The Person–Situation Interaction

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Abstract

The role of cognition in mediating social interaction is illustrated by the General Social Interaction Cycle. Unpacking Lewin's "grand truism," B = f (P, E), this chapter explores the role of social cognitive structures and processes in mediating the interaction of the person and the situation. Historically, assuming the independence of personal and environmental determinants of behavior maintained the separation of personality (and its underlying Doctrine of Traits) from social psychology (and its underlying Doctrine of Situationism). An alternative Doctrine of Interactionism, supplemented by a further Doctrine of Reciprocal Determinism, provides a framework for the integration of the two fields by analyzing the dialectical relationships among the person, the environment, and behavior. Two versions of interactionism are described: a static version, originally modeled on the statistical analysis of variance; and a dynamic version, which describes how persons construct the situations to which they respond through evocation, selection, behavioral manipulation, and cognitive transformation. Dynamic interactionism allows the individual's cognitive processes to play a role in shaping the mental representation of the situation in which his behavior takes place.

Key Words: evocation; expectancy effects, interpersonal; interactionism, doctrine of; manipulation, behavioral; reciprocal determinism, doctrine of; selection; social interaction cycle, general; situationism, doctrine of; traits, doctrine of; transformation, cognitive

"You never really understand a person
until you consider things from his point of view—
until you climb into his skin and walk around in it."

–Atticus Finch, in *to Kill a Mockingbird*
by Harper Lee (1961)

The cognitive perspective on social interaction begins with the assumption—actually, more like an axiom—that humans are intelligent creatures. Our behavior is not merely a matter of reflex, taxis, instinct, and conditioned response. Rather, it occurs in response to the *meaning* of the stimulus, and reflects active cognitive processes of perceiving, learning, remembering, thinking, and linguistic communication. But humans are also social creatures. Our experiences, thoughts, and actions take place in an explicitly social context of cooperation, competition, and exchange; family and group memberships; and organizational, institutional, social, and cultural structures. For that last reason, psychologists need to understand the relations between psychological processes within the individual and social processes that take place in the world outside.

The cognitive perspective on social interaction also implies a very different construal of personality. Traditionally, individual differences in personality have been viewed in terms of traits—behavioral dispositions roughly analogous to physical features—like the Big Five of neuroticism, extraversion, agreeableness, conscientiousness, and openness—that give coherence, stability, consistency, and predictability to the individual's behavior. From a

cognitive point of view, however, the important variables consist of percepts, memories, and thoughts: the knowledge, beliefs and expectations, that mediate the individual's perception of the situation, retrieval of relevant memories of past experiences, and guide the individual's judgment, decision making, and planning in response to both internal goals and external events. As Atticus Finch understood, understanding these features of cognition—knowledge, belief, and expectation; perception, memory, and thought—allow us to understand an individual and predict his behavior.

Cognition in the General Social Interaction Cycle

The role of cognition in social interaction is illustrated by the *General Social Interaction Cycle* (Cantor & Kihlstrom, 1987)—a conceptual framework for analyzing any dyadic social interaction (Figure 38.1). Within this framework, the two participants are assigned the role of *Actor* and *Target*, respectively. This assignment is of course somewhat arbitrary because each individual is both an actor and the target of the other's actions. For convenience, the Actor role is assigned to the individual who initiates the social interaction.

The General Social Interaction Cycle is a variant on the general social interaction sequence initially described by Darley and Fazio (1980) and Jones (1986). The description of social interaction as a

cycle rather than as a sequence is intended to make clear that social exchange continues until one or the other individual terminates the interaction by leaving the situation. An alternative depiction is in terms of a connectionist network representing the interaction of two cognitive-affective processing systems, representing the two individuals that constitute the dyad (Shoda et al., 2002; Zayas et al., 2002).

First, *the Actor enters the situation*—the immediate context in which he or she physically encounters the Target (from this point on, for simplicity in exposition, we'll call the Actor "she" and the Target "he"). The Actor enters the situation with some goal in mind—something that she wants to accomplish, like asking the Target for a date for Friday night. She also carries into the situation a fund of *social knowledge* concerning herself and the target. How badly does she want a date? Does she know whether he is currently seeing someone else? Does she have any reason to think he might be interested in her? The Actor also carries a fund of more generic social knowledge relevant to her current goals: What movies are in town? Are there any parties? And finally, she possesses a repertoire of skills to be used in the course of the interaction, such as how to start a conversation, and how to bring it around to the subject of Friday night. Some of these skills are cognitive in nature, such as her ability to "read people"; others are motoric, such as a particular way of smiling or using her hands. This sort of declarative and
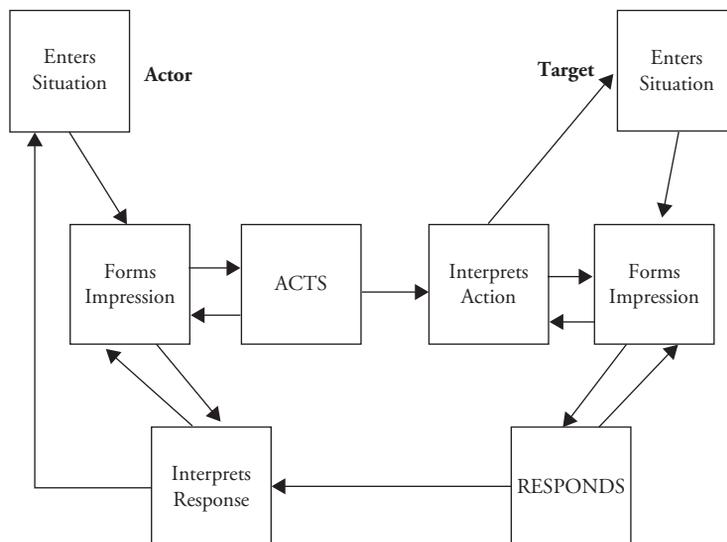
The General Social Interaction Cycle

Figure 38.1 Schematic depiction of the General Social Interaction Cycle (Cantor & Kihlstrom, 1987; after Darley & Fazio, 1980; Jones, 1986).

procedural social knowledge constitutes the individual's fund of social intelligence.

As she begins the interaction, **the Actor forms an impression of the situation**—of the Target, and of the immediate environmental context. Does he still seem interested? Is this a good time to ask? This impression combines knowledge derived from two general sources: information about the current stimulus situation, extracted online through the mechanisms of social perception; and preexisting knowledge about herself and the Target, retrieved from social memory.

At this point, **the Actor acts** on the basis of her impression. She may approach the Target or shy away, she may pop the question or not. If she does not ask the Target for a date, the interaction will end shortly. If she does, the interaction will continue. Assuming that the Actor has asked him for a date, attention now shifts to the Target, who now has to do something in response to the Actor's initial salvo.

The Target enters the situation—either actively, by approaching and greeting the Actor when he sees her, or passively, by being approached and greeted by her. He, too, brings his social intelligence, including a fund of declarative knowledge and a repertoire of procedural knowledge, into the situation.

Like the Actor, **the Target forms an impression** of the situation in which he now finds himself—a situation that is immediately clarified when the Actor asks him for a date. The Target knows he's free Friday night because the woman he's been dating is out of town, but that's not decisive. Should he play hard to get? Should he wait to see if he gets a better offer from someone else? What if his current girlfriend finds out?

On the basis of the impression he's formed, **the Target responds**. He decides to keep his options open for Friday night, but doesn't want to spurn the Actor entirely, so he says he can't see her Friday, but proposes that they go out on Saturday instead. Now attention shifts back to the Actor.

