

A Cognitive–Affective System Theory of Personality: Reconceptualizing Situations, Dispositions, Dynamics, and Invariance in Personality Structure

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A theory was proposed to reconcile paradoxical findings on the invariance of personality and the variability of behavior across situations. For this purpose, individuals were assumed to differ in (a) the accessibility of cognitive–affective mediating units (such as encodings, expectancies and beliefs, affects, and goals) and (b) the organization of relationships through which these units interact with each other and with psychological features of situations. The theory accounts for individual differences in predictable patterns of variability across situations (e.g., *if A then she X, but if B then she Y*), as well as for overall average levels of behavior, as essential expressions or behavioral signatures of the same underlying personality system. Situations, personality dispositions, dynamics, and structure were reconceptualized from this perspective.

The construct of personality rests on the assumption that individuals are characterized by distinctive qualities that are relatively invariant across situations and over time. In a century of personality research, however, abundant evidence has documented that individual differences in social behaviors tend to be surprisingly variable across different situations. Although this finding has been interpreted as evidence against the utility of the personality construct, we show that it need not be and, on the contrary, that this variability reflects some of the essence of personality coherence. When personality is conceptualized as a stable system that mediates how the individual selects, construes, and processes social information and generates social behaviors, it becomes possible to account simultaneously for both the invariant qualities of the underlying personality and the predictable variability across situations in some of its characteristic behavioral expressions.

In this article, we begin with a review of recent empirical data demonstrating that individuals are characterized not only by stable individual differences in their overall levels of behavior, but also by distinctive and stable patterns of behavior variability across situations. These findings invite a new conception of personality in which such patterns of variability are seen not as mere “error” but also as reflecting essential expressions of the same underlying stable personality system that produces the in-

dividual’s characteristic average levels of behavior. Toward that goal, we propose a cognitive–affective system theory of personality, drawing in part on the growing body of evidence and theorizing on individual differences in social and emotional information processing (e.g., as reviewed in Contrada, Leventhal, & O’Leary, 1990; Dweck, 1991; Gollwitzer & Bargh, in press; Higgins, 1990, in press; Higgins & Kruglanski, in press; Markus 1977; Mischel, 1990, 1993; Pervin, 1990, 1994; Smith & Lazarus, 1990). Consistent with contemporary findings and theorizing on the biological bases of human information processing (e.g., Kandel & Schwartz, 1985), the theory assumes enduring individual differences in the features of situations that individuals select and the cognitive–affective mediating units (such as encodings and affects) that become activated, and that interact with and activate other mediating units (e.g., expectancies, goals, behavioral scripts and plans) in the personality system. This theory will be shown to take account of both the stability of the personality system and the variability of the individual’s behaviors across situations in ways that reconcile numerous previously paradoxical findings and resolve basic controversies within personality and social psychology over many decades.

THE SEARCH FOR PERSONALITY INVARIANCE

Conception of Personality in Terms of Behavioral Dispositions

In one long-standing tradition of personality psychology, individual differences in social behaviors have been conceptualized in terms of behavioral dispositions or traits that predispose individuals to engage in relevant behaviors. In its simplest form, dispositions and their behavioral expressions were assumed by definition to correspond directly: the more a person has a conscientious disposition, for example, the more conscientious the behavior will be. Figure 1 shows behavioral data typical of those found for any two individuals in a given domain of social behavior (e.g., friendliness) across different social situations. Accord-

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Intra-individual patterns of behavior variability: Behavior X

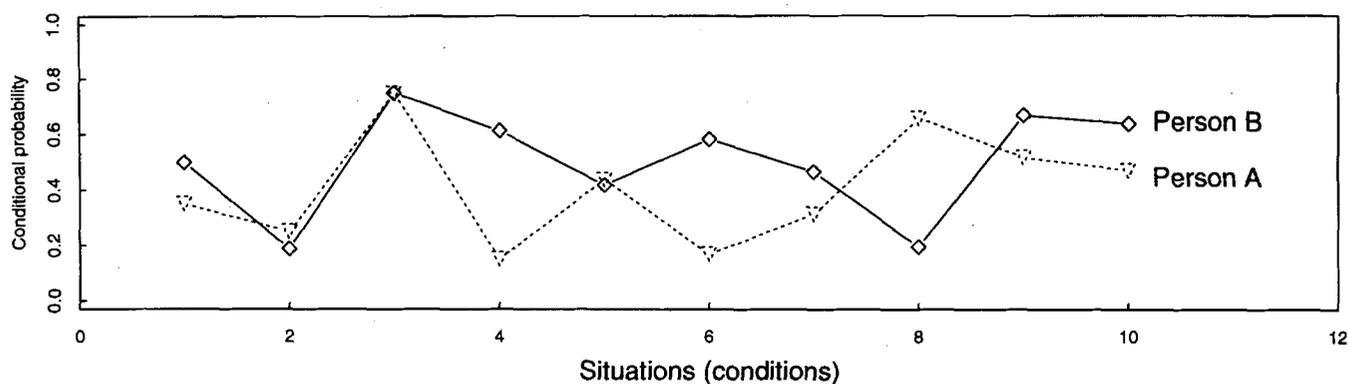


Figure 1. Typical individual differences in the conditional probability of a type of behavior in different situations.

ing to this model, dispositions determine the elevation of behavior in the profiles shown in Figure 1, and the variations of behavior across situations are irrelevant to personality.

Guided by this model, throughout the century researchers pursued cross-situational consistency as evidence for basic coherence in the underlying personality (behavioral) dispositions of individuals. In this search, cross-situational consistency in the expression of individual differences was defined as a relatively invariant rank-ordering of individuals across situations in their tendency to display trait-relevant behaviors and was measured with the cross-situational consistency correlation coefficient. The results in the search for this type of high cross-situational consistency were surprisingly discouraging from the start (e.g., Hartshorne & May, 1928; Mischel, 1968; Mischel & Peake, 1982; Newcomb, 1929; Peterson, 1968; Vernon, 1964). After years of study and discussion, the fact that the average cross-situational coefficients are typically low but nonzero is now widely accepted, although the interpretations continue to differ (e.g., Epstein, 1979; Mischel, 1984). Given such findings, the challenge has been to conceptualize and demonstrate the type of behavioral coherence that is produced by the invariant qualities within the person.

The most widely accepted current strategy within the behavioral disposition approach to personality is to acknowledge the importance of situations and the low cross-situational consistency in behavior generally found from situation to situation and then to aggregate the individual's behavior on a given dimension (e.g., "conscientiousness") over many different situations to estimate an overall "true score" (as discussed in Epstein, 1979, 1980; Mischel & Peake, 1982). This classic strategy, available ever since the Spearman-Brown formula predicted its effect at the turn of the century, recognizes that if the cross-situational consistency coefficients on average are above zero then the correlation between aggregate indexes can indeed be very high if enough situations are aggregated into the composite. Such correlations provide evidence that on average people differ significantly on a given dimension, demonstrating stable overall individual differences within virtually any domain of social behavior.

By averaging out variations across situations, however, this

approach treats the variations in the individual's behavior across situations as unwanted or uninformative variance or as measurement error, and demonstrates that different people are in fact different on the whole with regard to the dimension. The approach is extremely useful for many goals, but its limits—as well as its strengths—are seen by analogy to meteorology, which studies systems that, like human behavior, seem unpredictable. No doubt overall climatic trends are useful to know, allowing, for example, the accurate prediction that in general, San Francisco is cooler and has higher precipitation than Los Angeles, and providing clues about the sources of such differences. If meteorologists were to focus only on the aggregate climatic trends however, they would constrain their understanding of the atmospheric processes that are responsible for the changing weather patterns and forgo the goal of more accurate specific prediction of weather. These limits notwithstanding, a current trend in the field seems to equate behavioral dispositions with the basic invariances of personality, with the personality construct, and indeed with the field of personality itself, as Pervin (1994) noted in a recent analysis.

Conception of Personality in Terms of Characteristic Mediating Processes

Throughout the history of the field, a second, fundamentally different, conception of personality invariance has construed personality as a system of mediating processes, conscious and unconscious, whose interactions are manifested in predictable patterns of situation-behavior relations. The relationship between the behavioral expressions and the underlying variables or processes is not necessarily one of direct correspondence. In these process conceptions, the personality assessor's task is to identify the meaningful patterns that characterize the person's behavior across seemingly diverse situations, and to discover the dynamics—the interactions among mediating process variables—that underlie that patterning and that can explain it.

Freud's psychodynamic theory was especially exciting exactly because it promised to offer such a conception in which the seeming inconsistencies and puzzling contradictions in behavior across situations would lose their mystery when their

patterns of situation-behavior relations were seen, revealing the motivations and dynamics that underlie them. Although the empirical and methodological problems of Freud's theory became intractable for most psychologists, its appeal endured. It remained a vision and challenge for ultimately creating a dynamic mediating process theory that would capture the rich complexity and seeming contrariness of human behavior, not only in its abnormal manifestations but also in the ordinary situations of everyday life, not just for the exceptionally disturbed but for everyone. Freud's theory, of course, was only the first and boldest of process theories in what by now has become a long tradition, whose early pioneers include such figures as Henry Murray, Gardner Murphy, Kurt Lewin, and George Kelly.

In contemporary personality and social psychology, mediating process models have had a remarkable resurgence in the last two decades (see Cervone, 1991; Pervin, 1990). Although there are many differences among them in specific variables, they have family resemblance in their common focus on social cognitive mediating processes that underlie and motivate behavior. Many of these current process models use language and theoretical constructs that draw extensively on social, cognitive, and social learning theories and concepts, as well as on self theories and research (e.g., Bandura, 1982, 1986; Cantor, 1990; Dodge, 1986, 1993; Downey & Walker, 1989; Dweck & Leggett, 1988; Fiske & Taylor, 1991; Higgins, 1987; Kihlstrom & Cantor, 1984; Markus & Kitayama, 1991; Mischel, 1973, 1990; Scheier & Carver, 1988a; Shoda & Mischel, 1993). Most seem to be predominantly "social cognitive" in their preferred theoretical language, but they also are paying attention to the role of automatic and unconscious processing (e.g., Kihlstrom, 1987, 1990; Uleman & Bargh, 1989) and are concerned with the goals and motivations that underlie behavior (e.g., Gollwitzer & Bargh, in press; Pervin, 1989; Read & Miller, 1989).

Most important for the analysis of the nature of personality invariance and its behavioral expressions, process models seem to suggest that clues about the person's underlying qualities—the construals and goals, the motives and passions, that drive the individual—may be seen in when and where a type of behavior is manifested, not only in its overall frequency. If so, the patterns of situation-behavior relationships shown by a person might be a possible key to individuality and personality coherence, rather than an error source to be eliminated systematically.

Consider the differences between two people, A and B, whose behavior in a particular domain (e.g., their friendly behavior across situations), is shown in Figure 1. In the behavioral disposition view, the observed variability within each person on a dimension is seen as "error" and averaged out to get the best approximation of the underlying stable "true score." The goal is a single average summary score of the amount of the disposition each person has and the question simply becomes: Is A different overall in the level of aggressiveness than B? This question is important, and perhaps the best first one to ask, but it may be only the start of the analysis of personality invariance. It may also be its premature end if we ignore the profile information about where and when A and B differ in their unique pattern with regard to the particular dimension of behavior.

From the perspective of a process conception of personality one must ask: Are the individual's distinctive *if...then...*, situa-

tion-behavior relations within a particular domain of social behavior stable and meaningful? Granted that some of the variation in the individual's behavior across situations is random fluctuation (i.e., from unknown sources), is there a component that still may be enduring and reflective of underlying invariance? If the observed variability is simply "error," it needs to be removed; if it is potentially stable and meaningful, it may contain important clues about the underlying personality system, reflecting something of the essence of personality coherence and the system that produces it. Given these theoretical questions, it becomes necessary to determine empirically if distinctive and meaningful profiles of situation-behavior relations in fact characterize individual differences in the organization of social behavior as it occurs *in vivo* across everyday situations over an extended period of time.

