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# Attitudes: Introduction and Scope

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## ATTITUDES: DEFINITIONS, PROCESSES, AND THEORIES

Human beings react to their environments in an evaluative fashion. They love and protect their kin and strive to maintain positive evaluations of themselves as well as those around them. They evaluate others' attractiveness. They also evaluate and select leaders, decide how to spend their resources, and plan for the futures they envision. Such covert and overt actions often involve judgments about whether objects, events, oneself, and others are favorable or unfavorable, likeable or unlikeable, good or bad. Scholars who study attitudes investigate factors involved in these evaluations: how they are formed, changed, represented in memory, and translated into cognitions, motivations, and actions.

In this introductory chapter, we first discuss the nature of attitudes and then the organization of this handbook. Scholars have investigated many different constructs related to attitudes using many different theoretical frameworks and methods. The constructs that investigators have studied often concern affect, beliefs, and (overt) behaviors. *Affect* entails the feelings that people experience and may or may not concern a particular object or event (Berkowitz, 2000). *Beliefs* are cognitions about the probability that an object or event is associated with a given attribute (Fishbein & Ajzen, 1975). *Behaviors* are typically defined as the overt actions of an individual. Each of these individual phenomena is central to the dynamic forces that form and transform existing attitudes. Similarly, attitudes have a reciprocal impact on affects, beliefs, and behaviors. It is this matrix of reciprocal attitudinal forces that constitutes a major portion of this handbook.

Before providing a more extensive introduction to the matrix of reciprocal attitudinal relations and the rationale for its use, we first discuss definitions of the attitude concept itself and distinguish attitudes from affects, beliefs, and behaviors. We continue by explaining why attitudes are not necessarily stable entities. We then discuss the rationale for the volume's organization and introduce each chapter. The organization of the volume is centered around basic phenomena that attitudes scholars consider conventional relations rather than on a particular

singular theoretical viewpoint. Nonetheless, theories play a central role within each chapter of this volume.

## THE NATURE OF ATTITUDES

### Defining Attitude

A handbook is a collective enterprise. Consequently, reaching definitions that satisfy all contributors and readers is as difficult as it is indispensable. It is difficult because hundreds of definitions exist. It is indispensable because, to develop a handbook of attitudes, contributors must know the range of phenomena they might cover and precisely conceptualize the processes at stake. Eagly and Chaiken (1993) provided what may be the most conventional contemporary definition; specifically, an “*attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor*” (p. 1, emphasis in original). The contributors to the current volume have embraced evaluative aspects as central to the topic, as have prominent other treatises on the subject (e.g., Eagly & Chaiken, 1998; Zanna & Rempel, 1988). Although definitions may have varied somewhat across time, if one inspects how scholars have operationalized the concept of attitude across the field’s history, evaluative aspects have always played a prominent role (e.g., Bogardus, 1931; Fishbein & Ajzen, 1975; Hovland, Janis, & Kelley, 1953; Katz, 1960; Osgood, Suci, & Tannenbaum, 1957; Petty & Cacioppo, 1981, 1986; Petty & Wegener, 1998; Sherif & Hovland, 1961; Thurstone, 1928).

The study of attitudes includes both the judgments that individuals form online (Schwarz & Bohner, 2001) as well as the evaluative representations in memory (Fazio, 1986). If the term *attitude* were reserved only to refer to stable structures in memory, excluded would be all the work in which researchers verify only temporary changes on an attitude scale, as well as an impressive amount of research on context effects in the study of attitudes. Moreover, conceptualizing attitudes as *memories* but not *judgments* could possibly exclude the literature on attitude formation and change, because these literatures concern the observation of judgmental outcomes much more often than they involve measures of memory. Thus, attitudes can be judgments, memories, or both.

A good definition of a construct must not only be general but also sufficiently discriminating. After all, there are multiple levels of generality and almost all definitions could be represented at an even more abstract level. Consider the definition of beliefs as the perceived likelihood that an attribute is associated with an object (e.g., Fishbein, 1963). For instance, I may believe that Coca-Cola is sweet or that my country is now in a state of military alert. An examination of the deep structure of attitudes makes it clear that one could also define attitudes as beliefs (see Kruglanski & Stroebe, this volume; Wyer & Albarracín, this volume). Thus, a favorable attitude toward social psychology might be defined as the perceived probability that the object *social psychology* is positive or negative (Wyer, 1974).

Because attitudes and beliefs are at some level both categorizations, one could argue that treating them as indistinct would make for a more compact definition. Indeed, compactness was one of our explicit objectives in initiating this handbook. Nonetheless, we also had the conflicting objective to reach sufficiently discriminating definitions so that one could distinguish between categories that have different properties and, often, different outcomes. In this fashion, the concepts may appear to differ phenomenologically with some consensus. For instance, although a *belief* and an *attitude* are both categorizations, and all categorizations can be conceptualized as a probability assignment, Eagly and Chaiken (1993) noted that at least some beliefs can be verified or falsified with external, objective criteria, whereas attitudes have more

difficulty facing such criteria. For instance, the belief that water freezes at 0 degrees Celsius can be verified by agreement among different individuals. Sampling individuals from different groups should have little influence on the extent to which this belief is verified in light of external evidence. Yet few attitudes could withstand the same intersubjective validation. Most social attitudes, such as political, aesthetic, or consumer preferences, are largely variable across judges. A prominent exception is people's judgments of targets' physical attractiveness, which typically show very high reliability across judges (e.g., Bersheid & Walster, 1974). Hence, some attitudes will exhibit a high degree of social consensus, which some might interpret as representing social reality. It is important to note that even among the most agreed-upon attitudes we would find notable exceptions. To take another example, although most human beings are afraid of snakes or apprehensive about heights, people who have pet snakes enjoy them as much as skydivers are fond of heights.

Similarly, attitudes can be distinguished from affective reactions in that affective reactions are not necessarily tied to a particular entity. Of course, it is common to equate how one feels about an object with one's evaluation of it. Yet, there are several reasons to distinguish attitudes from affect *per se*. Perhaps the most important one is that affect is often a powerful basis for attitudes (see Wyer & Srull, 1989). Defining these two concepts as identical thus creates logical complications that we and the other contributors hoped to avoid (see Schimmack & Crites, this volume). In addition, it appears that affect and evaluation are distinct in their actual phenomenology. For example, one might experience a pleasant sensory affect (see Schimmack & Crites, this volume) if one walks by a bakery while on a diet, yet still feel apprehensive toward cookies because of their unfortunate fattening side effects. This example, and many similar ones that attitudinal ambivalence scholars have long studied (see Fabrigar, MacDonald, & Wegener, this volume) would be difficult to conceptualize if one equated attitudes and affect.