Now **the Actor must interpret the Target's response, and revise her impression of the situation accordingly.** Perhaps he's Jewish, or Muslim, and devout, and doesn't go out on Friday nights. Perhaps he's seeing someone else. Obviously he's got something he'd rather do on Friday, while she does not, and she has now clearly communicated this fact to him. As it happens, she's also free Saturday night, but if she accepts his counteroffer she clearly communicates that she doesn't have a date for *either* night. Should she let him have this information? If she says "yes," is she becoming a pawn in whatever other relationship he may be pursuing? Or is the "Friday-night woman" (because by now she is certain that he already has got a date for Friday night) a pawn in a new game that he is now playing with *her*?

On the basis of her impression, **the Actor responds to the Target:** she decides to take a chance, and accepts the date for Saturday night. Now the ball is back in the Target's court. At this point, **the Target must interpret the Actor's response, revise his impression, and figure out what to do next**.

And so it goes, with the cycle of exchanges continuing. Each member of the dyad is trying to make sense of what the other one is doing. Each is trying to read the other's mind. And each participant is planning and executing behavior in accordance with his or her evolving understanding of the total situation.

The General Social Interaction Cycle also transpires at another level, within each individual participant. Behavior does not simply affect the person toward whom it is directed; it also feeds back to affect the person who emitted the behavior. The Actor may have wondered if she had the nerve, and the skill, to ask a man for a date. Now she knows that she does: Bandura (1977a) calls this kind of knowledge *self-efficacy expectations*. Similarly, the Target may never have had to negotiate overlapping dating relationships. Now he knows he can do this—or else he's put himself in a situation in which he has to learn how.

In any event, each participant in this social interaction is behaving in accordance with his or her construal of himself or herself, and of the other, and of the situation in which they meet. Each of these construals is modified by the other's behavior, and his or her own. These individual construals, in the end, lead the participants to behave the way they do. And ~~these understanding~~ individual construals—and the knowledge, beliefs, and expectations that underlie them—allow us to understand the people involved.

Cognition and Social Cognition in Personality

Even before the cognitive revolution took hold in social psychology, it was generally accepted that it is the perceived situation that controls behavior. Perhaps the earliest expression of the cognitive point of view is what is known as the *Thomas theorem*: "If men define situations as real, they are real in their consequences" (Thomas & Thomas, 1928,

p. 529)—an assertion which Merton (1976) called "probably the single most consequential sentence ever put in print by an American sociologist" (see also Merton, 1995). Similarly, Newcomb (1929) explained the fact that extraversion and introversion were not as consistent across situations as traditional personality theory implied they should be, attributed the individual's behavior in a particular situation to his *beliefs* about that situation: "whether or not Johnny engages in a fight may depend on whether or not he *thinks* he can 'lick' his opponent" (p. 39, emphasis added). Only a little later, Bartlett (1932)—in a study of memory expressly conceived and presented as a contribution to both cognitive and social psychology—had asserted that "the psychologist, of all people, must not stand in awe of the stimulus (p. 3)—by which, of course, he meant the *objective* stimulus, unfiltered by cognitive schemata.

Cognition in Social Psychology

The study of social cognition begins with symbolic interactionism. Mead distinguished between those aspects of social behavior that were reflexive in nature, or the product of conditioning, and those that are derived from symbolic interpretation, or the individual's cognitive construction of the situation (Mead, 1934), hence Blumer's proposition that "Human beings act toward things on the basis of the meaning that the things have for them" (Blumer, 1937; see also Blumer, 1969, 1980). In symbolic interactionism, social interactions are symbolic because they occur in the participants' heads, before they occur in reality. Symbolic interactions, played out in the mind, are where cognitive transformations take place.

Even during the heyday of behaviorism, a cognitive perspective was central to social psychology, as evidenced by early studies of causal explanation (Heider, 1944, 1958), impression formation (Asch, 1946), person perception (Bruner & Tagiuri, 1954; Tagiuri & Petrullo, 1958), and implicit personality theory (Bruner & Tagiuri, 1954; Cronbach, 1955). Cognition was so central to the views of Krech and Cruthchfield (1948) that they began their textbook with a discussion of general principles of perception and cognition, and dedicated the book to Edward C. Tolman. The very first edition of the *Handbook of Social Psychology* contained an extensive chapter summarizing cognitive theory (Scheerer, 1954). That same handbook, of course, also contained Allport's (1954) historical overview, which defined social psychology as the study of social influence,

inadvertently tying social psychology to situationism and behaviorism (Zimbardo, 1999). By contrast, Krech and Crutchfield had defined social psychology simply as the study of the individual in society, of which the study of social influence was only a part (see also Krech, Crutchfield, & Ballachey, 1962).

But times were changing, and behaviorism began to lose its grip on social psychology, as on psychology as a whole. In a symposium on the social psychology of the psychological experiment, Orne (1962) argued that the experimental subject tried to make sense of the experimental situation by analyzing its demand characteristics, as well as the experimenter's instructions and procedures—trying to read between the lines of cover stories and deception to determine what was actually going on. Similarly, R. Rosenthal (1963) drew attention to the effects of experimenters' expectations on subjects' task performance, both actual and perceived—work that represented an early experimental analysis of the self-fulfilling prophecy. Of course, Orne and Rosenthal were not just analyzing experimental methodology. For them, the same social cognitive processes underlying the behavior of subjects in the laboratory were also to be found in the real world outside the laboratory: in all of their social interactions, people are active, sentient beings, trying to understand the situation they are in, and shaping that situation through their own thoughts and behaviors (Kihlstrom, 2002).

The cognitive revolution in social psychology really begins here. Whereas Milgram (1963) made no mention of cognition in his classic study of obedience to authority, Darley and Latane (1968) invoked subjects' perception of the situation to explain their behavior in the bystander intervention paradigm. Although many of these references to perception and cognition were fairly informal, soon enough social psychologists were developing theories of knowledge representation and information processing that, aside from their subject matter, were indistinguishable in their rigor from those of cognitive psychologists (e.g., Hastie et al., 1980; Higgins, Zanna, & Herman, 1981; Wyer & Carlston, 1979).

Kelly's Personal Construct Theory

The crypto-behaviorist view was a relatively recent import to a social psychology that previously had strong cognitive underpinnings. By contrast, the psychology of personality was dominated almost from the beginning by an emphasis on traits and other stable personality dispositions that were

essentially noncognitive in nature (Allport, 1937; Cattell, 1940). Still, there were exceptions. While Allport was committed to developing personality as a distinctive subfield of psychology, independent of social psychology, Stagner (Stagner, 1937) took explicit account of the organizational, institutional, social, and cultural context of personality structure, development, and dynamics (see also Craik, 1993). Far from being a closeted situationist, however, Stagner explicitly adopted a cognitive view of social behavior, depicting the individual as navigating an environment of people and things, learning through success and failure, adopting different perspectives on the situation at hand, and modifying the environment in various ways (see, e.g., pp. 443–444).

More to the point, George Kelly developed a thoroughly cognitive approach to personality in which traits and similar behavioral dispositions played no role (Kelly, 1955; Maher, 1968). Instead, individual differences were construed in terms of *personal constructs*, or the categories that provide the cognitive framework for the person's understanding of the world around him. From Kelly's point of view, objective reality does not matter very much: experience and action are determined by subjective reality. What matters is how events in the outside world are construed by the individual. In Kelly's theory, each person has a different repertoire of personal constructs, which have developed through a process of hypothesis testing: if the application of a construct allows a person to correctly anticipate some future event, it is retained; if it does not, it is revised or abandoned. In order to understand a person's response to events, we have to understand the constructs through which he or she has perceived those events.