Empirical Evidence for Intra-Individually Stable, *If...Then...*, Situation-Behavior Relations as Signatures of Personality

Data on the existence and meaningfulness of the hypothesized, stable *if...then...*, situation-behavior relations came from an extensive observational study conducted in a residential summer camp setting for children (Shoda, 1990; Shoda, Mischel, & Wright, 1989, 1993a, 1993b, 1994; Wright & Mischel, 1987, 1988). The first requirement in the field study undertaken was to identify the situations in which the behavior occurred (Shoda et al., 1994). In studies of the consistency of behavior across situations, the situations usually have been defined in nominal terms, as places and activities in the setting, for example, as woodworking activities, arithmetic tests, dining halls, or school playgrounds (e.g., Hartshorne & May, 1928; Newcomb, 1929). Individual differences in relation to such specific *nominal situations*, even if highly stable, necessarily would be of limited generalizability. On the other hand, if situations are redefined to capture their basic *psychological features*, then information about a person's behavior tendencies specific to those situations (Kelly, 1955; Mischel, 1973) might be used to predict behavior across a broad range of contexts that contain the same psychological features (Shoda et al., 1994). For example, situations that include criticism or lack of attention from a partner might be those in which individuals sensitive to rejection in intimate relations become consistently more upset than others.

It was thus important to identify the relevant psychological features that occur within many nominal situations for the population studied, consisting of children ages 7 to 13, in this setting. A preliminary study identified the features of situations that seemed to be used spontaneously by the participants to characterize each other. Children and staff in the camp setting of the research were asked to characterize individuals who were prototype exemplars for the behavioral dimensions salient in the setting (Wright & Mischel, 1988). They were asked to tell "everything about [child], so I will know him as well as you do," and their descriptions were tape recorded and coded. The situational modifiers (e.g., "when someone teases him about his glasses"), which were used to qualify statements about the target's behaviors in these open-ended descriptions, were subjected to cluster analysis to identify commonly used features of such modifiers.

Two main constituent features in the encoding of interpersonal situations emerged: valence (positive vs. negative) of the interaction, and type of person (adult counselor vs. child peer) involved in the interaction. Examples of each combination of these features were selected to identify those that were psychologically salient within the setting (e.g., Susi, 1986; Wright & Mischel, 1988) that could be recorded objectively as they occurred and that were of potentially broad significance (i.e., that occurred often in many different nominal situations). The five interpersonal situations selected included three negative situations ("peer teased, provoked, or threatened"; "adult warned the child"; and "adult gave the child time out," i.e., prohibited the child from participating in the group activity for a certain amount of time), and two positive situations ("peer initiated positive social contact" and "adult praised the child verbally").

In the residential camp setting, the social behavior of participants was extensively observed on selected dimensions (e.g., verbal aggression, withdrawal, friendly, prosocial behavior) as it occurred in relation to each of the selected interpersonal situations (Shoda et al., 1989, 1993a, 1994). Briefly, participants were closely but unobtrusively observed in the course of the 6-week summer, with an average of 167 hours of observation per participant. Using this extensive data archive, the situation-behavior profiles of each of the participants were examined to test the hypothesis that these patterns of *if...then...*, situation-behavior relations reflect distinctive and stable characteristics of the person's behavior organization and not simply random fluctuations or "error." Specifically, for each person the stability of the profile of situation-behavior relationships was assessed. The frequencies of behavior were first converted to standardized scores within each situation to indicate the level of an individual's behavior in a situation relative to the normative levels in that situation. Each person's situation-behavior profile reflects how his or her pattern of variability across situations deviates from the normative pattern for the sample.

Figure 2 illustrates situation-behavior profiles of two children showing their verbally aggressive behavior across five types of situations sampled. On the vertical axis, the behaviors are shown in scores standardized with regard to the mean and standard deviation for each situation separately. Thus, 0 indicates that the probability for the behavior is at the normative (mean) level for that situation, whereas 1 and -1 indicate behavior probabilities that are 1 *SD* above or below the normative level within each situation, respectively. Standardization removes all the main effects of situations, so that the remaining intraindividual variance in the profile reflects the unique way in which the individual's behavior varies across the situations, above and beyond what is expected from the differences in the normative levels of behavior across situations. This type of data representation, which we refer to as *situation-behavior profiles*, shows how a particular individual's behavior pattern across the situations differs from the normative pattern of behavior variation across them (Shoda et al., 1994).

Note that if personality is conceptualized in terms of behavioral dispositions, the individual's variation in behavior across situations reflects differences among situations in people's typical levels of behavior (e.g., more cheerful at parties than at funerals), as well as the effects of measurement noise or random fluctuation. Therefore, when the data are standardized and rescaled relative to the typical level of behaviors expected in each

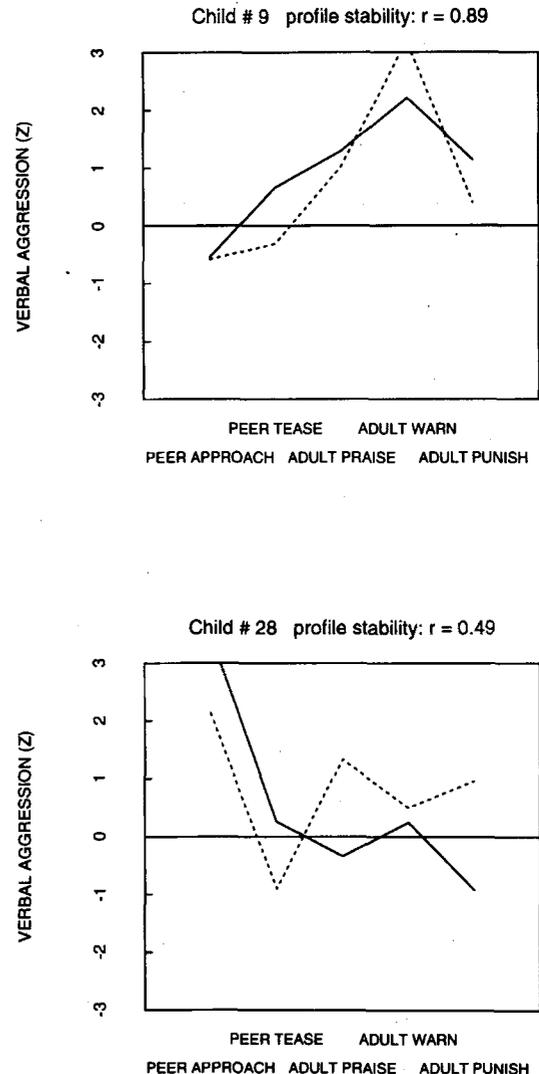


Figure 2. Illustrative intra-individual, situation-behavior profiles for verbal aggression in relation to five situations in two time samples (solid and dotted lines). Data are shown in standardized scores (*Z*) relative to the normative levels of verbal aggression in each situation. (From Shoda, Mischel, & Wright, 1994, Figure 1, p. 678).

situation, removing the main effects of situations, the remaining variation in an individual's behavior across situations should simply be "noise." Then, the mean stability of the intraindividual pattern of variation should be zero. On the other hand, if the observed situation-behavior profile reflects enduring qualities of the individual, it should show some significant stability despite the noise.

The two lines in the figure indicate the profiles based on two different, nonoverlapping, samples of situations in which the child encountered each type of psychological situation, shown as Time 1 and Time 2. To illustrate, Child 9 was more verbally aggressive than others (standardized score above 2.0 on average) when warned by an adult, but showed less aggression than others on average when approached positively by a peer (standard score of below 0). In contrast, Child 28 was most verbally ag-

gressive when approached positively by a peer, but not particularly aggressive when warned by an adult (Shoda et al., 1994).

As these examples illustrate, the stability of intraindividual profiles varied from one individual to another and for different types of behavior. To test the overall hypothesis, the ipsatively computed profile stabilities for each individual were computed and the statistical significance of the group mean stability was tested (by *t* tests after Fisher's *r*-to-*z* transformation). The mean stability coefficients were .47 ($p < .01$) for verbal aggression, .41 ($p < .01$) for compliance, .28 ($p < .01$) for whining, and .19 ($p < .05$) for prosocial talk (Shoda et al., 1994).¹ Thus, overall, *if...then...*, situation-behavior profiles were significantly stable over the course of the summer.

Compelling evidence for even subtler discriminativeness and stability of these behavioral coherences is seen in the intraindividual profiles among situations of the same valence. For each child, the stability of his or her pattern of behavior variability over the three negative situations was computed. Even though all three situations were negative in valence, and therefore the differences among them were subtler than among the five situations collectively, the mean profile stability coefficient was essentially as high as the stability of the profiles over all five situations. Specifically, they were .48 ($p < .01$) for verbal aggression, .32 ($p < .05$) for physical aggression, .45 ($p < .01$) for compliance, .08 ($p > .05$) for whining, and .20 ($p > .05$) for prosocial talk (Shoda et al., 1994). Thus for a significant portion of the children, in spite of the fact that all three of these situations were of negative valence, they still were psychologically distinct, and the child's aggressive and compliant responses to each situation were discriminative in ways that stably characterized him or her with a predictable *if...then...* pattern. It should be clear that these significant manifestations of behavioral coherence are obscured in the usual analyses of cross-situational consistency or by aggregating behaviors over different situations.

Recall that the conception of personality as behavioral dispositions implies that intraindividual variations in a type of behavior across situations (after the main effects of situations are removed by standardization) reflect only intrinsic unpredictability or measurement error. If that assumption were correct, the stability of the intraindividual pattern of variation should on average be zero. The overall findings are obviously inconsistent with this prediction and indicate that the situation-behavior profiles reflect a statistically significant, stable facet of individual differences in social behavior observed as it unfolds in vivo in everyday social situations. They are consistent with parallel findings showing significant amounts of variance attributable to Person \times Situation interaction in analysis of variance studies, based on questionnaire responses (e.g., Endler & Hunt, 1969; Endler, Hunt, & Rosenstein, 1962; Endler & Magnusson, 1976; Magnusson & Endler, 1977). Furthermore, as shown elsewhere (Shoda, 1990), the degree that an individual is characterized by stable patterns of situation-behavior relations is negatively related to the level of overall cross-situational consistency that can be expected.

These profiles allow a glimpse of the essential configuration or pattern of behavior variation in relation to situations that is expressive of personality invariance but is completely bypassed in the traditional search for cross-situational consistency. Instead of searching for the traditional cross-situational consistency coefficient that has been pursued for most of the century

(e.g., Hartshorne & May, 1928; Mischel, 1968; Newcomb, 1929; Peterson, 1968; Vernon, 1964), the findings of profile stability suggest that personality coherence must be reflected in the intraindividual stable pattern of variability. From this perspective, the explicit focus on the relationships between psychological features of situations and the individual's patterns of behavior variation across situations, rather than undermining the existence of personality, needs to become part of the conception of personality (e.g., Mischel, 1973, 1990; Shoda & Mischel, 1993; Shoda et al., 1994; Wright & Mischel, 1987). However, if situation units are defined in terms of features salient for the researcher but trivial for, or irrelevant to, the individuals studied, one cannot expect their behaviors to vary meaningfully across them, and the resulting pattern of behavior variation therefore would be unstable and meaningless. To discover the potentially predictable patterns of behavior variability that characterize individuals, a first step is to identify those features of situations that are meaningful to them and that engage their important psychological qualities (e.g., personal constructs and goals).

Revisiting the Classic Personality Paradox: The Behavioral Invariance of Those Who Perceive Themselves as Consistent

If stable situation-behavior patterns like these are meaningful reflections of personality invariance, they also may be related to self-perceptions about one's own consistency with regard to that behavior. To consider the relationship between the stability of the person-situation profile that characterizes an individual in a particular domain of behavior and the self-perception of consistency, we reexamined data that address the classic "personality paradox." It was noted two decades ago that on the one hand our intuitions convince us that people have broad behavioral dispositions that we see in the extensive consistency of their behaviors across situations, but on the other hand, the research results on cross-situational consistency in behavior persistently contradict this conviction (Bem & Allen, 1974). To resolve this dilemma and to show our intuitions are better than our research, Bem and Allen reasoned that because traditional nomothetic methodologies assume that all traits belong to all persons, the inconsistency of those for whom the trait is irrelevant will obscure the consistency of the subset of people for whom the trait is relevant. They therefore argued that a solution to the consistency problem requires first selecting on an a priori basis those persons who perceive themselves as consistent in the given disposition. We then should expect to find high cross-situational consistency in their behavior in that domain, but not in the behavior of those who see themselves as inconsistent with regard to it, or to whom it is irrelevant.