Similarly, several positions have emerged that explicate the components of attitudes. Most notably, scholars have classified different types of attitude responses as well as different types of information that can serve as bases for attitudes. For instance, Katz and Stotland (1959) proposed that attitudes encompass cognitive, affective, and behavioral components. Eagly and Chaiken's (1993, 1998) more contemporary analyses of this literature concluded that these components best represent the types of responses that allow researchers to diagnose attitudes. Moreover, people form attitudes on the basis of their cognitive, affective, and behavioral responses to an entity (Eagly & Chaiken, 1993, 1998; Zanna & Rempel, 1988). Regardless of the origins of attitudes, the term *attitudes* is reserved for evaluative tendencies, which can both be inferred from and have an influence on beliefs, affect, and overt behavior. Treating attitudes in a similar fashion, the contributors to this volume have analyzed the mutual relations of these evaluations with beliefs, affect, and behavior. Thus, affect, beliefs, and behaviors are seen as interacting with attitudes rather than as being their parts.

### Psychologically Positioning Attitudes: Why Attitudes Need Not Be Stable

There is another important distinction in defining attitudinal phenomena that concerns the level or psychological location of the mental representation of the attitude. Specifically, attitudes can be represented in permanent memory or manifest themselves as more temporary states of consciousness. For instance, one may retrieve a well-defined memory of liking strawberry ice cream whenever ice cream becomes relevant. Yet, the judgment that one likes ice cream at one particular point is not identical to the representation stored in one's memory. Instead, the judgment represents the translation or instantiation of the memory into a conscious evaluation of ice cream at that particular point. Although the current judgment may derive directly from one's

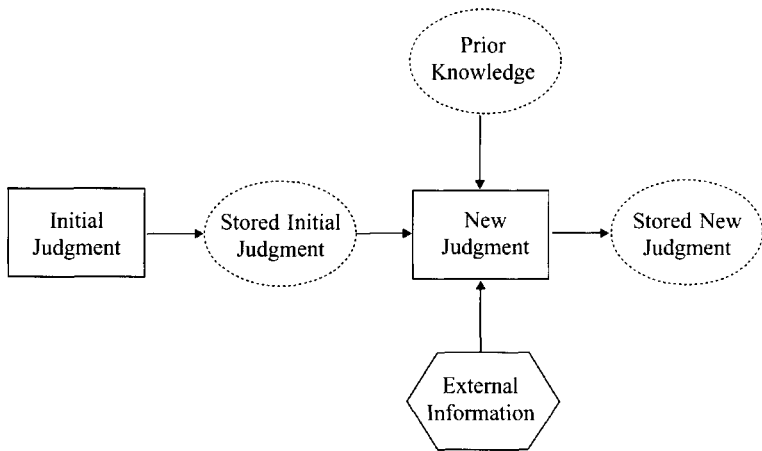


FIG 1.1. Attitudes depicted as judgments influenced by external information, the memory of past judgments, prior knowledge, and stored new judgments.

memory of a prior judgment, people often form judgments on the basis of information that is temporarily available to them because the information is externally salient and/or momentarily accessible in memory (see, e.g., Higgins, 1996). To this extent, people’s evaluations of an object can be represented in permanent memory or as judgments that individuals compute in an online fashion at the time the evaluation becomes relevant. Therefore, although we differentiate attitudes from affect, beliefs, and behavior, our definition of attitudes is inclusive enough to encompass both stable, memory-based evaluations, and online, temporarily constructed ones.

Figure 1.1 depicts the possibility that people’s initial judgment about an object may be stored for later use. The representation of that evaluative judgment in permanent memory, however, is distinct from the initial judgment performed online and from later judgments that one can possibly form after recalling the initial judgment. One kind of representation exists in a latent, stored fashion (see dotted contours), even when people are currently unaware of it (see Krosnick, Judd, & Wittenbrink, this volume). The other type of representation, the judgment, only exists in consciousness or working memory (solid contours), either after retrieving an old judgment or computing a new one on the basis of a prior judgment or other information that is accessible in memory or externally supplied.

ORGANIZATION OF THE HANDBOOK OF ATTITUDES

The chapters in this handbook clearly show that the attitudes field is vast and diverse on both methodological and conceptual grounds, accumulating over 80-plus years. The field is concerned with a variety of phenomena that occur as a result of the interaction between individuals and the society in which they live. These phenomena take place in the hearts and minds of the individual members of a society, but also across interpersonal communications and in the context of cultural and social representations that transcend the individual. For example, people’s attitudes are generally the result both of relatively long-term processes such as socialization and of relatively short-term exposures to information in the environment. Some attitudes may even be inherited (e.g., Tesser, 1993). These inputs undergo sequential transformations that give way to individual and social affective reactions, beliefs, attitudes, and overt actions. These cognitions and behaviors acquire a life of their own and interact dynamically, generating and

receiving influences in a mutual, ever-changing cycle. This dynamic has different degrees of consciousness, going from largely deliberate processes to subtle mechanisms of control that may lie completely outside of awareness.

Theories remain important in contemporary studies of attitude, perhaps even more important than they have been in the past. Yet because the numerous attitudes theories do not necessarily make the same predictions about attitudinal phenomena nor even concern the same phenomena and because there is no one theory with hegemony over the field, it would be misleading to use any single theoretical approach to organize all knowledge about the topic. Instead, the contributors to the current volume have kept as a distinct philosophy a fair treatment of the theoretical diversity relevant to the attitudinal phenomenon under consideration.

## Methodological Considerations

Regardless of which theories scholars use to explore attitudinal phenomena, central to the endeavor is the use of scientific methods to provide observations that may be confirmed and extended by other scholars. Where relevant, each of the chapters in this volume considers methods of import. Most centered on methodological aspects is Jon Krosnick, Charles Judd, and Bernd Wittenbrink's chapter, which thoroughly reviews classic and contemporary measurement methods in the area of attitudes, including an insightful analysis of the advantages and disadvantages of each procedure. The chapter is unique in its concentration on the processes by which attitudes are expressed. Exemplifying this focus is their framework describing the cognitive processes that generate an attitudinal evaluation as well as other response tendencies. Krosnick and colleagues use this framework to derive various important recommendations for the optimal measurement of attitudes. Following this chapter are a series of chapters analyzing reciprocal causal relations of attitudes with affects, beliefs, and behaviors, and the structural features of each of these four phenomena. We introduce these chapters next, before introducing the concluding series of chapters that systematically describe ways in which the phenomena in earlier chapters can be integrated.

