

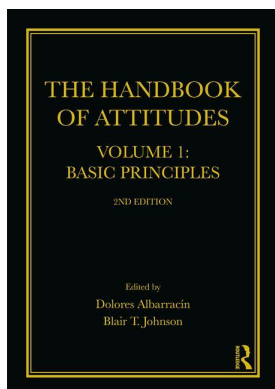
This article was downloaded by: 10.2.97.136

On: 22 Sep 2023

Access details: *subscription number*

Publisher: *Routledge*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: 5 Howick Place, London SW1P 1WG, UK



The Handbook of Attitudes Volume 1: Basic Principles

Dolores Albarracín, Blair T. Johnson

Communication-Induced Persuasion or Resistance

Publication details

<https://test.routledgehandbooks.com/doi/10.4324/9781315178103-14>

Blair T. Johnson, Lukas J. Wolf, Gregory R. Maio, Aaron Smith-McLallen

Published online on: 04 Sep 2018

How to cite :- Blair T. Johnson, Lukas J. Wolf, Gregory R. Maio, Aaron Smith-McLallen. 04 Sep 2018, *Communication-Induced Persuasion or Resistance from: The Handbook of Attitudes, Volume 1: Basic Principles* Routledge

Accessed on: 22 Sep 2023

<https://test.routledgehandbooks.com/doi/10.4324/9781315178103-14>

PLEASE SCROLL DOWN FOR DOCUMENT

Full terms and conditions of use: <https://test.routledgehandbooks.com/legal-notices/terms>

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

14

COMMUNICATION-INDUCED
PERSUASION OR RESISTANCEProcesses and Effects of Who Says
What to Whom

*Blair T. Johnson, Lukas J. Wolf, Gregory R. Maio, and
Aaron Smith-McLallen*

Life is replete with messages that have persuasive intent and seemingly always has been. Modern politicians persuade voters to support them. Advertisers target mass-market segments who will buy their products. Spammers send the masses unrelenting barrages of unwanted promotions. In science, scholars craft their manuscripts' arguments to induce acceptance of their reported evidence on the topic. These examples merely touch the surface of communication and attitude change. Messages may meet with responses ranging from enthusiastic embrace to vehement resistance. Even when people are unaware of changing their attitudes, others' communications may induce subtle shifts in related cognitions.

The examples above from politics, marketing, and even the scientific community seem to paint a gloomy picture of communication intended to persuade others, one that suggests that we should study persuasive communication in order to resist to persuasion. Yet, an equally important driver of the scientific quest to understand persuasion is the hope of improving human welfare, by convincingly communicating ways in which individuals can improve their well-being, increase sustainability, and reduce wars and conflicts.

Although, clearly, understanding persuasive communication can help to both prevent harm and inspire growth, scientific studies of this important problem were not conducted until the 20th century (McGuire, 1985). Research grew via a focus on the impact of communication on attitudes and attitude change: While researchers' definitions of attitude have varied widely, a consensus is that an *attitude* is a mental tendency to evaluate an entity with some degree of favor or disfavor (Eagly & Chaiken, 1993; Zanna & Rempel, 1988). As such, attitudes can be changed in diverse ways. For instance, people may use tactics of authority or coercion to change others' behavior. In contrast, communication and persuasion research typically focuses on deliberate attempts of one source to convince an audience of the value in a message position or positions. This chapter will generally focus on these more-or-less deliberate persuasion contexts, but we also provide some coverage of nonverbal and nonconscious sources of persuasion.

We structure our chapter in three general sections. First, we discuss major theoretical perspectives on the *processes* by which communication-induced attitude change occurs and affects other

The preparation of this chapter was facilitated by a subcontract from U.S. PHS grant 5U24AG052175.

variables. These theories illuminate when messages should be successful in changing attitudes and when they should fail. Here we also touch on some examples used in the study of attitudes. Second, in keeping with the emphasis of this *Handbook* on the complex interplay between various attitude-relevant factors, we examine *causes* of communication-induced attitude change, including communicator-, message-, and recipient-related factors and their interactions. Finally, we review the *effects* of communication-induced attitude change on other potential outcomes such as behavior, affects, and beliefs. We conclude with some thoughts about the future of research on communication and attitude change.

A Brief Overview of Theoretical Frameworks

In an earlier version of this chapter (Johnson, Maio, & Smith-McLallen, 2005), we reviewed classic and contemporary models of persuasion in detail; here we will provide a brief overview of these frameworks, which, coupled with thousands of empirical studies, have provided a rich picture of communication and attitude change; we allude to relevant theories in subsequent sections. Following the horrors of the Second World War and in part supported by the Allies' research infrastructure (Johnson & Nichols, 1998), the Yale Communication and Attitude Change group of the 1950s set the stage for the decades of persuasion research that followed. Examined were source variables (e.g., expertise, attractiveness, and status); message variables (e.g., high- and low-fear appeals); and recipient variables (e.g., initial attitudinal position). McGuire's (e.g., 1960, 1968) stage-model of communication and attitude change further stressed recipients' active participation in the persuasion process. In particular, he recognized that persuasion could be moderated by individual differences. Intelligence, attention, self-esteem, and other factors can change the effects of a message, depending on receivers' capacity and/or willingness to pay attention and their level of comprehension (e.g., Rhodes & Wood, 1992). Social judgment theorists identified other individual differences that shape the responses to persuasive messages (e.g., C. W. Sherif, Sherif, & Nebergall, 1965): Recipients' latitudes of acceptance and rejection differ across recipients; thus responses to any given messages are likely to differ as a result. Greenwald (1968) began to specify a particular cognitive process that could account for different responses to the same message. In particular, he suggested that attitude change results from the thoughts message recipients generate in response to the message. To the extent that a message's arguments evoke different thoughts in different people, different results will occur.

Contemporary process models of attitude change incorporate all of these ideas and make their own unique contributions. Table 14.1 summarizes important dimensions in relation to four prominent contemporary models and provides key citations to each. The elaboration likelihood model (ELM), heuristic-systematic model (HSM), the unimodel, and the cognition in persuasion model (CPM) each explicitly address the impact of ability and motivation to process information, the notion of thought-mediated persuasion, and the potentially moderating effects of personality variables; more generally, these frameworks are consonant with a perspective that humans are argumentative (Mercier & Sperber, 2011). These process models have been able to account for the impact of a significant portion of the effects that early persuasion researchers obtained. For example, the ELM and HSM in particular have guided numerous studies outlining specific effects of message-relevant thinking, source expertise, and attractiveness, targeting issues of high personal relevance and implications for behavior. In essence, therefore, these models sum up well when direct appeals will succeed and when they will fail (O'Keefe, 2013). In addition to issues of cognitive responses to persuasive messages, process models are able to account for more affectively based processes such as mood and attraction to the source, and recognize that stimuli outside conscious awareness can impact our attitudes and behaviors.

At least two other non-process-model frameworks provide alternative conceptualizations of persuasion. First, in the "Behavioral Effects of Communication-Induced Attitude Change" section, we

Table 14.1 Comparison of Four Contemporary Process Models of Persuasion Along Key Conceptual Dimensions

<i>Dimension</i>	<i>Model of Persuasion</i>	<i>Elaboration Likelihood Model (ELM)</i>	<i>Heuristic-Systematic Model (HSM)</i>	<i>Unimodel</i>	<i>Cognition in Persuasion Model (CPM)</i>
Psychological tradition(s)	Cognitive (cognitive response model; attributional; learning)	Cognitive	Cognitive	Attributional	Social-cognitive
Number of qualitatively distinct general processing modes	Two, central and peripheral routes; the latter has several processes	Two, heuristic and systematic processing	One, epistemic thought	One with stages (identification, interpretation, selection)	One with stages (identification, interpretation, selection)
Processing modes can co-occur	No, but perhaps suggest yes (Petty, 1994)	Yes	Has only one general process	Assumes one process with various stages, but predicts influences of all identified pieces of information	Assumes one process with various stages, but predicts influences of all identified pieces of information
Persuasion affected by multiple motives	Only accuracy; other motives bias processing	Primarily accuracy, but defense, and impressions possible	Accuracy, defense, and impressions	Primarily accuracy, but defense and impression possible	Primarily accuracy, but defense and impression possible
Assumes motivation and ability affect processing	Yes	Yes	Yes	Yes	Yes
Effects of high motivation and ability to process information	Processed via central route	Systematic processing	Increased epistemic thinking	Message content more important	Message content more important
Effects of moderate motivation and ability to process information	Generally not discussed (predicted effects implied as monotonic)	Not discussed	Not discussed because predicted effects are monotonic	Extra-message factors are identified but not discounted and thus have an influence	Extra-message factors are identified but not discounted and thus have an influence
Effects of low motivation and ability to process information	Use of peripheral route processes	Heuristic processing	Decreased epistemic thinking	Decreased identification of message content and of subjectively less relevant factors	Decreased identification of message content and of subjectively less relevant factors
Degree of explicitness regarding processing of message content	Moderate (empirically driven)	Moderate (empirically driven)	High (belief inference, similar to McGuire's (1960) and Wyer's (1974) combinatorial models)	High (stages of cognitive processing in persuasion)	High (stages of cognitive processing in persuasion)

(Continued)

Table 14.1 (Continued)

<i>Model of Persuasion</i>				
<i>Dimension</i>	<i>Model of Persuasion</i>			
	<i>Elaboration Likelihood Model (ELM)</i>	<i>Heuristic-Systematic Model (HSM)</i>	<i>Unimodel</i>	<i>Cognition in Persuasion Model (CPM)</i>
Effect of argument quality on attitude change	Processed via central route, increases monotonically with ability and motivation to process messages	Processed systematically, increases monotonically with ability and motivation to process messages but may interact with heuristics	Increases monotonically with ability and motivation to process messages	Increases monotonically for strong but not weak arguments as motivation and ability increase; for weak arguments, curvilinear under moderate levels
Effect of recipient mood	Positive moods increase reliance on peripheral cues under moderate ability and motivation but can be used as information or bias processing under high and low ability	Positive moods generally associated with increased reliance on heuristics but mood itself can be used as a source of information	Mood can be used as relevant information in some instances, increasing monotonically when mood-inducing stimuli require ability and motivation	Mood should affect attitude under moderate ability and motivation but have less influence otherwise
Behavior elicited in favor of message	More likely following strong arguments and unbiased use of the central route	More likely following strong arguments processed systematically under an accuracy motive	More likely following extensive epistemic thought of information implying truth value	More likely following strong arguments when temporally near the behavior point
Theoretical focus on reception vs. yielding processes	Primarily focused on variables that moderate yielding	Primarily focused on variables that moderate yielding	Prior knowledge and selective attention impact reception; depth of information processing affects yielding	Specifies cognitive processes involved in both reception and yielding
Examines factors outside of the communication setting per se	No	No	No	No
Considers whether networks linked to messages facilitate or oppose message position	No	No	No	No
Key citations	Petty & Cacioppo (1986); Petty & Wegener (1999)	Chaiken (1980); Chaiken, Liberman, & Eagly (1989); Chen & Chaiken (1999)	Kruglanski, Thompson, & Spiegel (1999); Kruglanski & Thompson (1999)	Albarracín (2002); Albarracín & Kumkale (2003)

address how Fishbein and Ajzen's (e.g., 1975) theory of reasoned action (TRA) and its successor, the theory of planned behavior (TPB; Ajzen, 1991) can serve as models of persuasion, principally by suggesting targets for communication in the broader social influence context. Second, Knowles (Knowles & Linn, 2004; Knowles & Riner, 2007) introduced an *alpha and omega* model of persuasion, which recognizes broad approach and avoidance motivations underlying behavior. On the one hand, *alpha* strategies can induce approach toward the target position, perhaps with strong or otherwise-positive arguments. On the other hand, *omega* strategies tap avoidance, such as skepticism, reactance, or inertia. This model posits that any factor that increases approach or decreases avoidance will increase persuasion, as shown in both studies of social influence and message-based persuasion (e.g., Hamilton, Vohs, & McGill, 2014; Silvia, 2006; Strick, Holland, van Baaren, & van Knippenberg, 2012).