Whereas traditional personality theory assumed that behavior was relatively consistent across situations, personal construct theory offered a cognitive basis for the flexibility of behavior across situations. According to Kelly's notion of *constructive alternativism* (Kelly, 1958/1969), most people can choose among alternative construals of an event, and that choice will determine their experience of and response to that event. If the person makes a different choice, both covert experience and overt behavior will differ as well. In contrast to the doctrine's emphasis on the stability of behavior across time, Kelly allowed considerable leeway for personality change. Personality change is tantamount to a change in the individual's personal construct system: New constructs can be added to the individual's repertoire, or constructs that were previously preferred can now be avoided or abandoned. When personality changes, the individual literally perceives the world differently—and behaves differently, too.

Idiosyncratic in conception and exposition, Kelly's theory had little impact on personality psychology at the time: His theory was not covered in Hall and Lindzey's *Theories of Personality* until the fourth edition (Hall, Lindzey, & Campbell, 1998); and unlike Allport (#11) and Cattell (#16), Kelly did not make the list of "The 100 Most Eminent Psychologists of the 20th Century" (Haggbloom et al., 2002). As such, *The Psychology of Personal Constructs* may be one of the "Great Unread Books" in the history of psychology.

Social Learning Theories of Personality

Nevertheless, the increasing lure of a cognitive point of view can be seen in the evolution of social learning theories of personality (Cantor & Kihlstrom, 1987). Originally, social learning theory was decidedly noncognitive in nature. Essentially a translation of Freudian psychoanalytic theory into the vocabulary of Hullian learning theory, it asserted little more than that personality consisted of habitual behaviors acquired through learning; learning, in turn, was mediated by drive reduction; and because the habits that make up personality were largely social behaviors, it was important to pay attention to the social context in which learning occurred (Dollard & Miller, 1950; Miller & Dollard, 1941). Rotter (1954), however, fused Hullian drive-reduction theory with Tolman's sign-learning theory to produce a thoroughly cognitive version of social learning theory. According to Rotter, personality is reflected in the choices that people make; these choices, in turn, are determined by their expectancies concerning the outcomes of various behavioral options, and the values they place on these outcomes.

Stated this way, Rotter's original social learning theory is less a theory of learning than it is a theory of choice, emphasizing the individual's expectancies and values. It remained for Bandura (1962; Bandura & Walters, 1963) to formulate an explicit theory of social learning based on observational processes. While agreeing that expectations could be acquired and modified through the direct experience of outcomes, Bandura argued that the *vicarious* experience of outcomes was far more important—a more efficient, and more powerful, mechanism for social learning, socialization, and acculturation. Bandura (1977b) further described two different pathways by which observational learning could

occur: learning by example, from observing other people's behavior and its outcome; and learning by precept, as in sponsored teaching and other forms of linguistic and transmission of knowledge, beliefs, and expectations. Bandura (1978) also stressed the importance of self-knowledge and agency in social behavior.

Like the expressly behaviorist approach of Staats and Staats (1963), Bandura's earliest work nods in the direction of Skinnerian behaviorism, with its emphasis on schedules of reinforcement, generalization, and discrimination (Bandura & Walters, 1963). But his growing emphasis on the cognitive mediation of both environmental influences and social behavior was so strong that he eventually abjured the term *social learning*, with its implications of conditioning and behaviorism, in favor of what he called "social-cognitive" theory (Bandura, 1986).

Perhaps the most comprehensive cognitive approach to personality within the social learning tradition has been offered by Mischel (1973). Mischel's (1968) vigorous critique of trait theory and his occasional reliance on the language of stimulus and response sometimes led him to be characterized as a radical situationist. But Mischel was clear from the outset that it was the *perceived* situation, its meaning for the person, that controlled behavior. For example, "[O]ne must know the properties or meaning that the stimulus has acquired for the subject. Assessing the acquired meaning of stimuli is the core of social behavior assessment" (1968, p. 190). "Idiosyncratic histories produce idiosyncratic stimulus meanings" (1973, p. 259). And "The meaning and impact of a stimulus can be modified dramatically by *cognitive transformations*" (1973, p. 260, emphasis original). Percepts and meanings are a product of cognitive activity, so for Mischel, as with Bandura, the locus of causal agency lies squarely within the individual.

In the most recent stage in the evolution of cognitive social learning theories of personality, Mischel (1973) proposed a reconceptualization of personality in which traits are abandoned as the basic elements of personality, in favor of expressly cognitive constructs. These "cognitive social learning person variables" include (1) cognitive and behavioral construction competencies—both the person's skill level and the range of situations in which he or she can apply them; (2) encoding strategies and personal constructs that determine how the person will mentally represent the situation in which he finds himself; (3) expectancies, including outcome expectancies and self-efficacy expectations; (4) subjective values; and (5) self-regulatory systems and plans that guide thought and action in the absence of, and even in spite of, external demands and constraints.

All of these variables are construed as modifiable individual differences, products of both cognitive development and social learning, which determine how features of the situation at hand will be perceived and interpreted. Thus, they contribute to the construction of the meaning of the stimulus situation—in other words, to the cognitive construction of the situation itself—to which the person ultimately responds. More recently, Mischel and his colleagues have added considerations of affect to his system (Mischel & Shoda, 1995), and situated the individual more clearly in an interpersonal context (Shoda et al., 2002), but the basic point remains, that "personality is conceptualized as a stable system that mediates how the individual selects, construes, and processes social information and generates social behaviors" (Mischel & Shoda, 1995, p. 246). Personality is thus viewed as a "cognitive-affective processing system"—a stable network of "mental representations of the psychological meaning of situations, representations of self, others, possible future events, goals, affects, beliefs, expectations, as well as behavioral alternatives.... Individuals differ stably in this network of inter-connections or associations, and such differences constitute a major aspect of personality" (Shoda et al., 2002, p. 317).

Personality and Social Intelligence

In addition to personal construct theory and cognitive social learning theory, a third cognitive approach to personality is in terms of *social intelligence*, which Thorndike (1920) classically defined as the "ability to understand men and women, boys and girls—to act wisely in human relations" (p. 228). In the years since Thorndike, social intelligence was approached by an *ability* view that entailed the development of IQ-like tests of individual differences in interpersonal skills, as represented by the George Washington Social Intelligence Test or the "behavioral operations" group in Guilford's "Structure of Intellect," raising the question of whether social intelligence is anything more than general intelligence applied to social situations (for a review, see Landy, 2006). The ability view of social intelligence was revived in Gardner's (1983, 1999) theory of multiple intelligences and has been popularized by Goleman (2006).