## Chapters on Individual Attitudinal Phenomena—A *Matrix* of Attitude Relations

A central organizing principle of the handbook is the matrix depicted in Table 1.1, which includes general *causes* and *effects* relevant to attitudes. Similar to a correlation matrix, the cells off the diagonal are heterocorrelations and on the diagonal are autocorrelations. Thus, the different cells in Table 1.1 depict possible causal influences of (a) attitudes on affective reactions, beliefs, and behavior, (b) behavior on affective reactions, beliefs, and attitudes, (c) beliefs on affective reactions, attitudes, and behavior, and (d) affective reactions on beliefs, attitudes, and behavior. The upper and lower triangles of the matrix are mirror images of each other, reversing the direction of the causal relation. Most of these influences are described in the body of this handbook; others receive indirect coverage. In addition, the diagonal of the matrix comprises the structure of affective reactions, beliefs, attitudes, and behavior, or in other words, the way in which each psychological component is organized. These chapters on structure correspond to the diagonal cells in the matrix and address the way each psychological component is organized as well as the factors that influence the entire group of components. Table 1.1 also summarizes topics relevant to the matrix cells.

The heart of the handbook is a series of chapters that focus sequentially on the processes involving the reciprocal relations of affect, beliefs, and behaviors with attitudes, and the structure of each component. Goals are often considered simultaneously with beliefs, consistent with

TABLE 1.1

A Matrix of Psychological Attitude-Relevant Influences; Entries on the Diagonal Consider the Structure of the Variable in the Headings

	<i>Variable</i>			
	<i>Attitudes</i>	<i>Behavior</i>	<i>Beliefs</i>	<i>Affect (feelings)</i>
<i>Attitudes</i>	<p>Chapter 3 <i>The Structure of Attitudes</i></p> <ul style="list-style-type: none"> <li>– Relations among attitude structure, strength, and function</li> <li>– Types of attitude-structure (intra-attitudinal vs. inter-attitudinal structure and ideology)</li> <li>– Properties of attitude structure and their impact on attitude stability, resistance to change, attitude-behavior consistency, and information processing</li> <li>– Processes underlying the role of structure in judgment making and attitude stability</li> </ul>	<p>Chapter 5 <i>The Influence of Attitudes on Behavior</i></p> <ul style="list-style-type: none"> <li>– Attitude-behavior relationship and its moderators</li> <li>– Selective attention and exposure</li> <li>– Distal and immediate predictors of behavior</li> <li>– Multidimensionality of attitudes and evaluative inconsistency</li> <li>– Prediction of behavior from implicit and explicit attitudes</li> <li>– Attitude-behavior theories</li> <li>– Past behavior and habit</li> <li>– Changing behavior through persuasion</li> </ul>	<p>Chapter 9 <i>The Influence of Attitudes on Beliefs</i></p> <ul style="list-style-type: none"> <li>– Expectancy-value models</li> <li>– Social-judgment theory</li> <li>– Motivated reasoning</li> <li>– Wishful thinking</li> <li>– Thought introspection and attitude polarization</li> <li>– Inferring beliefs from attitudes (congruency)</li> <li>– Attitude-belief effects</li> <li>– Biased perception, processing, retrieval, and attitude-induced distortion in beliefs</li> <li>– Cognitive consistency, emergence of thought systems</li> </ul>	<i>The Influence of Attitudes on Affect</i>
<i>Behavior</i>	<p>Chapter 6 <i>The Influence of Behavior on Attitudes</i></p> <ul style="list-style-type: none"> <li>– Cognitive dissonance, biased scanning, role-playing, self-perception, reactance, impression management, self-affirmation, selective exposure, automaticity, reasoned and automatic influences</li> <li>– The role of individual difference (e.g., preference for consistency, attributional complexity)</li> <li>– Paradigms and theories of cognitive dissonance</li> </ul>	<p>Chapter 4 <i>The Origins and Structure of Behavior</i></p> <ul style="list-style-type: none"> <li>– Types and structure of behavior</li> <li>– Relationship between past behavior (habit), current behavior, and future behavior</li> <li>– Prediction vs. postdiction of behavior</li> <li>– Methodological and data-analytic issues in research on behavior</li> <li>– Distal and proximal determinants of behavior</li> </ul>	<i>The Influence of Behavior on Beliefs</i>	<i>The Influence of Behavior on Affect</i>

Beliefs	<p>Chapter 8 <i>The Influence of Beliefs on Attitudes</i></p> <ul style="list-style-type: none"> <li>– Relations among attitudes, beliefs, and goals in the context of attitude structure, functions, and dynamics</li> <li>– Attitudes, goals, and beliefs as knowledge structures</li> <li>– Belief-based models of attitudes</li> <li>– Ambivalence, dimensionality, mere exposure, conditioning, conformity</li> <li>– Current theorizing on persuasion</li> <li>– Majority and minority influence</li> <li>– Motivated reasoning</li> </ul>	<p><i>The Influence of Beliefs on Behavior</i></p>	<p>Chapter 7 <i>The Structure of Beliefs</i></p> <ul style="list-style-type: none"> <li>– Definition, structure, acquisition, and change of beliefs</li> <li>– Theories of belief organization and change</li> <li>– Computation and motivational processes from which beliefs emerge</li> <li>– Inference, comprehension, and memory processes in belief formation and change</li> <li>– Heuristic and motivational bases of belief formation and change</li> </ul>	<p><i>The Influence of Beliefs on Affect</i></p>
Affect (feelings)	<p>Chapter 11 <i>The Influence of Affect on Attitudes</i></p> <ul style="list-style-type: none"> <li>– The role of affect in attitude formation and persuasion</li> <li>– Dimensions of affective experience (valence and arousal) and attitudes</li> <li>– Mood effects on judgment, affect-as-information, affect-as-evidence</li> <li>– Role of emotion and mood in styles of thinking or processing</li> <li>– Unconscious affective influences on attitudes</li> <li>– Affect and the use of category information (stereotyping)</li> <li>– Affect and evolutionary perspectives</li> </ul>	<p><i>The Influence of Affect on Behavior</i></p>	<p><i>The Influence of Affect on Beliefs</i></p>	<p>Chapter 10 <i>The Structure of Affect</i></p> <ul style="list-style-type: none"> <li>– Operationalization and conceptualization of affect in attitude research</li> <li>– Unconscious and conscious affective experiences</li> <li>– Types of affective experiences and their origins and implications for attitudes</li> <li>– Frequency, intensity, and duration of affective experiences</li> <li>– Conditioning, mere-exposure, mood-as-information</li> <li>– Representation of affect in memory</li> <li>– Recent findings in affective neuroscience</li> </ul>

*Note:* Each cell off the diagonal refers to a causal combination of the attitudes, behavior, beliefs, and affect (feelings) variables. Shaded cells indicate phenomena with only indirect coverage in this handbook.



trends in recent research. As relevant, each set of authors discuss theories for their attitudinal phenomena. The dimensions that organize the handbook and the specific interactions they generate have charted some new territory. For example, as we describe in the following sections, attitude researchers have conceptualized the interrelations among beliefs, affect, attitudes, and behavior. Yet researchers have rarely considered the degree to which an extant attitude biases subsequent affective reactions. Therefore, the challenge of the handbook was sometimes to identify research outside of the writers' domain, extrapolate findings, generate a relatively complete line of facts and hypotheses about the issues at stake, and encourage future research (see, e.g., Marsh & Wallace, this volume). Research conducted in other fields (e.g., political behavior, intergroup relationships, mental health) and research not surveyed in prior books of attitudes was also useful in achieving this synthesis (see, e.g., Ottati, Edwards, & Krundick, this volume).