As we concluded in our earlier chapter (Johnson et al., 2005), it is difficult to evaluate the impact of the unimodel and the CPM, owing to the relatively few empirical tests of these models, and more research is still needed. Similarly, although there are increasingly large numbers of persuasion studies related to classic models of attitude-behavior relations, especially the TRA and TPB and the Alpha and Omega model, to date scholars have not integrated these with contemporary process models. Interestingly, as several chapters in Volume 2 of this *Handbook* amply illustrate, investigators seeking to alter such important health behaviors as dieting (Mata et al., Volume 2) or physical activity (Hagger, Volume 2) tend to use broader models of behavior than contemporary process models of persuasion, although work related to accounting compliance appears to have profited from the ELM and HSM (see Nolder & Kadous, Volume 2).

As Johnson and colleagues (2005) concluded, further challenges for persuasion researchers are to develop comparative tests with the potential to support one model over another (O'Keefe, 2013). Future research should focus on Table 14.1's cells where models make differing predictions. The bottom two lines in this Table 14.1 isolate two additional questions for contemporary models of persuasion: (a) At present, they do not explicitly incorporate aspects of the phenomenal environment outside of the communication context itself (e.g., Kaufman et al., 2014). For example, a culture of disbelief surrounding news (e.g., "fake news") is likely to undercut the success of messages received within that culture. (b) Similarly, contemporary models also do not consider the problem of linkages of the message recipient to networks of other individuals who may support or oppose the message position. In cases of oppositional networks, a message recipient who believes the message is put in a potentially uncomfortable position and must deny their belief or else convert the others to the same position (Johnson et al., 2010).

Causes of Message-Based Attitude Change

In studies of communication and persuasion, results may take two basic empirical forms. The first form is a simple comparison of attitude levels before and after message presentation, which gauges the direction and amount of any change that occurs. Yet, because this comparison may reflect the influence of other factors such as maturation or testing (Cook & Campbell, 1979), researchers usually elaborate their experiments to include controls, such as a no-message group. Hence, actual persuasion can be gauged comparing post-message attitudes either to attitudes measured at baseline or against a no-message control group. Although such designs were relatively frequent in early persuasion studies, they have become less frequent in contemporary designs. The second and most common form of persuasion experiment in the last 40 years involves after-only designs in which participants typically do not provide baseline attitudes for comparison. In such studies, persuasion is assessed by comparing attitude levels in one group relative to another group or groups in the design. Such designs eliminate problems such as maturation and testing and permit a determination of whether a manipulated factor affected attitudes, but—unless baseline attitudes have been assessed—it

is ambiguous as to which group has actually changed (Cook & Campbell, 1979; Johnson, Smith-McLallen, Killea, & Levin, 2004).

As highlighted by the Yale group (Hovland, Janis, & Kelley, 1953), we can divide causes of communication-induced attitude change into three groups of umbrella factors: (a) communicator-related, (b) message-related, and (c) recipient-related. These three sets can and often are studied interdependently. Here, we review their independent, as well as combined effects on attitude change.

Communicator-Related Factors

This section describes the effects of source reinforcers and source numeracy. The Yale model (Hovland et al., 1953) highlighted the potential for sources to reinforce attitude change by providing an incentive or motivation for attitude change. Below, we summarize a number of source characteristics that can act as reinforcers, including the attractiveness of the messenger, her or his authority and social position, expertise (factual or assumed) on the topic of the message, and the perceived level of source credibility. We then discuss the second important aspect of communicators: their number. For instance, a message can be presented from one communicator, a number of communicators, a minority, or a majority. These differences in number can be important for predicting persuasion.

Source Reinforcers

Abundant evidence supports the hypothesis that source reinforcers such as attractiveness (Chaiken, 1979); likeability (Chaiken, 1980); expertise (Petty, Cacioppo, & Goldman, 1981); and power (French & Raven, 1959) increase persuasion (see Cialdini, 2001). A frequent explanation for the effects of source variables is that they act as heuristic guides or cues for attitude formation (Chaiken, 1987). For example, source attractiveness may operate through simple heuristics, such as the audience's belief that "people I like usually have correct opinions on issues" (Chaiken, 1987, p. 4), and source expertise may operate through the audience's belief that "statements by experts can be trusted" (Chaiken, 1987, p. 4). Other source characteristics that have been shown to effect attitude change are the communicator's rate of speech (Miller, Maruyama, Beaver, & Valone, 1976; S. M. Smith & Shaffer, 1995); accent (Gluszek & Dovidio, 2010); use of humor (Conway & Dubé, 2002; Strick, Holland, van Baaren, & van Knippenberg, 2012); use of passive voice (Hurwitz, Miron, & Johnson, 1992); certainty (Karmarkar & Tormala, 2010); fame (Petty, Cacioppo, & Schumann, 1983); and even the communicator's name (Howard & Kerin, 2011). As we have discussed, contemporary process models of persuasion (see Table 14.1) agree that such source characteristics can exert their effects in an easy, non-elaborate manner, although the processes involved may be complex. At the time of message processing, the heuristics must be accessible (e.g., Chaiken, 1987; Chaiken & Eagly, 1983; Darke et al., 1998), and the source characteristics (e.g., "Oprah Winfrey is likable," "Einstein is an expert") must be easy to retrieve from memory if they are to increase message acceptance. For example, source likeability increases persuasion more strongly when the positive attitude toward the source is highly accessible from memory than when it is less accessible (Roskos-Ewoldsen, Bichsel, & Hoffman, 2002; Roskos-Ewoldsen & Fazio, 1992).

Source characteristics can also act as message arguments (e.g., an attractive spokeswoman for a beauty product might be an argument for the effectiveness of the product). Researchers testing the unimodel of persuasion (E. P. Thompson, Kruglanski, & Spiegel, 2000) have predicted and found that source characteristics are more likely to function as arguments when they are described in very complex ways (e.g., the communication of expertise through a curriculum vitae). The complex format makes it necessary to utilize systematic processing in order to discover the source characteristics in the first place. Moreover, source characteristics can change the level of cognitive processing of the

message itself, with multiple studies showing that people are more likely to systematically process a message presented by an expert than by a nonexpert (Heesacker, Petty, & Cacioppo, 1983). However, a more complex picture emerges from Clark, Wegener, Habashi, and Evans' (2012) recent studies, which found that counterattitudinal messages elicit higher scrutiny when the source is an expert compared to a nonexpert, whereas pro-attitudinal messages elicit higher scrutiny when the source is a nonexpert rather than an expert. These effects were driven by expectations: The negative outcomes proposed in a counterattitudinal message may be seen as more likely when they are advocated by an expert source than by a nonexpert source, whereas the positive outcomes proposed in a pro-attitudinal message may be seen as less likely when they are advocated by a nonexpert source than by an expert source. These expectations of potential negative consequences may in turn motivate higher scrutiny of the message. Such source characteristics have been found to affect message processing when other factors (e.g., recipients' personality) do not constrain message processing at a high or low level (Heesacker, Petty, Cacioppo, 1983; Puckett, Petty, Cacioppo, & Fisher, 1983) and when the source characteristics conflict (e.g., an expert and dislikable source; Ziegler, Diehl, & Ruther, 2002).

As noted above, power is an important source characteristic that can bring about attitude change. French and Raven (1959; Raven, 1992) distinguished between different bases of social power that sources may employ in the service of persuasive messages and speculated that these bases exert different effects. Specifically, French and Raven described six bases of social power: reward, coercion, expertise, information, referent power, and legitimate authority. These bases overlap with the aforementioned characteristics of source likeability (referent power) and source expertise (expertise and, to a lesser extent, information power), in addition to the effects of sources that possess legitimate authority, the ability to distribute rewards (reward power), or the ability to punish (coercive power). According to Kelman (1958, 1974), sources with control over message recipients' outcomes (i.e., sources that possess reward and coercive power) elicit superficial, public agreement with their messages, but no true attitude change. In contrast, sources who are attractive to message recipients (i.e., sources that possess referent power) elicit public and private agreement with the message, but primarily in the contexts that are relevant to the relationship between the source and the message recipient. Agreement with the message is independent of both the public-private dimension and the relationship between the source and message recipient only when the source appears to convey useful and valid information (i.e., expertise and information power). Kelman (1958) labeled these three processes as *compliance*, *identification*, and *internalization*, respectively, and there is some evidence for the validity of this distinction (e.g., Kelman & Eagly, 1965; Oriña, Wood, & Simpson, 2002; cf. Nail, 1986; Nail, MacDonald, & Levy, 2000).

Despite these intriguing theories, differential effects of social power or other source characteristics on persuasion have received little research attention. Future research could examine in more detail whether the effects of sources vary across the types of power they employ, or more broadly, across different source characteristics. Another fruitful direction may be integrating recent and broader conceptual developments, such as Pratto, Lee, Tan, and Pitpitan's (2011) power-basis theory.

Source credibility, which refers to a source's perceived expertise and trustworthiness (e.g., Kelman & Hovland, 1953), is another important factor in the communicator-related set. Generally, higher levels of perceived credibility lead to stronger changes in attitude (for a review, see Pornpitakpan, 2004). There is some evidence, though, that even sources with low credibility can be persuasive in the long run—a phenomenon termed the *sleepier effect*, which entails that recipients initially discount the message, followed by a later attitude change in line with the message's arguments. The effect can occur under the following conditions: (a) The quality of argumentation contained in a persuasive communication is strong enough to elicit persuasion; (b) a discounting cue (e.g., low source credibility) is strong enough to negate the initial persuasive effects of the message; and (c) the association between the discounting cue and the message conclusion is forgotten more quickly than

the arguments contained in the message. Over time, if recipients are able to recall the content of the message and forget the discounting cue (often a source cue), delayed persuasion will occur (Gruder, Cook, Hennigan, Flay, Alessis, & Halamaj, 1978; Pratkanis, Greenwald, Leippe, & Baumgardner, 1988). Kumkale and Albarracín's (2004) meta-analytic review confirmed these points.

Source Numeracy

Research on source numeracy has focused on situations where a message stems from a minority or majority of people within a group. Relevant in this context is the distinction between (a) agreement as a function of the validity of information and (b) agreement as a function of the characteristics of the source. Convention labels these types of influence in groups as informational and normative influence, respectively. The importance of informational and normative influence in the group context was first made evident in Muzafer Sherif's (1935) and Asch's (1956) classic experiments. Sherif found that individual participants conformed to informational influence by converging with the majority's answer to a question about an ambiguous, difficult problem, which involved identifying how much a point of light in a darkened room seemed to move. Asch extended the understanding of conformity to include normative influences by showing that participants often aligned their answers on a task with the majority's incorrect answers, even when the task was easy and the correct answer clear.

Subsequent research indicated that both informational and normative influence contribute to the effect of majority sources and specified other factors can play a role in their contributions. For example, informational influence is greater when individuals are made to feel less competent beforehand (Hochbaum, 1954) and for difficult tasks than for easy tasks (Asch, 1952; Coleman, Blake, & Mouton, 1958; Deutsch & Gerard, 1955). In contrast, normative influence increases when attitudes are expressed in public rather than in private (Asch, 1956; R. Bond, 2005); the group provides important rewards (Crutchfield, 1955; Crowne & Marlowe, 1964); and the group is perceived as attractive (Festinger, Gerard, Hymovitch, Kelley, & Raven, 1952; see also Argyle, 1957; R. Bond & Smith, 1996; Insko, Smith, Alicke, Wade, & Taylor, 1985; Mouton, Blake, & Olmstead, 1956). It is viable that most majority influence involves a blend of both types.

Research demonstrates that behavioral components can play a role as well. For example, individuals interpret a stimulus more or less in line with the majority's interpretation depending on whether they choose to agree or disagree with the majority (Buehler & Griffin, 1994; Griffin & Buehler, 1993). Moreover, this post-conformity change in interpretation has been shown to increase over time (Buehler & Griffin, 1994), consistent with dissonance theory (Festinger, 1957) and self-perception theory (Bem, 1972). Both of these theories argue that people can alter their thinking and judgments to become more consistent with behaviors (e.g., conformity) that they have recently performed. Together with the evidence for informational and normative influence, these theories support the conclusion that majority influence can reflect a blend of cognitive, affective, and behavioral information.

