18.6: Basic Constructs in Rotter's Social Learning Theory

Rotter's early research focused on the need to understand human behavior and personality so that clinical psychologists might effectively help their patients. In the preface to *Social Learning & Clinical Psychology*, Rotter wrote:

…the practice of clinical psychology in many instances is unsystematic and confused when viewed from logical or rigorous scientific viewpoints. This confusion, however, is not a necessary condition but the result of the failure of the clinical psychologists' training program to translate and relate the basic knowledge of experimental and theoretical psychology into the practical situations of the clinic, the hospital, and the school… (pg. viii; Rotter, 1954)

Given his emphasis on clinical psychology, Rotter focused on the clinician’s ability to predict behavior. According to Rotter, social learning theory assumes that the unit of investigation for the study of personality is the interaction between the individual and their meaningful environment. Although personality has unity, the individual’s experiences influence each other. As a result, personality is continuously changing, since each person is always having new experiences. However, personality is also stable in some respects, since previous experiences influence new learning. Given the complexity of each individual, Rotter believed that in order to make reasonable predictions about behavior it was necessary to examine four kinds of variables: *behavior potential*, *expectancy*, *reinforcement value*, and the *psychological situation* (Rotter, 1954, 1964, 1972; Rotter & Hochreich, 1975).

Behavior potential refers to the likelihood of a certain behavior occurring in the context of specific potential reinforcement. For example, in order to earn good grades a student can rely on any number of possible behaviors, such as studying, cheating, skipping class to avoid a bad grade, etc. Each potential behavior can only be described as more or less likely than other potential behaviors, and included as potential behaviors are psychological reactions such as thoughts, emotions, and even defense mechanisms. Expectancy is defined as the probability held by the individual that reinforcement will follow one’s chosen behavior. Although Rotter preferred to avoid the concept that expectancy is subjective, he acknowledged that an element of subjectivity is involved. Regardless, it is the individual’s point of view,
their expectations in a given situation, that are more important for predicting behavior than the realistic probability of a chosen behavior resulting in an expected reinforcement. Reinforcement value, quite simply, refers to the preference for a given reinforcer. To use Rotter’s own example, most people would consistently choose to be paid $10 dollars an hour rather than $1 an hour, if it were simply their choice. Finally, there is the psychological situation. According to Rotter, it is not enough to say that to each individual a given situation might seem different. In order to address the situation in more objective terms, psychologists need to identify a variety of cues within the situation. In an objective sense, consequently, different people can be described as attending to different specific cues in the environment (Rotter, 1954, 1972; Rotter & Hochreich, 1975).

Although Rotter broke new ground in this approach to the study of social learning theory, he did not entirely abandon the use of mathematical formulae similar to those of Dollard and Miller. Rotter proposed the following basic formula for predicting goal-directed behavior:

\[
BP_{x,S1Ra} = \left(\frac{E_{x,RaS1}}{RV_{a,S1}}\right)
\]

Although this formula appears complicated at first glance, it is relatively straightforward. The potential for behavior \(x\) to occur in situation 1 with potential reinforcement \(a\) is a function \((/\) of the expectancy \((E)\) that reinforcement \(a\) will follow behavior \(x\) in situation 1 \((x,RaS1)\) and the reinforcement value \((RV)\) of reinforcement \(a\) in situation 1 \((a,S1)\) (Rotter, 1954; Rotter & Hochreich, 1975). In other words, we are most likely to choose the behavioral option that we realistically expect will result in the most favorable outcome in our current situation.

discussion question \(\PageIndex{1}\)

Rotter believed that both the expectancy of reward and the perceived value of that reward were essential in determining whether an individual engaged in a particular behavior. Have you ever found yourself doing something even though you did not expect to get anything for your efforts? Have you ever had a job where you felt that you weren’t being paid what you deserved? In such situations, how long did you continue your behavior, and how did you feel about it?