*Chapter 3. The Structure of Attitudes (Fabrigar, MacDonald, & Wegener).* As we previously discussed, attitudes impute some degree of favor or disfavor to an entity (Eagly & Chaiken, 1993). They are sometimes relatively isolated from other representations and other times tightly connected with other attitudes forming an ideology. There are already wonderful reviews of attitude structure in the literature (see Eagly & Chaiken, 1993, 1998), but Leandre Fabrigar, Tara MacDonald, and Duane Wegener's chapter concentrates on the specific structure of attitudes (Fazio, 1986; Judd & Kulik, 1980; Kerlinger, 1984; Ostrom, 1989; Sherif & Hovland, 1961) and its properties, including strength, accessibility, importance, and confidence. Finally, this chapter addresses attitude complexity, general principles of change in attitude structure, and awareness of attitude structure.

*Chapter 4. The Origins and Structure of Behavior: Conceptualizing Behavior in Attitude Research (Jaccard & Blanton).* As James Jaccard and Hart Blanton review, the field of attitudes is particularly fascinating in recent years because it attempts to understand behavior outside of awareness as well as conscious and goal-directed behavior (see, e.g., Bargh, 1997; Vallacher & Wegner, 1985; Wegner, 1994). Despite the current interest in behavior, there are still limitations to our understanding of behavioral processes. For example, how many behaviors compose the act of smoking? What is the structure of behaviors, and how do the perception and recall of behaviors operate (see, e.g., Nisbett & Borgida, 1975; Schank & Abelson, 1977)? How do people determine that they consistently engage in a behavior? When people determine that they have performed a behavior, do they use habitual behavior as information, or do they simply use past behaviors that are salient at a given time?

*Chapter 5. The Influence of Attitudes on Behavior (Ajzen & Fishbein).* It seems obvious that people's attitudes are likely to orient their behavior in the future (Allport, 1935; but see LaPiere, 1934; Wicker, 1969). If one likes a given brand of coffee, one should then be more likely to select that brand over others. The issues surrounding the relation between attitudes and behavior are, however, more complex. As Icek Ajzen and Martin Fishbein review, over the years, researchers have identified numerous factors that moderate the size of the attitude-behavior association, including such factors as prior experience, confidence, accessibility, and attitude change. In addition, an effort to further theorize the mechanisms involved in the attitudinal control of behavior seems desirable. Finally, the attitude-behavior relation includes attention and exposure to information, such as search strategies that may sometimes be directed by people's preferences (Frey, 1986).

The field has known for some time that people's attitudes and intentions serve as a basis for the behaviors they manifest (see Dulany, 1968; Fishbein & Ajzen, 1975). In addition, unconscious attitudes may have the same effects depending on the circumstances in which they are

activated (Bargh, 1997; Wilson, Lindsey, & Schooler, 2000). Both conscious and nonconscious attitudes are likely to guide behavior provided external factors allow for implementation of those actions. Self-efficacy and control beliefs may have similar effects, both because of their motivational effects and as reflections of environmental obstacles and facilitators (Ajzen, 1991). In addition, people's self-serving goals are important. For example, people's goals may create a barrier between their attitudes and behaviors, as when individuals privately disagree with a given advocacy but publicly comply in order to save face (see, e.g., Kelman, 1961; Nail, 1986).

*Chapter 6. The Influence of Behavior on Attitudes (Olson & Stone).* How do people form attitudes about their past or imagined behaviors? Are these attitudes formed by associations, as Ajzen and Fishbein (2000) maintained? Or are they the result of more reasoned observations about the effects of their actions (see e.g., Zanna & Cooper, 1974)? As James Olson and Jeff Stone's chapter reveals, there is extensive research on how the actions that people take influence their rationalizations of these attitudes. For example, the theory of cognitive dissonance (Festinger, 1957) maintains that people who become aware that they have behaved in a way that conflicts with their beliefs rationalize their behavior by generating attitudes in support of the behavior. In addition, the attitudes that individuals generate on the basis of their past behavior may sometimes be the result of more passive mechanisms. Thus, Janis and King (1954) postulated that people who engage in a behavior can use that behavior as a basis for a memory search. Consequently, they are likely to retrieve prior beliefs that are consistent with their behavior, and these beliefs influence the attitudes (Albarracín & Wyer, 2000).

Furthermore, self-perception theory (Bem, 1965, 1972) postulates that when individuals need to report an attitude, they often infer it from the implications of a past behavior that happens to be salient to them at the time. Yet, people may not reach this conclusion if they feel that they were forced to perform the behavior (Brehm, 1966). Other possible effects of past behavior are worth considering. For example, attention to a past behavior may increase the accessibility of a strongly held attitude with which this behavior is associated (see Fazio, 1986, 1990). Thus, both reasoned and automatic mechanisms may underlie the influence of behavior on attitudes.

*Chapter 7. Beliefs Formation, Organization, and Change: Cognitive and Motivational Influences (Wyer & Albarracín).* Beliefs are cognitions about the probability that an object or event is associated with an attribute (Fishbein & Ajzen, 1975). As Robert Wyer and Dolores Albarracín review in their chapter, the structure and formation of beliefs have been addressed over the course of several decades by various researchers, including Asch (1952, 1956), Kelley (1967), McGuire (1968) and Sherif (1935). Other theories have analyzed the organization of knowledge and beliefs in memory, although the storage of beliefs as such may be more rare than it seems (Wyer & Radvansky, 1999). Abelson (1959) and McGuire (1964) have analyzed how conflict among beliefs can be reconciled and how conflict sometimes induces the persistence of one's beliefs over time. Of course, this chapter addresses various other questions as well, such as: What is the narrative structure of beliefs and implicit theories? How do beliefs change? (see, e.g., Heider, 1946)? What is the role of statistical reasoning and biases in belief formation (see Nisbett, Krantz, Jepson, & Kunda, 1983; Ross, Greene, & House, 1977; Tversky & Kahneman, 1973)? And, how do goals and motivational processes influence beliefs?