Initially, some encouraging support was obtained for this prediction (Bem & Allen, 1974). In a more comprehensive test in the Carleton College field study, behavior relevant to conscien-

¹ Profile stability for physical aggression could not be computed by Shoda et al. (1994) because there were virtually no individual differences in physical aggression when "praised by an adult," and physical aggression was displayed only by one child in the entire summer in this situation.

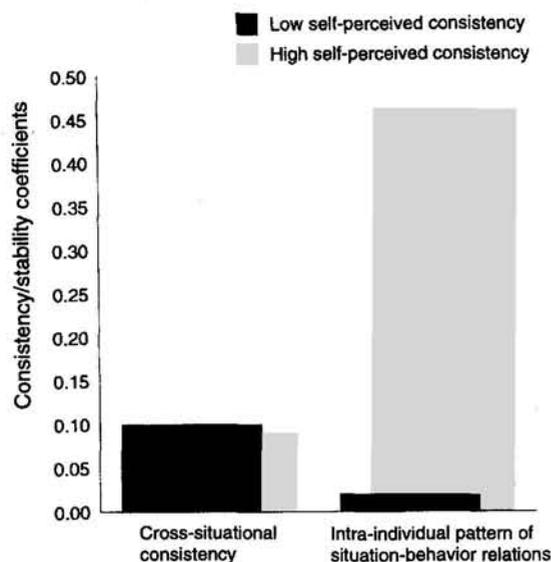


Figure 3. Self-perceived consistency and the organization of behavior. Cross-situational consistency and the stability of person-situation profiles for people high versus low in perceived consistency in conscientiousness. (Based on data in Mischel and Peake, 1982, and reanalyses by Shoda, 1993.)

tiousness was observed in vivo over multiple situations and occasions (Mischel & Peake, 1982). Each of the 63 participating college students had been observed repeatedly in various situations on campus relevant to their conscientiousness in the college setting. The specific behaviors and contexts selected as relevant were supplied by undergraduates themselves in pretesting at the college. Conscientiousness was sampled in various situations such as in the classroom, in the dormitory, in the library, and the assessments occurred over repeated occasions in the course of the semester. It was found that actual consistency in their cross-situational behavior was not significantly greater for them than it was for those who perceived themselves as variable. (The same pattern was found in the Bem-Allen results, as well as in the Carleton data, as discussed in Mischel & Peake, 1982). Self-perceived consistency, however, was related to the temporal stability of their relevant behavior within particular types of situations.

For the present article, we reexamined those data to test the hypothesis that the students' self-perceptions of consistency will be related not only to the temporal stability of their behaviors within situations but also to the stability of their situation-behavior profiles. As the first set of two columns of Figure 3 show, and as Mischel and Peake (1982) reported, those who perceived themselves as consistent (the first light column) did not show greater overall cross-situational consistency than those who did not. The second set of columns provides clear support for the hypothesis of coherence in terms of situation-behavior profiles: For individuals who perceived themselves as consistent, the average situation-behavior profile stability correlation was near .5, whereas it was trivial for those who saw themselves as inconsistent. Thus, the self-perception of consistency seems to be linked to stability in the situation-behavior profiles, and may be rooted in the personally meaningful pattern of behavior

variability that characterizes an individual. If so, the intuition of consistency is neither paradoxical nor illusory: it is based on behavioral consistency but not the sort for which the field was searching for so many years.

In sum, the finding of meaningful stable situation-behavior profiles indicates that there are characteristic intraindividual patterns in how individuals relate to different psychological conditions and that these patterns form a sort of behavioral signature that reflects personality coherence (Shoda et al., 1994). In retrospect, what seems remarkable is not so much that this type of behavioral signature of personality exists, but rather that it continues to be treated as error and eliminated by simply averaging behavior over diverse situations. Although such aggregation is widely seen as the way to capture personality, it actually removes data that may alert us to the person's most distinctive qualities and to his or her unique intraindividual patterning of social behavior.

TOWARD A COGNITIVE-AFFECTIVE SYSTEM THEORY OF PERSONALITY PROCESSES, DISPOSITIONS, AND DYNAMICS

The evidence reviewed suggests that the search for broad cross-situational consistency in individual differences in behavior has bypassed the stable intraindividual patternings of meaningful variability that mark the individual's distinctive behavior organization. The data demonstrate a type of personality coherence that has not been captured adequately in terms of behavioral dispositions. It cannot be dismissed as error and simply aggregated away without losing something of the essence of personality. It is consistent with other findings that have encouraged recent social cognitive analyses of the processes that underlie individual differences (e.g., as reviewed in Gollwitzer & Bargh, in press; Higgins & Kruglanski, in press; Mischel, 1990; Pervin, 1990, 1994). Collectively, these developments call for a theory of a personality system that allows us to understand both the stable differences between people in their overall characteristic levels of different types of behavior and, concurrently, their stable profiles of situation-behavior variability.

Characteristics of the Theory

This theory incorporates into the conception of personality the role of situations, events, or contexts (Bandura, 1986; Mischel, 1968, 1973; Ross & Nisbett, 1991; Shoda et al., 1993b; Wright & Mischel, 1987). The concept of the situation, however, is not like the simple stimulus in early behaviorism that mechanically pulls responses from an organism's repertoire. Features of situations activate a set of internal reactions—not just cognitive but also affective—based on the individual's prior experience with those features (Mischel, 1973). These features of situations are encountered in the external environment but they also are generated in thought, planning, fantasy, and imagination (e.g., Antrobus, 1991; Gollwitzer, 1993; Klinger, 1977; Mischel, Shoda, & Rodriguez, 1989). They encompass not just social and interpersonal situations (as when lovers "reject" or peers "tease and provoke") but also intrapsychic situations, as in mood states (e.g., Isen, Niedenthal, & Cantor, 1992; Schwarz, 1990) and in the everyday stream of experience and feeling (e.g., Bolger & Eckenrode, 1991; Cantor & Blanton, in

press; Emmons, 1991; Smith & Lazarus, 1990; Wright & Mischel, 1988).

Thus, what constitutes a situation in part depends on the perceiver's constructs and subjective maps, that is, on the acquired meaning of situational features for that person, rather than being defined exclusively by the observing scientist (e.g., Kelly, 1955; Medin, 1989; Mischel, 1973). In the proposed theory, individuals differ in how they selectively focus on different features of situations, how they categorize and encode them cognitively and emotionally, and how those encodings activate and interact with other cognitions and affects in the personality system. The theory views the person not as reacting passively to situations, nor as generating behavior impervious to their subtle features, but as active and goal-directed, constructing plans and self-generated changes, and in part creating the situations themselves. The organization of cognitions and affects in the system reflects the individual's total experience, and hence cognitive social learning history, but it is rooted in biological foundations and therefore also reflects genetic and constitutional variables such as temperament (e.g., Plomin, Owen, & McGuffin, 1994; Rothbart, Derryberry, & Posner, 1994; Wachs & King, 1994).

The theory deals with cognitive and emotional encoding of information at multiple levels of awareness and automaticity (e.g., Bargh, 1994; Kihlstrom, 1990). It encompasses not only social cognition but also the processes through which people transform their cognitions and affects into stable, meaningful patterns of social action in relationship to situations. Most important, the theory accounts both for individual differences in overall average levels of behavior and for stable *if...then...* profiles of behavior variability across situations, as essential expressions of the same underlying personality system. It will also be seen that this conception of personality allows resolution of the classically paradoxical findings on the consistency issue in personality psychology that have been debated for decades (e.g., Mischel, 1968, 1990; Newcomb, 1929; Pervin, 1994).

A Cognitive–Affective Personality System

The types of mental mediating units and information processing required by a model of personality responsive to the cognitive revolution in psychology were outlined a quarter of a century ago (Mischel, 1973). This “cognitive social learning reconceptualization of personality” proposed a set of person variables that “suggest useful ways of conceptualizing and studying specifically how persons mediate the impact of stimuli and generate distinctive complex molar behavior patterns” (Mischel, 1973, p. 265). The focus was on the psychological mediating processes underlying individual differences in social behavior, which were represented by five types of relatively stable person variables: the individual's encodings or construal (of self, other people, situations); expectancies (about outcomes and one's own efficacy); subjective values; competencies (for the construction and generation of social behavior); and self-regulatory strategies and plans in the pursuit of goals (Mischel, 1973).

From Person Variables to Cognitive–Affective Units

In the years since that proposal, voluminous research has extended the understanding of basic types of cognitive–affective

units that need to be hypothesized within the processing system of personality. For example, with regard to encoding, research has documented the importance of the representations of self and of the possible selves that people can imagine themselves to be (e.g., Bargh, 1982; Deci & Ryan, 1987; Dweck & Leggett, 1988; Griffin & Ross, 1991; Higgins, 1987; Markus, 1977; Markus & Kitayama, 1991; Markus & Nurius, 1986; Scheier & Carver, 1988b) as determinants of individual differences. Evidence for the significance of individuals' personal beliefs and expectancies about the self, as well as about outcomes, has now converged from diverse studies of self-efficacy, of attributional styles, of mastery, of perceived control, and of one's theories about self and the social world (e.g., reviewed in Mischel, 1993; Mischel, Cantor, & Feldman, in press).

It also has become clear that affects and emotions profoundly influence social information processing and coping behavior (e.g., Bower, 1981; Contrada et al., 1990; Foa & Kozak, 1986; Forgas, 1995; Smith & Lazarus, 1990; Zajonc, 1980), as well as self-regulation and the future-oriented pursuit of long-term goals (e.g., Mischel et al., 1989; Mischel et al., in press). It has long been emphasized that the processing of social information important to the person is intrinsically affect laden so that such cognitions as beliefs about the self and one's personal future are themselves “hot” and emotional (Mischel, 1973). Thus, person variables are inevitably closely connected with affective reactions. As Smith and Lazarus (1990) note, anything that implies important consequences, harmful or beneficial, for the individual can generate an emotional reaction. Likewise, people's decisions and behaviors do not merely reflect a simple arithmetic of expected utility calculations (e.g., Kahneman, Slovic, & Tversky, 1982; Kahneman & Snell, 1990). To illustrate, the influence of information about performance outcomes is mediated by the person's affective state. For example, when a person is experiencing a negative affective state and gets negative feedback about performance, an interaction may occur that virtually guarantees a pattern of self-defeating demoralization that goes greatly beyond the feedback information (Cervone, Kopp, Schaumann, & Scott, 1994; Wright & Mischel, 1982). Moreover, it can be argued that affective reactions depend on the cognitive structures through which they are interpreted and labeled and are inseparable from them (e.g., Beck, 1976; Schachter & Singer, 1962).

On the other hand, there now is considerable evidence that affective-evaluative reactions to situation features (such as faces) may occur virtually immediately and automatically (e.g., Murphy & Zajonc, 1993; Niedenthal, 1990) outside of awareness (Gollwitzer & Bargh, in press; Zajonc, 1980), and these preconscious emotional reactions may rapidly trigger closely associated cognitions and behaviors (Chaiken & Bargh, 1993). Furthermore, affect may be open to direct influences that range from such simple events as finding a coin on the street (e.g., Forgas, 1995; Isen et al., 1992; Schwarz, 1990) to chronic modification of mood states through psychopharmacological interventions. They may reflect long-standing individual differences (e.g., Fazio, Sanbonmatsu, Powell, & Kardes, 1986), which may be related to temperament and biological variables (Rothbart et al., 1994) and may have distinctive influences on information processing strategies (e.g., Epstein, 1994; Foa & Kozak, 1986). Finally, affective reactions also require distinctive measurement operations to monitor their psychophysiological

Table 1
*Types of Cognitive-Affective Units in the
 Personality Mediating System*

1. Encodings: Categories (constructs) for the self, people, events, and situations (external and internal).
2. Expectancies and Beliefs: About the social world, about outcomes for behavior in particular situations, about self-efficacy.
3. Affects: Feelings, emotions, and affective responses (including physiological reactions).
4. Goals and Values: Desirable outcomes and affective states; aversive outcomes and affective states; goals, values, and life projects.
5. Competencies and Self-regulatory Plans: Potential behaviors and scripts that one can do, and plans and strategies for organizing action and for affecting outcomes and one's own behavior and internal states.

Note. Based in part on Mischel (1973).

ical components. It therefore should be of heuristic value at this point to call special attention to affects as key aspects of individual differences in social information processing that need to be incorporated as units of analysis in the personality system.