In contrast to the ability view of social intelligence, Cantor and Kihlstrom (1987; Cantor & Kihlstrom, 1981; Kihlstrom & Cantor, 2011) have offered a *knowledge view* that eschews the assessment of individual differences in "social IQ." The knowledge view begins with the assumption that social behavior is intelligent—that is, it is mediated by what the person knows and believes to be the case, and by cognitive processes of perception, memory, reasoning, and problem solving (as opposed to innate reflexes and instinctive behavioral patterns, conditioned responses, evolved genetic programs, and the like). Accordingly, the social intelligence view construes individual differences in social behavior—which are, after all, the public manifestations of personality—as the product of individual differences in the knowledge that individuals bring to bear on their social interactions. And, as in Kelly's personal construct theory, personality change is tantamount to change in the individual's repertoire of social knowledge—change that is, in turn, a product of social learning by direct experience, example, and precept. From the knowledge view, the critical variable is not *how much* social intelligence the person has, but rather *what* social intelligence he or she possesses—what the individual knows about himself or herself, other people, the situations in which people encounter each other, and the behaviors they exchange when they are in them. This declarative knowledge (episodic and semantic), coupled with the procedural knowledge by which declarative knowledge is manipulated and transformed, is the cognitive basis of personality.

Personality and Cognition in Lewin's Grand Truism

The cognitive analysis of personality and social interaction should be viewed against the classic framework for the analysis of social behavior provided by Kurt Lewin (1935, 1951; see also Wolf, 1986). Employing the conventions of mathematics, Lewin asserted that

$$B = f(P, E).$$

In this formulation,

B stands for the individual's overt, publicly observable behavior. For Lewin, every psychologically interesting behavior is social behavior, in that such behavior is always in some way directed toward another person.

P stands for all the causal factors that reside within the individual person—not just the traits, attitudes, motives, values, and other behavioral

dispositions of traditional personality theory, but rather all the individual's mental (cognitive, emotional, and motivational) states. Of particular interest, for Heider (1958) as well as Lewin, were the person's intentional states—that is, what the person was *intending* to do (see Malle, 2008).

E stands for all the causal factors that reside in the world outside the individual, including aspects of the physical ecology (e.g., temperature, humidity, altitude) and the sociocultural ecology (e.g., the presence and behavior of other people, constraints imposed by social structures, social roles, situational demands and expectations, social incentives). Because every behavior is social behavior, for Lewin what really counts in the environment are the social aspects of the situation—the behavior of other people, as well as wider social and cultural forces.

Lewin's pseudo-mathematics represented the idea that personal and environmental determinants combine somehow to cause individuals to do what they do—what Jones (1985, p. 84) referred to as "Lewin's grand truism" (see also Crano, 1988). The comma (,) in the equation indicated that Lewin was open as to precisely how these factors combined.

Perhaps the easiest way to think about how personal and environmental determinants combine to produce individual behavior is to think of them as independent of each other (Figure 38.2). This was, essentially, the perspective adopted by traditional personality and social psychology. Borrowing the phrase coined by C. P. Snow (1963) in his analysis of the relations between the sciences and the humanities, traditional personality and social psychology developed as "two cultures"—each having little to do with the other. As evidence for this claim, consider that, in most psychology departments, personality and social psychology were taught by different faculty members, and often housed in separate
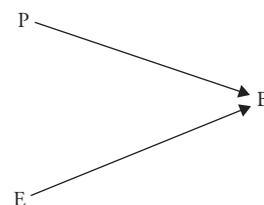
Person–Situation Independence

Figure 38.2 Schematic depiction of person–situation independence within the Lewinian framework (after Bowers, 1973).

groups for purposes of graduate education (in one famous instance, they were even housed in different buildings).

The Doctrine of Traits

The traditional psychology of personality construed behavior as a function of personal attributes such as traits, attitudes, emotions, motives, and values. Personality psychologists typically assessed these behavioral dispositions by means of questionnaires or similar instruments, and then correlated these predictor variables with some criterion behavior in some specific situation. In such research, the effects of the environment are generally construed as "noise." The canonical method of traditional personality psychology thus exemplifies the *Doctrine of Traits*, which may be stated as follows:

> Social behavior varies as a function of internal behavioral dispositions that render it coherent, stable, consistent, and predictable.

In fact, Gordon Allport (1937, p. 295) defined a personality trait as: "a generalized and focalized neuropsychic system . . . with the capacity to render many stimuli functionally equivalent, and to initiate and guide consistent (equivalent) forms of adaptive and expressive behavior." For him, there was an analogy between personality traits and physical traits. Just as physical traits are stable features of appearance and physique, so personality traits are stable features of behavior. Although social psychologists might prefer a "biosocial" view of traits merely as linguistic categories for the classification of social behaviors, Allport himself preferred a "biophysical" view of traits. For him, personality traits were real in precisely the same way that physical traits were real, and were subject to measurement in precisely the same way that physical attributes were. Although not necessarily genetic in origin (because they could be acquired through experience), traits are somehow represented in the nervous system. These personal characteristics, once established, then mediate between the environment and behavior. Traits "render situations functionally equivalent" in that they dispose the person to display similar sorts of behaviors in them, and they "initiate and guide consistent (equivalent) forms of . . . behavior," in that trait-relevant behaviors all exemplify some disposition, such as friendliness or aggressiveness.

The Doctrine of Situationism

Traditional social psychology, by contrast, construed behavior as a function of differences in the physical and (especially) social environment. In their research, social psychologists typically manipulate some aspect of the social environment, such as the presence or behavior of other people, and then examine the effect of this independent variable on some behavioral dependent variable. In such research, the effects of individual differences in personality are generally construed as "noise." This view is captured by what might be called the *Doctrine of Situationism*:

> Social behavior varies as a function of features of the external environment, particularly the social situation, that elicit behavior directly, or that communicate social expectations, demands, and incentives.

As examples of the Doctrine of Situationism, consider first the classic definition of social psychology offered by G. Allport:

> With few exceptions, social psychologists regard their discipline as an attempt to understand and explain how the thought, feeling, and behavior of individuals are influenced by the actual, imagined, or implied presence of other human beings. . . . [S]ocial psychology wishes to know how any given member of a society is affected by all the social stimuli that surround him. (1954, p. 5)

Ross and Nisbett (1991, p. 9) claimed that "the social context creates potent forces producing or constraining behavior," and identified "the power of the situation" as one of the three legs on which social psychology rested. Similarly, Lieberman (2005, p. 746) asserted that the cardinal defining principle of social psychology was "power of the situation," supplemented by the idea that people are largely unaware of situational influences on their behavior.

Situationism has its obvious origins in stimulus–response behaviorism (Zimbardo, 1999), and its insistence that the causes of behavior lie outside the individual (e.g., Skinner, 1953, p. 447). Even after the cognitive revolution, Bargh and Chartrand (1999) identified the mechanism for situational influence with "processes that are put into motion by features of the environment and that operate outside of conscious awareness and guidance" (p. 462).

Person–Situation Independence

The contrast between the Doctrine of Traits and the Doctrine of Situationism can be illustrated by two studies of delay of gratification in children. In one, delay was found to be positively correlated

with two broad personality traits, ego control and ego resiliency, as measured by an observational rating scale, as well with IQ (Funder & Block, 1989; see also Funder, Block, & Block, 1983). In the other, delay was found to be improved if the children waited in the absence of the promised reward (Mischel & Ebbesen, 1970). The first study took no account of environmental variables; the second study took no account of individual differences in personality.