*Chapter 8. The Influence of Beliefs and Goals on Attitudes: Issues of Structure, Function, and Dynamics (Kruglanski & Stroebe).* Following other expectancy-value analyses (e.g., Carlson, 1956; Peak, 1955), Fishbein and Ajzen's (1975; see

also Anderson, 1981) theory of reasoned action asserts that the attitude toward the behavior is a function of subjectively weighting the evaluative implications of each possible outcome  $i$  of the behavior ( $e_i$ ,  $i = 1, \dots, n$ ) by the belief that this outcome  $i$  will occur ( $b_i$ ,  $i = 1, \dots, n$ ), and then summing these weighted evaluations. Similarly, extrapolating Greenwald's (1968) cognitive-response framework, Petty and Cacioppo (1986) also argued that thoughts about an issue can influence people's attitudes, provided that they have the ability and motivation to think about the issues being considered. Other theories have elaborated on the way in which different kinds of beliefs influence attitudes. For example, Deutsch and Gerard (1955) argued that people may form positive attitudes about an issue because they are convinced that there is evidence in support of the issue or as a result of changes in normative beliefs.

In this chapter, Arie Kruglanski and Wolfgang Stroebe use attitude *structure*, *function*, and *dynamics* to examine social psychological research on the influences of beliefs and goals on attitudes. According to Kruglanski and Stroebe, attitude structure, functions, and dynamics have typically been treated as separate and as though they are concerned with rather different issues. Given that attitudes, goals, and beliefs are to some extent knowledge structures, their functions and dynamics are also isomorphic. In this context, the authors review such diverse past and contemporary work as expectancy-value models, information integration theory, probabilistic models, mere exposure and conditioning phenomena, the elaboration likelihood model, and the unimodel.

*Chapter 9. The Influence of Attitudes on Beliefs: Formation and Change (Marsh & Wallace).* Expectancy-value models assert that beliefs and the evaluations that are associated with them are the informational basis for attitudes (Carlson, 1956). Yet, plenty of other work highlights the reciprocal influences of attitudes on beliefs, as Kerry Marsh and Harry Wallace review in this chapter. For example, McGuire (1960, 1990) has long argued that people often believe that positive events are likely to happen and negative events are unlikely to take place, and Rosenberg (1956) demonstrated that changing the value of an event can alter the subjective probability of that event. There is also fascinating evidence of the effects of justifying attitudes on the generation of beliefs. For instance, Wilson and his colleagues (see e.g., Wilson, Dunn, Kraft & Lisle, 1989) argued that, when people are first asked to think about reasons for liking or disliking an object, they generate criteria that seem plausible and easy to articulate and then change their attitudes to make them consistent with these reasons. Similarly, Tesser (1978) has reported that thinking about an issue generally yields a polarization of attitudes toward that issue. Nonetheless, after the passage of some time, people may return to the original basis for their attitudes and regret decisions guided by their reason-based attitudes (Wilson & Hodges, 1992; Wilson & Schooler, 1991).

Traditionally, attitudinal models focused on the effects of beliefs on attitudes (see Kruglanski & Stroebe, this volume). Consequently, much less is known about the causal relation linking attitudes to beliefs. Nonetheless, Marsh and Wallace convincingly demonstrate that this part of the equation deserves more attention. In general, attitudes exert biasing effects on beliefs, such that people accept or revise their beliefs about attributes of the attitudinal object to make them congenial with their attitudes. These biases are pervasive and obey both cognitive and motivational principles. Marsh and Wallace close their chapter with speculation about the conditions that strengthen or weaken attitude-belief congruence effects.

*Chapter 10. The Structure of Affect (Schimmack & Crites).* Without a doubt, people experience affect and this experience guides their cognitions, attitudes, and behavior, as Ulrich Schimmack and Stephen Crites review in their chapter. *Affect* concerns the feelings that people experience and may or may not concern a particular object or event (Berkowitz, 2000). Affect is presumably organized along dimensions of arousal and valence (Watson &

Tellegen, 1985), although this conceptualization is not without controversy. For example, an important question in relation to the structure of affect is whether positive and negative affect are two poles of the same construct or, instead, orthogonal dimensions. Furthermore, to what extent is it necessary to distinguish among different emotions to understand attitudes? How is affect represented in memory? How does affect change over time? How can we induce affective change over time? How and when do people become aware of their affective experience?

*Chapter 11. The Influence of Affect on Attitudes (Clore & Schnall).* People's responses to the affect they experience are both reflex-like and voluntary, as Gerald Clore and Simone Schnall examine in this chapter. For example, sensory inputs like taste or exposure to heights can trigger visceral reactions, and these reactions can automatically induce avoidance. Many of these hard-wired responses are the result of evolutionary influences. In addition, affect arising from any reaction to the environment, including mere exposure to an attitude object (Zajonc, 1968), can influence attitudes. In this regard, Schwarz and Clore (1983) postulated that people are inclined to misattribute their mood states to the object they are asked to judge. As a consequence of this misattribution, people rely on a how-do-I-feel-about-it heuristic to infer their attitudes toward the other persons, things, and events they encounter. There are, however, other mechanisms that may underlie the influences of one's affective reactions on one's attitudes (see, e.g., Festinger, 1957; Forgas, 1995; Hovland et al., 1953; Kaplan & Anderson, 1973). For example, Hildum and Brown (1956; see also Insko, 1965) were able to condition people to form positive attitudes toward an issue when the interviewer's nonverbal reactions were positive, and negative attitudes when the interviewer's subtle feedback was negative. Research on the potential mechanisms of this effect has accumulated over the years, suggesting that at least some of these influences do occur outside of awareness. As the chapter describes, however, the role of awareness in this domain remains controversial. Individuals may scrutinize information more carefully when they experience negative affect than when they experience positive affect (Schwarz & Clore, 1996; Worth & Mackie, 1987), an issue that this chapter also examines.

## Integrative Chapters on Attitudinal Phenomena

The matrix chapters examine with great detail a particular attitudinal phenomenon. However, many theories of attitudes address general principles that apply to a variety of pairs of variables at a time and thus may appear in a variety of cells within the matrix. For example, self-perception (Bem, 1965, 1972) and affect-as-information (Schwarz & Clore, 1983, 1996) mechanisms were initially linked to attitudes but also apply to beliefs. Similarly, Wyer and Srull (1989) or Fazio (1986) have used associative network models to represent the structure of beliefs *and* attitudes. Similar conceptualizations could be used to understand more complex arrays of affect, beliefs, attitudes, and behavior.