Individual differences in the meaning of a situation depend also on the goals and subjective values that people bring to it. Goals guide and structure the long-term projects people pursue and have become central in conceptions of the organization and motivation of behavior over time. Goals influence both the situations and outcomes individuals seek and create and their cognitive, affective, and behavioral reactions to them (e.g., Alexander & Higgins, 1993; Bargh & Gollwitzer, 1994; Cantor, 1993; Dweck, 1991; Gollwitzer, 1993; Higgins, in press; Higgins & Kruglanski, in press; Linville & Carlston, 1994; Linville & Clark, 1989; Markus, 1977; Martin & Tesser, 1989; Mischel, 1990, 1993; Pervin, 1989, 1990). Therefore, the individual's personal goals constitute another cognitive-affective unit that needs to be incorporated in the personality system. Finally, it is necessary to move beyond the social cognitions and feelings that are experienced to the social behavior and coping patterns they construct. This requires attention to their competencies, plans, and strategies for self-regulation at the action level, which also must be represented in the personality system (Gollwitzer, 1993; Kuhl & Beckman, 1985; Mischel et al., in press; Norem, 1989; Taylor & Schneider, 1989).

Cumulatively, these developments suggest a set of cognitive-affective units or mental representations in the personality system that are based in part on the previously proposed person variables as summarized in Table 1. Namely, affects and goals, as well as encodings, expectancies and beliefs, and competencies and self-regulatory plans and strategies, exemplify the types of units in the system that interact as the individual selects, interprets, and generates situations. The cognitive-affective units in the system are not isolated, static components. They are organized, for example, into subjective equivalence classes, as illustrated in theory and research on encoding, person prototypes, and personal constructs (e.g., Cantor & Mischel, 1977, 1979; Cantor, Mischel, & Schwartz, 1982; Forgas, 1983a, 1983b; Hig-

gins, King, & Mavin, 1982; Kelly, 1955; Linville & Clark, 1989; Vallacher & Wegner, 1987). Some aspects of the organization of relations among the cognitions and affects, such as evaluative-affective associations and interconcept relations (e.g., Cantor & Kihlstrom, 1987; Murphy & Medin, 1985) are common among members of a culture, and others may be unique for an individual (e.g., Rosenberg & Jones, 1972). Whether common or unique, however, cognitive-affective representations are not unconnected discrete units that are simply elicited as "responses" in isolation: These cognitive representations and affective states interact dynamically and influence each other reciprocally, and it is the organization of the relationships among them that forms the core of the personality structure and that guides and constrains their impact, as discussed next.

Individual Differences in the Cognitive-Affective Personality System.

Most models of social information processing that have emerged in recent years share a common view of the nature of individual differences (e.g., Higgins, in press; Higgins & Bargh, 1987): individuals differ stably in the chronic accessibility or activation levels of the particular mental representations available to them. For example, one person may easily access the representation of the "self as mother," but for another such self-encoding may be relatively inaccessible. Likewise, some individuals more readily encode ambiguous interpersonal situations as personal affronts and violations (e.g., Dodge, 1986) or focus on the potentially threatening, dangerous features (e.g., S.M. Miller & Mangan, 1983). Some may chronically experience such affective states as depression (e.g., Bargh & Tota, 1988; Nolen-Hoeksema, Parker, & Larson, 1994); others are prone to experience daily distress, irritability, and negative emotions (e.g., Eysenck & Eysenck, 1985) or differ stably in the goals and experiences that they value, fantasize about, and pursue most persistently (e.g., McClelland, 1985).

Thus, individual differences in chronic activation levels of cognitions and affects are basic for social cognitive theories of personality and social behavior, and the present theory begins with that foundation. In addition to such differences in chronic activation levels, however, the proposed theory also assumes stable individual differences in the distinctive organization of relationships among the cognitions and affects available in the system. This assumption is consistent with a new kind of revolution that has been occurring in cognitive and neuroscience in the last decade, which shifts from the serial, centralized processing that had been modeled after the architecture of traditional digital computers to a more parallel, distributed, and associative model. It was anticipated in Hebb's (1949) principle of contiguous activation among closely associated units and is more compatible with emerging models of the biological bases of human information processing. Although there are many specific versions within this direction, their theme is that the key to understanding human information processing lies in the organization of the relationships among the units. It is this pattern of relationships or associations, as well as the accessibility of the units, that is the essence of most (if not all) current models of cognition (e.g., Anderson, 1983; Rumelhart & McClelland, 1986) and

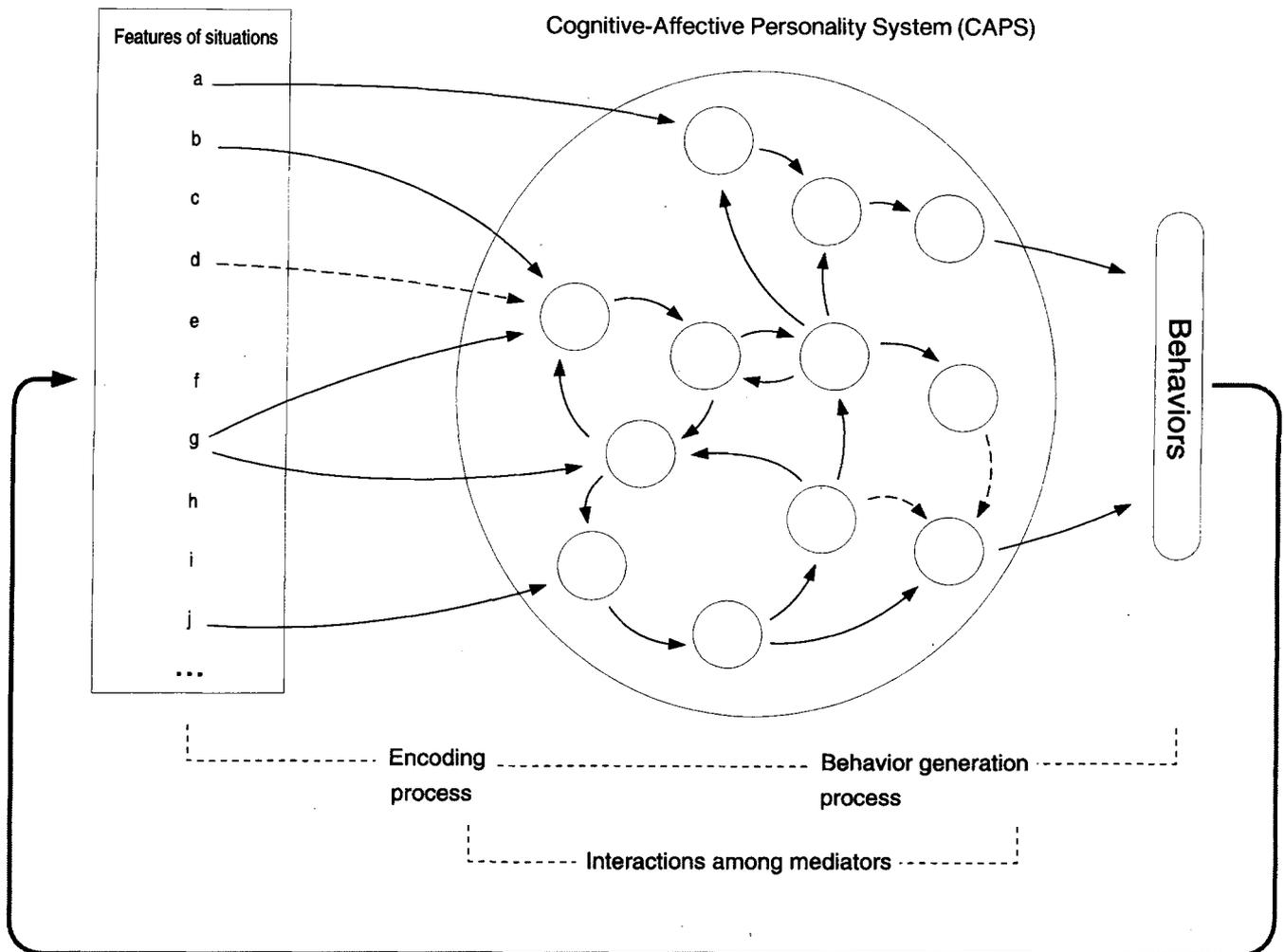


Figure 4. Simplified illustration of types of cognitive-affective mediating processes that generate an individual's distinctive behavior patterns. Situational features are encoded by a given mediating unit, which activates specific subsets of other mediating units, generating distinctive cognition, affect, and behavior in response to different situations. Mediating units become activated in relation to some situation features, deactivated (inhibited) in relation to others, and are unaffected by the rest. The activated mediating units affect other mediating units through a stable network of relations that characterize an individual. The relation may be positive (solid line), which increases the activation, or negative (dashed line), which decreases the activation.

of the brain (e.g., Churchland & Sejnowski, 1992; Crick & Koch, 1990; Edelman, 1987; Kandel & Hawkins, 1992).

Essentials of the Personality System

Building on these contributions, we propose a unifying view of a personality system in which individuals are characterized both in terms of (a) the cognitions and affects that are available and accessible (Table 1), and (b) the distinctive organization of the interrelations among them and psychological features of situations. This organization guides and constrains the activation of the specific cognitions, affects, and potential behaviors when an individual processes situational features. It constitutes the basic structure of personality and reflects and underlies the individual's uniqueness. Within each individual, the organization of this system is assumed to be stable and unique. It reflects individual differences in the chronic availability and ease of ac-

tivation of particular cognitions and affects and also in the organization of the relations among them.

A schematic, highly simplified illustration of such a personality system is in Figure 4. It shows that a *personality system* is characterized by the available cognitive and affective units (Table 1), organized in a distinctive network of interrelations. When certain configurations of situation features are experienced by an individual, a characteristic subset of cognitions and affects becomes activated through this distinctive network of connections in the encoding process. The figure indicates that within any individual a rich system of relationships among the cognitive and affective units guides and constrains further activation of other units throughout the network, ultimately activating plans, strategies, and potential behaviors in the behavior generation process. The specific connections shown in this figure, chosen arbitrarily, illustrate that (a) there are many possible relations among the units but only some are functionally

important; (b) units become activated in relation to situations and to other units in the personality system; (c) feedback activations occur that produce and sustain patterns of activation over time; and, most important, (d) units that become activated in the personality system activate other units through their distinctive organization in a network of relations, ultimately generating observable behaviors.

In this theory, the personality system is conceptualized at a highly abstract, psychological level of analysis. The theory is concerned with the relationships among relatively high level cognitive and affective representations (see Table 1)—the macrostructure of personality units and molar level situations or stimuli—and not with the microstructures that might underlie them biologically. The “relations,” “pathways,” and connections among the units shown in Figure 4 describe functional relationships among these high-level cognitive and affective units and do not refer to physical connections in structure of the biological information processing system. The focus in the theory is on the relations among cognitions and affects in the system in terms of whether, and when, they become, in varying degrees, activated, deactivated, or are not influenced by each other. Furthermore, cognitive and affective units are shown by separate circles in the figure for the sake of simplicity, but these representations do not necessarily correspond to separate biological units. For example, different psychological units may be represented biologically by different patterns of activation of the same set of underlying biological units in a distributed, rather than local, representation (e.g., Hinton, McClelland, & Rumelhart, 1986).

To give a concrete example of such a system in action, suppose that while waiting for the results of medical tests, an individual scans for and focuses on a specific configuration of features in the situation, which activate the encoding that this is a health threat to the self, and concurrently trigger anxiety, which activates further scanning of and for those features, and simultaneously feeds back to reactivate the encoded health threat. The perceived threat activates the belief that this situation is uncontrollable, which triggers further anxiety and also negative outcome expectations. Both the negative expectancies and the anxiety concurrently activate defensive plans and scripts that generate a pattern of multiple behaviors at varying levels of strength. These events occur concurrently, in parallel activation within the system. The behaviors ultimately generated depend both on the situational features and on the organization of the network of cognitions and affects that become activated.

Individuals may differ characteristically in the thoughts and feelings that tend to be activated if particular configurations of features are present in situations, like those shown in the situation-behavior profiles of Figure 1. Each individual may be characterized by sets of such features, some common and some unique, that constitute the active psychological ingredients of situations: Their presence or absence in a given situation tends to influence that individual's cognitive and affective reactions in some potentially predictable ways. Cognitions and affects are activated not just by external features of situations, as when milk spilled on an adolescent in the cafeteria line is encoded as “being teased” (cf. Dodge, 1993), but also by feedback from cognitions and affects activated by internal events, such as the person's affective state and thoughts, for example, “when sad,” “when lonely” (Wright & Mischel, 1988), and from imagined

or anticipated situations and scripts (e.g., Cantor et al., 1982).