For the better part of the 20th century, personality and social psychologists (perhaps like the brothers Allport themselves) treated each other with benign collegial neglect. But in the 1960s, they came to loggerheads in the *trait-situation debate* over which factors were more powerful predictors of behavior— internal personality traits or external situational influences. For example, Mischel (1968) famously concluded that the modal correlation between subjects' scores on a personality test and their actual behavior in some specific test situation was about $r = .30$ (a figure which he dubbed the "personality coefficient"), indicating that traits accounted for only about 10% of behavioral variance. A counterattack by Funder and Ozer (1983) sampled from the classic social psychological literature on situational influence, translated t values and F ratios into correlation coefficients, and determined that the effect of situational variance amounted to a correlation of about $r = .45$—a figure indicating that situations account for only about 20% of behavioral variance: Most variance was not accounted for by situations, either. So what began as a quintessentially masculine "Battle of the Correlation Coefficients," intended to determine whose was bigger, ended up looking more like a fight in an elementary schoolyard, with each side shouting, "So's your mother" at the other one (e.g., Kihlstrom, 1986). But that is all over now (Kenrick & Funder, 1988), and in most psychology departments, personality and social psychologists work side by side—though informal observation suggests that both parties still keep their hands on their swords.

Of course, it must be said that these traditional formulations, and the competition they engendered, were largely misleading. Nobody believed that one factor is exclusively responsible for behavior and the other is wholly irrelevant. Dispositional and situational factors combined somehow to cause behavior to occur. One possibility is that P and E are statistically independent—that is, that each set of factors exerts its own separate influence on behavior, without affecting the other in any way. This notion lies

at the heart of the traditional formulation, in which personality and social psychology were situated as separate and independent subfields of psychology. In such a view, behavior is partly predicted by internal, personal factors, and partly affected by external, situational ones.

In mathematical terms, personal and environmental influences on behavior are additive:

$$B = f(P + E).$$

If P and E are independent, then the effect of some person variable is the same, regardless of the situation the person is in, and the effect of the situation is the same, regardless of the kind of person in that situation. Statistically, these two effects would be characterized as the main effects of the person and the situation, respectively. It was the assumption of person–situation independence that permitted personality and social psychologists to go their own separate ways.

The Doctrine of Interactionism

But this was not Lewin's idea at all. Recall that Lewin sought to apply the principles of gestalt psychology to the study of social behavior, and the gestalt school is famous for its assertion that "the whole is greater than the sum of its parts." Applied to perception, this means that perception encompasses the entire stimulus field. Individual stimulus elements form a coherent, integrated whole, and cannot be isolated from each other. Similarly, Lewin argued that social behavior is responsive to the entire field of social stimuli—not just the other people immediately present but also the wider social context in which the interaction occurs. Lewin went even further to assert that the social situation includes the person himself or herself: the person is part of the stimulus field to which he or she responds.

Lewin expressed this basic idea throughout his writings, in various ways and with various versions of his formula. Because Lewin's actual views are apparently not widely appreciated among some social psychologists, it is worth the space to document them in detail. Here he is in an early paper:

> he psychological environment has to be regarded functionally as a part of one interdependent field, the life space, the other part of which is the person. This fundamental fact is the keynote of the field-theoretical approach. (Lewin, 1939/1951, p. 140)

And here he is again in a later one:

> he life space, therefore, includes both the person and his psychological environment…. A totality of

coexisting facts which are conceived of as mutually interdependent is called a *field*. Psychology has to view the life space, including the person and his environment, as one field. (Lewin, 1946/1951, p. 240)

Statements like these, and there are many others of this sort, show why claims that Lewin is the godfather of situationism in social psychology (e.g., Ross & Nisbett, 1991) are inaccurate. In the first place, Lewin, influenced by Gestalt psychology, was a *field theorist*—he believed that the person and the environment were interdependent elements constituting a unified psychological field, in which the whole was greater than the sum of the parts, and the situation was only part of the whole. In the second place, from the beginning Lewin (1931/1935) emphasized the *psychological* situation—"where the reality is what he perceives or believes" (Boring, 1950, p. 715). Lewin's emphasis on the psychological situation actually renders the Doctrine of Situationism moot (Goldberg, 1992). If it is the *mental representation* of the person that controls behavior, then all the more power to control behavior in that situation falls to the person who constructs that representation in his or her mind. Before taking up this second point, however, let us examine how we can construe the interdependence of the person and the situation.

The modern Doctrine of Interactionism also has its roots in the "S-O-R" alternative to the traditional S-R laws favored by the radical behaviorists (e.g., Woodworth, 1929). Similarly, Murray (1938) emphasized the interaction between personal needs and environmental press, which combined to create what he called the *thema* characterizing any particular episode in a person's life; Murray also emphasized the role of "beta" press, or the subjective environment, as opposed to the objectively described environment of "alpha" press. In this chapter, however, I emphasize Lewin's contribution because he was a much greater influence on developments in social psychology—and so commonly misunderstood as the father of situationism. Similar misunderstandings crop up in references to Heider, who is commonly—and wrongly—assumed to have embraced a strict dichotomy between personal and situational causes of behavior—and to have favored an interpretation of the "personal" causes in terms of trait-like behavioral dispositions (for a corrective, see Malle, 2008).

The Statistical View of Interactionism

The trait–situation controversy faded partly owing to exhaustion of the participants, but also because psychologists began to consider a more interesting possibility that comes closer to Lewin's own position—that the personal and environmental determinants of behavior interacted with each other in a variety of ways (e.g., Endler & Magnusson, 1976a, 1976b; Magnusson & Endler, 1977). The modern Doctrine of Interactionism was formulated by K. S. Bowers in explicit response to the person–situation debate of the 1960s:

An interactionist or biocognitive view denies the primacy of either traits or situations in the determination of behavior. . . . More specifically, interactionism argues that *situations are as much a function of the person as the person's behavior is a function of the situation.* (Bowers, 1973, p. 327)

In terms of Lewin's formula, interactionism holds that personal and situational factors are multiplicative: B = f (P × E). If P and E interact, the effect of the personality variable depends on the situation the person is in; and the effect of the situation depends on the kind of person who is in it (Figure 38.3). In Bowers' (1973) paper, and most other early interpretations, the concept of the person–situation interaction was modeled on the statistical analysis of variance (ANOVA), whereby independent variables influence dependent variables individually as main effects, or combined in interactions. The attraction of this model is evident in early statistical analyses of the power of interactions, including some cited by Bowers himself, which were all based on the ANOVA model.

Chief among these were studies based on the *S-R inventory* introduced in the 1960s by Endler and Hunt (1966; Endler, Hunt, & Rosenstein, 1962; Endler, 1975). These inventories, covering various aspects of personality, asked subjects to report how likely a particular situation would be to elicit an anxious response (for example), and also how likely they would be to display a *particular kind* of anxious
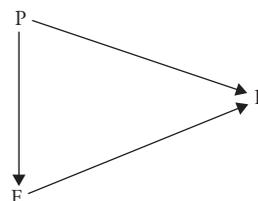
The Person–Situation Interaction

Figure 38.3 Schematic depiction of the person–situation interaction within the Lewinian framework (after Bowers, 1973).

response in each situation. When administered to a large group of subjects, the data generated by these inventories could be analyzed to yield estimates of the variance in anxiety (etc.) accounted for by various causal factors, including the *main effect of persons*, or individual differences in the generalized tendency to be anxious, collapsed across situations (and response modes); the *main effect of situations*, collapsed across persons (and, again, response modes), revealing the power of the situation; and the critical two-way *interaction of the person and the situation* (collapsed across response modes), indicating individual differences in the pattern of response across situations. (Of course, one could also calculate various other interactions, including the two-way interaction of the person and response mode, collapsing across situations; the two-way interaction of the situation and the response mode, collapsing across persons; and the three-way interaction of person, situation, and behavior.)