Other such principles include conditioning, cognitive consistency, drive reduction, and incentives. These ideas cut across most cells of the matrix as they are relevant to all issues of structure and relations involving affect, beliefs, attitudes, and behavior (see Johnson, Maio, & Smith-McLallen, this volume; Ottati et al., this volume; Wegener & Carlston, this volume). More recent ideas about parallel distributed processing (Carlston & Smith, 1996; Smith, 1996, 1998) may also explicate a variety of the relations represented in the matrix. To this extent, Bassili and Brown's chapter in this volume serves to highlight the degree to which these distributed perspectives can contribute to our understanding of implicit phenomena and attitude stability or instability. Similarly, the theories of reasoned action and planned behavior (Ajzen & Fishbein, 1980; Ajzen, 1991) postulate influences that are relevant to various associations among beliefs, attitudes, and behavior and also to various domains (see Johnson et al., this volume; Kruglanski & Stroebe, this volume; Ottati et al., this volume; Prislín & Wood, this

volume). Other such models include McGuire and McGuire's (1991) theory of thought systems, which describes the complex relations among probability and desirability judgments, as well as the elaboration likelihood (Petty & Cacioppo, 1986) and the heuristic systematic models (Chaiken, 1980; Chaiken, Liberman, & Eagly, 1989), which describe effects of beliefs on attitudes (e.g., *central route*; systematic and heuristic processing) and of affect or behavior on attitudes (*peripheral route*; see Briñol & Petty, this volume; Fabrigar et al., this volume). In a similar vein, Fazio (1990) maintained that either elaborative or nonelaborative processes may trigger behavior depending on the extent to which people think about their behavior at a given time and the degree of behavior automaticity (see also Ouellette & Wood, 1998, and Jaccard & Blanton, this volume). This line of theorizing has been extremely influential in recent decades, as the chapter by Wegener and Carlston reveals across several domains. Finally, various conceptualizations that have emerged in the last decade (Albarracín, 2002; Albarracín, Wallace, & Glasman, 2004; Kruglanski & Thompson, 1999; Petty, Briñol, & Tormala, 2002) promise to illuminate topics that cut across this book.

*Chapter 12: Cognitive Processes in Attitude Formation and Change (Wegener & Carlston).* An understanding of cognitive processes underlies theorizing about attitudes. Duane Wegener and Donal Carlston discuss these following the notion of *elaboration continuum*, which serves to organize contemporary models of persuasion including: the elaboration likelihood model (Petty & Cacioppo, 1986), heuristic-systematic model (Chaiken, Liberman, & Eagly, 1989), and the unimodel (Kruglanski & Thompson, 1999). The chapter also reviews recent developments regarding longstanding questions such as "how do people make attitudinal judgments?" and "how are evaluative judgments represented in memory?"

*Chapter 13: Implicit and Explicit Attitudes: Research, Challenges, and Theory (Bassili & Brown).* Most research on attitudes has addressed people's explicit attitudes, defined as self-reports. Recent research, however, has revealed that people's thoughts and behaviors depend on implicit psychological processes (for a review, see Greenwald & Banaji, 1995). Implicit attitudes are typically defined as automatically activated evaluations with unknown origins (Wilson, Lindsey, & Schooler, 2000). In their chapter, John Bassili and Rick Brown identify a need for theoretical reconciliation between implicit and explicit modes of attitude experience and expression. In response to this challenge, they first examine current theories of attitudes and then introduce a potentiated recruitment model as an integrative framework to reconcile prior empirical discrepancies.

*Chapter 14: Individual Differences in Attitude Change (Briñol & Petty).* No matter how much attitude and attitude components interrelate (Table 1.1), there are still many other individual differences that may influence attitudes. For example, the need for cognition (Cacioppo, Petty, Feinstein, & Jarvis, 1996; Cacioppo, Petty, Kao, & Rodriguez, 1986) determines the extent to which individuals analyze information in an effortful fashion. People who score high in this trait form attitudes on the basis of their beliefs about the information validity to a greater extent than individuals with low need-for-cognition scores. Similarly, Jarvis and Petty (1996) found that people's chronic tendencies to evaluate information predict attitude strength. The need to evaluate as well as dogmatism (Rokeach, 1954) and the need for closure (Webster & Kruglanski, 1994) may influence other structural properties of attitudes as well. For example, dogmatism concerns the extent to which people make clear-cut distinctions between beliefs and disbeliefs, which in turn refers to the polarization and complexity of the attitude structure. In any event, Pablo Briñol and Richard Petty's chapter considers personality, cognitive style, and demographic factors that fall under the motives of knowledge seeking,

consistency, self-worth, and social approval. These four motives cut across almost all domains of social psychology, including the study of the self, identity, and social cognition. Briñol and Petty first describe these core motives and then discuss the relationship between motives and attitude change processes and, in conclusion, their implications for attitude strength.

*Chapter 15: Communication and Attitude Change: Causes, Processes, and Effects (Johnson, Maio, & Smith-McLallen).* For many decades, researchers of persuasion have amassed a great deal of knowledge about the impact of persuasive communications on the attitudes of recipients. To the extent that communication has been one of the main paradigms in the study of attitude change, this research is covered in the context of chapters 3 to 11. In chapter 15, Blair Johnson, Greg Maio, and Aaron Smith-McLallen depict main points cutting across the different cells of the matrix and describe current and historical trends in communication and persuasion research. In line with the major theme of the handbook—the interrelations of key attitudinally relevant variables—the chapter examines: (a) the *causes* of communication-induced attitude change, including factors that relate to change at message exposure and to change following message exposure; (b) the *effects* of communication-induced attitude change on other variables like behavior; and (c) the *processes* by which communication-induced attitude change occurs and affects other variables. In each section, relevant theories and evidence are reviewed, followed by suggestions for future research.

*Chapter 16: Social Influence in Attitudes and Attitude Change (Prislin & Wood).* Attitudes are formed and persist in a cultural and social niche. In this chapter, Radmila Prislin and Wendy Wood review such issues in relation to the matrix in Table 1.1 and other factors. For example, normative beliefs are important determinants of attitudes as well as behavior. Such norms most likely reflect the cultural structure of the social environment and the interactions it contains (Eagly & Chaiken, 1993). Thus, individuals' attitudes, affect, beliefs, and behavior have social correlates, both because they often derive from socially shared information, and because they collectively influence social representations, rules, and actions. Therefore, in addition to reviewing classic topics of social influence (e.g., minority and majority influence, conformity), Prislin and Wood's chapter integrates social scientific knowledge that is relevant to the handbook matrix.

*Chapter 17: Attitude Theory and Research: Intradisciplinary and Interdisciplinary Connections (Ottati, Edwards, & Krundick).* In their chapter, Victor Ottati, John Edwards, and Nathaniel Krundick argue that many areas of study within and outside of social psychology *are infused with and connected to* attitudinal concepts and processes. In exploring intradisciplinary connections between the attitude literature and other areas of social psychology, the chapter focuses on intrapersonal processes (e.g., impression formation), interpersonal processes (e.g., close relationships), intragroup processes (e.g., group decision making), and intergroup processes (e.g., intergroup prejudice and discrimination). Within each of these four domains, Ottati and colleagues also consider interdisciplinary connections to areas falling outside of social psychology (e.g., political cognition, marital interaction, organizational behavior, and stigma). Thus, the chapter proposes that attitudes are an integrative theme for understanding human behavior.

*Chapter 18: Attitude Research in the 21st Century: The Current State of Knowledge (Eagly & Chaiken).* The main objective of the handbook is to review a tradition of established knowledge in the area of attitudes and attitude change. In this final chapter, Alice Eagly and Shelly Chaiken summarize this tradition, draw conclusions about the state of the attitude literature, and point to areas that need further development.

