (e.g., a jock), of situations (e.g., an athletic event), or of persons in situations (e.g., a jock at an athletic event). Substantial differences were observed in the time required to form the requested images and in the richness of the images. *Situation* images were actually easier to form and richer in content than *person-in-situation* ones, which in turn were more accessible and richer than simple *person* images alone. Content analyses of the *situation* images showed that participants in this condition had actually accessed a great deal of information descriptive of persons and

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behavior typically found in the situation. Hence, the content of the *situation* and *person* images overlapped considerably. However, it was easier (with regard to speed of accessibility) to organize and access this knowledge via situation labels (a social event) than via person labels (an extravert) or even *person-in-situation* labels (an extravert at a social event). These data suggest that situation categories and situation prototypes provide powerful cognitive guides for structuring and describing social experience. They may also serve as guidelines to socially appropriate behavior in many social interaction situations.

The aforementioned paradigm—combining a prototype and imagery-RT analysis—can also serve to underscore individual differences in social cognition. Knowledge about the social world can clearly be organized by different people around different focal concepts (e.g., typical people I interact with versus typical situations in which I find myself) and individual differences in preferred focus may be reflected in the accessibility and richness of images. For example, an individual differences analysis used by Snyder and Cantor (1979b) in an imagery paradigm revealed one class of people (low self-monitors) who find it easiest to image information about *themselves* compared to situations or abstract categories of people. Low self-monitoring individuals (as measured on the Snyder self-monitoring scale) formed richer images of “themselves” manifesting a variety of common traits in different situations than did high self-monitoring individuals. In contrast, high self-monitoring individuals formed richer images of the “prototypic person” in a variety of trait domains than did the low self-monitoring participants. These individual differences in preferences for different categorical organizations may also be associated with individual differences in social behavior in interactions (Snyder, 1979). For example, some people may most frequently choose to shape their behavior to be “true to their *self-image*” (e.g., focusing on self-categorizations); others may try to fit the personality and needs of the *other person(s)* in the interaction (e.g., focusing on other-person categorization); while still other individuals may try to be the “*prototypic person for the situation*” in which the interaction takes place (e.g., focusing on situation categorizations). To understand these cognitive-behavioral strategies, we need to know more about the richness and utility of information from these various sources, as well as the conditions under which people come to focus on particular kinds of categorization of experience.

How do social knowledge structures, as defined herein and investigated by cognitive and social psychologists, relate to the traditional concerns of personality psychologists? Following Bruner (1957), I see knowledge structures as providing an enormously rich and powerful constraint on individual behavior in social interactions. It is like a particularly dominant stage setting as the curtain rises on the opening scene (Goffman, 1974). Both the content of an individual's cognitive-social structure and his/her typical “encoding strategies” (Mischel, 1973) should be the focus of the personologist's attention if we are to be successful in predicting social behavior. Further, analyses of such powerful cognitive

predispositions also provide a view in miniature of the tensions and issues in personality psychology. Cognitive structure is both a stable backdrop and a dynamic script full of emergent guidelines for action to come. It can be idiosyncratically organized and yet faithfully mirror the nomothetic culture of the day. We call it *cognitive* structure and, even so, the beliefs I associate with subways and criminals are affectively "hot" (Abelson, 1976). By *structure* we imply stability and tradition; yet it is tradition waiting to be broken. The criminal type won't always have a scarred and twitching face and lunge at me in the expected manner, just as the person who scores high in extraversion may sometimes appear to be uncharacteristically introverted. A truly dynamic, idiographic yet nomothetic (idiotetic?) approach is clearly called for in a discipline that combines cognitive and social principles into a psychology of personality.

### SOCIAL STIMULI IN THE INTERACTION SETTING

At the opposite pole from *cognitive structure* stands the *stimulus structure* and context sensitivity of social perception. Consequently, analysis of the contextual component involves moving from the observer's "head" to the observation situation. The structure of contexts make certain aspects of stimuli particularly salient and likely to receive attention (Tversky, 1977). The accessibility of particular categorization schemes is as much a function of contextual structure as of cognitive structure and expectations (Taylor & Fiske, 1978). Our interpretations of behavior are sensitive to the context in which the actions are observed (Cantor, 1978; Jones & Davis, 1965). So the crowded, dark, rushed subway atmosphere makes salient certain "menacing" features of other people and certain "fearful" aspects of my own affective and physical reactions. Similarly, a psychiatrist's interpretations of an intake interview is presumably as much a function of the filtering of data through the patient's report—an aspect of contextual structure—as it is shaped by the psychiatrist's theoretical preconceptions.