The activation of cognitions and affects also activates goals, behavioral scripts, and plans in the behavior generating process. The behaviors the person constructs may in turn affect the interpersonal environment and social ecology, which changes the situational features that are encountered subsequently in continuous transactions, indicated by the bold arrow in Figure 4 that connects the behavioral patterns constructed by the personality system back to the situations encountered.²

Behavioral Expressions of the System's Stability: Elevation and Shape of If...Then... Situation-Behavior Profiles

Given the assumptions of this theory, when an individual encounters situations that differ in their psychological features over time this type of personality system will generate distinctive *if...then...*, situation-behavior profiles of characteristic elevation and shape. To illustrate with a simple example, suppose that Person 1 tends to become irritated when she thinks she is being ignored, whereas Person 2 is happier when he is left alone, and even becomes irritated when people tell him personal stories. Suppose also that in Situation A people rarely initiate personal interactions whereas in Situation B such interactions are relatively frequent. Then Person 1 will become irritated in Situation A but not in Situation B; Person 2 will show the opposite *if...then...* pattern, irritated if B, but not if A. These affects further activate other cognitions and feelings in each situation, following the pathways of activation distinctive for each person. These individual differences reflect the particular acquired meanings of the situational features in terms of the cognitions and affects associated with them, so that even if both people are similar in their overall levels of “irritability” they will display distinctive, predictable patterns of behavioral variability in their *if...then...* signatures.

Like many personality models, this system generates variation in the individual's behavior across different situations. Distinctive for the present model is that this variation across situations is neither entirely random, nor does it merely represent common differences in normative levels of social behavior in different situations shared by all individuals. Instead, the behavioral variation in relation to changing situations constitutes a potentially predictable and meaningful reflection of the personality system itself. It reflects at least in part the individual's selective and distinctive mapping of particular sets of situation features onto activated cognitions and affects and the distinctive organization through which they are interrelated and activate each other. Furthermore, although the activated cognitions,

² The activation pattern of the cognitive-affective units in the personality system, that is, the personality state, is never entirely the same across different occasions. For example, even when encountering the same person in the same office on different occasions, an individual's cognitive and affective state is not ever completely the same. That is, even if the external situation is identical, the internal, psychological situation will vary. Because the system's response is a function of the interaction between the external stimuli and the state of the personality system, the degree of predictability from the external stimuli only is intrinsically limited.

affects, and behaviors will change as the situation and its features change, their organization and the strengths of relations among them may remain essentially the same across situations. It is this assumption of stable individual differences in the organizations of the relations among cognitions and affects that leads the theory to expect characteristic, predictable patterns of variation in the individual's behavior across situations.

An Illustrative Computer Simulation

To show how the proposed personality system, even in extremely simplified form, could generate the types of behavior patterns predicted theoretically above, we constructed a computer simulation. In it hypothetical individuals differed stably in the connectivity and strengths of the activation networks, and we then "exposed" them to a set of hypothetical situations that differed in their features. We traced the activation of the mediating units to compute the expected behaviors of each individual in each situation. The activation networks implemented in the simulations are described in the Appendix, the set of network activation weights that uniquely characterized one of the hypothetical individuals in Table A1, and the features of situations are shown in Table A2.

The model implemented in the computer program produced stable patterns of intraindividual variability in behavior for most of the 100 simulated individuals. The stability of the intraindividual patterns of behavior variability was computed for each of the simulated individuals by exposing them to the 15 situations (Table A2), computing the expected activation patterns, and recording the predicted behavior. The average of these stability coefficients (computed using Fisher's r -to- z transformation) was 0.66, and 90 of the 100 hypothetical individuals had stability coefficients higher than 0.20. (Of course, the exact size of the coefficients, but not the sign, depends on the amount of intrinsic unpredictability of behavior modeled in the simulation and thus can be increased or decreased readily.) As also predicted mathematically (Bolger & Shilling, 1991; Shoda, 1990), the results confirmed that the type of mediating system simulated here generates intraindividual patterns of situation-behavior relations that show some significant stability. Essentially the same results can be produced with different summing functions, threshold functions, as well as different numbers of internal representations.

The computer simulations illustrate an important property of the type of mediating process model simulated: Individual differences in the patterns of activation pathways among the internal representations determine the relationship between the situation features and the observed behavioral outcomes from the system. The uniqueness of the individual's configuration of person variables is thus expressed in the uniqueness of the person-situation profiles generated.

It is also important to note that the expressions of the personality system are seen in the elevation as well as the shape of the situation-behavior profiles generated. As Figure A1 shows, the situation-behavior profiles of the hypothetical individuals differ not only in shape but also in elevation. Some individuals tended to be high and some low, resulting in average cross-situational consistency coefficients across the 15 situations that are positive and nonzero.

It is noteworthy that these stable individual differences in the

elevation of the profiles were generated even though the simulation did not contain any unit that represented chronic individual differences in generalized behavioral dispositions independent of situation features: The only individual differences in the simulation were in the strength and sign of the individual connections among the mediating units and the degree to which they become activated in relation to each situation feature. The simulation thus shows that stable differences in the overall levels of behavior that characterize individuals can be produced by the hypothesized personality system without requiring the inclusion of mediating units that correspond directly to behavioral dispositions.

Implications for the Behavioral Expression of the System's Invariance

In sum, the cognitive-affective system theory of personality assumes that the organization of relations within the person's mediating network, the structure of the personality system, remains relatively stable and invariant across situations unless new learning, development, or biochemical changes occur. Although the structure is stable, however, the theory also assumes that different mediating units become activated across situations that contain different psychological features. Consequently, the personality system should be expressed in the predictable, characteristic patterns with which a particular type of behavior will vary over a set of situations, as well as in its average level.

The foregoing analysis and predictions are based on the assumption that the individual discriminates among situations and is able to generate a range of potential behaviors fine-tuned in relation to them. Indiscriminate behaviors are likely, however, when the situations do not differ in psychological features that engage an individual's cognitive-affective mediating processes, or in cognitive, emotional disorders such as psychotic delusions or manic-depressive conditions that may produce relatively situation-free cognitive, affective, and behavioral reactions. In less extreme cases, when individuals lack the necessary competencies and self-regulatory plans and strategies—the specific social knowledge required to construct and generate context-appropriate behavior in a given domain (e.g., Cantor & Kihlstrom, 1987; Mischel, 1973; Schank & Abelson, 1977)—it also will constrain both the elevation and shape of the situation-behavior profiles. To illustrate, consider the finding that indexes of the ability to delay gratification in preschool may predict such outcomes as academic performance and social competence in adolescence (Mischel et al., 1989). Individuals who lack relevant competencies for goal-directed self-regulation beginning early in life face many constraints that may limit the potential behaviors they are able to generate (Mischel, Shoda, & Peake, 1988; Shoda, Mischel, & Peake, 1990). In contrast, those who have available the competencies to generate a type of behavior (e.g., purposeful delay of gratification for the sake of desired but delayed future outcomes) then can choose if and when and where to perform such behavior. When social and cognitive competence is high, behavioral freedom is increased, and expressed in stable but discriminative choices seen in a well-defined, distinctive person-situation profile (e.g., Chiu, Hong, Mischel, & Shoda, in press; Mischel, 1973; Moos, 1968; Raush, Dittman, & Taylor, 1959; Shoda et al., 1993b).

Resolving the Consistency Issue and Person–Situation Debate

In the last three decades the field of personality has tried to reconcile the fact that the individual's behavior often is not consistent across situations, on the one hand, with the fundamental assumption and intuitive conviction that personality must be stable on the other hand (e.g., Bem & Allen, 1974; Krahe, 1990; Mischel, 1968; Moskowitz, 1982, 1994; Nisbett & Ross, 1980; Ross & Nisbett, 1991). The proposed theory dissolves this apparent dilemma because it considers the variability of behaviors within individuals across situations not as "error" nor as "due to situation rather than to the person," but as a meaningful reflection of the enduring personality system. It predicts that the person's behaviors in a domain will change from one situation to another—when the *if* changes, so will the *then*—even if the personality system were to remain entirely unchanged. The theory thus takes account both of the data on the variability of behavior and the intuitive conviction of the stability of personality and incorporates the former phenomenon into the conception of the latter. It resolves the person–situation debate, not merely by recognizing that person and situation are important, as has long been acknowledged, but by conceptualizing the personality system in ways that make variability of behavior across situations an essential aspect of its behavioral expression and underlying stability.

The theory also has important implications for the levels of behavioral consistency across situations that should be expected. To the degree that people are characterized by stable and distinctive patterns of variations in their behavior across situations, it will intrinsically limit the degree of cross-situational consistency that can be obtained, as has been demonstrated elsewhere (Shoda, 1990). Because intraindividual variability in behavior necessarily implies changes across situations in the person's rank ordering with respect to a behavior, it constrains the level of consistency, as traditionally defined, that one should expect theoretically. Consequently, researchers committed to demonstrating consistency in personality may do so more effectively by identifying the stable patterns of behavior variability that characterize an individual or a type, rather than pursuing higher cross-situational consistency coefficients.

Personality System, States, Dispositions, and Dynamics

This theory of personality coherence and its behavioral expressions requires a reexamination and redefinition of key concepts in the analysis of personality and individual differences. To recapitulate briefly, we have seen that in this theory the *personality system* refers to the cognitive–affective mediating units (Table 1) organized in a distinctive network of relations (Figure 4) that constitutes its structure. This system interacts with relevant psychological features of situations, generating the distinctive patterns of variability in social cognition, affect, and action across situations—the individual's personality signature—visible in stable, *if...then...*, situation–behavior profiles that have characteristic elevation and shape.

The *personality state* refers to the pattern of activation among cognitions and affects at a given time in this system. It thus depends on the particular context and the psychological situations experienced by the individual at that moment. The structure of

the personality system can remain stable across situations, but the personality state changes readily when the situational features that are active change, or when they are alternatively encoded or cognitively and emotionally transformed (e.g., Mischel et al., 1989).

Identifying Common Dispositions, Types, and Dynamics

The stable situation–behavior profiles generated by the system lend themselves not only to the idiographic study of persons in their life contexts, but also provide a nomothetic route to characterize a group or type of individuals. Such a personality type consists of people who share a common organization of relations among mediating units in the processing of certain situation features, (e.g., Shoda et al., 1994). One can identify these individuals by finding the common *if...then...* patterns of behavior variation that they share. Conversely, identifying similarities among people in their underlying dynamics should allow prediction of the common *if...then...* patterns they are likely to manifest.

The behavioral manifestations of the personality system can be readily encoded as reflections of person prototypes or exemplars (e.g., Cantor et al., 1982; Wright & Mischel, 1987, 1988), and of traits and types in everyday psycholexical terms, both by lay perceivers (e.g., Jones, 1990) and psychologists (e.g., Goldberg, 1993; John, 1990; McRae & Costa, in press). In the present theory, these encodings are related not just to the mean levels of different types of behavior displayed by a person, but also to the shape of the *if...then...* profiles that express their pattern of variability across situations. This was illustrated in a study that obtained personality prototype judgments for the sample of participants in the summer camp described in the first part of this article. As predicted, judgments by observers of how well individuals fit particular dispositional prototypes (e.g., the "friendly" child, the "withdrawn" child, the "aggressive" child) were related clearly to the shape of the observed situation–behavior profiles, as well as their average level of prototype-relevant behaviors (Shoda et al., 1994). When the pattern of variability is changed, so are the personality judgments (Shoda et al., 1989). Exemplars of different personality prototypes thus are characterized by distinctive patterns of stable *if...then...* relations, as well as by the average frequency in their prototype-relevant behaviors, with high agreement.

How should such indicators of "personality traits" or "dispositions" be conceptualized? Although it is often assumed and asserted that process-oriented approaches to personality ignore or deny stable personality dispositions (e.g., Goldberg, 1993), in fact, in the present theory they have a significant role in the personality system itself. Specifically, in this theory, dispositions are defined by a characteristic cognitive–affective processing structure that underlies, and generates, distinctive processing dynamics. The *processing structure* of the disposition consists of a characteristic set of cognitions, affects, and behavioral strategies in an organization of interrelations that guides and constrains their activation. The *processing dynamics* of the disposition refer to the patterns and sequences of activation among the mediating units that are generated when these individuals encounter or construct situations with relevant features. The dynamics of personality occur in relation to particular types of situational features (e.g., certain interpersonal encounters).