A study employing an S-R inventory of dominance illustrates the typical result of these studies (Dworkin & Kihlstrom, 1978). The main effect of persons accounted for approximately 10% of the variance in dominant behavior; the main effect of situations accounted for about 8%; and the critical person–situation interaction accounted for approximately 24% of variance. The 10% figure for persons, of course, is exactly what we would predict on the basis of Mischel's (1968) "personality coefficient." The 8% figure for situations, by contrast, is even lower than the estimate of situational variance provided by Funder and Ozer (1983). Most important in the present context, the person–situation interaction accounted for more than double the total population variance, compared with the amount accounted for by either persons or situations alone. Collectively, this pattern of results from S-R inventory studies, conducted in various domains, was taken as evidence that, indeed, the person–situation interaction is more powerful than either persons or situations taken in isolation—or, for that matter, the sum of persons and situations taken independently.

Readers of a certain age will recognize the S-R inventory technique as capturing the essence of the *aptitude-by-treatment interactions* (ATI) discussed by Cronbach (1957, 1975). Cronbach lamented the gulf between those psychologists who employed correlational techniques to predict behavior from individual differences and those who employed experimental manipulations to control behavior in different situations. Readers with clinical interests

will recognize the similarity to the diathesis-stress framework, in which environmental stressors precipitate episodes of mental illness, but only in those individuals who are "at risk" (Caspi & Moffitt, 2006; Fowles, 1992; Meehl, 1962; Monroe & Simons, 1991; D. Rosenthal, 1963; Zubin & Spring, 1977; Zuckerman, 1999). And those with educational interests will note the relevance of the proposal to match students' learning styles with teachers' instructional approaches (Pashler, McDaniel, Rohrer, & Bjork, 2009)—a proposal that, in turn, has its roots in the application of Jung's (1964) notion of psychological types to the problem of personnel selection, that is, of fitting the right person to the right job (Druckman & Porter, 1991).

The statistical view of interactionism continues to provide a framework for attempts to address the person–situation controversy. For example, Bem and Funder (1978) attempted to predict "more of the people more of the time" by matching personality descriptions to descriptions of the ideal person associated with a particular behavior in a particular situation (see also Bem, 1983; Bem & Lord, 1979; Mischel & Peake, 1982). In this way, situations are described in terms of the kind of person who would behave in a particular way in them, and the person–situation interaction is represented by the match between the person and this situation-specific template. More recently, Mischel and his colleagues have analyzed the person–situation interaction in terms of situation–behavior profiles of the following form: *If Person X is in Situation Y, then s/he will engage in Behavior Z* (Mendoza-Denton, Ayduk, Mischel, Shoda, & Testa, 2001; Mischel & Shoda, 1995; Mischel, Shoda, & Mendoza-Denton, 2002; Shoda, Tiernan, & Mischel, 2002). Across a wide variety of situations, then, different individuals would differ in terms of the pattern of their behavior, not just their overall level of friendliness, aggressiveness, or whatever.

Both Bem's and Mischel's proposals represent an advance over the S-R inventory technique and the ATI—with the major difference that they are intended to result in idiographic predictions of what particular people would do in various situations, rather than nomothetic assessments about the proportion of behavioral variance to be attributed to persons, situations, response modes, and their interactions. But all of these proposals, being based on the statistical concept of interaction, fail to capture the Lewinian point of view—that *persons are part of the situations to which they respond*—or, put another way, that *persons and situations together constitute a*

unified field in which behavior takes place. In particular, the ANOVA model on which all of these proposals are based has no way of talking about precisely *how* persons create the situations to which they respond.

Reciprocal Determinism in the Lewinian Framework

Moreover, because the ANOVA model assumes that causality is unidirectional—that is, that it proceeds from independent variable to dependent variable—it misses the potential complexity of the underlying causal relations. These deficiencies are corrected by a further Doctrine of Reciprocal Determinism (Bandura, 1977b, 1978, 1983, 2004; Phillips & Orton, 1983), which states that:

> The person, the environment, and behavior exist in an interlocking relationship characterized by bidirectional causality.

In addition to persons shaping their environments, as in the Doctrine of Interactionism, environments also shape persons; personal factors influence behavior, but behavior also feeds back to change the person who engaged in it; environments elicit behavior, but behavior changes the environment in which it takes place.

The relations among the independence, interactionist, and reciprocal determinist views of the person–situation interaction are represented graphically in Figures 38.2 to 38.4. In Figure 38.2, personal and environmental factors were portrayed as acting independently to influence behavior; this is the traditional view separating personality and social psychology. Figure 38.3 retained these separate influences, but also included the influence of the person on the environment in which behavior takes place. Figure 38.4 portrays the full scope of reciprocal determinism, in which the person and the situation are fully interdependent entities. For

analytical purposes (and with apologies to Hegel and Marx), reciprocal determinism can be decomposed into what might be called the *three dialectics in social interaction*:

• The *dialectic between the person and behavior* includes all of the influences of the person's internal states and dispositions (e.g., personality traits, social attitudes,[1] cognitions and beliefs, emotional states and moods, motives, and values) on his or her behavior—pretty much everything that is encompassed by traditional personality psychology, including analyses of the structure of personality traits and the prediction of behavior from trait assessments. But the dialectic also includes all the influences of behavior on the individual's mental states and dispositions, as exemplified by the James-Lange theory of emotion (Lang, 1994) and self-perception theory (Bem, 1967).

• The *dialectic between the environment and behavior* includes all of the influences of the objective physical and social situation on the person's behavior, including the presence and behavior of other people—pretty much everything encompassed by the traditional psychology of social influence, according to Allport (1954), and exemplified by the Four As of social psychology—aggression, altruism, attitude change, and attraction. But the dialectic also includes the effects of behavior on the environment—beginning, but not ending, with Skinner's observation that all instrumental or operant behavior changes the environment in which it occurs (Skinner, 1935, 1937; see also Hilgard, 1948).

• The *dialectic between the person and the environment* includes all of the different ways in which people influence the environments in which their behavior takes place (and which is what the Doctrine of Interactionism is all about); but it also includes the reciprocal influence of the environment on the person—as illustrated, for example, by much of the traditional social psychological research on persuasion and attitude change (Zimbardo & Leippe, 1991), as well as the mere exposure effect (Zajonc, 1965) and the automatic evocation of emotions by environmental stimuli (Ekman, 1972, 1999).

Spelled out this way, Lewin's formula looks less like a "grand truism," much less a rationale for treating personality and social psychology as independent disciplines, than a framework for the integration of personality and social psychology—with nothing left out.

Reciprocal Determinism
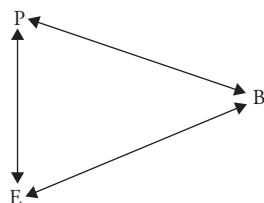in the Person–Situation Interaction

Figure 38.4 Schematic depiction of reciprocal determinism within the Lewinian framework (after Bandura, 1978).

How Do Persons Shape Their Environments?

The Doctrine of Interactionism asserts that people shape their environments, but raises the further question of how they actually accomplish this. In an important article, Buss summarized three ways in which people affect their own environments: evocation, selection, and behavioral manipulation (Buss, 1987, 2009). I will discuss each of these briefly, before turning to a fourth mode: cognitive transformation.