Locus of Control

One of the most important generalized expectancies underlying behavior, and perhaps Rotter’s best known concept, is referred to as **internal versus external control of reinforcement** (commonly known as **locus of control**):

People are known to differ in their belief that what happens to them is the result of their own behaviors and attributes (internal control) versus the result of luck, fate, chance, or powerful others (external control). Clearly, persons who believe or expect that they can control their own destinies will behave differently, in many situations, than those who expect that their outcomes are controlled by other people or determined by luck. (pg. 105; Rotter & Hochreich, 1975)

Rotter pointed out that almost all psychologists recognize the role that reinforcement or reward plays in determining future behavior, but that this is not a “simple stamping-in process.” For beings as complex as humans, the effects of reinforcement depend upon an individual’s perception of a causal relationship between their behavior and the potential reward (Rotter & Hochreich, 1975).
A number of scales have been developed to measure locus of control (for an early review see Lefcourt, 1976), including one developed by Rotter himself (Rotter, 1966). Rotter’s scale, simply referred to as the I-E scale (for internal-external), consists of 29 forced-choice statements. For example:

1.a. Children get into trouble because their parents punish them too much.
1.b. The trouble with most children nowadays is that their parents are too easy with them.

In each instance, the person taking the test must choose one or the other option. After taking all 29, the person’s score is the total number of external choices. Does it seem difficult to determine whether 1.a. or 1.b. is the external choice? Good! Question 1 is actually a filler question, designed to interfere with the test taker’s ability to understand what the test is about! So, consider question 2:

2.a. Many of the unhappy things in people’s lives are partly due to bad luck.
2.b. People’s misfortunes result from the mistakes they make.

For question 2 it is quite obvious that choice a is the external choice, and if it wasn’t clear, the test has choice a marked for you! There are a total of six filler questions, leaving the test itself with 23 choices (Rotter, 1966).

Locus of control appears to arise from two primary sources: the family, and contingency awareness (Lefcourt, 1976). The role of the family in the development of locus of control is complex, and appears to be somewhat different based on the behavior of mothers and fathers. The most reliable finding appears to be that individuals with an internal locus of control had mothers who pushed them to achieve independence at an early age. This motherly push, however, must be a careful one. Children need support, guidance and nurturance, but they must not be smothered to the point of being pampered. Lefcourt (1976) cites Adler’s concern regarding two extremes in child-rearing, pampering and neglect, neither of which is conducive to the healthy psychological growth of a child. Contingency awareness refers to an understanding of instrumentality, the conception that one’s actions are indeed related to certain outcomes. In order for a child to repeat a behavior with purpose, the child must be able to recall that their prior actions resulted in a given outcome, and they must know that their actions were related to the expected outcomes. It would appear that children as young as two months old are capable of this type of social learning, and it tends to result in positive emotional reactions (Lefcourt, 1976).

Early studies on locus of control also focused on some interesting cultural questions. It is generally accepted that social class and ethnic group are important determinants of personality. Battle and Rotter (1963) found that lower class Blacks were significantly more external in their locus of control than were middle class Whites. Interestingly, middle class Blacks were closer to middle class Whites than lower class Whites were to middle class Whites, suggesting that social class may have been the primary factor in these results, rather than the race or ethnicity of the subjects. Furthermore, IQ seems to have exacerbated these results in that the most external individuals were high IQ lower class Blacks (i.e., individuals aware of social injustice in American society) and the most internal individuals were low IQ middle class Whites (who may be blaming themselves for failing to live up to their expected potential; Battle & Rotter, 1963). During the civil rights movement, Gore & Rotter (1963) examined whether locus of control might be a useful measure of social action. They found that students at a southern Black college who expressed interest in attending a civil rights rally or marching on the state capitol scored significantly more internal on the I-E scale. In other words, those who believed they could personally make a difference were more willing to try making that difference. In a study that followed soon after,
Strickland (1965) compared Blacks who were indeed active in the civil rights movement to those who were not (but who were matched for sex, age, education, etc.). As predicted, the individuals who were active in the civil rights movement scored significantly more internal on the I-E scale than those who were not active. Strickland did note, however, that the individuals she studied were pioneers in the civil rights movement, and had become active, in part, because others groups had failed to demonstrate an adequate degree of commitment to the civil rights movement. Strickland’s concern seems to contradict earlier results of Mischel (1958a), who found that when individual’s make public commitments, they are less likely to change their expectancies (i.e., individuals publicly involved in the civil rights movement should have remained committed to the cause even when faced with initial failure). Still, as Mischel himself noted, one cannot rely entirely on inferences from research when considering the complexities of real-life (and, at the time, dangerous) behavior.

discussion question \(\PageIndex{2}\)

Do you consider yourself to have an internal or an external locus of control? Do you feel that locus of control is an important influence on personality; might it be good or bad?