Whereas some of these stimuli are external, others are internally generated. People activate their own dynamics by thinking about situations; by ruminating about them (e.g., Nolen-Hoeksema et al., 1994); through selective recall and reexperiences of past events and feelings; by selectively attending to different aspects of the self, such as one's perceived strengths, resources, vulnerabilities, conflicts, ambivalences, and anticipated future (e.g., Bandura, 1986; Mischel, Ebbsen, & Zeiss, 1973, 1976; Norem & Cantor, 1986); and in daydreaming, fantasies, and scenarios that are planned or imagined (e.g., Taylor & Schneider, 1989). The behavioral manifestations of a disposition and its processing dynamics are seen in the elevations and shapes of the situation-behavior profiles—the dispositional signatures—that distinguish its exemplars.

Individuals who have similar organizations of relations among cognitions and affects that become activated in relation to a particular distinctive set of situational features may be said to have a particular *processing disposition*. These dispositions generate distinctive processing dynamics that become activated and, over time and contexts, will generate the situation-behavior profiles that have the characteristic elevations and shapes that identify the dispositional exemplars. It should be clear that in this approach personality psychologists do not have to choose between the study of dispositions or processes, but can simultaneously analyze both the distinctive *if...then...* profiles that characterize the disposition's exemplars and illuminate the dynamic processes underlying them.

Such analyses are especially interesting when focused on the situation-behavior profiles and personality dynamics that should distinguish prototype exemplars of particular theoretical constructs, as illustrated in research on individuals who are *rejection sensitive* (Downey & Feldman, 1994). Briefly, many of these individuals have histories of exposure to family violence and rejection (Downey, Feldman, Khuri & Friedman, in press; Feldman & Downey, 1994). In intimate relationships, when they encounter what could be construed as uncaring behavior (e.g., partner is attentive to someone else), they are likely to experience thoughts such as "she doesn't love me." These cognitions in turn tend to trigger expectations of rejection, abandonment, and associated emotions, such as feelings of anger and resentment for being betrayed and anxiety and rage at the prospect of abandonment. They activate scripts for coercive and controlling behaviors, which typically are then blamed on the partner's behavior. In men, such control scripts may be positively valued and construed as central for the concept of self as a "real man." In one study of these types of individuals, for example, a man asserted he would never be a "wimp," which for him meant feeling that he needed his wife: when he experienced emotions he labeled as "wimpy" he became most ferocious and violent in arguments with his wife (Goldner, Penn, Sheinberg, & Walker, 1990, p. 352).

On the other hand, the same individuals also may be characterized by an exceptionally strong tendency for romantic and attentive behaviors and feelings in seemingly similar situations that have different active ingredients. A defining situation-behavior profile for this disposition—its behavioral signature—may include both being more prone than others to anger, disapproval, and coercive behaviors in certain types of situations in intimate relationships, and being more supportive, caring, and romantic than most people, for example, in initial encounters

with potential partners who are not yet committed to them, or later in the relationship when they are about to lose the partner. The profile analysis of these individuals suggests that the same rejection-sensitive man who coerces and abuses his partner also can behave in exceedingly tender and loving ways (e.g., Walker, 1979). In semantic terms, he is both hurtful and kind, caring and uncaring, violent and gentle (see also Mischel, 1969). Traditional analyses of such "inconsistencies" in personality lead to the question, which one of these two people is the real one? What is simply the effect of the situation?

In contrast, the hypothesized personality system allows the same person to have contradictory facets that are equally genuine. The surface contradictions become comprehensible when one analyzes the network of relations among cognitions and affects to identify their psychological organization. The research problem becomes to understand when and why different cognitions and affects become activated predictably in relation to different external and internal features of situations. The theory views the individual's distinctive patterns of variability not necessarily as internal contradictions but as the potentially predictable expressions of a stable underlying system that itself may remain quite unchanged in its organization. The challenge is to discriminate, understand, and predict when each aspect will be activated, and the dynamics that underlie the pattern. For example, are the caring and uncaring behaviors two scripts in the service of the same goal? If so, how are they connected to and guided by the person's self-conceptions and belief system in relation to the psychological features of situations that activate them?

Inferring Dynamics From Situation-Behavior Profile Patterns

The specification of the diagnostic *if...then...* profiles that characterize exemplars of a hypothesized disposition constitutes one assessment task in research on dispositions from this perspective. It calls for measurement not only of characteristic mean levels of relevant behaviors but also of the distinctive behavioral signatures—the *if...then...* profiles that define the disposition. These distinctive *if...then...* patterns in turn provide clues to infer the hypothetical processing dynamics that generate them. Differences in these behavioral signatures of individuals observed in the research summarized in the first part of this article (Shoda et al., 1994) are illustrative. Compare, for example, the verbal aggression profile of two individuals (9 and 28), shown in Figure 2. Even if both persons have similarly elevated levels of overall verbal aggression, one is most aggressive when warned by counselors, whereas the other becomes most aggressive when peers try to approach him to make positive contact, suggesting that the profiles may reflect very different processing dynamics. By observing these situation-behavior patterns, perceivers, whether lay persons or professional observers, can more accurately predict the behaviors of the perceived presumably because context allows the underlying meanings and motivation to be inferred (Shoda et al., 1989).

The hypothesized personality system functions literally as a whole—a unique network of organized interconnections among cognitions and affects, not a set of separate, indepen-

dent discrete variables, forces, factors, or tendencies. The challenge becomes to understand the psychological meaning of the organization of these relationships within the person, or the dispositional type, in terms of the goals, beliefs, and other mediating units hypothesized in Table 1. As Read, Jones, and Miller (1990) note, behavior organization becomes understandable in terms of the individual's model of goals, plans, resources, and beliefs. "Such a model is not a mere feature list, but is instead a model of how these components are related to one another" (Read et al., 1990, p. 1060). Thus, a person's seemingly inconsistent situation-behavior relations can become predictable manifestations of underlying personality dynamics if, for example, the goals served by the behaviors in particular situations are identified (e.g., Fein, Hilton, & Miller, 1990; L. C. Miller & Read, 1991). Current explorations of such cognitive-affective dynamics are abundant, for example, in studies of everyday personal projects (e.g., Cantor, 1993) and the goals, construals, and the personal theories that guide the individual in the coping and self-regulatory process (e.g., reviewed in Mischel et al., in press). They seek to clarify processing dynamics to answer questions such as: What goals are being pursued? Why does she do A in project X, but B in project Y? How are her self-encodings and theories of the self guiding her goal pursuits and constrain (or expand) her plans, for example, the choice of friends and partners? How do people's self-theories, for example, about the malleability of their own personality qualities and abilities (e.g., Dweck, Chiu, & Hong, in press), constrain and guide their goals, judgements, feelings, and choices?

The theory's most basic assumption, namely that the personality system is not made up of a set of isolated tendencies, factors, or components, but consists of a psychologically meaningful organization of relationships among cognitions and affects (Table 1, Figure 4), has clear implications for the study of personality: The relationships among the persons's important encodings, beliefs, and expectations (e.g., about the self), the enduring goals pursued, the key strategies used, and the affects experienced, all in relation to relevant features of situations, become the terrain the personologist needs to map. The ultimate goal becomes to articulate the psychological structure that underlies this organization within the personality system. The development of models to capture this organization becomes the theoretical challenge in the research agenda in particular content domains.

To apply the theory to a particular substantive domain one needs to identify the mental representations, and the interrelationships among them (i.e., their organization) in the processing system, that underlie the behavior of interest. To understand individual differences in dealing with information about personal risks for breast cancer, for example, one would identify common types of expectancies, affects, values, strategies, and other mediating units likely to become activated by such information, and their potential organization (S. M. Miller, Shoda, & Hurley, in press). The goal is to create a map of cognitions and affects like the one outlined in Figure 4 but with its empty circles filled in for that domain. Such a *cognitive-affective domain map* serves to limit for the researcher the range of cognitions and affects,

and their potential organization, that need to be considered for the behaviors of interest. Guided by this domain map, research is then directed to identify the particular sets of relationships within the map that characterize an individual or a type of processing disposition. The results of such a strategy were discussed above in the examples of individuals who are rejection sensitive (Downey & Feldman, 1994), and are illustrated in detail for health-protective behavior elsewhere (S. M. Miller et al., in press).

Individual Differences in the Situations Selected and Experienced

Processing dynamics involve complex, multifaceted relationships and interactions that may operate at many levels of awareness, automaticity, and control. Although they are activated within the system, they are enacted or "played out" in social behavior in vivo as individuals interact with, select, and change their personal social world. The cognitive-affective dynamics activated within rejection sensitive individuals, for example, influence their own life situations by leading them to seek and select partners with distinctive qualities (e.g., who they believe will need them and will reassure them). By becoming coercive or violent when encountering cues that could be construed as rejection, however, they also create unsatisfying intimate relations in which they ultimately may become rejected (Downey & Feldman, 1994; Feldman & Downey, 1994). If the partner copes with violent behavior by becoming passive, withdrawn, and by appeasing the partner, these relationships may be maintained even after they become painful and destructive, especially when reinforced by tender reunions after violent fights. Because partners may be selected to obtain such qualities in the first place, these relationships can become difficult to terminate (e.g., Buss, 1987).

As a result of such interactions, stable individual differences may develop in the types of situations people typically experience. In that case it may be possible to characterize individuals in terms of the stable intraindividual profiles of types of situations that they encounter more or less than do relevant other people. For example, in a children's summer camp, one child may enduringly live in a world in which others interact with her more than with the average child, both in positive and negative encounters so that everything happens to her, making her world full of diverse situations: She is approached positively, praised, warned, teased. In contrast, another person may be characterized by living a relatively isolated life in which very little happens interpersonally, neither positively nor negatively. Another may be characterized by a situational profile distinguished by being bullied and tortured much more than others by peers but in which interactions with adults are conspicuously absent. Such profiles of situations typically encountered and their psychological features, if stable, would constitute an additional important facet of individual differences in contextual terms. These profiles can be informative not only about the characteristics of the social world but also about the dynamics of the individual.

To summarize, through the interactions of the personality system's structure with the features of situations that activate characteristic processing dynamics, individuals may select, seek, interpret, respond to, and generate stable social

situations and experiences in patterns that are typical for them, ultimately in part shaping their own social environments (Patterson, 1976). These interactions seem to reflect two processes. They include selective exposure to (and construction of) particular types of situations as individuals construct their own life space, and also the individual's characteristic ways of reacting to those situations, cognitively, affectively, and behaviorally (Bolger & Schilling, 1991; Bolger & Zuckerman, 1994; Buss, 1987; Diener, Larsen, & Emmons, 1984; Emmons, Diener, & Larsen, 1986; Snyder & Ickes, 1985). As individuals form and pursue their personal projects, these person-context interactions progressively define and generate their unique trajectories—their personal vitae of experiences, relationships, and situations—that constitute their distinctive life course.

Implications for Person Perception, Development, Change, and Self-Regulation

Implications for the Perceiver's Theories of Personality and Dispositional Inferences

It would be surprising if the processing dynamics and structure of personality were inferred only by professional psychologists and not also by lay perceivers in their intuitive theories of personality: At least some of the time, some perceivers surely try to infer the beliefs, goals, and affects of the people they want to understand to see how these qualities underlie their behavior (Shoda & Mischel, 1993). Given that the expressions of the personality system are reflected in the shape as well as in the elevation of the *if...then...* situation-behavior profiles generated by the system, the perceiver (whether lay person or psychologist) needs such information to infer the underlying structure and dynamics and generate a theory about the person. In the relatively rare studies in which such data are made available to perceivers, they seem to be linked to the social perceptions and inferences that are formed and suggest the lay perceiver may be an intuitive interactionist at least some of the time (e.g., Chiu, 1994; Dweck, Hong, & Chiu, 1993; Kruglanski, 1989, 1990; Read & Miller, 1993; Shoda et al., 1994; Wright & Mischel, 1987, 1988).