## CONCLUSION

This handbook attests to the mass of scientific knowledge that has accrued about attitudes: Here is what is now known and may be learned about seemingly all nuances of the attitudinal phenomena. Yet the chapters also point to areas in which understanding can be improved through enhancements of method and theory, which can benefit future studies of attitudes. By casting an attitudes spotlight on human affect, cognition, and behavior, the chapters in this handbook collectively show that attitudes remain and will continue to be an indispensable construct with which to understand the human condition.

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## REFERENCES

- Abelson, R. P. (1959). Modes of resolution of belief dilemmas. *Conflict Resolution*, 3, 343–352.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (pp. 1–33). Chichester, UK: Wiley.
- Albarracín, D. (2002). Cognition in persuasion: An analysis of information processing in response to persuasive communications. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 61–130). San Diego, CA: Academic Press.
- Albarracín, D., Wallace, H. M., & Glasman, L. R. (2004). Survival and change of attitudes and other social judgments: A model of activation and comparison. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 36, pp. 252–315). San Diego, CA: Academic Press.
- Albarracín, D., & Wyer, R. S., Jr. (2000). The cognitive impact of past behavior: Influences on beliefs, attitudes, and future behavioral decisions. *Journal of Personality and Social Psychology*, 79, 5–22.
- Allport, G. W. (1935). Attitudes. In C. Murchison (Ed.), *Handbook of social psychology* (pp. 798–884). Worcester, MA: Clark University Press.
- Anderson, N. H. (1981). *Foundations of information integration theory*. San Diego, CA: Academic Press.
- Asch, S. E. (1952). *Social psychology*. Englewood Cliffs, NJ: Prentice-Hall.
- Asch, S. E. (1956). Studies of independence and conformity: A minority of one against a unanimous majority. *Psychological Monographs*, 70(9, Whole No. 416).
- Bargh, J. A. (1997). The automaticity of everyday life. In R. S. Wyer (Ed.), *Advances in social cognition* (pp. 1–61). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bem, D. J. (1965). An experimental analysis of self-persuasion. *Journal of Personality and Social Psychology*, 1, 199–218.
- Bem, D. J. (1972). Self perception theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6, pp. 1–62). New York: Academic Press.
- Berkowitz, L. (2000). *Causes and consequences of feelings*. New York: Cambridge University Press.
- Bersheid, E., & Walster, E. (1974). Physical attractiveness. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 8, pp. 157–215). New York: Academic Press.
- Bogardus, E. S. (1931). *Fundamentals of social psychology*. New York: Century Press.
- Brehm, J. W. (1966). *A theory of psychological reactance*. San Diego, CA: Academic Press.
- Cacioppo, J. T., Petty, R. E., Feinstein, J. A., & Jarvis, W. B. G. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin*, 119, 197–253.
- Cacioppo, J. T., Petty, R. E., Kao, C. F., & Rodriguez, R. (1986). Central and peripheral routes to persuasion: An individual difference perspective. *Journal of Personality and Social Psychology*, 51, 1032–1043.

- Carlson, E. R. (1956). Attitude change through modification of attitude structure. *Journal of Abnormal and Social Psychology*, 52, 256–261.
- Carlston, D. E., & Smith, E. R. (1996). Principles of mental representation. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 184–210). New York: Guilford.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology*, 39, 752–766.
- Chaiken, S., Liberman, A., & Eagly, A. H. (1989). Heuristic and systematic processing within and beyond the persuasion context. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 212–252). New York: Guilford.
- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *Journal of Abnormal and Social Psychology*, 51, 629–636.
- Dulany, D. E. (1968). Awareness, rules, and propositional control: A confrontation with S-R behavior theory. In T. Dixon & D. Horton (Eds.), *Verbal behavior and behavior theory* (pp. 340–387). New York: Prentice-Hall.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando, FL: Harcourt Brace Jovanovich.
- Eagly, A. H., & Chaiken, S. (1998). Attitude structure and function. In D. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (Vol. 2, pp. 269–322). Boston: McGraw-Hill.
- Fazio, R. H. (1986). How do attitudes guide behavior? In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (pp. 204–243). New York: Guilford.
- Fazio, R. H. (1990). Multiple processes by which attitudes guide behavior: The MODE model as an integrative framework. In M. P. Zanna (Ed.), *Advances in experimental psychology* (Vol. 23, pp. 75–109). San Diego, CA: Academic Press.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.
- Fishbein, M. (1963). An investigation of the relationships between beliefs about an object and the attitude toward that object. *Human Relations*, 16, 233–240.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model. *Psychological Bulletin*, 117, 39–66.
- Frey, D. (1986). Recent research on selective exposure to information. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 41–80). San Diego, CA: Academic Press.
- Greenwald, A. G. (1968). Cognitive learning, cognitive response persuasion, and attitude change. In A. G. Greenwald, T. C. Brock, & T. M. Ostrom (Eds.), *Psychological foundations of attitudes* (pp. 147–170). New York: Academic Press.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, 102, 4–27.
- Heider, F. (1946). Attitudes and cognitive organization. *Journal of Psychology*, 21, 107–112.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford.
- Hildum, D. C., & Brown, R. W. (1956). Verbal reinforcement and interviewer bias. *Journal of Abnormal and Social Psychology*, 53, 108–111.
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion: Psychological studies of opinion change*. New Haven, CT: Yale University.
- Insko, C. A. (1965). Verbal reinforcement of attitude. *Journal of Personality and Social Psychology*, 2, 621–623.
- Janis, I. L., & King, B. T. (1954). The influence of role-playing on opinion change. *Journal of Abnormal and Social Psychology*, 49, 211–218.
- Jarvis, W. B. G., & Petty, R. E. (1996). The need to evaluate. *Journal of Personality and Social Psychology*, 70, 172–194.
- Judd, C. M., & Kulik, J. A. (1980). Schematic effects of social attitudes on information processing and recall. *Journal of Personality & Social Psychology*, 38, 569–578.
- Kaplan, M. F., & Anderson, N. H. (1973). Information integration theory and reinforcement theory as approaches to interpersonal attraction. *Journal of Personality and Social Psychology*, 28, 301–312.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24, 163–204.
- Katz, D., & Stotland, E. (1959). A preliminary statement to a theory of attitude structure and change. In S. Koch (Ed.), *Psychology: A study of a science* (pp. 423–475). New York: McGraw-Hill.
- Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska symposium on motivation* (Vol. 15, pp. 192–238). Lincoln: University of Nebraska Press.
- Kelman, H. C. (1961). Processes of attitude change. *Public Opinion Quarterly*, 25, 57–78.
- Kerlinger, F. N. (1984). *Liberalism and conservatism: The nature and structure of social attitudes*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Kruglanski, A. W., & Thompson, E. P. (1999). Persuasion by a single route: A view from the unimodel. *Psychological Inquiry*, 10, 83–109.