Attitude change does not arise solely from majority influence on minorities. The reverse effect has been demonstrated when minority groups express their opinions consistently, thereby appearing more confident, competent, and honest (e.g., Bassili & Provencal, 1988; Maass & Clark, 1984). The perception of the messenger's trustworthiness can increase and, therefore, be more likely to change attitudes of the majority, when people sharing the minority's opinion are otherwise similar or belong to the majority group. For example, heterosexual advocates of gay rights influence heterosexual opinion on gay rights more than do homosexual advocates of gay rights (Maass, Clark, & Haberkorn, 1982). In addition, minorities can be persuasive when they are regarded as a stigmatized group. In face-to-face encounters with stigmatized group members (e.g., handicapped individuals, Black Americans), majority group members are motivated to appear unbiased, and as a result, appeals

from stigmatized group members are more persuasive, and they elicit more compliance than appeals from other majority group members (Norton, Dunn, Carney, & Ariely, 2012). Sources belonging to a stigmatized minority group can also change recipients' processing of the message by encouraging members of majority groups to engage in message-relevant thinking (Petty, Fleming, & White, 1999). This pattern, however, holds true only for majority members low in prejudice, and therefore the motivation to be unbiased may drive the increased message-relevant processing (White & Harkins, 1994). Other evidence suggests that, while at first ineffective, minority influence can eventually result in attitude change. Again, this effect was limited to people who perceived resistance to a message content on the basis of the minority status of the messenger as unfair (Crano & Chen, 1998; Tormala, DeSensi, & Petty, 2007).

Although both majorities and minorities elicit attitude change, there has been ample speculation that they do so through different processes. One set of perspectives argues that majorities stimulate simple conformity to group views without much concomitant thought, whereas minorities stimulate attitude change through systematic thought about the issue (Moscovici, 1980; Nemeth, 1986; Peterson & Nemeth, 1996; Petty, Fleming, & White, 1999). In contrast, other perspectives argue that majority sources elicit more message scrutiny than minority sources (Mackie, 1987), because people usually assume that consensus views are correct (see Cialdini, 2001) and therefore deserving of attention (see also Harkins & Petty, 1981, 1987). Yet another set of perspectives describes majority and minority influence as a mathematical function of the strength (abilities, power, status); immediacy (proximity in space or time); and number of majority group members present in the persuasion context versus the strength, immediacy, and number of the minority group members present (e.g., Latané, 1981; Latané & Wolf, 1981). In this model, the faction with the greatest strength, immediacy, and numeracy exerts the largest influence, and the strength of both factions depends on their capacity to exert informational and normative power, as has been emphasized in studies of majority influence (Wolf, 1987).

Additional models retain a dual-process point of view, but do not link majorities and minorities exclusively to either process. These models suggest that either majorities or minorities may elicit heuristic or systematic processing, depending on other factors. For instance, messages from both sources may evoke systematic processing when either motivation or ability to process the message is high (Baker & Petty, 1994; Kerr, 2002; Martin, Hewstone, & Martin, 2007). In contrast, under conditions of low motivation or ability, majority and minority status may trigger heuristic processing such that message recipients are more persuaded by the majority's view (Erb, Bohner, Schmälzle, & Rank, 1998; Martin et al., 2007). However, even in conditions of low relevance, minorities can evoke systematic processing. Compared to majorities, minorities may cause message recipients to pay more attention to argument quality when the minorities are aware of the unpopularity of their position, expect interaction with the majority group, and are at least somewhat dependent on the majority group—the absence of these factors may cause neither majorities nor minorities to elicit systematic processing (Kerr, 2002).

Finally, both majorities and minorities can elicit systematic processing when the personal relevance of the issue is moderate or uncertain, but the timing of the information about the source is critical. Building on the self-validation hypothesis (Petty, Briñol, & Tormala, 2002), which predicts that thoughts held with a higher confidence have a stronger impact on attitudes, Horcajo, Petty, and Briñol (2010) found that persuasion was dependent on whether the majority status was presented before or after the message. When the source's status was shown after the message, majority sources increased recipients' confidence in their thoughts on the message's arguments relative to minority sources. As a result, majority sources evoked stronger argument quality effects than minority sources. In contrast, when the source's status preceded the message, recipients had more confidence in the position of the majority source, reducing systematic processing for majority sources compared to minority sources. We will describe the self-validation hypothesis in more detail in the section entitled "Communicator-Message-Recipient Interactions."

Summary

Characteristics of the source of a message can elicit particular incentives for attitude change. Messages from sources who possess characteristics such as attractiveness, power, expertise, and likeability are more persuasive than messages from sources who do not possess these characteristics. Moreover, research has shown that majority pressures may affect judgments through a normative route, an informational route, or both, whereas minorities and stigmatized groups have also been found to be persuasive under certain conditions (e.g., consistency in expressing the message, similarity to majority).

Message-Related Factors

As the dual-process theories ELM and HSM describe, people can use a more effortful strategy or a more effortless strategy to process a persuasive message. In the effortful strategy, people may carefully elaborate on the presented arguments of a message and subsequently change their attitude if the presented arguments are considered to be strong. In the relatively effortless strategy, people may be influenced in a more spontaneous manner and, for instance, become more favorable toward an attitude object because it is associated with a positive stimulus (e.g., an attractive source presenting a product). In this section, we will review theory and research on aspects of persuasive messages that may elicit these two types of influences.

It is possible that diverse message features help to determine which message processing mechanisms unfold. Here, we consider how some messages may exert more cognitive and deliberative influences by forewarning people of a persuasive intent or by presenting strong as compared to weak arguments. Other messages may present more affective and spontaneous influences, including effects of repeatedly presenting an attitude object or pairing an attitude object with a positive stimulus to engender liking. Finally, we will discuss messages containing deceptive and coercive elements, which may include both cognitive and affective influences.

Anticipated Communication

Before receiving a persuasive message, people can receive information indicating (a) the content of the message and (b) the persuasive intent within the message (Papageorgis, 1968). Sometimes, the warning of content accompanies a warning of persuasive intent. For instance, people typically know that someone will try to sell them a time-share when they are invited to “visit” a resort. On other occasions, the warning is informative not about the message’s intent, but merely its topic. For example, promotions for a book about cancer might indicate that it describes the author’s struggles with the disease, without noting that the author uses his or her experience to press specific points.

Research has examined the effects of these types of forewarning separately (e.g., Hass & Grady, 1975; Petty & Cacioppo, 1979) or in combination (e.g., Allyn & Festinger, 1961; Brock, 1967). In general, forewarning causes more resistance to persuasion, at least among message recipients who possess stronger initial attitudes (Allyn & Festinger, 1961; Jacks & Devine, 2000); higher outcome-relevant involvement with the topic (Wood & Quinn, 2003); and are not distracted at the time of message processing (H. C. Chen, Reardon, Rea, & Moore, 1992; Watts & Holt, 1979). This pattern of effects is consistent with findings that forewarning can increase counterarguing of the message, either in advance of message presentation (i.e., after a content forewarning) or during message presentation (Wood & Quinn, 2003; Jacks & Devine, 2000). Interestingly, however, recent research suggests that forewarning can even be effective when participants have low cognitive resources (Fransen & Fennis, 2014; Janssen, Fennis, & Pruyn, 2010). For example, Fransen and Fennis (2014) found that, when participants with low cognitive resources were forewarned of an influence attempt,

they conserved their remaining resources and were better able to resist and counterargue the message than when they were not forewarned. In addition, Janssen, Fennis, and Pruyn (2010) tested a more indirect forewarning strategy, which consumes less cognitive resources. In particular, this strategy asks participants to describe a situation where someone tried to influence them, which was shown to be as effective in bolstering resistance against the influence of heuristic cues as traditional and direct forewarning strategies.

The aforementioned research focused on a context wherein the forewarnings were followed by a simple message from a source, but there was no potential interaction with the source. Although forewarning often increases resistance in this noninteractional context, it may actually decrease resistance when the message recipients anticipate potential dialogue. Indeed, people show anticipatory attitude change when they are asked to be the source of a message to an audience. For example, Tetlock (1983) manipulated whether participants were aware or unaware of the attitudes of a person to whom they had to express an opinion. Aware participants subsequently altered their attitude to be consistent with the attitude of the message recipient, whereas unaware participants adopted more neutral attitudes, which were supported by evaluatively inconsistent and complex thoughts. S. Chen, Shechter, and Chaiken (1996) predicted and found that this pattern of attitude change was highest among participants with high impression management concerns, which were identified using an individual difference measure (self-monitoring; Snyder, 1987) or manipulated using a priming technique (see Bargh, 1990). In their meta-analytic review of such evidence, Wood and Quinn (2003) concluded that message recipients modify their attitudes to fit the position of a message source with whom they expect to interact, but primarily when the issue is less personally involving. When the interaction partner's attitudes are unclear, message recipients again seem to stick to relatively neutral territory and are unaffected by argument quality (Johnson & Eagly, 1989).

Argument Quality and Quantity

Argument quality is a frequently manipulated communication dimension whose popularity stems primarily from its use as a gauge of the extent to which targets process message content—as scrutiny increases, the logic goes, the impact of argument quality should increase (e.g., Petty & Cacioppo, 1986). Another reason for this variable's popularity may be that it is also one of the more robust manipulations at researchers' disposal: Basically, strong arguments are more persuasive than weak arguments, as numerous research syntheses have shown directly (Carpenter, 2015; Johnson, Smith-McLallen, Killeya, & Levin, 2004; Stiff, 1986) or indirectly (Johnson & Eagly, 1989; Wood & Quinn, 2003). The robustness of this effect should be no surprise given that scholars frequently pretest their messages to produce profiles of strongly favorable versus unfavorable cognitive responses, following Petty and Cacioppo's (e.g., 1986) example. More interesting is that the effects of argument quality vary quite widely across the literature, hinging on message recipients' levels of involvement, message length, and the position taken by the messages. Argument quality appears to have a larger effect when the message elicits a processing motivation that is outcome- rather than value- or impression-relevant (Johnson & Eagly, 1989; Maio & Olson, 1995b; but see Park, Levine, Kingsley Westerman, Orfgen, & Foregger, 2007); when messages or message arguments are longer rather than shorter (Johnson & Eagly, 1989; Friedrich, Fetherstonhaugh, Casey, & Gallagher, 1996; Wood, Kallgren, & Preisler, 1985); and when the message position is counter- rather than pro-attitudinal (Johnson et al., 2004). When the message position is pro-attitudinal, recipients will find their own self-generated reasons to agree more following the messages, whether the arguments are strong or weak; when arguments are counterattitudinal, strong arguments appear to induce actual attitude change, whereas weak arguments appear to induce maintenance of initial attitudes (Johnson et al., 2004). Boomerang effects, wherein recipients' attitudes move significantly away from a weak message position, have emerged, albeit rather inconsistently (Johnson et al., 2004, Park et al., 2007).

Given that argument quality has been empirically defined, one might question what it means, ultimately, to show that strong arguments are more persuasive than weak arguments. Scholars such as Petty and Cacioppo (1986, pp. 31–32) have recognized that their own use of the argument quality construct is not informative about what makes any particular argument persuasive. More generally, attitudes scholars have recognized that failure to understand how message information relates to attitude change “is probably the most serious problem in communication and persuasion research” (Fishbein & Ajzen, 1975, p. 359). Although a merit of the argument quality variable is its experimental nature, it is of course possible that variables other than logical plausibility or cogency drive its effects. Indeed, research suggests that argument quality is more closely related to valence (positive vs. negative features) than to cogency (low vs. high probability of being true) or to the interaction of valence and cogency (Areni & Lutz, 1988; Johnson et al., 2004). Thus, strong arguments tend to make good consequences salient whereas weak arguments tend to make bad consequences salient. This research suggests that the past argument quality effects should be recast as argument valence effects (Eagly & Chaiken, 1993). In addition to valence and cogency, and based on qualitative analyses of arguments, Areni (2003) suggested that qualifiers and rebuttals are important aspects of strong arguments given that they alleviate counterargumentation. Areni (2003) suggested several future directions to address the lack of theoretical rationale underlying strong arguments (see also McGuire, 2000).