Social psychologists have acknowledged and investigated, for some time, the powerful influence over social behavior and perception of slight, often seemingly trivial, variations in the structure of a situation (Orne, 1962; Rosenthal, 1966). Though social-learning theorists have repeatedly stressed the need for functional and structural analyses of contexts (Mischel, 1976; Rotter, 1954), personality psychologists have been slow to embrace the "situationist" perspective. However, recent attention to "situations" within the (PXS) interactionist camp suggests a shift in focus (Magnusson, 1980; Magnusson & Endler, 1977). As one example of the value of a serious analysis of situations, Price (1979) recently argued that preventative mental health programs could benefit as much by analyzing classes of "risky life situations" (e.g., divorce, pregnancy, change in jobs) as from a focus on high-risk groups of people. Similarly, Argyle (1979)

tries to train social and physical psychologists to see the underlying structure of the interactional analysis: constant and variable "objectify" social activities of the situation that such analyses of situations and behaviors (Neisser, 1976) components.

At the outset of personality psychology, more than being fit to the individual's context in a fluid manner, expectations are a social context between the action and the situation. The "contextual mechanism" for actors in a social process, "sizing up" and expectations of behavior to fit the processes in the environment underestimate.

Cognitive psychology subprocesses of the present chapter focusing, social

Cognitive Psychology The actor in a situation: stimuli to receive a set of facts, behaviors respect to the situation we must assume

tries to train his patients in "social skills" by focusing their attention on the social and physical structure (characteristics) of different everyday situations—the underlying normative rules of behavior for the situation. (Of course, the situational analyses may be more successful in England, where some structure remains constant and bound by tradition.) Clearly, personologists would be mistaken to "objectify" situational structure independent of the beliefs and perceptual proclivities of the observer and of his/her cultural heritage. It is absolutely essential that such analyses focus on the interactive construction of reality—both perceptions and behavior—as a function of both cognitive and contextual structure (Neisser, 1976). Hence, I turn now to the cognitive processes that unite those components.

### COGNITIVE PROCESSES

At the outset of this chapter, I stress the growing concern expressed by personality psychologists for the dynamic, interactional aspects of "personality." Rather than being fixed by a set of clearly defined dispositions, personality—each individual's characteristic pattern of response to a situation—may evolve in a fluid manner as a function of a continual adjustment between the beliefs and expectations and desires of the individual and the social-situational forces in the social context. Social behavior may, at any given moment, reflect an adjustment between the cognitive and affective structure that the actor brings to an interaction and the social-situational structure that he/she finds in the interaction context. The "cognitive-process" component provides the dynamic, constructivist mechanism for such an adjustment process. According to the present position, actors in a social interaction are constantly engaged in a subtle adjustment process, "sizing up" the "interaction event," testing and updating their theories and expectations, and planning (more or *less* consciously or strategically) behavior to fit their current perceptions and goals. The importance, then, of cognitive processes in the shaping of dynamic, adaptive behavior patterns should not be underestimated.

Cognitive processes in social interaction can be thought of as a collection of subprocesses operating in tandem with mutual interrelations and influences. The present chapter considers briefly the role of three such subprocesses: cognitive focusing, social categorization, and theory revision.

#### Cognitive Focusing

The actor in a social interaction is faced with an overload of information and stimuli to receive attention. This overload occurs both with regard to the complex set of facts, beliefs, and feelings that the actor brings to the interaction and with respect to the complexities of the social-situational environment. Clearly, then, we must assume that as the interaction unfolds, certain "information domains"

within the total setting and particular personal goals and feelings of the actor become the focus of special attention. For instance, Higgins (this volume) discusses the relative accessibility and salience of different constructs or expectations that the actor brings to an interaction; whereas Cohen (in this volume) emphasizes the shifting prominence of the various "observational goals" of the actor as the interaction unfolds. Returning to my "subway scene," I clearly brought to the interaction a focus on certain select-person categories—"abnormal" types like criminals, mental patients, and disgruntled graduate students. Further, as the subway ride wore on, I became increasingly focused on my goal of *remaining unharmed*, subjugating my other goal of *getting to my destination*—presumably something in the interaction between my prior "danger" focus on the contextual structure of the dark and crowded subway reinforced my self-protective goal at the expense of the more rational instrumental goal. *Focusing*, then, involves both the selective reinforcing of certain personal goals and expectations and the relative overemphasis on particular stimuli (or attributes of stimuli) in the environment.