- LaPiere, R. T. (1934). Attitudes vs. actions. *Social Forces*, 13, 230–237.
- McGuire, W. (1960). A syllogistic analysis of cognitive relationships. In M. Rosenberg, C. Hovland, W. McGuire, R. Abelson, & J. Brehm (Eds.), *Attitude organization and change* (pp. 65–111). New Haven, CT: Yale University Press.
- McGuire, W. J. (1964). Inducing resistance to persuasion: Some contemporary approaches. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 1, pp. 191–229). New York: Academic Press.
- McGuire, W. J. (1968). Personality and attitude change: An information-processing theory. In A. G. Greenwald, T. C. Brock, & T. M. Ostrom (Eds.), *Psychological foundations of attitudes* (pp. 171–196). San Diego, CA: Academic Press.
- McGuire, W. J. (1990). Dynamic operations of thought systems. *American Psychologist*, 45, 504–512.
- McGuire, W. J., & McGuire, C. V. (1991). The content, structure, and operation of thought systems. In R. S. Wyer & T. Srull (Eds.), *Advances in social cognition* (pp. 1–78). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Nail, P. R. (1986). Toward an integration of some models and theories of social response. *Psychological Bulletin*, 100, 190–206.
- Nisbett, R. E., & Borgida, E. (1975). Attribution and the psychology of prediction. *Journal of Personality and Social Psychology*, 32, 932–943.
- Nisbett, R. E., Krantz, D. H., Jepson, C., & Kunda, Z. (1983). The use of statistical heuristics in everyday inductive reasoning. *Psychological Review*, 90, 339–363.
- Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. (1957). *The measurement of meaning*. Urbana, IL: University of Illinois Press.
- Ostrom, T. M. (1989). Interdependence of attitude theory and measurement. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), *Attitude structure and function* (pp. 11–36). Mahwah, NJ: Lawrence Erlbaum Associates.
- Ouellette, J. A., & Wood, W. (1998). Habit and intention in everyday life: The multiple processes by which past behavior predicts future behavior. *Psychological Bulletin*, 124, 54–74.
- Peak, H. (1955). Attitude and motivation. In M. R. Jones (Ed.), *Nebraska symposium on motivation* (Vol. 3, pp. 149–188). Lincoln: University of Nebraska Press.
- Petty, R. E., Briñol, P., & Tormala, Z. L. (2002). Thought confidence as a determinant of persuasion: The self-validation hypothesis. *Journal of Personality and Social Psychology*, 82, 722–741.
- Petty, R. E., & Cacioppo, J. T. (1981). *Attitudes and persuasion: Classic and contemporary approaches*. Dubuque, IA: Brown.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: Springer-Verlag.
- Petty, R. E., & Wegener, D. T. (1998). Attitude change: Multiple roles for persuasion variables. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (pp. 323–390). New York: McGraw-Hill.
- Rokeach, M. (1954). The nature and meaning of dogmatism. *Psychological Review*, 61, 194–204.
- Rosenberg, M. J. (1956). Cognitive structure and attitudinal affect. *Journal of Abnormal and Social Psychology*, 53, 367–372.
- Ross, L., Greene, D., & House, P. (1977). The “false consensus effect”: An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology*, 13, 279–301.
- Schank, R., & Abelson, R. (1977). *Scripts, plans, goals, and understanding*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Schwarz, N., & Bohner, G. (2001). The construction of attitudes. In A. Tesser & N. Schwarz (Eds.), *Blackwell handbook of social psychology: Intrapersonal processes* (pp. 436–457). Oxford, UK: Blackwell.
- Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of Personality and Social Psychology*, 45, 513–523.
- Schwarz, N., & Clore, G. L. (1996). Feelings and phenomenal experiences. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 433–465). New York: Guilford.
- Sherif, M. (1935). A study of some social factors in perception. *Archives of Psychology*, 27, 1–60.
- Sherif, M., & Hovland, C. I. (1961). *Social judgment: Assimilation and contrast effects in communication and attitude change*. New Haven, CT: Yale University Press.
- Smith, E. R. (1996). What do connectionism and social psychology offer each other? *Journal of Personality and Social Psychology*, 70, 893–912.
- Smith, E. R. (1998). Mental representation and memory. In D. Gilbert, S. T. Fiske, & G. Lindsey (Eds.), *Handbook of social psychology* (pp. 391–445). Boston: McGraw-Hill.
- Tesser, A. (1978). Self-generated attitude change. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 11, pp. 289–338). New York: Academic Press.
- Thurstone, L. L. (1928). Attitudes can be measured. *American Journal of Sociology*, 33, 529–544.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5, 207–232.

- Vallacher, R. R., & Wegner, D. M. (1985). *A theory of action identification*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, 98, 219–235.
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67, 1049–1062.
- Wegner, D. M. (1994). Ironic processes of mental control. *Psychological Review*, 101, 34–52.
- Wicker, A. W. (1969). Attitudes versus actions: The relationship between verbal and overt behavioral responses to attitude objects. *Journal of Social Issues*, 25, 41–78.
- Wilson, T. D., Dunn, D. S., Kraft, D., & Lisle, D. J. (1989). Introspection, attitude change, and attitude–behavior consistency: The disruptive effects of explaining why we feel the way we do. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 22, pp. 287–343). Orlando, FL: Academic Press.
- Wilson, T. D., & Hodges, S. D. (1992). Attitudes as temporary constructions. In L. Martin & A. Tesser (Eds.), *The construction of social judgment* (pp. 37–65). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. *Psychological Review*, 107, 101–126.
- Wilson, T. D., & Schooler, J. W. (1991). Thinking too much: Introspection can reduce the quality of preferences and decisions. *Journal of Personality and Social Psychology*, 60, 181–192.
- Worth, L. T., & Mackie, D. M. (1987). Cognitive mediation of positive affect in persuasion. *Social Cognition*, 5, 76–94.
- Wyer, R. S. (1974). *Cognitive organization and change: An information-processing approach*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Wyer, R. S., & Radvansky, G. A. (1999). The comprehension and validation of social information. *Psychological Review*, 106, 89–118.
- Wyer, R. S., & Srull, T. K. (1989). *Memory and cognition in its social context*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Zajonc, R. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology Monographs*, 9(2, pt. 2), 1–27.
- Zanna, M. P., & Cooper, J. (1974). Dissonance and the pill: An attribution approach to studying the arousal properties of dissonance. *Journal of Personality and Social Psychology*, 29, 703–709.
- Zanna, M. P., & Rempel, J. K. (1988). Attitudes: A new look at an old concept. In D. Bar-Tal & A. W. Kruglanski (Eds.), *The social psychology of knowledge* (pp. 315–334). Cambridge, UK: Cambridge University Press.