Evocation

The mere presence of a person in an environment alters that environment, independent of his or her traits and attitudes—and even in the absence of any behavior at all. In evocation, the physical appearance of the individual unintentionally evokes behavior from others—behavior that, in turn, changes the situation for the evoking person. A salient example of evocation is found in gender dimorphism, in which the physical appearance of a newborn's external genitalia literally structures the environment surrounding the child (e.g., Maccoby & Jacklin, 1974; Money & Ehrhardt, 1972). In the famous Baby X studies, infants were treated differently depending on whether they were identified as boys or girls, as opposed to their actual gender or anything they did (Seavey, Katz, & Zalk, 1975; Sidorowicz & Lunney, 1980). From the moment the neonate's gender is announced, parents and others in the social environment raise the child in accordance with prevailing cultural concepts of masculinity and femininity by communicating gender-typed expectations and by demanding, modeling, and reinforcing gender-typed behaviors.

Evocation is also exemplified by stereotyping and prejudice based on race, ethnicity (e.g., Dovidio & Gaertner, 1986), physical appearance (e.g., Snyder, Tanke, & Berscheid, 1977), and any other social category that is marked by physical attributes or other unconcealable stigmata (e.g., Goffman, 1963; Hinshaw & Stier, 2008; Jones et al., 1984; Link, Yang, Phelan, & Collins, 2004). Indeed, many aspects of intergroup relations seem to involve evocation as a central mechanism (e.g., Brewer, 2007; Wagner, Tropp, Finchilescu, & Tredoux, 2008; Yzerbyt, Judd, & Corneille, 2004). The mere presence of an outgroup member in an environment populated by ingroup members (or, for that matter, the reverse) can alter the environment by eliciting behavior from the ingroup members that would not occur but for the presence of the outgroup member.

Yet another example of evocation can be found in certain "child-driven" processes that help create within-family differences (Harris, 1995, 1999, 2006). Whether a child is male or female, conventionally good-looking, blemished, or disfigured, or looks like his parents can determine how he is treated by other people both inside and outside the family. And as the child ventures beyond the home to playgroups, school, sports programs, and the like, the child will continue to evoke behavior from peers and adults that effectively change the environment for that child—a process that, of course, can continue into adulthood.

Because the environment consists of other people, evocation effects are typically mediated by others' cognitive structures and processes, such as their beliefs and expectations. Every culture has conventional standards for masculinity and femininity, for example, even if these differ from the agency and communality that are familiar in Western cultures (Mead, 1935). But from the point of view of the person himself or herself, evocation is not concerned with how the environment is changed by that person's actions—whether intentional or unintentional. Such effects fall under the rubrics of selection and behavioral manipulation. The critical feature of evocation is that the evoking person need not actively *do* anything at all to change the situation. His or her mere presence, appearance, and social identification are sufficient to evoke behavior from others that changes the situation for everyone.

Selection

Although evolutionary psychology focuses on the selection of behavior *by* the environment, selection *of* the environment occurs as well. People are making choices all the time, and by virtue of some of those choices, they enter one environment as opposed to another. As a result, the match between the person and the environment is nonrandom. Individuals tend to choose environments that are congruent with their own personalities, supporting and promoting their own preferences and tendencies (Emmons, Diener, & Larsen, 1986). If gender-role socialization is the classic example of evocation, the classic example of selection may be one's choice of mate: people tend to marry people who are like themselves (Buss & Barnes, 1986); and, in furtherance of this tendency, contemporary dating websites tend to match potential partners on the basis of similarity in traits and attitudes. At the same time, behavior therapists teach us that one strategy for fostering personality *change* may be to

choose to place oneself in a new environment that will support a new set of preferences and tendencies. Of course, sometimes the environment is selected *for* the person, as in arranged marriages, or personnel decisions (Arthur, Bell, Villado, & Doverspike, 2006); but at least in the latter case, people typically select the jobs for which they will be considered, and can refuse a job that does not seem to "fit" them. In any case, whether monumental or mundane, each such choice moves the person out of one environment and into another, pre-empting alternatives—with the result that the individual's behaviors will be constrained by an environment that is, to at least some extent, one of his or her own ~~making~~.

Some accounts of the person–environment fit seem to relegate the person to a relatively passive role: a person with trait *X* will be happy in environment *Y* but unhappy in environment *Z*. From a cognitive point of view, however, such choices reflect active judgments and decisions on the part of the person making the selection (Hastie & Dawes, 2001). That the cognitive processes involved may be better described as judgment heuristics rather than the algorithms of normative rationality (Gigerenzer, Todd, & the ABC Research Group, 1999; Kahneman, Slovic, & Tversky, 1982) does not gainsay the basic point that the person is trying to figure out, under conditions of uncertainty, which available alternative to select. Nor does it matter if the selection is made on intuitive grounds, when the person cannot articulate the basis for his or her choice, or if the basis for the choice is emotional rather than "rational" (e.g., Haidt, 2001, 2002). Intuitions have long played a positive role in analyses of thinking and problem solving (Wallas, 1921; see also Dorfman, Shames, & Kihlstrom, 1996; Kihlstrom, Shames, & Dorfman, 1996). There may well be circumstances in which reason fails us, and we must rely on our emotional responses instead; but even in this case, emotion is information for cognition (Niedenthal & Showers, 1991).

(Behavioral) Manipulation

Sometimes, choices simply are not available; sometimes, choices are made for us by other people; and sometimes, our choices are the wrong ones. Finding ourselves in a particular environment, and unable to select a different one, we are nevertheless able to engage in overt behaviors that will modify the character of whatever environment we find ourselves in. As noted earlier, children can delay gratification longer if they choose to wait in the absence of the promised reward (Mischel & Ebbesen, 1970);

but those who must wait in the presence of a promised reward can also delay, if they deliberately avoid looking at the reward, distract themselves by playing with a toy, or create some other diversion for themselves—even simply putting their heads down on a table and covering their eyes (Mischel, Ebbesen, & Zeiss, 1972). By means of their overt behaviors, the children have created an environment in which the promised reward is out of sight.

As noted earlier, behavioral manipulation underlies all acts of instrumental or operant behavior, in which the organism's behavior operates on the environment, changing it in some way, so that it more closely conforms to ~~the our~~ desires, goals, and purposes. The point seems so obvious that it may not warrant an empirical demonstration, but if one were needed it is provided by Kelley and Stahelski (Kelley & Stahelski, 1970), who pitted cooperative and competitive actors against cooperative and competitive partners in multiple trials of a prisoner's dilemma game. Cooperative actors paired with cooperative partners consistently made cooperative choices—by engaging in cooperative behavior, the two players created an environment in which cooperation was encouraged. Similarly, games that paired competitive actors with competitive partners quickly degenerated into a vicious cycle of "tit for tat" competition. Most interestingly, cooperative actors paired with competitive partners actually made fewer cooperative moves: Apparently, the competitive behavior of the partners created a situation that elicited competitive behavior from people who were not initially inclined to behave that way. Looking at it another way, competitive actors paired with cooperative partners made even fewer cooperative responses as the game went on: Apparently, the initially cooperative behavior of their partners created a situation in which the competitive actors could take advantage.

Other examples of the behavioral manipulation of the situation come from the literature on the self-fulfilling prophecy (Merton, 1948) and interpersonal expectancy effects in general (Darley & Fazio, 1980; Jones, 1986; Klein & Snyder, 2003; Miller & Turnbull, 1986; Rosenthal & Rubin, 1978; Snyder, 1984). As described by Merton, a perceiver, holding certain erroneous expectations, can behave in such a way as to elicit from the target behavior that confirms those expectations. Expectancy confirmation processes themselves come in two basic forms. In *behavioral confirmation*, the target's behavior objectively confirms the perceiver's expectations—even in the eyes of naïve observers who do not share

these expectations. In *perceptual confirmation*, the target's behavior is actually vague and ambiguous, but is interpreted as consistent with the perceiver's expectations.