Focusing processes are particularly important in that they have fairly direct and observable links to social behavior as it develops, changes, and unfolds. Consider, for example, the consequences for behavior of a choice between focusing on one's own inclinations or desires as opposed to focusing on the cues for socially appropriate behavior implicit in the interaction setting itself (see Snyder's self-monitoring work, reviewed in Snyder, 1979). My behavior in the "subway scene" would certainly have been different had I attended more closely to the *actual* situation and to the strong norm in New York subways to be nonchalant, read one's newspaper, and turn a cheek to all minor disturbances. I might even have noticed the two transit cops and recalled my knowledge of the low base rate of subway crime during afternoon hours had I adopted a more situation- rather than self-focused strategy. However, as we know from research on naive theory-testing strategies (Snyder & Cantor, 1979a; Snyder & Swann, 1978b; Wason & Johnson-Laird, 1972), people tend to focus on, search out, and retrieve from memory theory-confirming, not theory-disconfirming, instances. Therefore, given my general inclination to see the situation as a "dangerous" one and to focus on my own fears and the "creepy" people around me, it is not surprising that my behavioral choice was to "flee" rather than "tough it out."

Empirical research on "focusing strategies" reflects two themes that are central to personality psychology: (1) the constant interplay between general processes and individual differences; and (2) the complex adjustment between an individual's personal proclivities (predispositions) and forces in the social context. Focusing here on a single instance, both themes are addressed in research that Judith Schwartz and I have been conducting on people's naive theories about the relative utility of different pieces of information for predicting the outcome of a social interaction. The general paradigm used in this research involves the following setup: The subjects are asked to read about interactions between two

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persons and to play the role of one of the participants in the interaction. Each is to ignore his/her own personality and assume the stated character. For example, each one might be asked to play the role of a university student interviewing for a part-time job. Next, each is given three "clues" (bits of information about the interaction) and asked to rank order these clues in terms of their utility (informativeness) for predicting the outcome of the interaction. In the foregoing example this would mean that each person is to rank order the clues as to their relative utility for predicting whether the interviewer will agree to hire him/her. Subjects are told that another subject will actually be estimating the likelihood of the stated outcome on the basis of the one or two clues that they chose as most informative. The three clues are always of the following sort: (1) A SELF clue describes the character of the person the subject is role-playing. In the previous example, the student might be described as possessing excellent verbal skills, which help create an impression of real competence. (2) An OTHER person clue describes the personality of the other person in the interaction. In this case, the interviewer might be described as having a great liking for students from this university. (3) A SITUATION clue describes relevant features of the situation. For example, the particular office has no vacant positions at this time; a new position would have to be created. Subjects always receive one SELF clue, one OTHER person clue, and one SITUATION clue for each interaction item. However, these clues are varied according to the degree to which they are positive predictors of the occurrence of the relevant outcome. Each clue can be either a positive predictor of the outcome or a negative predictor of the outcome under consideration. For example, the SITUATION clue described in the foregoing is a negative predictor, or inhibitor, of the outcome in question (getting a job) and the SELF and OTHER clues are both positive predictors, or facilitators, of this outcome. Various combinations of inhibiting (negative) and facilitating (positive) SELF, OTHER, and SITUATION clues were used in the experiment.

Subjects' choices in this paradigm (we have used different variations on the general setup) reflect *generalized biases* against SITUATION clues as well as individual differences in the tendency to focus on SELF or OTHER person clues. We find a clear preference for SELF and OTHER clues over SITUATION clues under all circumstances. Subjects clearly are not willing to ascribe much predictive utility to situational factors in social interaction. However, there are individual variations in the preferences for SELF or OTHER person clues.