Discussion Question: Do you consider yourself to have an internal or an external locus of control? Do you feel that locus of control is an important influence on personality; might it be good or bad?

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Rotter's Emphasis on Clinical Psychology

As noted above, Rotter was actively involved in developing the model that provided the basis for how clinical psychologists are typically trained today. Accordingly, much of Rotter’s career was devoted to clinical applications of his work. In addition to writing two books that emphasized clinical psychology (Rotter, 1954, 1964) and developing the I-E scale (Rotter, 1966), Rotter and one of his research assistants published *The Rotter Incomplete Sentences Blank: College Form* (Rotter and Rafferty, 1950). The book was intended to formalize the *sentence completion method*, particularly for use with college students. The test consists of forty simple statements that require the subject to finish the sentence. For example, one beginning is simply “My father…” The subjects responses are then scored in terms of whether they demonstrate conflict (on a scale of 1-3), are neutral, or whether they are positive (also on a scale of 1-3). The manual offers examples of possible answers for both males and females. For example, conflicted responses for males include breaking promises or being a fool (level 3), or never had much of a chance or is proud (level 1). A neutral response might simply be that the father is a salesman, or is a hard worker. Positive responses for females include that the father is quite a character or is a good man (level 1), or that he has a great sense of humor or is a lot of fun (level 3). Interpreting this test requires a great deal of experience, and an understanding of personality and human nature.

Fortunately, Rotter and Rafferty include a number of individual cases as examples of how the Rotter Incomplete Sentences Blank can be used to evaluate individuals. Both the Rotter Incomplete Sentences Blank and the I-E scale have proven useful in evaluating patients, as well as normal individuals, in a variety of settings and cultures, including Africa, Sri Lanka, American Indians, Brazil, Black and White college students in America, Ukrainian doctors training in Canada, and amongst military personnel (Janzen, Paterson, Reid, & Everall, 1996; Lefcourt, 1976; Logan & Waehler, 2001; Nagelschmidt & Jakob, 1977; Niles, 1981; Picano, Roland, Rollins, & Williams, 2002; Rossier, Dahourou, & McCrae, 2005; Rotter, 1960, 1966; Trimble & Richardson, 1982). In a particularly interesting study, a unique version of the Sentence Completion Test was developed by Herbert Phillips and provided the basis for a major study on the personality of Thai peasants living in the village of Bang Chan, Thailand (Phillips, 1965). The Rotter Incomplete
Sentences Blank, and other variations of the sentence completion method, remain very popular today (Holaday, Smith, & Sherry, 2000), ranking with the Rorschach Inkblot Test and the Thematic Apperception Test as the most popular projective tests for personality assessment.

Overall, Rotter emphasized the value of training clinical psychologists for just that responsibility, with a particular emphasis on the realities that will face the psychologist in an actual clinical setting (Rotter, 1954, 1964). In 1972, Rotter edited a volume including both original and previously published papers in which social learning theory was applied to psychopathology in general (Phares, 1972) and to such diverse topics as drinking amongst college students, excessively needy individuals, working with mentally retarded children, and electroconvulsive shock therapy (Cromwell, 1972; Dies, 1968; Jessor, Carman, & Grossman, 1968; Jessor, Liverant, & Ophochinsky, 1963). A particularly important aspect of therapy also addressed in this volume is the issue of terminating therapy. Strickland & Crowne (1963) found that defensiveness and avoiding self-criticism are common signs in individuals who are likely to end therapy abruptly, whereas Piper, Wogan, & Getter (1972) found that the patient’s expectancy regarding improvement, and the value they place on improving, are useful predictors of terminating therapy. Although helping patient’s to achieve a level of psychological health that allows terminating therapy should be the goal of every therapist, premature termination might prove even more detrimental to the patient. For Rotter, the proper training of clinical psychologists is not an easy task. In the preface to Clinical Psychology, Rotter wrote:

…Yet psychology itself is a relatively new science and its areas of application are in rapid transition. Neither theory nor “facts” are always agreed upon, and in clinical psychology there is no single set of orthodox, approved skills for which a person can be certified as a trained practitioner...The goal is to gain comprehension without resorting to an oversimplification of the complex nature of man or of the problem of understanding him. (pg. xi; Rotter, 1964).