Experimentation has revealed other aspects of message content. For example, causal arguments appear to be particularly convincing relative to simple descriptions of what consequences will occur (Slusher & Anderson, 1996). Moreover, arguments viewed as novel and valid have been judged as more persuasive (Garcia-Marques & Mackie, 2001; Vinokur & Burnstein, 1978) and argument comprehensiveness and relevance have also been found to be important components of strong arguments (Cheung, Lee, & Rabjohn, 2008; Eagly, 1974). Although scholars have long regarded two-sided messages as more persuasive than one-sided messages for targets holding more opposed versus favorable attitudes (e.g., Hovland, Lumsdaine, & Sheffield, 1949), meta-analyses of this literature produced little support for this prediction (Allen, 1991; O’Keefe, 1999). Further, posing arguments in the form of rhetorical questions tends to increase motivation to process the arguments, resulting in larger argument quality effects and resistance to influence attempts even when involvement is otherwise low (e.g., Ahluwalia & Burnkrant, 2004; Blankenship & Craig, 2006; Petty, Cacioppo, & Heesacker, 1981).

Finally, early theories such as the social judgment model predicted that, as message positions take more extreme stands in relation to the recipients’ own views, agreement may be less likely, but attitude change more likely. For example, Bochner and Insko (1966) found that highly discrepant messages elicited more (message congruent) changes in post-communication attitudes, but also greater amounts of communication disparagement. Because such findings have proven difficult to replicate (see Eagly, 1974; Ostrom, Steele, & Smilansky, 1974), renewed attention to communication discrepancy would be worthwhile.

Mere Exposure

While people may often change their attitude in response to strong arguments or resist persuasion in response to weak arguments, there are many influences on persuasion that operate on a more spontaneous and affective level, such as the mere exposure effect that Zajonc (1968) demonstrated. This effect arises when repeated presentation of unfamiliar, initially neutral, stimuli such as Chinese characters can cause the stimuli to be evaluated more positively. Importantly, conscious awareness of the stimuli may not be necessary for the effect to occur. That is, mere exposure effects were even found when participants were distracted during the presentation of the stimuli or when the stimuli were presented at a subliminal level (Hansen & Wänke, 2009; Hicks & King, 2011). Subliminal exposure

can elicit quite diffuse mere exposure effects, such that participants reported a more positive mood and a more positive attitude toward novel stimuli in the repeated exposure condition than in the single exposure condition (Hicks & King, 2011; Monahan, Murphy, & Zajonc, 2000). Applied to a face perception context, Zebrowitz, White, and Wieneke (2008) found that both supraliminal and subliminal mere exposure to Asian faces and Black faces increased White participants' evaluations of new Asian faces and Black faces. Montoya, Horton, Vevea, Citkowicz, and Lauber's (2017) recent meta-analysis of 268 estimates of mere exposure effects confirmed all of these tendencies, with the exception that for children mere exposure slopes were flat such that any exposures to a stimulus elicited liking.

Evaluative Conditioning

Evaluative conditioning (EC) involves repeatedly pairing an attitude object with a positive or negative stimulus, which subsequently causes a corresponding change in the evaluation of the attitude object. Well-known social psychological studies have demonstrated EC effects. For instance, in the intergroup domain, Olson and Fazio (2006) repeatedly presented White participants with images of Black individuals together with positive words on a screen and images of White individuals with negative words, among filler items. In the control condition, participants saw the same stimuli, with the difference being that these were presented separately instead of simultaneously. The researchers found that participants in the experimental condition showed more spontaneous positivity toward Black people relative to White people than participants in the control condition, and this effect was still present after a 2-day interval. Similarly, Dijksterhuis (2004) found that repeatedly pairing the word *I* with positive trait terms on a subliminal level improved self-esteem on a spontaneous measure.

A recent meta-analysis provided strong support for a medium-sized effect of EC across a range of stimuli (Hofmann, De Houwer, Perugini, Baeyens, & Crombez, 2010). This meta-analysis also suggested that participants may need to be aware of the contingency between the attitude object and the valenced stimulus for EC effects to occur and that effects may be extinguished by presenting the attitude object on its own. Further, Hofmann et al. found that EC effects were stronger when the initial attitude was neutral, indicating that EC plays a stronger role in attitude formation than in attitude change.

Fear Appeals

Meta-analyses and reviews have generally revealed more message acceptance in conditions of high fear than in conditions of low fear (Peters, Ruiter, & Kok, 2013; Ruiter, Abraham, & Kok, 2001; Witte & Allen, 2000). Hovland, Janis, and Kelley's (1953) seminal volume proposed that such fear-inducing messages elicit more yielding when contemplation of their recommendations helps to reduce the fear than when contemplation of their recommendations does not help to reduce the fear. Building on this notion, subsequent theoretical models suggested that effects of fear are best understood by distinguishing the affective and cognitive effects of fear arousal (Leventhal, 1970) and that the cognitive effects may involve both the appraisal of a threat and the appraisal of how to cope with the threat (Rogers, 1983). That is, according to Rogers, severe threats that are salient in a message (i.e., high threat appraisal) should evoke more message yielding when the recommended protective actions are seen as being effective and easy to enact than when they are seen as being too ineffective or difficult to enact (i.e., low coping appraisal). Supporting these ideas, a recent meta-analysis by Peters, Ruiter, and Kok (2013) showed that manipulations of threat were only persuasive when efficacy was high, that is, when people's capability to negate the threat is high (self-efficacy) and the potential response to negate the threat is effective (response efficacy). However, there is also

meta-analytic evidence that fear appeals can be effective regardless of response efficacy, excluding self-efficacy (De Hoog, Stroebe, & de Wit, 2007; Tannenbaum et al., 2015).

Signs of Deception

Abundant research has shown that people generally are poor at detecting lies. In a meta-analysis of 206 studies, participants accurately identified lies and truths in only 54% of the cases, 4% above chance level (C. F. Bond & DePaulo, 2006). Recent findings suggest that the reason for this poor performance is a lack of valid signs of deception and not people's inability to identify the signs (Hartwig & Bond, 2011). That is, although people often have relatively accurate intuitive notions of which cues are generally indicative of deception (e.g., communicator seems tense, message seems inconsistent), the link between the presence of a cue and deceptive intent may be weak (DePaulo et al., 2003). In line with this finding, experts—individuals whose occupation expose them to lies regularly (e.g., law enforcement personnel, judges)—were found to perform no better than nonexperts at lie detection (C. F. Bond & DePaulo, 2006). In contrast, there is recent evidence showing that educating people about cues in a message's verbal content (e.g., the message's logical structure and details) can improve people's ability to identify deception (Hauch, Sporer, Michael, & Meissner, 2016). Future research could work on developing stronger techniques to improve people's ability to detect lies.

A surprising finding in the literature is that, while people tend to believe that particular facial cues (e.g., deviated gaze) signal deception, they are actually somewhat better at detecting deception when they do not see the communicator (DePaulo, 1994). When facial cues are absent, people rely on more valid cues to deceit, including voice pitch, speech errors, and speech hesitations (C. F. Bond & DePaulo, 2006; DePaulo, Stone, & Lassiter, 1985; Zuckerman, DePaulo, & Rosenthal, 1981; Zuckerman & Driver, 1985). In contrast, when facial cues are present, accuracy at detecting lies is approximately at chance level (e.g., C. F. Bond & DePaulo, 2006; Ekman & O'Sullivan, 1991). Another interesting finding is that the motivation to be believed reduces the communicator's perceived honesty (C. F. Bond & DePaulo, 2006). That is, irrespective of whether the communicator is actually deceptive or not, being motivated to be believed increases perceptions of deceit. This finding further illustrates the low validity of signs of deception; an honest communicator who is highly motivated to be believed may often resemble a stereotypical liar. Future research could develop a model of how message recipients' attitudes are shaped by the cues to deception in nonvisual and visual modalities. Many interesting questions can be asked about the effects of these cues. For example, are the effects of cues to deception similar to the effects of forewarning of persuasive intent? As we described, forewarning of persuasive intent can reduce persuasion by causing recipients to counterargue the content of the persuasive communication. This counterargumentation may also be elicited by cues to deception, which may prime the message recipients to be skeptical or wary (see also Sagarin, Cialdini, Rice, & Serna, 2002).

Effects on the Deceivers' Attitudes

As Harmon-Jones, Armstrong, and Olson (this volume) describe, Festinger and Carlsmith's (1959) classic demonstration of the effects of behavior on attitudes had a tremendous impact on the study of attitudes. Their experiment also helps to understand the effects of deception on the deceiver's attitudes, given that the target behavior in their experiment was the act of communicating a false opinion about several experimental tasks to a new participant in the experiment. When the incentive offered for this counterattitudinal advocacy was low (i.e., \$1 rather than \$20), the deception caused participants to change their attitude to more closely resemble their deception. Since Festinger and Carlsmith's (1959) experiment, many studies have replicated and extended this effect of deception on the deceiver's own attitude (see Gawronski & Strack, 2004; Harmon-Jones, Amodio, &

Harmon-Jones, 2009; Harmon-Jones & Mills, 1999). This newer research has added the observation that attitude change occurs more strongly when people freely express false attitudes in a manner that produces aversive consequences (Cooper & Fazio, 1984; Cooper & Scher, 1994), although aversive consequences are not necessary for attitude change to occur (Harmon-Jones, 2000; Harmon-Jones, Brehm, Greenberg, Simon, & Nelson, 1996; Prislin & Pool, 1996).

Two major social psychological theories briefly mentioned earlier in this chapter have been used to explain these effects of deception: cognitive dissonance theory (Festinger, 1957) and self-perception theory (Bem, 1972). Dissonance theory proposes that attitude change occurs because the discrepancy between the deception and the true attitude elicits an uncomfortable tension or “dissonance” in the deceiver, especially when there appears to be no external justification for the deception and there are aversive consequences for having performed the deception. In this situation, deceivers become motivated to reduce their dissonance by changing their attitude to match their false attitude expression (e.g., Elliot & Devine, 1994). In contrast, self-perception theory proposes that individuals performing the deception may not have a strong attitude in the first place and, therefore, simply infer their true attitude from their behavior; no aversive arousal is involved (Bem, 1972). That is, in situations that present no incentive for the deception and the person’s true attitude is weakly held, people guess that they must at least partly believe what they said, because they can see no other plausible reason for having expressed the attitude.

Extant evidence indicates that aversive arousal can be elicited by deception and that this arousal can mediate the effect of deception on attitude change (e.g., Fazio, Zanna, & Cooper, 1977; Zanna & Cooper, 1974; Zanna, Higgins, & Taves, 1976). Nonetheless, arousal is less likely to play a role when the deception is close to the true attitude than when it is very discrepant from the true attitude (Fazio et al., 1977). In other words, some deception-induced attitude change may occur through a dissonance-reduction mechanism, whereas other deception-induced attitude change may occur through a self-perception mechanism (Fazio et al., 1977). An additional complication is that deception-induced attitude change may be more likely to occur when the deception threatens people’s self-concept than when the deception does not threaten the self-concept (e.g., Heine & Lehman, 1997; Steele, Spencer, & Lynch, 1993; see Harmon-Jones et al., this volume). Thus, it could be argued that the dissonance and self-perception accounts of deception-induced attitude change should be broadened to incorporate the role of the self-concept (see Steele, 1988). However, as Shavitt (Volume 2) concludes, the precise role of the self-concept for attitudes and attitude change varies across cultures (Hoshino-Browne et al., 2005).

Recent developments in the literature have extended cognitive dissonance theory in important ways. That is, Harmon-Jones et al. (2009) proposed in their action-based model of dissonance that the motivated process of dissonance reduction is approach-oriented rather than avoidance-oriented. The model assumes that dissonance is evoked by cognitions with competing action tendencies, and dissonance reduction brings these cognitions in line with behavioral intentions in order to facilitate goal-directed behavior. In other words, when an individual has chosen an option, dissonance motivates them to prepare for action rather than ruminating about the alternatives. In support of this model, C. Harmon-Jones, Schmeichel, Inzlicht, and Harmon-Jones (2011) found that individuals who have a stronger tendency to engage in goal-directed behavior show greater dissonance reduction.