Similarly, the adjustment in general (or individual) focusing biases in the face of contextual information is also reflected here. For example, subjects often change from a SELF focus to an OTHER focus as a function of a change in the nature of the SITUATION clue. The SELF and OTHER clues are generally perceived as equally informative when all three clues are either positive or negative predictors of the outcome of the interaction. However, when the SITUATION clue is negatively related to the outcome and the other two clues both positively related to the outcome, the OTHER person clue is suddenly preferred

over the SELF clue. This shift in preference occurs on the basis of a single change in the SITUATION clue, with the other two clues remaining the same. Focusing strategies, then, have both individualized and general features; they are stable to the extent that they reflect prior personal proclivities and yet fluid to the degree that they are sensitive to contextual variations.

### Social Categorization

Social categorization processes are at the heart of a cognitive-social approach to the study of personality (Kihlstrom, in this volume; Mischel, 1979); the background cognitive behavior in a social interaction involves the actor as observer, "typing" and "sizing up" other people, the situation, and the self-in-that-situation. In so doing, the actor-observer makes contact between the stimuli in the external context (contextual structure) and his/her preconceptions or expectations (cognitive structure).

The particular model of categorization that has motivated my thinking and research in this area is derived from work on the categorization of common objects (Rosch, 1978; Smith & Medin, 1979; Tversky, 1977). This "prototype-matching" model assumes that in typing an object (person, situation, self) the perceiver estimates the degree of similarity between the object and a *prototype* for each category into which the object might plausibly fit. Categorization is a probabilistic process based on *degree* of overlap in features between the new object and the prototype for each different category. Thus, for example, in the subway I busily focus on each new target person, assessing the degree to which the person fits my "prototype" of a would-be mugger, a depressed graduate student, and an ex-mental patient. I look for evidence that the person shares a number of features "representative" of one of these categories and "diagnostic" with regard to distinguishing between categories—the disgruntled graduate student is far more likely (one assumes) to be carrying a large envelope from *JPSP* than is the would-be mugger or ex-mental patient. Of course this categorization decision is both difficult and risky. The prototypes for the three categories undoubtedly overlap considerably. The person's attributes are only partially known to me; I have to estimate the reliability of my first impression. Yet arguing against caution in categorization is my affective involvement in protecting myself; any one of these people could become the as-yet-unnoticed "son-of-the-son-of-Sam murderer." Whatever decision I make will be influenced by my personal concept of gains and losses—is it better to make a fool of myself calling a perfectly harmless New Yorker a crazy person than to take the chance of getting attacked? Further, my decision will be adjusted as a function of my own (minimal) degree of faith in my ability to appear calm and tough in the face of adversity. Clearly social categorization is a complex affair.

The prototype-matching model of categorization (Reed, 1972; Rosch, 1978; Smith & Medin, 1979) allows for considerable flexibility at two levels: (1) As

described earlier, from domain to domain, used to assess "prototypicality" (Reed, 1972). Can be an increasing function of the number of prototype(s) (Rosch). This general classification in psychiatric categorical, (1980). For highly reliable, many features in categorizations hospital and pre were considerably prototypical past categorizations (Glucksberg, 197

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described earlier, the particular structure of the category prototype may vary from domain to domain, category to category. (2) The particular processing rule used to assess degree of similarity to the category prototype(s) (i.e., degree of "prototypicality") can also vary across stimulus domains and theoretical models (Reed, 1972). One general class of rules considers similarity (prototypicality) to be an increasing function of the number of shared features and a decreasing function of the number of distinctive features in the target object and the category prototype(s) (Rosch & Mervis, 1975; Smith & Medin, 1979; Tversky, 1977). This general class of models has proved useful in the domain of personality and psychiatric categorizations (Cantor, 1978; Cantor & Mischel, 1979; Cantor et al., 1980). For instance, Cantor et al. (1980) found that trained psychiatrists were highly reliable, confident, and accurate in their diagnoses of patients who shared many features in common with the prototype for a diagnostic category. (These categorizations were made on the basis of actual case histories obtained from a hospital and presented in unaltered form to the psychiatrists.) The psychiatrists were considerably less reliable, confident, and accurate for judgments about less prototypical patients. Similar findings frequently have been reported for categorizations of common objects like tables and sports cars (McCloskey & Glucksberg, 1978).