The process of expectancy confirmation was nicely demonstrated in a pair of experiments by Snyder and Swann. In both experiments, pairs of subjects were arbitrarily assigned to the role of actor or target, and the actor was given some sort of expectation about the target's personality. In a study of "getting acquainted," actors who believed that their targets were introverted (or extraverted) behaved in such a way as to elicit those very behaviors from their partners (Snyder & Swann, 1978b). And in a "noise gun" study, actors who believed that their partners were aggressive behaved in such a way as to elicit aggressive behavior from them (Snyder & Swann, 1978a).

Expectancy confirmation effects occur on two quite different levels (Darley & Fazio, 1980; Jones, 1986; Snyder, 1984). Merton's self-fulfilling prophecy exemplifies *behavioral* confirmation—in which the actor's expectations elicit behavior from the target that objectively confirms his or her expectations. As a result of behavioral confirmation, even unbiased observers, blind to the actor's expectations, will perceive the target the same way the actor does. But much social behavior is vague and ambiguous. In *perceptual* confirmation, the target's behavior is amenable to various interpretations. The actor will construe the target's behavior as confirming his or her expectations, but unbiased observers of the same behavior may draw quite different conclusions. Regardless of whether the confirmation is objective or subjective, the actor will continue to behave in a manner that is consistent with his or her expectancies, and interpret the target's behavior accordingly.

Eventually, we may suppose, perceptual confirmation will lead to behavioral confirmation—that is, unless targets themselves engage in behavior that breaks the cycle of expectancy confirmation. Fortunately, targets are not merely passive recipients of the actors' behavior. They are perfectly capable of shaping the environment, through their own behavior, so as to counteract the actors' expectations and reaffirm their self-concepts—a process variously known as impression management, strategic self-presentation, or self-verification (Goffman, 1959; Jones, 1964; Swann, 1987; Swann & Ely, 1984). Both the actor and the target are continually creating, through their overt behavior, the environment to which the other is responding.

The distinction between behavioral and perceptual confirmation effects, and between expectancy confirmation and self-verification, makes it clear that many acts of behavioral manipulation are cognitively mediated—through the expectancies that guide the perceiver's behavior, the self-concept that guides the target's response, and the schemata that filter the perceiver's interpretation of the target's behavior. However, the behavior that shapes a situation need not be deliberately instrumental, or even under conscious control. Consider, for example, individual differences in temperament, leading a child to be relatively quiet or fussy, which in turn lead parents to engage in "upper-limit" or "lower-limit" control behaviors (Harris, 1995, 1999). Here, the child's behavior is eliciting parental behavior that effectively shapes the environment of the child, but the behavior that gets the process going is entirely unintentional on the child's part. Similarly, overly active and aggressive children may elicit ~~countervailing~~ contagious or countervailing behavior from other children that increases the amount of activity and aggression in the environment (Dodge & Pettit, 2004).[2]

Expectancy confirmation effects are, presumably, instigated by more or less conscious percepts and thoughts. Other behaviors may be automatically activated by environmental stimuli (Bargh, 1997; but see Kihlstrom, 2008). Viewed in isolation, such effects might be counted as effects of the environment on behavior. But we now understand, from Lewin by way of Bandura, that such effects should never be viewed in isolation—rather, they are part of a continuously interacting field consisting of the person, the environment, and behavior. When automatically evoked behaviors reciprocally shape the environment that evoked them, they also count as examples of the behavioral manipulation of the situation. Thus, the automatic mimicry of a smiling or scowling face (Dimberg, Thunberg, & Elmehed, 2000) might help create an environment in which lots of people are smiling or scowling. Furthermore, if the facial action feeds back to the person himself or herself, it can also help the person to *feel* happy or angry (Strack, Martin, & Stepper, 1988; Tomkins, 1962–1963)—creating, perhaps, a magnified facial expression of happiness or anger that starts the whole cycle over again.

(Cognitive) Transformation

Evocation, selection, and manipulation all change the objective environment through overt behavior—either the behavior of the person

himself or herself, or that of other people. In each case, someone does something overtly that changes the objective character of the environment—that is, changes the environment for everyone in it, not just for the person himself or herself. But these three modes do not exhaust the effects of the person on the environment. People also engage in *covert* mental activities that alter their *mental representations* of their subjective environment— that is, the environment as they privately experience it. As opposed to behavioral manipulation, cognitive transformation does not act directly on the objective environment—the environment as it would be described in the third person by an objective observer, and experienced by everyone in it. Rather, transformation acts on the *subjective mental representation* of the environment. Through cognitive transformations, people can change their internal, mental representations of the external physical and social environment—perceiving it differently, categorizing it differently, giving it a different meaning than before. In cognitive transformation, the objective features of the environment remain intact—they have not been altered through evocation, selection, and manipulation. Rather, the cognitive transformation has altered the environment *for that person only*. The environment is unchanged for everyone else—unless and until the cognitive transformation leads the person to engage in selective and manipulative behavior that, as described earlier, will change the environment for everyone in it.

As an illustration of the power of cognitive transformation, consider one last experiment on delay of gratification (Mischel & Baker, 1975). Earlier studies had shown that children could wait longer in the presence of a reward if they avoided looking at the reward, or actively distracted themselves from it. But in this study, waiting improved if the children *thought* about marshmallows as cotton balls, or pretzels as Lincoln Logs—as opposed to focusing on the taste and texture of the promised treats. Another is provided by the "*n* effect" of group size on task performance. From the earliest days of experimental social psychology (Triplett, 1898; but see Strube, 2005), it has been thought that the mere presence of an audience can have marked effects, for better or worse, on an individual's task performance (Zajonc, 1965; see also Latane, 1981). Taken by itself, this is a clear example of the effect of the social environment on behavior. But it turns out that a similar effect can occur when a person *believes* that other people are present, even when they are not (Garcia

& Tor, 2009). It is the mental representation of other people, whether in perception or imagination, that is the critical element.

Social Cognition and Personality

Traditional approaches to personality and social psychology are predicated on a separation between the person and the situation. But social cognition dissolves this divide. People's social interactions are determined by their mental representations of the situation: what they pay attention to; how they perceive and categorize the people, places, and events they encounter; what they remember of past events in similar situations, and how they remember them; their long-term goals and momentary intentions; their fund of declarative knowledge about themselves, their interaction partners, and the social world in general; their procedural repertoire of skills and rules for understanding other people's mental states, making ethical moral judgments about their own and others' behavior, and managing various other aspects of social intercourse. The cognitive structures and processes by which a person constructs his or her mental representation of the social situation are part and parcel of that individual's personality. Understanding them is critical to understanding the person as he or she navigates the real world of social interaction.

Notes

1. Of course, attitudes of all sorts have been part of the traditional domain of social psychology (McGuire, 1986). For the purposes of this analysis, however, attitudes are construed as intrapsychic constructs—dispositions to like or dislike things, much as traits are dispositions to behave in particular ways Allport, 1937). This is why there was a controversy over the relations between attitudes and behavior (Sherman & Fazio, 1983) paralleling the debate over the prediction of behavior from personality traits.

2. Buss (1987) classified effects such as these as examples of evocation, but I prefer to limit evocation to effects on the environment that are unrelated to the person's behavior, and are driven solely by his or her mere presence or appearance (and whatever stereotypes the perceiver carries in his head).

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