Although deception that occurs with high external justification and without aversive consequences does not typically produce dissonance-motivated or self-perception-motivated attitude change, it can nonetheless affect the accessibility (i.e., ease of retrieval) of the dissimulator’s attitude. Specifically, when people are asked to indicate the opposite of their true attitude without the elicitation of any aversive consequences, attitudes become more accessible (i.e., more quickly recalled), even though the deception in these circumstances elicits no attitude change. This effect arises both when the initial attitudes are strong (Maio & Olson, 1995a) and weak (Johar & Sengupta, 2002). More important, subsequent attitude-relevant judgments become more compatible with the true

attitude after such deception (Maio & Olson, 1998). These findings are in line with other research showing that resisting persuasion affects attitude certainty, which in turn influences the attitude's vulnerability against further persuasion attempts and the attitude's correspondence with behavioral intentions (Tormala & Petty, 2002; Tormala, Clarkson, & Petty, 2006).

Coercive Communicators

Communicators whose messages contain a coercive element (e.g., by saying "You *must* agree") may cause message recipients to experience a state that has been labeled *reactance* (J. W. Brehm, 1966; Quick, Shen, & Dillard, 2013; Rains, 2013). That is, coercive communicators may increase resistance when the message is counterattitudinal (e.g., J. W. Brehm, 1966), and they may actually elicit a reversal in attitudes (i.e., opposing the position in the message) when the message is pro-attitudinal (Worchel & Brehm, 1970). A potential explanation for these effects is that coercive elements in a message threaten people's sense of personal freedom, which they are motivated to restore (J. W. Brehm, 1966). When a message is counterattitudinal, mere maintenance of the pre-message attitude can restore freedom. In contrast, when the message is pro-attitudinal, freedom can be restored only by changing the attitude in the direction opposite to that argued in the message, as predicted by reactance theory (S. S. Brehm & Brehm, 1981). Building on this concept, Dillard and Shen (2005) suggested that reactance consists of an affective component, anger, and a cognitive component, counterarguing the message, and they provided evidence that these components can be measured. A recent meta-analysis provided support for this conceptualization of reactance (Rains, 2013).

Summary

Messages can elicit persuasion or resistance in a number of ways. For instance, forewarning of a message's persuasive intent has been shown to generally increase resistance to the message. Yet, when people expect that they will subsequently have to express their opinion to others, they may alter their attitude to fit the audience's opinion. Unsurprisingly, strong arguments are more persuasive than weak arguments when message recipients are concerned to be accurate, but research has found several moderators of this effect (e.g., message length, position). There is some evidence that certain characteristics of strong messages (e.g., novelty, causality of arguments) are crucial in driving the effects.

Relatively affective influences on attitude change include the mere exposure effect, which demonstrates that repeatedly presenting a stimulus increases favorability toward the stimulus. In addition, changes in attitude can be achieved by repeatedly pairing a stimulus with another positively or negatively valenced stimulus. This so-called evaluative conditioning effect has been shown to increase spontaneous positivity toward Black people and self-esteem, among many other effects. Further, fear appeals are effective in changing people's attitudes, but only if people's ability to negate the implied harm is high.

Messages from communicators may also be deceptive, and people are generally unlikely to detect such deception. Although findings indicate that the reason for this poor performance at lie detection is the low validity of cues, there is at least initial evidence for the effectiveness of training to improve people's performance. An interesting issue is the effect of the deceptions on the sources' own attitudes (i.e., an effect of behavior on attitude). Abundant evidence indicates that message sources may become convinced by their own deceptions, either as a means of reducing discomfort from their deception or through a simple inference process. But when deceptions do not cause attitude change, they instead make the true attitude more accessible from memory. Finally, when communicators are coercive in delivering their message (e.g., "You *must* agree"), they may evoke resistance to the message when it is counterattitudinal, or they may evoke opposition to the message's position when it is pro-attitudinal as a means to restore threatened freedom.

Recipient-Related Factors

As noted above, many effects of communicator and message variables occur because they activate relevant heuristics and message-relevant thoughts for the message recipients. However, a variety of individual differences moderate the persuasive impact of message and communicator variables, as Briñol and Petty (this volume) review. The nature of an individual difference is that some variability in recipients' attitudes, abilities, and motivations exists prior to message exposure. For example, before receiving a persuasive message, recipients' attitudes toward the message topic may vary in strength, their structural attributes, and the psychological needs that they fulfill. Recipients may also vary in their ability and motivation to process the messages. The impact of each communication factor described in this chapter may depend on one or more individual differences. In this section, we discuss attitude strength, attitude content, attitude structure, attitude function, processing ability, and processing motivation.

Attitude Strength

An attitude's strength refers to the extent to which it persists over time, is resistant to change, and affects other judgments and behavior (Krosnick & Petty, 1995). Self-reports can assess the strength of attitudes in many ways, including attitude importance, attitude certainty, and attitude intensity. All of these variables are important because they predict the attitude's persistence and resistance independently (e.g., Clarkson, Tormala, & Rucker, 2008; Holland, Verplanken, & Van Knippenberg, 2002; Petty, Haugtvedt, & Smith, 1995; Visser & Krosnick, 1998), despite strong relations among them (Howe & Krosnick, 2017; Krosnick, Boninger, Chuang, Berent, & Carnot, 1993). The meta-cognitive model of attitudes (Petty, 2006; Petty, Briñol, & DeMarree, 2007) states that people can tag their evaluative associations with validity tags (e.g., true or false tags), and these tags can be stored in memory and estimated with measures of attitude confidence or certainty. Importantly, the model suggests that, when people are more confident of their attitude and when this confidence is more accessible, the attitude is more likely to be reported, to be persistent, and to predict behavior. Moreover, although not always considered as an indicator of attitude strength, attitude extremity has revealed similar effects. That is, extreme attitudes are also more stable across time (Prislin, 1996) and more resistant to change (Bassili, 1996; Haddock, Rothman, Reber, & Schwarz, 1999; Pomerantz, Chaiken, & Tordesillas, 1995), and people with more extreme attitudes have been shown to prefer attitudinally consistent information (Brannon, Tagler, & Eagly, 2007).

Research has identified several determinants of attitude strength. For instance, attitudes are stronger when they are based on more elaboration (e.g., Haugtvedt & Petty, 1992; Petty, Haugtvedt, & Smith, 1995), and this is even the case when individuals only *perceive* their attitude to be based on more elaboration (Barden & Petty, 2008). People also report stronger attitudes when they learn that other individuals agree with them than when they learn that other individuals disagree with them (Petrocelli, Tormala, & Rucker, 2007; see also Tormala & Rucker, 2007). In addition, attitudes are stronger among middle-aged adults (Eaton, Visser, Krosnick, & Anand, 2009), in part because people at this stage of their lives are most likely to occupy high power social roles (e.g., managerial positions), and these roles may require more resoluteness and more resistant attitudes.

Variability in Attitude Content

According to the popular tripartite view of attitudes (Zanna & Rempel, 1988), affective, cognitive, and behavioral information combine to influence attitudes, and the contribution of each type of information can vary. For example, some attitudes might express feelings more than any specific beliefs and behaviors (e.g., attitudes toward abstract art), whereas other attitudes might express all three types of information simultaneously (e.g., attitudes toward war). This variability in the

potential bases of attitude is important because it relates to the strength of attitudes. That is, attitudes may be stronger when they are embedded in many cognitive, affective, and behavioral associates than when they are embedded in few cognitive, affective, and behavioral associates (Eagly & Chaiken, 1995; Esses & Maio, 2002; Prislin & Ouellette, 1996). For example, Wood, Rhodes, and Biek (1995) found that persuasive messages are less effective among those who report more cognitive and behavioral contents of their attitudes than among those who report few of these contents.

Variability in Attitude Structure

In addition to studying embeddedness of attitudes in different *types* of information, it is important to examine the ways in which the information is structurally combined to yield attitudes (see Fabrigar, MacDonald, & Wegener, this volume). There may be conflict within each type of information (e.g., positive versus negative beliefs) as well as conflict between each type (e.g., positive beliefs versus negative emotions). These two types of conflict are often labeled as *intra-* and *inter-component ambivalence*, respectively (Esses & Maio, 2002; MacDonald & Zanna, 1998; M. M. Thompson, Zanna, & Griffin, 1995). Research has assessed this *intra-* and *intercomponent ambivalence* by asking participants to rate either their feelings of ambivalence (subjective ambivalence) or the favorability of their attitude elements so that these favorability ratings could be entered into formulae for calculating ambivalence (objective ambivalence; e.g., Bassili, 1996; Priester & Petty, 1996). Regardless of which method is used, ambivalent attitudes tend to be weaker than univalent attitudes as evidenced by a higher susceptibility to change and a weaker attitude-behavior link (e.g., Armitage & Conner, 2000). Further, people who exhibit more ambivalence toward an issue scrutinize messages more carefully (Jonas, Diehl, & Brömer, 1997; Maio, Bell, & Esses, 1996; Maio, Esses, & Bell, 2000), although this effect may depend on the position of the message. In particular, ambivalence has been shown to motivate people to scrutinize pro-attitudinal messages more and counterattitudinal messages less as a strategy to reduce the ambivalence (Clark, Wegener, & Fabrigar, 2008; Van Harreveld, Van der Pligt, & de Liver, 2009). As another consequence of this motivation to reduce ambivalence, Sawicki et al. (2013) found that ambivalence predicts seeking pro-attitudinal information more than counterattitudinal information. However, this effect only occurred when participants were relatively unfamiliar with the issue and hence perceived the information as more effective in reducing ambivalence. When participants were more familiar with the issue, this pattern reversed such that ambivalence predicts seeking counterattitudinal information more than pro-attitudinal information. Ambivalence is also associated with greater difficulty retrieving attitudes from memory (Bargh, Chaiken, Govender, & Pratto, 1992; Fazio, 1995), and consequently, ambivalent attitudes may be less likely to bias the processing of incoming information in a manner that is congruent with the attitude (see Fazio, 1995, 2000).

Although it is typically assumed that objective ambivalence predicts subjective ambivalence, they have been found to be only moderately related (Priester & Petty, 1996). More recently, another important antecedent of subjective ambivalence has been suggested, the discrepancies between participants' actual and desired attitudes. DeMarree, Wheeler, Briñol, and Petty (2014) found that such discrepancies predict subjective ambivalence independently from objective ambivalence, and mediated by subjective ambivalence, actual-desired discrepancies predicted weaker attitude-behavior links and a stronger motivation to reduce the attitudinal ambivalence.

Attitude Function

Like many other psychological constructs (e.g., stereotypes, traits), attitudes fulfill important psychological needs. These needs are varied and can affect the manner in which people form and maintain attitudes during exposure to persuasive communications. M. B. Smith, Bruner, and White (1956) and Katz (1960) suggested a number of important attitude functions. M. B. Smith et al.'s (1956)

object-appraisal function is the most basic: It expresses the idea that attitudes simplify interactions with the attitude object. (For a review, see Earl & Hall, this volume.) This function is served by any accessible attitude, regardless of whether the attitude is negative or positive. For example, people who have highly accessible attitudes toward different abstract paintings have less difficulty choosing which paintings they prefer most than do people who have less accessible attitudes toward the paintings (Blascovich, Ernst, Tomaka, Kelsey, Salomon, & Fazio, 1993; Fazio, Blascovich, & Driscoll, 1992). The usefulness of these accessible attitudes for decisions may make people reluctant to relinquish or change them, and supporting this hypothesis, there is evidence that accessible attitudes are more resistant to change (Fazio, 1995, 2000; Pfau et al., 2003).

Other psychological functions may elicit resistance to attitude change by causing people to adopt specific attitude positions. For example, Katz's (1960) *utilitarian* function indicates that people like things that are beneficial for them and dislike things that are harmful. A *value-expressive* function occurs when people like things that affirm or express important values and dislike things that threaten the values. Another, the *ego-defensive* function, serves to protect an individual's self-concept against internal conflict; that is, we hold some attitudes simply to feel good about ourselves, and this function has been highlighted as potentially playing an important role in negative attitudes to minority groups (e.g., Herek & McLemore, 2013). Also, M. B. Smith et al.'s (1956) *social-adjustive* function is served when people like objects that are popular among people whom they like, but dislike objects that are unpopular among people whom they like. In theory, these functions are pivotal in determining which types of information address the motivation underpinning the individual's attitudes and, consequently, which types of message content are more persuasive. This prediction will be considered further below, where we discuss communicator-message-recipient interactions.