Application of the prototype model to social categorization and psychiatric diagnosis has also brought to light factors that are not always considered in the study of other naturalistic categorization processes. For example, categorization judgments in the person (personality and psychiatric) domain are often made under less than optimal conditions: conditions in which a person is observed and/or discussed for a relatively brief amount of time in relatively restricted sets of situations. Judgments made under these degraded viewing conditions (e.g., first impressions or psychiatric case reports) differ considerably from those made on the basis of a full or extended view of the target stimulus (Cantor, 1978). The individual who has a brief glimpse of another person, or the diagnostician who briefly interviews a psychiatric patient, needs to decide whether the features that he/she is observing are even reliable characteristics of the target person (Jones & Davis, 1965; Kelley, 1967). *Inferences* about the target person's past and future behavior begin to enter into categorization decisions under these conditions (Cantor, 1978). The psychiatrist becomes engrossed in deciding whether the patient's symptoms (features) are chronic, cyclic, or in remission (Cantor et al., 1980). Similarly, the lay perceiver focuses more intently on the particular contexts in which a target person exhibits specific behaviors and on the cross-situational consistency of the behaviors (Cantor, 1978; Jones & Davis, 1965; Jones, Davis & Gergen, 1961). Of course, similar issues about the reliability of an impression and the context of an observation may intrude even in the study of common-object categorization (Barsalou, 1978; Labov, 1973; Tversky, 1977). However, such issues would seem to be more uniquely central to the study of person categorization.

Another potential area for divergence between the social and nonsocial domains is the degree of *dissimilarity* to a *category prototype* that will be tolerated in placing a particular item in a particular category. Because the variability in human behavior is quite large (Mischel, 1968), the categorizer of people may expect and tolerate more distortions from a category prototype than might the labeler of common objects. To study this, Cantor and Fitzgerald have been attempting to discover how much diversity, variability, and/or inconsistency people actually expect to find in other people's personalities. We present subjects with constellations of personality and behavioral descriptors and ask them to judge the "plausibility" of such a set of attributes as a description of a "real person." Similarly, we give subjects sets of attributes from standard personality inventories and ask them to create "plausible" and "implausible" persons. These studies of implicit theories of human variability complement studies of categorization in which we see how much variability people will accept and still ascribe a category label to the target person. For example, the prototypical extravert is frequently described as having a personality *dominated* by mostly extraverted attributes (Cantor, 1978). However, personality descriptions that include a much wider *variety* of trait dimensions are perceived as most plausible (i.e., likely to describe the personalities of real people).

These results, though admittedly preliminary, tell us something about the way in which people may use prototypes as standards of comparison in forming impressions and categorizing people they meet in the "real world." The lay perceiver may be willing to accept (and may expect to find) more variety of attributes and less strong domination by one class of attributes in real people as compared with the prototypical standard. The typical extravert may have many different qualities in addition to extraverted attributes, such that extraversion does not constantly dominate the personality. The modal extravert may be further from our image of a prototypical extravert than is the typical chair from the prototypical chair. Therefore, people may weaken their criterion for acceptable degrees of distance from a category prototype in categorizing people as opposed to objects. This divergence between the social and nonsocial domains may be intensified by the need to consider the role that cognitive schemata about the self (Markus, 1977; Rogers, Kuiper, & Kirker, 1977) may play as anchor points in the perception/categorization of people but not of common objects. Tolerance limits in the categorization of other people may be a reflection of the degree of perceived variability in one's own behaviors and attributes. For instance, psychiatrists' perceptions of the *degree* of abnormality of patients' behavior is influenced by their estimates of how unlikely it is that they themselves would engage in similar displays. Finally, as mentioned with regard to my subway experiences, tolerance limits on social categorization may be influenced by the urgency associated with such decisions. Social categorization judgments often have a certain urgency tied to them; somehow we may believe that it is more crucial to our security (as well as more central to planning behavior) to notice quickly that

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### Cognitive Proces

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people around us have certain personalities or behavioral styles than to check out the tables and chairs and vegetables in the contextual background. The brief amount of time given people to figure out what is going on in social interactions suggests that in the real world social interaction is going to be guided more by first impressions than by carefully considered ones. In addition to making hasty social categorizations, these decisions may be more "affectively hot" than those typically associated with categorizations of common objects. Further research is needed to test the implications of "hot" as compared with "cold" categorization processes. Research on the meshing of affective-evaluative and cognitive processes may take us further from object categorization studies but closer to the dynamicism at the heart of social categorization.