If personality is tacitly equated with global behavioral dispositions, any variation in behavior within a domain across situations by definition becomes extraneous to personality, just as it is seen as "error" in personality research on consistency within that traditional perspective. The equation of personality with behavioral dispositions easily leads one to construe personality and situation as mutually exclusive and indeed opposing influences (as discussed in Shoda & Mischel, 1993). From that perspective, it makes sense to assume that perceivers dichotomize observed behavior into its situational versus dispositional components with the goal of partialling out the effect of the situation to discover the "true" score of the perceived. Then, however, the information on behavioral variability and *if...then...* situation-behavior profiles that the present theory sees as an essential personality signature is considered as due to situations, and not reflective of personality. Because such information is assumed to be extraneous to personality it usually is not made

available to the perceiver in research on personality inferences, and its potential role remains unexplored.

Such reasoning about personality inferences follows to the degree that in the culture and language the word "personality," as well as the concept, is simply synonymous with generalized behavior tendencies, usually described by adjectives. Although the semantic equation, personality = generalized behavior tendencies, is commonly made, intuitive perceivers are not necessarily limited to situation-free behavior tendencies when they try to understand other people and themselves. Goal-based inferences (Read et al., 1990), for example, may be found particularly when perceivers try to understand themselves and those they care about, or have an empathic orientation (e.g., Hoffman, Mischel, & Mazze, 1981), even if traits seem to be the preferred language for the psychology of the stranger (McAdams, 1994). The equation thus need not prevent researchers from investigating when and how the intuitive perceiver might make inferences about cognitive-affective dynamics and their nonobvious behavioral expressions and thus be guided by an intuitively interactionist theory of personality (e.g., Chiu, 1994; Dweck et al., in press; Shoda et al., 1989). To observe the effects of such implicit personality theories requires research paradigms that make available to the perceiver the situation-behavior relations that—in the present perspective—constitute the personality signatures of the perceived.

Personality Development and Change: Genes Influence More Than Means

Given the theory's basic assumption that each personality system is characterized by a distinctive organization in the relations among its cognitive-affective units, it is the development of this organization that becomes the focus of developmental research within this framework. In the present theory, both biochemical and social cognitive influences, heritable and learned, are expected to affect the availability of cognitive-affective units and their organization, that is the personality system. For example, variables of temperament or reactivity, such as activity, irritability, tension, distress, and emotional lability, visible early in life (Bates & Wachs, 1994), seem to have important, complexly interactive links to emotional and attentional processing and self-regulation (e.g., Rothbart et al., 1994), and thus should influence the organization of relations among the mediating units in the system. Because this system, in turn, generates the specific, *if...then...* situation-behavior relations manifested, the theory predicts that individual differences in genes and early social learning history will be seen not only in the mean level of behaviors, but in the behavioral signatures of personality, i.e., the stable configuration of *if...then...* situation-behavior relations. Thus, when the system changes, either due to modification in the biological substrates or due to developmental changes and significant life events, the effects will also be observable behaviorally as a change in the relationships between the *ifs* and the *thens* in the situation-behavior profiles displayed, as well as in their elevation.

Self-Regulation for Purposeful, Therapeutic Change

Just as a structural diagram of a complex system helps one to understand its functions, persons who have some un-

derstanding of their processing dynamics may be able to better predict the events and conditions that will activate certain cognitions and affects in them. Such metacognitive knowledge may help the person to recognize some of the key internal or external stimuli that activate or deactivate the problematic affects, cognitions, and behaviors and the dynamics that occur in relation to those stimuli. With this knowledge, individuals may be better able to influence their personality states and behaviors (e.g., Mischel & Mischel, 1983; Rodriguez, Mischel, Shoda, & Wright, 1989).

For example, because individuals can avoid some situations and select others, to the degree that they know their own *if...then...* patterns, they may be able to influence their behavior simply by selecting the situations to which they expose themselves. They also can generate alternative encodings, thoughts and feelings in relation to particular problem-producing situations that cannot themselves be changed. Imagined and cognitively rehearsed changes in the mental representations of stimulus features can be used to transform and indeed reverse their impact on behavior. To illustrate, self-generated changes in the mental representations of a stimulus by cognitively focusing on its potentially affect-arousing "hot," consummatory features, versus its more abstract, "cool," or informative features "in imagination" may dramatically influence self-regulatory behaviors of considerable long-term personal significance (Mischel et al., 1989). For example, when 4-year-olds are primed to focus on "hot" consummatory features of rewards (such as the pretzel's crunchy salty taste), they want them immediately, and further delay to obtain them becomes extremely difficult. In contrast, a focus on the abstract features (e.g., how the pretzels are "like little logs") makes it easy to continue to wait in order to get them. By influencing the stimuli-as-encoded, or by focusing attention on selected mental representations, individuals can exert some control over their own cognitions and affects. They can select, structure, influence, and reinterpret or cognitively and emotionally transform situations to which they are exposed, and thus are not merely passive victims of the situations or stimuli that are imposed on them.

To overcome barriers in the implementation of intentions and goals, individuals may use diverse strategies, such as planning and imagining, to facilitate later proceduralized, automatic responses when the appropriate situation features occur (Linville & Clark, 1989). For example, they can link goal-relevant plans and implementation intentions to the relevant situations in ways that will trigger the desired behavior when needed (Gollwitzer, 1993; Kuhl & Beckman, 1985; Meichenbaum, 1992). Mental simulations and rehearsals of desired scenarios—essentially imagining oneself vividly doing the task, step by step, and enacting the entire scene—appear to be promising routes that can enhance self-regulation and purposeful self-directed change in the pursuit of difficult goals (e.g., Cervone, 1989; Gregory, Cialdini, & Carpenter, 1982; Ruvolo & Markus, 1992; Taylor & Schneider, 1989).

As a result of these efforts, usually after repeated attempts and over some time, new ways of thinking, feeling, and behaving may become activated in relation to particular features of situations so that the cognitive-affective personality system and its activation pathways itself may change to some degree. This occurs when purposeful interventions to encode social stimuli in new ways and to activate a new pattern of cognitions, affects,

and behaviors in relation to them (e.g., in psychotherapy) begin to reroute and modify the pathways of activation in the personality system, changing the organization in the mediating network. Such changes occur naturally in the system in the course of development through the experience of significant life events and by biological changes.

This conception of therapeutic change suggests that attention needs to be directed not only to the problematic behavior and its relations to precipitating situational features, but also to the cognitions and affects that become activated by those features and their interrelations in the processing dynamics. Therapy that is designed to change only the stimulus features or the problematic behaviors themselves and that bypasses the mediating dynamics, risks leaving those dynamics still capable of being activated. Such activation may occur both through self-generated internal situations (e.g., in ruminations and fantasy) and through encounters with situational features that are functionally similar to those that were problematic even after the initial stimuli have lost their power, leaving the individual still experiencing distressing cognitions and affective states that may have indirect behavioral expressions.

Moreover, the activation of processing dynamics in relation to problem-producing situational features (e.g., by encouraging the expression of angry feelings and thoughts toward an authority figure) in itself is not necessarily therapeutic and may even strengthen the associations rather than leading to cathartic release. Therapeutic change in the present theory requires modifying the organization among cognitions and affects in the processing system, not simply reactivating existing dynamics or changing stimulus-response associations. That entails assessments to identify active ingredients of situations and exploring the cognitive-affective processing dynamics that they activate. Therapeutically, it requires developing alternative ways of encoding and reacting cognitively, emotionally, and behaviorally to the problem-producing ingredients to systematically change their meanings for the individual and thus modify the organization of relations among the cognitive-affective units in the system (e.g., Beck, 1976; Kelly, 1955).

Can Personality Psychology Pursue Its Two Goals Within a Unitary Framework?

Since the inception of the field, a major goal of personality psychology has been to characterize individuals in terms of stable qualities that remain invariant across situations and that are distinctive for the individual (e.g., Allport, 1937; Funder, 1991; Goldberg, 1993). Concurrently, in a second direction, other personality researchers have focused on the question "how does this person function?" and sought answers in terms of the psychological processes that underlie individual differences in social behavior and its variability across situations (e.g., Bandura, 1986; Cantor & Kihlstrom, 1987; Mischel, 1973; Pervin, 1990). Consequently, the study of individual differences has long been divided into two subdisciplines, pursuing two distinct sets of goals—either personality dispositions or personality processes—with different agendas often in seeming conflict with each other (Cervone, 1991; Cronbach, 1957, 1975; Mischel & Shoda, 1994). The present theory is an effort toward integrating the two disciplines to pursue both goals within the same conceptual framework.

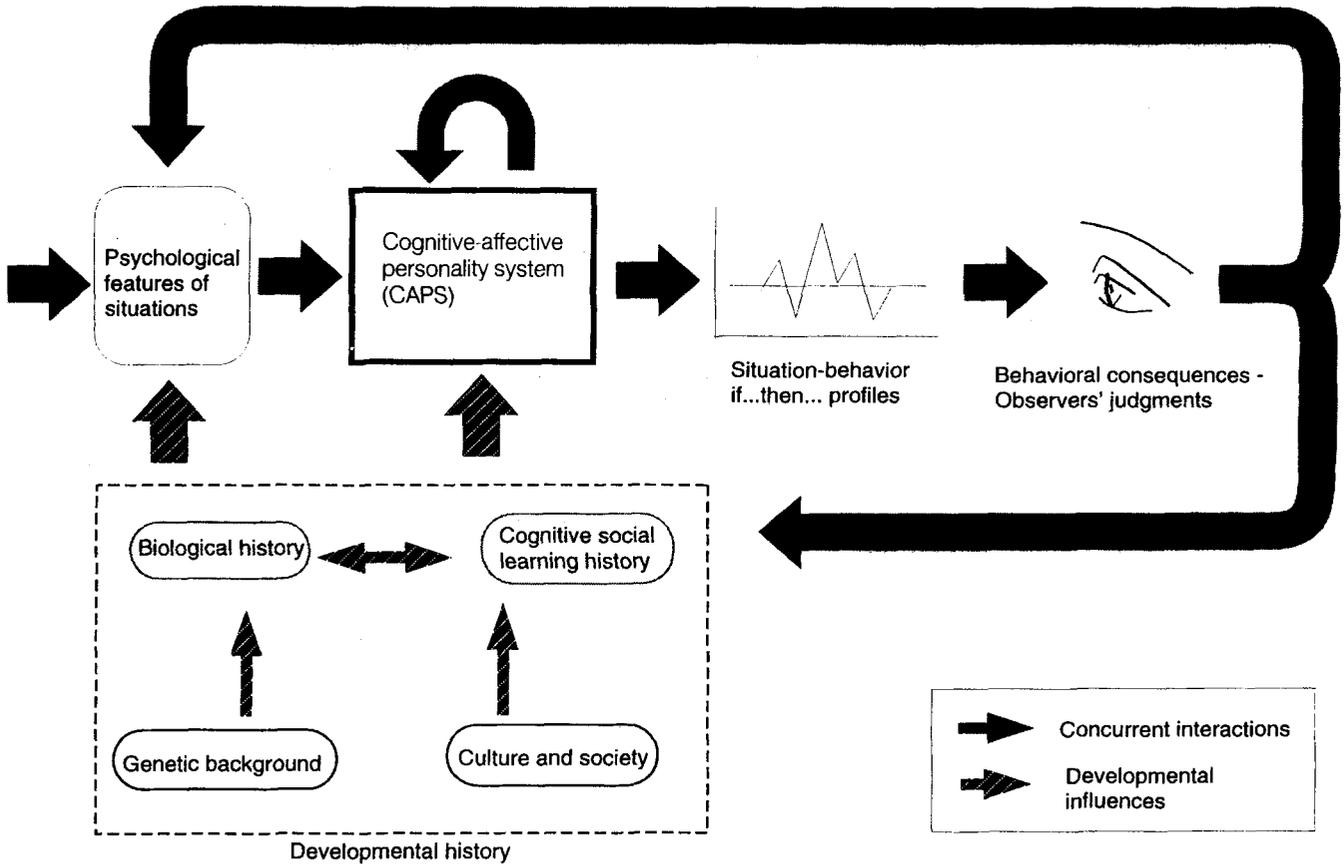


Figure 5. The Cognitive-Affective Personality System (CAPS) in relation to concurrent interactions and developmental influences (see text).