Ability and Motivation Dimensions

As Table 14.1 makes clear, prominent contemporary process models of persuasion rest heavily on the ability and motivation of the message recipient to scrutinize the persuasive message itself. As ability or motivation are reduced, message recipients rely on other factors such as number of arguments presented (e.g., Petty & Cacioppo, 1984; Wood et al., 1985); source credibility (e.g., Petty, Cacioppo, & Goldman, 1981); and physical characteristics (e.g., Livingston, 2001). As such, any factor that may impact motivation or ability to process message content accurately and efficiently is a potential moderator of the persuasive effects of the message and the source (see Briñol & Petty, this volume; Petty & Wegener, 1998a).

Many variables have been shown to impact a recipient's ability to process message arguments systematically (Wegener & Petty, this volume). Scrutiny of the arguments decreases in the presence of several constraints in the persuasive context, including distractions (Petty, Wells, & Brock, 1976); physical discomfort or arousal (Petty, Wells, Heesacker, Brock, & Cacioppo, 1983; Sanbonmatsu & Kardes, 1988); time limitations (S. M. Smith & Shaffer, 1995); inability to read messages at the recipient's own pace (Chaiken & Eagly, 1976); message repetition (Cacioppo & Petty, 1979; Gorn & Goldberg, 1980); low recipient knowledge about the communication topic (Johnson et al., 1995; Wood et al., 1995); and inability to comprehend complex message content (Hafer, Reynolds, & Obertynski, 1996).

As Briñol and Petty review, many individual difference variables may underlie the motivation to elaborate on message content. The most widely studied variable is need for cognition (Cacioppo & Petty, 1982; Cacioppo, Petty, Feinstein, & Jarvis, 1996), which is defined as the motivation to approach and enjoy effortful cognitive activity. Need for cognition has been shown to moderate the persuasive impact of argument quality such that it is greater for those high in this construct than for those low in this construct. People have also been proposed to differ in their need for cognitive closure or "the desire for a definite answer on some topic, any answer as opposed to confusion and ambiguity" (Kruglanski, 1989, p. 14; Kruglanski & Webster, 1996). The need for closure affects

the depth and direction of processing, and accordingly, people higher in need for closure are more resistant to persuasion (Kruglanski, Webster, & Klem, 1993). Moreover, message scrutiny motivation is increased when feelings of accountability are heightened (Tetlock, 1983) and when people believe that they are solely responsible for message evaluation (Petty, Harkins, & Williams, 1980).

Message recipients' intelligence and self-esteem are two other variables that might influence ability and motivation (see Briñol & Petty, this volume). According to McGuire (1968), high levels of both variables should help make people able and motivated to understand and comprehend persuasive messages, because high intelligence involves greater thinking ability and high self-esteem reduces anxiety and heightens social engagement. At the same time, however, he suggested that it is important to consider that high intelligence should also make people more able to counterargue messages, and high self-esteem should make people more certain about their views. As a result of these competing influences, there should be more persuasion at moderate levels of the variables and lower persuasion at the low and high extremes. Rhodes and Wood (1992) found this pattern in their meta-analysis of the self-esteem literature, whereas the pattern they obtained in the intelligence literature simply showed that individuals with higher intelligence exhibited less persuasion.

Despite separate descriptions of ability and motivation factors, it is important to consider that many persuasion variables affect both ability and motivation to process messages. Mood is a prime example of a variable that biases message processing through its effects on both ability and motivation to process messages. Raghunathan and Trope (2002) revealed three ways in which these effects occur. First, positive mood may act as a resource that helps people to elaborate on presented information that is negative but self-relevant (Das & Fennis, 2008). For example, a positive mood might help a heavy caffeine user to elaborate on the details of a message citing the negative effects of caffeine on health, because the positive mood buffers against any negative implications of the message for self-evaluations. Second, a negative mood may cause people to process diagnostic and relevant information in a manner that helps them attain a positive mood (Wegener & Petty, 1994). The third effect is that, compared to a negative mood, a positive mood acts as a cue that goals are being met and everything is well. As a result, a positive mood can lead people to process a message without elaboration (Bless, Bohner, Schwarz, & Strack, 1990), at least when the information is not diagnostic or personally relevant (e.g., Wegener, Petty, & Smith, 1995). These findings indicate that mood can act as a resource (ability), a goal state (motive), or as information about the environment, thereby affecting the ability and motivation to process persuasive messages and the post-message attitude.

Summary

Message recipients' individual differences have shown a range of effects on attitude change and resistance. Stronger attitudes and attitudes that are more embedded in affective, cognitive, and behavioral associations have been shown to be more stable over time and more resistant to change. However, when the attitudes reveal ambivalence, individuals are more likely to scrutinize a pro-attitudinal message and less likely to process a counterattitudinal message, a strategy used to reduce the ambivalence. Moreover, attitudes can serve various functions, and these functions may elicit resistance or persuasion by causing people to adopt attitude positions that fulfill these functions. Finally, given that the ability and motivation to process a message influence attitude change, variables that affect ability and motivation are potentially important determinants of persuasion processes. For instance, distractions and time limitations affect people's ability, whereas need for cognition, need for closure, and feelings of accountability affect people's motivation.

Communicator-Message-Recipient Interactions

Most of the above research focused on simple effects of communicator, message, and recipient variables on message processing and attitude change. Additional evidence has examined how these

variables interact to predict these outcomes. Providing a good example of how these variables interact, Misra and Beatty (1990) suggested that source characteristics should fit the content and tenor of the message. They found that people were more favorable toward advertised brands when the products were paired with celebrity sources who have compatible traits (e.g., a humorous product with a comedian) than when the products were paired with celebrity sources who have incompatible traits (e.g., a medical device with a liked comedian). Jarring combinations of sources and message may prevent the simple transfer of positive affect from the source to the message. However, subsequent evidence complicates the issue. Researchers have found more attitude change (a) when source and message are matched in terms of expertise but not attractiveness (Till & Busler, 2000); (b) when source and message are mismatched for established brands (Törn, 2012); and (c) at moderate levels of mismatch compared to strong levels of match or mismatch (J. G. Lee & Thorson, 2008).

Below, we discuss other research examining the effects of matching aspects of messages to aspects of the message recipients. Studies have focused on the effects of matching messages to the function, content, and structure of the message recipient's initial attitude. In addition, matching to the message recipient's emotional state and self-perception has received research attention. Finally, research on message framing and thought confidence have also shown interactive effects on persuasion.

Attitude Function Matching Effects

The importance of communicator-message-recipient interactions was in fact first illustrated in publications on attitude function (Katz, 1960; M. B. Smith et al., 1956), a topic we considered earlier. Hovland et al.'s (1953) classic book *Communication and Persuasion* suggested that communications are more effective when they highlight an incentive for attitude change. For example, an advertisement promoting exercise might describe the utilitarian benefits of vigorous activity (e.g., better energy levels), or the ad might describe the social-adjustment benefits of vigorous activity (e.g., a more attractive physique). This theory suggested that message recipients change their attitude in response to a communication only when it highlights incentives that are important to message recipients. In practice, one of the major determinants of the importance of the incentives should be the function that is served by the initial attitude (Katz, 1960; M. B. Smith et al., 1956). If a person is experiencing a strong need to look attractive to others, then a social-adjustment argument for exercise should hold more incentive value for the individual than a utilitarian argument.

In the past two decades, many experiments have supported the conclusion that messages are more persuasive when their content addresses the dominant functions of the message recipients' attitudes than when the content is irrelevant to these functions. For instance, when a message directly targets the values that underpin an attitude, the attitude and related attitudes may change more than when the attitude itself is targeted (Blankenship, Wegener, & Murray, 2012). Thus, direct matching to underlying values may be a powerful way to influence value-expressive attitudes. As one example, scientists are more successful communicators when they emphasize a shared identity (Schultz & Fielding, 2014). Similarly, Hornsey and Fielding (2017) proposed a jiu jitsu model of persuasion that involves understanding the basis of an attitude (e.g., values, beliefs) and aligning communications with this basis to create attitude change.

In a similar vein, across many experiments, DeBono (2000) has used the personality measure of self-monitoring to tap the extent to which participants' attitudes served utilitarian versus social-adjustment functions. He then presented advertisements that focused on the benefits of a product for either utilitarian or social-adjustment goals. Results indicated that high self-monitors, who tend to possess social-adjustment attitudes, are more persuaded by messages that address social-adjustment concerns than by messages that address utilitarian concerns. In contrast, low self-monitors, who tend to possess utilitarian attitudes, are more persuaded by messages that address utilitarian concerns than by messages that address social-adjustment concerns. Murray, Haddock, and Zanna (1996)

confirmed this pattern of results by experimentally manipulating people's perceived attitude functions. Similarly, Prentice (1987) found that participants who attached high importance to symbolic values (e.g., love, self-respect) and symbolic possessions (e.g., family heirlooms) were more persuaded by messages that contained symbolic (value-expressive) arguments than by messages that contained instrumental (utilitarian) arguments. Shavitt (1990) extended this pattern using different types of attitude objects as a means of identifying the recipients' likely attitude function; specifically, she found that instrumental ads for instrumental products (e.g., an air conditioner) were more persuasive than symbolic ads for instrumental products.

Of interest is that function-matching effects may depend primarily on a persuasion context that elicits high or low message elaboration (Petty, Wheeler, & Bizer, 2000). When the persuasion context compels neither high amounts of message processing nor low amounts, the effects of the message's content depends on the cogency of the arguments: Matching effects occur only when arguments are strong, and effects may actually reverse when arguments are weak (Petty & Wegener, 1998b). This pattern supports the hypothesis that function-matching sometimes causes people to scrutinize message arguments more carefully (Petty & Wegener, 1998b). Because of this scrutiny, people are able to detect flaws and strengths in messages that target their attitude function and react accordingly. Moreover, function-matching effects may only occur at the category level of products, but not when individual brands belonging to the category are presented. Specifically, although utilitarian appeals were more persuasive for utilitarian products (e.g., paper towels) and symbolic appeals were more persuasive for symbolic, value-expressive products (e.g., college t-shirts), these matching effects were absent for individual brands of these products (LeBoeuf & Simmons, 2010).

Recent evidence is relevant to a critical theoretical analysis of attitude function theories (Maio & Olson, 2000), which proposed that there can be much more varied attitude functions, such as motives for achievement or power. For instance, Dubois, Rucker, and Galinsky (2016) found that high power communicators generate messages emphasizing competence information, which are more persuasive among higher power audiences, whereas low power communicators generate messages emphasizing warmth information, which are more persuasive among lower power audiences. Similarly, Wolsko, Ariceaga, and Seiden (2016) found that political conservatives are more persuaded by pro-environmental messages emphasizing moral motives congruent with their ideology than by environmental messages promoting other moral motives more congruent with liberal ideology. Although it is too early to discern whether this matching pattern is due to a matching of the message content to the primary motivations underlying participants' attitudes, these are potentially additional provocative examples of attitude function-matching.

In theory, diverse aspects of a person's situation can influence the functions of their attitudes at any given time. For instance, it is plausible that attitudes toward food become increasingly utilitarian and less value-driven as people are made increasingly hungry. Cultural background and learning history should also play a role. As Shavitt (this volume) describes, a number of cultural dimensions influence attitudes presumably by shaping the motives and beliefs that underpin them, and people may be more positive to attitude objects that match their cultural orientation than by those that do not (e.g., Han & Shavitt, 1994; Hart, 2014; Johnson et al., 2010; Riemer, Shavitt, Koo, & Markus, 2014; Zhang et al., 2006).

Attitude Content Matching Effects

Similar matching effects may occur when messages address the affective, cognitive, and behavioral information that underlies message recipients' attitudes. Early research on this topic found support for this hypothesis (e.g., Edwards, 1990), while other research suggested that matching messages should be less persuasive, because these messages directly challenge the way in which the recipients have been thinking about the attitude object, thereby eliciting feelings of threat and defensiveness

(Millar & Millar, 1990). Since then, mounting evidence suggests that matching a message to the target's cognitive and motivational predispositions can enhance its persuasive effect. For instance, Fabrigar and Petty (1999) attempted to provide a more definitive test by controlling for several factors that varied across the Edwards (1990) and Millar and Millar (1990) experiments. Fabrigar and Petty's first experiment examined the effects of matching messages with the affective and cognitive bases of recipients' attitudes, while controlling for matches in different affective and cognitive attributes. For example, message recipients were exposed to a novel beverage by sampling its pleasant taste and then later were exposed to either a bad taste of the beverage or a bad odor from the beverage. Other message recipients were exposed to information about the beverage's positive taste, followed by information describing a negative taste or a bad odor. Regardless of whether the attribute dimensions matched (e.g., good taste vs. bad taste) or mismatched (e.g., good taste vs. bad smell), affective interventions were more effective at changing affective than cognitive attitudes. Similar matching effects were obtained in their second experiment, which used written materials to manipulate the original bases of attitude and the subsequent persuasive information.