### Theory Revision

A large body of literature now exists that demonstrates the tenacity with which people hold on to pet theories and beliefs (Kuhn, 1962; Wason & Johnson-Laird, 1972) and the ease with which biased theory-testing strategies are applied to confirm these theories (Snyder & Cantor, 1979a; Snyder & Swann, 1978b). Yet people do change their beliefs; behavior is influenced and adjusted to fit the unique, unexpected aspects of each new context. Certainly the specificity and fluidity of individual *behavior* is a familiar, though irritating theme to personality psychologists (Mischel, 1968). Similar research is needed to uncover the conditions that encourage *cognitive fluidity* along with this behavioral flexibility.

The adjustment between prior beliefs/expectations and contextual stimuli (that results in a particular focusing-categorization-behavior strategy in an interaction) may also lead the observer/actor to *occasionally* revise his or her beliefs/theories in anticipation of the next such encounter. So, standing hanging my head in shame on the subway platform, I might (and I emphasize *might*) just change my beliefs about the prototypical subway mugger. On my way back from Soho (having seen so many grubby shopping-bag people that I no longer believe them to be criminal, just boring) I may now scan the subway car for the hard-core criminal hiding in a three-piece suit, but wearing white socks—surely a clear giveaway! Clearly, we need to devote increased empirical attention to the way in which people reflect on their beliefs and revise theories on the basis of actual experience (Lingle & Altom, 1979).

### Cognitive Processes and Behavior

Questions about "cognitive perseverance" and "behavioral variability" have frequently been addressed by social psychologists studying the complex relations between attitudes and behavior. It is clear that the links from thought to action are not entirely direct; stated beliefs and attitudes do not always predict behavior. Moreover, attitudes may persevere even when behavior changes and the avail-

able evidence is enough to induce correspondent change in beliefs (Ross, Lepper, & Hubbard, 1975). There are many (new) approaches to these (old) thorny questions: (1) It is clear that behavior is often "mindlessly" adapted to situational cues (Langer, 1978) and/or controlled by contingencies in the situation (Bandura, 1969). Given such behavioral conformity (to situational contingencies), it is not surprising that people do not always change their stated attitudes to be more in line with their past/present behavior—the attitudes reflect generalized expectations about their likely behavior in classes of situations or interactions (Ajzen & Fishbein, 1977), not particular instances in which their behavior was finely tuned to the contingencies perceived in a particular situation; (2) Considering the abundance of evidence recently in favor of the precedence of affectively "hot" reactions over more cool, strictly "cognitive" ones (Zajonc, 1978), we may need to consider that attitudes and beliefs ("cool cognitions") come after the fact, with behavior more directly controlled by mostly automatic affective or "hot cognitive" factors. Again, the after-the-fact generalizations that the actor draws and reports on the basis of social experience may be at a more abstract, "cooled-off" level of analysis than would be necessary to use in predictions of finely tuned behavior in vivo (Mischel, 1979); (3) The complexity of the links between cognitions and actual finely tuned behavior can also be addressed by an individual differences approach. For certain people, the preservation of stable self-images and clear correspondence between behavior and beliefs may be more characteristic; others may favor a more flexible, variable, situation-tuned strategy (Snyder, 1979). Of course, in both cases, cognitions and behavior are intertwined—however, in the former a self-focus replaces a situation-focus exhibited by the latter (Snyder & Cantor, 1979b).

The approach that I have begun to articulate in this chapter also speaks to issues surrounding the complex links between thought and action. The cognitive-social model of personality emphasizes the *dynamic* changing interaction between cognitive structure and contextual structure as mediated by cognitive processes such as focusing, categorization, and theory testing. As a social interaction unfolds, a fine adjustment process begins; behavior presumably grows out of this adjustment. Therefore, this approach places importance on the discovery of the social conditions that promote/inhibit various focusing strategies and consequently induce the actor to categorize the "event" in different ways over the course of the interaction.