Behavioral Specificity and Consistency

In 1968, Walter Mischel challenged both state and trait theories of personality. Psychological states typically fall with the domain of psychodynamic theory, whereas trait theories are a perspective unto themselves. According to Mischel (1968), although state and trait theorists use very different language, they tend to approach personality in the same general way: they use responses to infer pervasive, underlying mental structures that exert enduring causal effects on behavior. Thus, both state and trait theorists emphasize consistency in behavior. However, there is a wealth of data that individuals do not act consistently from situation to situation. Instead, Mischel argues, behavior can best be predicted only when one takes into account the specific situation in which the behavior occurs:

Progress in the area of personality psychology and assessment has been hindered by the failure to apply relevant principles about the conditions that produce, maintain, and modify social behavior. The principles that emerge from basic research too often have not been seen as directly relevant to the understanding of the determinants of test responses in the clinic or the assessment project. It is as if we live in two independent worlds: The abstractions and artificial situations of the laboratory and the realities of life. (pg. 1; Mischel, 1968).

In order to support his argument, Mischel examined which aspects of behavior are or are not consistent. Generally, intellect is consistent, including academic ability, achievement, and cognitive style. In contrast, there is little evidence to support consistency of behavior across situations when examining personality variables such as attitudes, moral behavior, sexual identification, dependency, aggression, tolerance, conditionability, etc. (Mischel, 1968). How, then,
might we predict behavior? Mischel suggests a dynamic perspective on how persons interact with their situations. If the environment has not changed much, we can expect past behavior to be a reasonable predictor of current behavior (and state and trait theories would seem to hold true as well). However, if the environment changes dramatically, the individual may act in unpredictable ways. In addition, the individual may begin to learn new social conditions, thus allowing for considerable change in behavior over time:

Global traits and states are excessively crude, gross units to encompass adequately the extraordinary complexity and subtlety of the discriminations that people constantly make. Traditional trait-state conceptions of man have depicted him as victimized by his infantile history, as possessed by unchanging rigid trait attributes, and as driven inexorably by unconscious irrational forces...A more adequate conceptualization must take full account of man's extraordinary adaptiveness and capacities for discrimination, awareness, and self-regulation...and that an understanding of how humans can constructively modify their behavior in systematic ways is the core of a truly dynamic personality psychology. (pg. 301; Mischel, 1968)

Delayed Gratification

Perhaps Mischel's most famous contribution to psychology is his research on delayed gratification. In a series of studies, begun in the late 1950s, Mischel examined the conditions under which children choose immediate gratification or whether they can delay gratification in order to obtain a larger reinforcer at a later time. The ability to delay gratification, according to Mischel, is essential for the development of self-control. From early childhood throughout the lifespan, achieving long-term goals often requires setting aside tempting distractions. Conversely, many personal and social problems result from failures of self-control, such as dropping out of school, poor job performance, and even violent and criminal behavior (Mischel & Mischel, 1980). In an amazing longitudinal study, Mischel and his colleagues offered 4 year-old children the opportunity to grab a marshmallow. But, if the child could wait until the researcher ran an errand, the child could then have two marshmallows! Some children grabbed the marshmallow as soon as the experimenter left, but others were able to wait 15-20 minutes. It was not easy, however. The children who waited demonstrated a variety of behaviors to distract themselves from the marshmallow: they would play, sing, cover their eyes so they didn't have to look at the marshmallow, etc. The most striking results from this study were actually obtained years later. Mischel and his colleagues tracked down the former 4 year-old subjects as they were graduating from high school. The individuals who had delayed gratification as 4 year-olds were significantly more personally effective and self-assertive, and they were better able to cope with life's frustrations (Mischel, Shoda, & Rodriguez, 1989; Shoda, Mischel, & Peake, 1990). In addition, the 4 year-old children who had been able to delay gratification were more successful as students in a variety of ways, including eventually earning significantly higher SAT scores (210 points higher, on the combined score), and the ability to delay gratification proved to be a better predictor of SAT scores than IQ (Peake, cited in Goleman, 1994).