Other research found similar effects using more general measures of affective and cognitive structural bases. That is, across a range of attitude objects, Huskinson and Haddock (2004) and See, Petty, and Fabrigar (2008) assessed participants' favorability in evaluative-cognitive terms (e.g., the object's usefulness); participants' favorability in affective terms (e.g., how happy they feel about the object); and participants' overall favorability. Stronger correlations between the affective measure and the overall attitude measure compared to correlations between the cognitive measure and the overall attitude measure reflected stronger general affect-based attitudes than cognition-based attitudes. Using this method, the researchers replicated the matching effect for affect-based attitudes and messages and also found some evidence for a similar cognition-based matching effect. Interestingly, recent evidence suggests that these effects may be amplified when attitude certainty is high. That is, when attitude certainty is high, matched messages elicit stronger attitude change and mismatched attitudes elicit stronger resistance (Clarkson, Tormala, & Rucker, 2011).

Matching effects have also been obtained for individual differences in need for affect (Maio & Esses, 2001), which is the motivation to approach and enjoy emotional experiences, and need for cognition (Cacioppo & Petty, 1982), which is the motivation to approach and enjoy effortful cognitive activity. That is, people higher in need for affect were more influenced by an affect-based message, whereas people higher in need for cognition were more influenced by a cognition-based message (Haddock, Maio, Arnold, & Huskinson, 2008). In addition, need for affect and need for cognition revealed matching effects on interpersonal attitudes (Aquino, Haddock, Maio, Wolf, & Alparone, 2016) and on intergroup attitudes (Wolf, von Hecker, & Maio, 2017). Specifically, people high in need for affect evaluate warm groups, individuals, and traits more positively than cold groups, individuals, and traits, presumably because warm traits (e.g., sentimental) have a stronger affective component than cold traits (e.g., unsociable). Conversely, people high in need for cognition evaluate competent groups, individuals, and traits more positively than incompetent groups, individuals, and traits, presumably because competent traits (e.g., scientific) have a stronger cognitive component than incompetent traits (e.g., naïve).

Finally, people's meta-perceptions of the bases of their attitudes have also been shown to moderate the influence of persuasive messages in a similar fashion: Individuals who perceive their attitudes to be based primarily on affect have higher interest in affective information and are more persuaded by such information, whereas individuals who perceive their attitudes to be based primarily on cognition have higher interest in cognitive information and are more persuaded by such information (See et al., 2008). Moreover, these effects of the meta-bases of attitudes were found to be independent of the structural bases.

Petty et al. (2000) proposed that attitude content matching may motivate people to process messages more carefully. This notion was based on the observation that messages elicit more detailed

processing when they are relevant to an important aspect of the recipients' self-concept than when they are not relevant to this aspect (e.g., Cacioppo, Petty, & Sidera, 1982; Evans & Petty, 2003), a similar finding to the effect of attitude function matches on message processing (Petty & Wegener, 1998b). Consequently, Petty et al. suggested that, in general, matches might operate by making a message seem more self-relevant. This relevance may act as a persuasive cue in conditions that elicit little message elaboration (e.g., high distraction); bias systematic processing in conditions that elicit high message elaboration; and encourage more systematic processing when the persuasion context does not specify either level of elaboration. This provocative hypothesis merits further study across diverse messages.

Emotions and Matching Effects

The effects of messages can also depend on emotional states in message recipients. Anxiety is one such emotional state. On the one hand, anxiety tends to decrease the ability to process messages by distracting people from the task at hand (e.g., Nettleman & Hill, 1977; see Eysenck, 1982). Yet, anxiety may enhance performance when the source of the anxiety is relevant to the task at hand (Eysenck, 1979). In the persuasion context, for example, a message might occasionally be relevant to a person's current anxieties and fears or irrelevant to them. Sengupta and Johar (2001) predicted and found that anxiety-relevant messages do in fact receive more elaborative processing (and more use of heuristic cues) in anxious than in non-anxious message recipients. When the message was not relevant to the source of anxiety, elaborate processing was lower in anxious than in non-anxious participants.

A similar effect has been obtained for the emotions sadness and anger. In particular, DeSteno, Petty, Rucker, Wegener, and Braverman (2004) found that messages emphasizing sad consequences that a policy proposal was designed to address were more persuasive among participants who were previously induced to be sad rather than angry. Conversely, messages emphasizing anger problems were more persuasive among participants induced to be angry rather than sad. However, this effect only occurred among participants high in need for cognition, presumably because they made a stronger effort to process the messages' arguments. Moreover, mediational analyses showed that these matching effects could be attributed to higher expectations that such sad or anger problems can occur, which in turn made the message more convincing.

Message Framing

Another area of burgeoning research examines message framing. Such research typically holds the arguments constant and varies how the message position is stated so that it has either a loss focus or a gain focus (for reviews, see Gallagher & Updegraff, 2012; O'Keefe & Jensen, 2006; Rothman & Salovey, 1997). Loss frames typically emphasize the costs that will accrue if an action is not taken (e.g., "if you don't stop action X, you will die!"), whereas gain frames emphasize the benefits that will result if an action is taken ("if you stop action X, you will live longer"). Loss-frame messages are typically more persuasive than gain-frame messages (e.g., Meyerowitz & Chaiken, 1987), although this effect may depend on the particular topic of the message and the target's motivation. For instance, A. Y. Lee and Aaker (2004) found in a series of experiments that gain frames were consistently more persuasive than loss frames when participants were motivated to pursue positive outcomes. In contrast, when participants were motivated to prevent negative events, loss frames were more persuasive than gain frames. Similarly, two recent meta-analytic reviews in the health domain have found that a gain frame is more persuasive when the targeted health behavior involves potentially lower risks (e.g., prevention behaviors; O'Keefe & Jensen, 2006); Gallagher and Updegraff's (2012) meta-analysis of 94 trials confirmed this trend. Hence, the effectiveness of the gain

frame may again depend on the message recipients' motivation to pursue positive outcomes rather than avoid negative outcomes. Of interest, this mechanism may help explain age-related differences in evaluations of loss-framed messages (Mikels et al., 2016): Older individuals may respond more positively to loss-framed messages than younger individuals because older individuals may be more motivated to avoid negative outcomes.

Thought Confidence

As described earlier in this chapter, the self-validation hypothesis highlights the importance of thought confidence as a metacognitive process in attitude change. Petty, Briñol, and Tormala (2002) suggested that thoughts held with high confidence should have a stronger impact on attitudes, whereas thoughts held with low confidence should have a weaker impact. In a series of experiments, the authors demonstrated that, with higher thought confidence, positive thoughts about a message increased persuasion, whereas negative thoughts decreased persuasion. For instance, given that strong arguments elicit positive thoughts and weak arguments elicit negative thoughts, the persuasiveness of strong arguments relative to weak arguments increased with higher thought confidence. Importantly, these effects emerged only for individuals who elaborated on the arguments.

Further, Briñol, Petty, and Barden (2007) found that strong arguments were more effective than weak arguments when participants were induced to feel happy rather than sad or neutral. This effect emerged because participants induced to feel happy reported higher confidence in their thoughts to the persuasive message, which in turn increased the attitudinal impact of strong arguments in the message compared to weak arguments. Moreover, Briñol et al. found the interaction between emotion and argument quality only among participants higher in need for cognition, that is, under conditions of high elaboration. In contrast, for participants lower in need for cognition, emotion had a simple persuasive effect such that happiness was more persuasive than sadness, regardless of argument quality. These findings provide further support for the importance of considering the role of thought confidence in persuasion, consistent with the metacognitive model of attitudes (Petty et al., 2007; see Briñol & Petty, this volume).

Summary

Considerable research has shown that aspects of the communicator, message, and message recipients interact to predict persuasion. While it has been suggested that the content of a message should match the source's characteristics (e.g., shampoo advertised by an attractive source), recent evidence on this topic remains inconclusive and needs further research attention. However, there is repeated evidence that messages matching the function, content, and structure of message recipients' initial attitude increase persuasion when the message itself is cogent. Similarly, messages were found to be more persuasive if they match recipients' emotional state, their motivation to approach affective or cognitive stimuli, and their perceptions of whether their attitudes are affect-based or cognition-based. There is also evidence that framing messages in terms of approaching positive outcomes versus framing messages in terms of avoiding negative outcomes has different effects depending on message recipients' motivation. Finally, recent research has shown that message recipients' confidence in their own thoughts about a message is an important determinant of persuasion, but in a manner that interacts with aspects of recipients' context and personality.

Effects of Message-Based Attitude Change

As the material in the preceding section testifies, a substantial body of research has outlined and explored a multitude of variables that influence persuasion. Yet far less research has explored the

persistence of communication-induced attitude change and its subsequent effects. This section summarizes the extant literature dealing with the behavioral and psychological consequences of communication-induced attitude change. In particular, we examine persistence of attitude change, direct behavioral effects of attitude change, and the relationship between attitude change and attitude functions.

Persistence of Attitude Change

Whether attitude changes persist following exposure to communications is an issue that greatly interested early scholars. Clearly, for changes in an attitude to bring about behavior change, the attitude changes must persist long enough to affect behavior. Consequently, early persuasion research routinely included both attitude and behavioral measures and frequently had multiple assessments of attitude. The paucity of such measures in contemporary work may in part be due to Cook and Flay's (1978) extensive narrative review of persistence, which concluded that attitude change found in experimental settings has little staying power. Most contemporary studies are poorly suited to show persistence of attitude change, owing to the ethical requirement to debrief participants after completing the immediate dependent measures, preventing an examination of the persistence of attitude change.

Despite the pessimism stemming from frequent failures of laboratory-induced attitude changes to persist, persuasion *can* last over the long term. Religious conversion, for example, often endures for a lifetime and is frequently accompanied by changes in attitudes toward others, the self, and religious practices. Similarly, Newcomb's (1943) classic Bennington College studies documented a liberal shift in the attitudes and values of a freshman class resulting from the influence of their upper-class leaders. The changes were still evident 50 years later (Alwin, Cohen, & Newcomb, 1991). Studies of political communication have found evidence of attitude change at least 6 weeks following media campaigns (Hill, Lo, Vavreck, & Zaller, 2013). In the health psychology literature, classroom-delivered HIV-prevention (message-based) interventions produced increases in condom use that persisted as long as 1 year later (Fisher, Fisher, Bryan, & Misovich, 2002); a meta-analysis of similar trials confirmed these trends (Johnson et al., 2009). Yet it would be difficult to attribute all of this change to mere communication and persuasion, as these interventions commonly introduce behavior change techniques other than communication elements (Johnson, Michie, & Snyder, 2014).

Compelling examples of persistent attitude change also have been documented in the laboratory. For example, Ross, McFarland, Conway, and Zanna (1983) used messages to induce shifts in attitudes; then, they gave half of the participants the chance to recall attitude-relevant behaviors. These participants' attitudes were more resistant to change and persisted longer than the attitudes of participants who did not recall behaviors. Another example of persistence is the sleeper effect, which, as we reviewed above, entails that recipients initially discount a message's arguments, followed by a later attitude change in line with the arguments. Attitude change occurring via the sleeper effect is generally persistent, persisting as long as 6 weeks (Florack, Piontkowski, Knocks, Rottman, & Thiemann, 2002; Pratkanis et al., 1988, Experiment 16; see Kumkale & Albarraçín's, 2004, meta-analytic review). Similarly, McGuire's (e.g., 1964) inoculation research may be viewed as an attitude persistence paradigm. Inoculation theory asserts that people can resist attitude change if they are trained to consciously generate responses to anticipated persuasive messages targeting a particular attitude or value (e.g., Bernard, Maio, & Olson, 2003; Sagarin, Cialdini, Rice, & Serna, 2002). Specifically, the inoculation paradigm involves that participants first refute a weakened dose of arguments which subsequently increases their resistance to the full dose of arguments compared to participants who were not inoculated. Thus, when inoculations against future attacks follow successful persuasive communications, attitude change should be robust and persistent. In some sense, two-sided arguments incorporate a mild form of inoculation (see McGuire, 1964; Wyer & Albarraçín, 2005).