The central assumption is that behavior can be better predicted on the basis of knowledge of the focus (and goals) of the actor; but to do this it is necessary to understand the conditions that elicit particular focusing strategies. Participants in social interactions do, on occasion, have the opportunity strategically to plan, control, and even shape or change the outcome of an interaction (for an experimental analog, see Snyder & Swann, 1978a). For example, one occasionally has the choice of behaving so as to "please another person" by acting according to that person's obvious personal style. Or, one could choose to follow one's own

"real inclinations" in the face of the demands of the situation. Behavior depends jointly on the actor's own inclinations and the other person's behavior. In other words, behavioral categorization acts as a filter.

This behavioral approach is likely to require that we consider people and the interaction as a whole, with its "background" of cultural and phenomenological influences. The long reaction time to the dynamic quality of behavior is *not* surprising when we consider the contingencies—often complex (Thomas & Maloney, 1978)—that govern behavior. If we assume that behavior is composed of chunks of behavior, it is not surprising to find it

## Personality and

Throughout this chapter, we have seen the intricate processes of personality. It should be of interest to us that on the pages we see the actor's behavior is not solely in *me* or in *you*, but in exactly where it belongs and cognitive generalization. New York subways (Maloney, 1978) respond in an equilibrium to counter similar situations. Self-inferences correspond to the paper and pencil in the situation. It is likely to evoke behavioral responses (Snyder, 1979) from a "ful" person. This forces—the "right" it to say that such self-inferences or

"real inclinations." Moreover, one can choose a course of behavior that fits the demands of the situation. In many cases the particular behavioral choice may depend jointly on the individual characteristics of the participant, the clarity of the other person's character, and the clarity of the situational demands. In other words, behavioral strategies may depend on factors influencing focusing and categorization activity.

This behavioral planning may seem instantaneous and automatic, but it is likely to require that the actor has achieved a sense of the characteristics of the people and the interaction situation. However, there is no reason to suppose that "background" cognitive activity cannot be very quick, continuous, and phenomenologically effortless (at least for some people, sometimes). (After all, a *long* reaction time in an imagery experiment is only a few seconds.) To be true to the dynamic quality of the cognitive adjustment process, we need to assume that behavior is *not* statically tuned to either prior beliefs or current contextual contingencies—our models need to be as spread out over time as is real behavior (Thomas & Malone, 1979; Thomas & Martin, 1976) in order to capture the intricate interconnections and contingencies between attitudes and actual behavior. If we assume that cognitive structure is static and try to predict molecular chunks of behavior on the bases of these molar cognitions, we should hardly be surprised to find inconsistencies between them.

### Personality and Social Cognition

Throughout this chapter, I invoke my own subway behavior, dissecting the intricate processes underlying a simple overt chunk of cowardly behavior. What has this cognitive-social analysis told us about my "personality" that would (or should) be of interest to personologists? I believe that over the course of these pages we see the development of a "fearful" personality that is neither located solely in *me* or in the New York subways; this "fearful" personality is located exactly where it belongs: at the dynamic interface between my self-inferences and cognitive generalizations and the contextual structure of situations like New York subways (Magnusson & Endler, 1977; Mischel, 1979). To the extent that I respond in an equally cowardly, biased, and bizarre fashion each time I encounter similar situations and similar types of people, and to the extent that my self-inferences correspond to these attributions, I will tend to score high on a paper and pencil inventory measuring fearfulness; I will probably respond fearfully in situations that I perceive as similar to the New York subway; and I will be likely to evoke behavior from others that reinforces and bolsters my fear-responses (Snyder & Swann, 1978a). In other words, I will seem to be a "fearful" person. This is *not* to say that such a "trait" is insensitive to situational forces—the "right" conditions are required to elicit my fearful behavior—nor is it to say that such a "trait" exists independently of either my everchanging self-inferences or my focusing strategies. My personality is a dynamic (I hope)

entity, cognitively, socially, and contextually created and molded—it changes; it won't be easy to pin down. At one molar level, I'm just like everyone else; lawful processes (of focusing, categorization, attribution, strategizing) and principles (like context-sensitivity and perseverance) characterize my behavior. But at another molecular level, my "fearful personality" is idiographically structured, and the particulars of how my beliefs interact with unique aspects of the contexts must be considered in order really to "know me" and predict my behavior. After all, who else thinks that men wearing three-piece business suits and white socks are highly likely to be New York subway muggers?

### ACKNOWLEDGMENT

I would like to express my deep appreciation to John Kihlstrom for his insightful comments on earlier versions of this chapter.

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## Making Sense

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