Although the famous marshmallow-grabbing study was conducted at a preschool on the campus of Stanford University, Mischel began this research with very different groups: Black and East Indian children on the islands of Trinidad and Grenada (Mischel, 1958b, 1961). On these relatively poor, Caribbean islands, Mischel not only compared the Black and East Indian children, he also compared the children of Trinidad to the children of Grenada. The main purpose of the second study, however, was to examine the effect of fathers being absent from the home on the preference of children for immediate or delayed gratification. Overall, when fathers are absent from the home, both young boys and young girls (ages 8 to 9 years old) demonstrated a preference for immediate gratification. Mischel suggests that the inability to delay
gratification amongst children who lack a father may be related to immaturity or poor psychological adjustment (Mischel, 1961).

While Mischel was at Stanford University, he also collaborated with Bandura. Blending the interests of both men, they examined whether observing models would affect children’s choices regarding immediate vs. delayed gratification. They identified two groups of children (both boys and girls) as preferring either immediate gratification (a small candy bar now) or delayed gratification (a larger candy bar later). The children were then exposed to either a live model choosing the alternative strategy, a symbolic model (a description of an adult choosing the alternative), or no model. As expected, exposure to a model choosing the alternative strategy dramatically affected the behavior of the children, and a live model was more effective than the symbolic model. The effects of this modeling appeared to be quite persistent (Bandura & Mischel, 1965). Considering the importance that modeling can play in developing the ability to delay gratification, it is perhaps easy to see why children in families lacking a complete and stable family structure don’t develop self-control as well as other children.

discussion question \(\PageIndex{3}\)

Mischel’s most famous contribution is the concept of delayed gratification. How good are you at waiting for gratification? Are some rewards easier to wait for than others? If you know anyone who is significantly different than you, either wanting immediate gratification or being able to delay it without much trouble, does the difference between you create any problems or interesting situations?

The Cognitive-Affective Processing System (CAPS)

More recently, Mischel has turned his attention to solving what has been called the “personality paradox.” How do we reconcile our intuition and theories that personality is relatively stable with the overwhelming evidence that personality varies across different situations? Mischel proposes a dynamic personality system that takes into account both: (1) the behavioral consistency that accounts for specific scores on trait tests and indicates what the individual is like in general; and (2) the consistency in how an individual varies across different situations. This consistency of variation is recognized by distinct patterns of if…then… relationships, which are characteristic of the individual’s overall personality (Mischel, 2004).

In 1995, Mischel and Shoda first presented this dynamic approach to understanding personality, referring to it then as the cognitive-affective personality system, but now preferring the term **cognitive-affective processing system** (CAPS; Mischel, 2004; Mischel & Shoda, 1995/2000; Shoda, Leetieman, & Mischel, 2002). Over a number of years, Mischel, his students, and his colleagues studied children extensively in a residential summer camp. They observed both behaviors and the situations in which they occurred. Over time, they were able to identify patterns of if…then… situation-behavior relations that reflected distinctive and stable characteristics of each child’s behavior organization. These observations, therefore, gave rise to **situation-behavior profiles** for each child. It is essential to recognize, however, that the term “situation” in these studies does not refer to simple environmental stimuli, as they might for a behaviorist such as B. F. Skinner. Instead, these situations activate a whole set of internal reactions, including cognitive and emotional elements. They are also not limited to the external world; they can be generated in thought, fantasy, planning, etc. Accordingly, Mischel and Shoda referred to these personality variables as **cognitive-affective units** (or CAUs). These CAUs include
encodings, expectancies and beliefs, affects, goals and values, and competencies and self-regulatory plans.

Mischel and Shoda (1995/2000) did not neglect the individual's development in this theory. Our ability to recognize distinct aspects of the environment are influenced by genetic/biological factors, cultural factors, and the interactions between them. These genetic/biological/cultural factors also influence the CAPS, as does our social learning history. In a sense, bringing all of these factors together begins to move us beyond the person-situation debate, since both sides of the debate are correct in the proper context. The future of personality theory may lie in an as yet undetermined synthesis of these perspectives (Fleeson, 2004). For now, according to Mischel, this dynamic approach to understanding personality has at least helped to bring together the major aspects of different schools of personality theory:

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 becomes activated when the individual encounters relevant situational features. (pg. 170; Mischel & Shoda, 1995/2000)