Taken collectively, this cognitive-affective personality system (CAPS) theory provides a comprehensive unifying view that accounts for both the variability in the behavioral expressions of personality and the stability in the personality system that generates them. This is summarized in Figure 5, which shows the hypothesized cognitive-affective personality system in relation to the larger contexts in which it functions. Behaviorally, through its concurrent social information processing and interactions, the system generates characteristic, predictable patterns of variation as well as characteristic elevations in the individual's behavior across situations even if the system itself remains invariant. Developmentally, the organization of the relations among the cognitive-affective units reflects the individual's cognitive social learning history in interaction with the biological history, such as the temperamental and genetic-biochemical factors.

The cognitive-affective personality system (CAPS) is activated in part in relation to psychological features of situations that are experienced at a given time. In part, it is continuously activated by its own internal feedback system through chronic activation of cognitions and affects and their interactions within the system, for example, in long-term planning and sustained goal pursuit, as well as in such activities as fantasy, ruminations, and daydreaming. The stable dispositional qualities of individuals are characterized in terms of the enduring structure of the organization among cognitive-affective mediating units (Table

1) in the personality system. This organization guides and constrains the activation of the specific cognitions, affects, and potential behaviors when an individual selects and acts on psychological features of situations. The functioning of the system is seen in the processing dynamics that are activated in relation to the situations experienced by the individual.

The system's characteristic processing dynamics in relation to the relevant features of situations generate diverse behaviors, some of which form situation-behavior profiles of variability that are distinctive in their shapes and elevations. These profiles constitute potential signatures of personality that are shared by individuals who have similar processing dispositions. To identify exemplars of a particular disposition requires specifying their characteristic situation-behavior profile shapes and elevations with regard to the situational features relevant or diagnostic for that disposition.

As Figure 5 also indicates, individuals' behaviors generate consequences that in turn affect the psychological features of situations that are subsequently encountered. They are encoded not only by psychologists who study them but also by other people who interact with them in vivo as well as by the individuals themselves. Such encodings, for example in the form of personality judgments in terms of traits, types, and prototypes, and the evaluations and reactions that they trigger, may themselves influence the situations to which the individual is subsequently exposed (e.g., by changing the feelings and behaviors of the interactants).

At the birth of the field, Gordon Allport's (1937) fundamental commitment was to show the importance of stable intraindividual patterns that characterize each person. The present theory was also designed with that goal. In his pioneering book, however, Allport also went on to decontextualize personality, contrasting the literary investigator who "develops his character within the stream of life" with the personologist who needs to avoid the "confusion of surrounding variables" and has to remove context to "fasten the personality *as-it-is* for analysis . . ." (p. 61, emphasis added). In contrast, the proposed cognitive-affective system theory shares with Henry Murray (1938) the focus on the person's dynamic processes in interaction with the features of situations: It assumes that basic aspects of personality invariance become visible in the relations between the psychological features of the social world and the individual's distinctive patterns of cognition, affect, and behavior. In the theory, rather than being dismissed as noise, psychological contexts—far from obscuring personality—become part of the essence of coherence and the route to capturing the person's distinctiveness.

The two goals—dispositions and dynamics—that have so long been pursued separately do not require two fields from this perspective. In this theory, dispositions are conceptualized not in semantic terms but as processing structures characterized by stable cognitive-affective organizations in the processing system that become activated when the individual encounters relevant situational features. Over time and contexts they generate *if...then...*, situation-behavior relations that can be assessed as profiles that have characteristic elevations and shapes from which dispositional exemplars can be identified. Although the diverse *if...then...* patterns constructed by the system unfold seamlessly *in vivo*, one can focus on particular configurations that define a given processing disposition and isolate for attention those aspects of the system's structure and dynamics that are most germane to it. Rather than dichotomizing personality research into the study of dispositions *or* processes, this theory allows one to pursue concurrently both personality dispositions and processes—structure and dynamics—as aspects of the same unitary system.

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Appendix
Details of the Simulation

To illustrate how individual differences in the behaviors are generated by the type of mediating processes shown in Figure 4, we created 100 hypothetical individuals who were assumed to have a common set of four mediating units that were potentially activated by a common set of six situation features. Individuals were assumed to differ in their sensitivity of each of these four units to each of the six features of situations. Each of these four mediating units in turn was assumed to activate, with varying connection weights, a fifth mediating unit representing the scripts for a potential behavior (which we labeled *friendly behavior*). Positive (excitatory) sensitivity and connection weight were assumed to increase the activation value of the recipient unit by the amount corresponding to the weight when the source unit was activated. Negative (inhibitory) connection weight was assumed to decrease the activation of the recipient unit when the source unit was activated. A connection weight of 0 was equivalent to having no connection. We assumed that all the positive and negative inputs into a mediating unit were simply summed, and the resultant activation value was 1 if the total activation was positive, and 0 if it was negative. (Different summing and threshold functions produced essentially the same overall results.)

Stable individual differences were implemented as differences between

individuals in the connection weights. Individuals were assumed to vary in the strength and sign (excitatory vs. inhibitory) of activation of their four mediating units in relation to each situation feature. They were also assumed to vary in the contribution of these mediating units, when they are activated, to the activation of the behavior script unit. These weights were randomly sampled from a normal distribution with a mean of 0 ($SD = 0.5$) to generate a different set of weights for each individual that, once sampled, stably characterized the simulated individual. The weights for one of the simulated individuals ("Person 1" in Figure A1) are shown in Table A1. In the cognitive-affective system theory, the actual enactment of the behaviors is affected by the individual's self-regulatory strategies and competencies. To allow for individual differences in this process as well as for momentary and unsystematic variations that affect the generation of actual behaviors, we added randomly generated perturbations (sampled from a normal distribution with a mean of 0 and standard deviation of 0.3) to the activation of the behavior units. The amount of random perturbations added also served to represent unpredictability intrinsic in the personality system and as a metric against which one can compare the effect of behavior variation across situations due to stable characteristics of the personality system. Thus, the magnitude of the coefficients obtained in this simulation is determined relative to the amount of random perturbation added.

To simulate the behaviors of these individuals in different situations, we

Table A1
Activation Weights Characterizing the Simulated Person 1 Whose Behaviors Are Shown in Figure A1

Situation feature	Mediating unit			
	1	2	3	4
1	-0.29	0.06	-0.56	0.24
2	-0.06	-0.62	-0.02	-0.14
3	0.31	-0.38	0.20	0.21
4	-0.05	-0.10	0.77	1.19
5	-0.42	1.28	0.10	-0.15
6	0.03	0.29	-0.12	1.06

Note. Mediating units 1 through 4 represent cognitions and affects that become activated in relation to situation features 1-6. Entries show the activation weights from each of situation features 1 through 6 to each of the four mediating units. Specifically, an entry in row *i* column *j* represents the activation contributed by situation feature *i* to mediating unit *j*. A fifth unit represented the behavioral scripts whose activation produces the behavior plotted in Figure A1. It is activated by mediating units 1 through 4, with a set of activating weights characteristic for each person. For Person 1, they were .2, -.56, 1.07, and .55, respectively. The activation weights for persons 2-6 whose behaviors are plotted in Figure A1 are available on request.

Table A2
The Simulated Social World Consisting of 15 Situations in Which Each of 6 Features Is Either Present (1) or Absent (0)

Situation	Feature					
	1	2	3	4	5	6
1	1	1	0	0	0	0
2	1	0	1	0	0	0
3	1	0	0	1	0	0
4	1	0	0	0	1	0
5	1	0	0	0	0	1
6	0	1	1	0	0	0
7	0	1	0	1	0	0
8	0	1	0	0	1	0
9	0	1	0	0	0	1
10	0	0	1	1	0	0
11	0	0	1	0	1	0
12	0	0	1	0	0	1
13	0	0	0	1	1	0
14	0	0	0	1	0	1
15	0	0	0	0	1	1

(Appendix continues on next page)

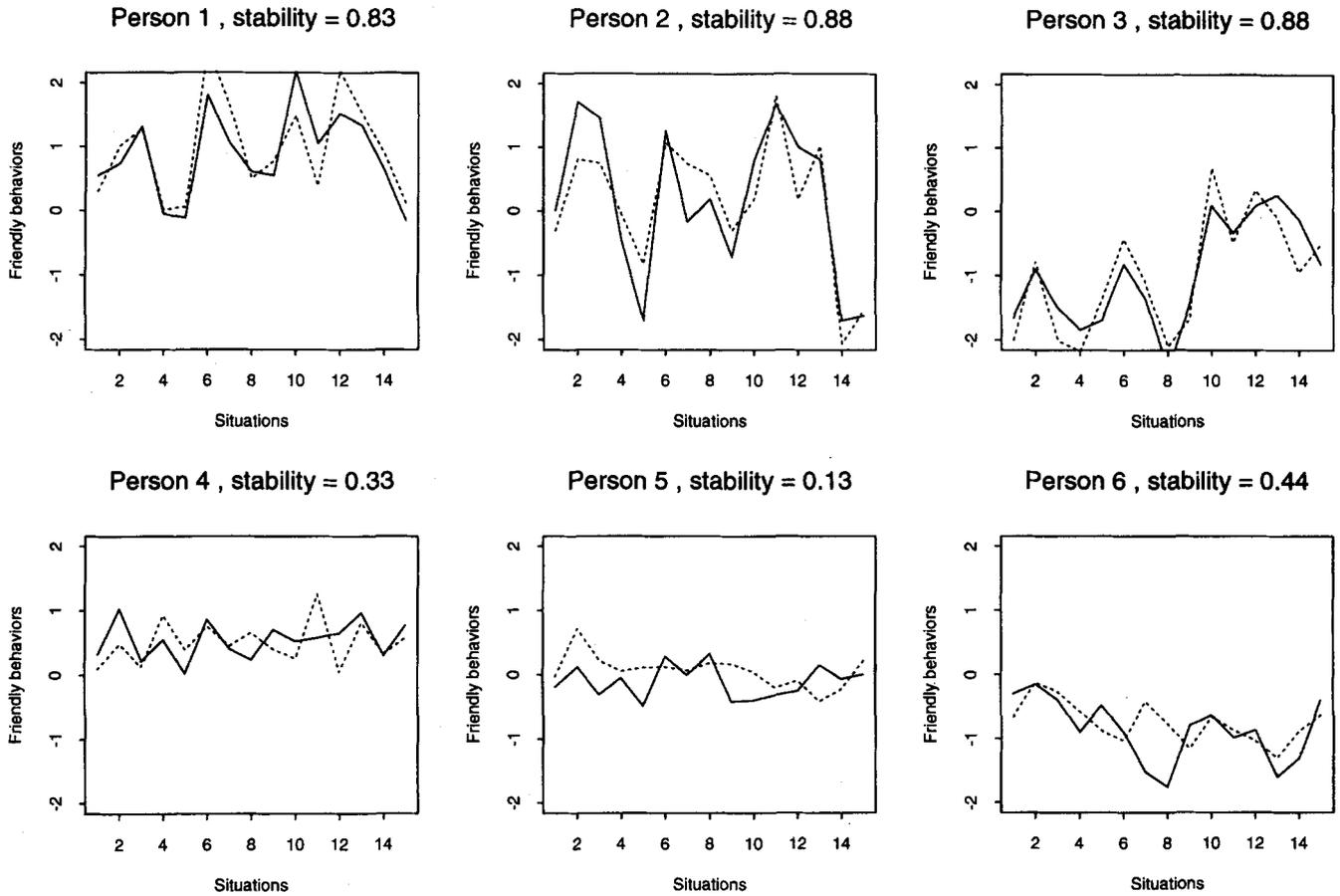


Figure A1. Illustrative situation-behavior profiles of hypothetical individuals.

constructed a hypothetical social world consisting of 15 situations. Each of the 15 situations had the features indicated in Table A2, representing all distinctive combinations of two (out of the total set of six) potential features. To determine if the model produced stable intraindividual patterns of behavior variability as observed empirically in the studies reviewed earlier, we "exposed" each computer model of a person to each of these situations. We repeated the procedure twice, producing two profiles for each individual. Illustrative profiles are shown in Figure A1, in which the profile from Time 1 is shown by the solid line, and the profile from Time 2 is

shown by the dotted line. Persons 1, 2, and 3 illustrate high profile stability, whereas 4, 5, and 6 illustrate low profile stability. Persons 1 and 4 illustrate relatively high mean levels, whereas Persons 3 and 6 illustrate relatively low mean levels.

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