There are at least two contemporary and successful theories of persistence, which identify conditions under which a new or modified attitude is likely to persist. First, according to the ELM, communication-induced attitude change will endure when message recipients carefully process the message; that is, when people process the message via central rather than peripheral routes. To the extent that communicators are able to increase elaboration, they increase the likelihood that any impact of the communication will be a lasting one (e.g., Mackie, 1987; van Schie, Martijn, & van der Pligt, 1994). As the evidence above attests, research has identified a number of variables associated with increased elaboration. These variables are also linked to increased persistence of attitude change. For example, attitude changes in people high in need for cognition are generally more persistent than for those who are low in need for cognition (Haugtvedt & Petty, 1992). Similarly, relatively high persistence results when (a) people generate their own arguments (Elms, 1966); (b) are exposed to highly involving (Petty & Cacioppo, 1979, Experiment 2) or (c) interesting issues (Ronis, Baumgardner, Leippe, Cacioppo, & Greenwald, 1977); (d) are encouraged to produce self-generated thoughts (Killeya & Johnson, 1998); (e) are distracted less (Watts & Holt, 1979); (f) anticipate justifying their attitudes to others (Boninger, Brock, Cook, Gruder, & Romer, 1990); (g) experience multiple message exposures (H. H. Johnson & Watkins, 1971); and (h) produce message-consistent thoughts and memories (Albarracín & McNatt, 2005). Not *all* elaboration increases persuasion and persistence of attitude change, though. Reflecting on beliefs and behavioral outcomes can also inhibit temporal attitude stability (Albarracín & McNatt, 2005; Wilson & Schooler, 1991), as can activating values that are not easily accessed from memory (Blankenship, Wegener, & Murray, 2015).

The other theory of persistence is Albarracín, Wallace, and Glasman's (2004) model of judgment survival, which posits that three processes are involved in attitude change and maintenance of change: (a) activating the prior attitude (retrieving it from memory), (b) activating information related to the prior attitude (which can come from memory or an external source), and (c) comparing the prior attitude with the related information. Though sequential, the model does not assume that any of the processes are inevitable. Situational or individual factors may inhibit the process of comparison; the individual may not be motivated or able to move from attitude activation to comparative validation. Each process can have different implications for attitude change and maintenance. For example, activating an existing attitude or attitude-relevant information alone may be sufficient for attitude maintenance. In contrast, attitude change will generally occur when reconstructing an existing attitude online in response to attitude-inconsistent information and when comparing a prior attitude with either attitude-consistent or inconsistent information. Nonetheless, the activation and comparison processes are not necessarily independent; Albarracín and colleagues argue that considering them together results in a better understanding of attitude change and the maintenance of change. For example, if attitude activation and comparison are a sequential process, then activating a prior attitude ought to facilitate comparison. Accordingly, in three experiments, Albarracín, Kumkale, and Poyner-Del Vento (2017) recently demonstrated a sleeper effect for the source of the message, such that weak arguments were more persuasive when the communicator was credible; the arguments were less well remembered, and source attributes were thus more influential. Albarracín, Wallace, and Glasman's intriguing theory is certainly deserving of further such empirical tests.

Behavioral Effects of Communication-Induced Attitude Change

One fundamental task of social psychology is the prediction of social behavior. It is no wonder that one of the most frequently investigated consequences of attitude change is change in behavior and behavioral intentions. In fact, burgeoning research, especially from the health promotion area, has shown that interventions that increase intentions are also more likely to change behavior (Webb &

Sheeran, 2006). At least a portion of this change in intentions can be traced to changes in attitude (e.g., Steinmetz, Knappstein, Ajzen, Schmidt, & Kabst, 2016); many interventions have been predicated on attitude theories such as the TRA and TPB and show at least reasonable success at influencing target behaviors (e.g., Steinmetz et al., 2016; Tyson, Covey, & Rosenthal, 2014). As models of attitude change, the TRA and TPB are perhaps best described as providing targets for influence by explicitly measuring beliefs to determine which most need to change. Thus, these models are more descriptive of the *ingredients* of attitude change and otherwise provide little guidance about the underlying mechanisms. Still, a considerable literature guided by the TPB has emerged; Steinmetz et al.'s (2016) recent meta-analysis found 82 intervention trials across topics ranging from safety and health to work and school behavior. This review documented small to medium effects on such behaviors with parallel changes on the TPB's psychological variables. Thus, the TPB would appear to have some utility.

The TRA and TPB posit that attitudes are only one of the psychological determinants of volitional social behavior. According to these theories, behavior follows from intentions to behave, and these intentions in turn rest on subjective norms and attitudes. The TPB adds perceived behavioral control as a third predictor of intentions, which may also directly predict behavior. Still other models of behavior include the actor's past behavior (Bentler & Spekart, 1979) or habit (Triandis, 1977, 1980) as predictors of future behavior; ecological models specify even more, drawing in social factors, ranging from a target's peers and family members to community- and society-level factors (e.g., Johnson et al., 2010; Kaufman et al., 2014). Although these models specify many behavioral predictors, research suggests that the attitude component is usually the most important, and individual-level research using TPB and TRA often finds that attitudes are significant predictors of behavioral intentions and future behavior even when controlling for other sources of variance (see Ajzen et al., this volume; Johnson & Boynton, 2010). Nonetheless, it is well known that social and structural factors—viz., strong situations—force individuals to behave in ways inconsistent with their best intentions (e.g., Granovetter, 1985; Johnson et al., 2010; Ross & Nisbett, 1991). Even the Steinmetz et al. (2016) research on the TPB found that interventions had greater success changing behaviors when the interventions took place in public (vs. private) places as well as when they took place in group settings (vs. individual contexts).

Although many studies do not examine specific effects of communication-induced attitude change on behaviors, health interventions are often based on communications intended to produce positive evaluations of the object (e.g., condoms) and performance of the behavior (e.g., Albaracín et al., 2003). Glasman and Albaracín's (2006) meta-analysis revealed greater correspondence between attitudes and behaviors when participants received manipulations that (a) increased motivations to think about the object, (b) provided direct experience with the object, or (c) gave one- rather than two-sided information.

The direct impact of attitude change on behavior can also be seen in the domains of marketing and advertising, which are predicated on the notion that many types of communications create positive cognitive or affective associations with a product or brand, thereby impacting purchase behavior. In a meta-analysis of 77 studies, Grewal, Kavanoor, Fern, Costley, and Barnes (1997) found that, although advertisements comparing two or more brands generated more negative attitudes toward the advertisements themselves, they produced more favorable attitudes toward the sponsored brand and significant increases in purchase intentions and purchase behavior.

In general, theories suggest that communication-induced attitude change is likely to produce greater changes in behaviors and behavioral intentions when messages target attitudes toward the behavior, rather than the attitudes toward the object (e.g., Albaracín, 2002; Fishbein & Ajzen, 1981). Further, the effects of attitude change on behavior relative to other factors such as subjective norms may be moderated by cultural and interpersonal differences. For instance, the contribution of subjective norms to the prediction of behavior may be more important for those who identify highly

with the reference group (Terry & Hogg, 1996) or possess more interdependent self-construals or are high in collectivism (e.g., Park & Levine, 1999). In addition, attitudes may be more important predictors of behavioral intentions for people with higher capacities for action-oriented mental strategies, but subjective norms may be more important for those with more state-oriented mental strategies (Bagozzi, Baumgartner, & Yi, 1992). Attitudes are most likely to influence behavior when they are closely linked to performing the behavior and when other factors such as subjective norms and perceived behavioral control, or indirect attitudes are not main causal agents. Nevertheless, including factors such as subjective norms, and past behavior in addition to attitudes generally leads to significant increases in accurate behavioral prediction. For example, Durantini et al.'s (2006) meta-analysis of HIV-prevention interventions revealed that the communications improved attitudes toward condoms, but condom use remained unchanged unless the intervention also included a skills training element.

Implicitly Measured Attitudes and Attitude Change

To this point, we have not considered how effects of messages on attitudes may depend on the way in which the attitudes are measured. As described in Krosnick, Judd, and Wittenbrink's chapter (this volume), most studies use explicit techniques, which ask participants to rate their own attitudes using provided scales. Krosnick and Judd also describe how recent research has added a plethora of implicit techniques, which elicit attitude scores without reliance on self-reports (e.g., by examining response times to tasks that present the attitude object with positive or negatively valenced adjectives). In some contexts, people's scores on explicit and implicit measures differ considerably. For example, with regard to many socially sensitive issues such as racial attitudes, research has found only small correlations between explicit and implicit measures of attitude (see Fazio & Olson, 2003), although the correlation increased with higher spontaneity of the explicit measures, lower social sensitivity of the topic, stronger attitudes, the positivity of participants' mood, and higher conceptual correspondence between the explicit and the implicit measures (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005; Huntsinger & Smith, 2009; Nosek, 2007; Nosek & Smyth, 2007; Ranganath, Smith, & Nosek, 2008). If the attitude responsible for an action is tapped only via an implicit measure, then communications that are effective in changing attitudes on an explicit measure of the attitude may nonetheless have little impact on the relevant (implicit-attitude-based) behavior (see Dovidio, Schellhaas, & Pearson, Volume 2).

These studies again indicate that attitudes can predict behavior, with different measures of attitudes predicting different sets of behavior. Nonverbal behavior is an important predictor of social interactions, and to the extent that implicit measures of attitude predict this behavior, communications targeting explicit measures of attitude may have little impact. Researchers have begun to investigate diverse ways to modify implicitly measured attitudes. Examples include research using evaluative conditioning (e.g., Olson & Fazio, 2006); behavioral movements (e.g., Kawakami, Phillips, Steele, & Dovidio, 2007; Wiers, Eberl, Rinck, Becker, & Lindenmeyer, 2011); and brief messages highlighting diverging information or contexts (e.g., Dasgupta & Greenwald, 2001; Mitchell, Nosek, & Banaji, 2003). The next step for future research is to demonstrate across studies the extent to which modifications of explicitly measured versus implicitly measured attitudes change different behavior outcomes.

Summary

Research on the effects of message-based communication has focused mainly on their direct impact on behavior. For instance, this research generally supports the conclusion that messages targeting attitudes toward performing a behavior are more effective in producing behavior change than are those targeting an attitude object. However, research has also examined other psychological

implications of communication-induced attitude change such as its persistence. For example, lasting change in attitudes can occur when people are exposed to an abundance of strong arguments, are motivated, and are able to elaborate on the message content and when cognitive responding is consonant with the message position. Further, although messages that target consciously accessible attitudes (explicit attitudes) may be effective, such messages may have little impact on relevant behavior when the behavior (e.g., nonverbal behavior) is automatically activated and difficult to control. These automatic behaviors may be tapped by implicit measures of attitudes, and there is growing evidence that attitude change can also occur on this more spontaneous level (see Gawronski & Brannon, this volume).

Conclusion

As this chapter testifies, modern research on communication and persuasion has yielded much fruit, accumulating knowledge about when and how communications affect persuasion and other outcomes, such as behavior. This research has been inspired by philosophical thought and nurtured within diverse disciplines, not the least of which are advertising, political science, sociology, human communications, and psychology. That said, as in any scientific field, there are some interesting problems that remain largely unaddressed. Throughout this chapter, we have described many areas of potential future research. Whereas our review highlighted parochial interests for a particular domain of attitude research, some of these have broader implications. For example, which factors make arguments strong? We noted earlier that there is little research on these factors, which makes it difficult for researchers to know, *a priori*, when an argument will be strong, or for practitioners to design message arguments. For example, if you were a politician trying to win votes, what precisely should you say to receive this support? Similarly, if you are trying to design advertisements for an anti-racism campaign, what should be the content of the messages that you employ? The solution to such questions has been to pretest potential messages and select those with greatest impact. Although practical, the solution lacks theoretical insight.

This issue of defining argument quality is relevant to the process of persuasion in many ways. Specifically, it is conceivable that the strength of arguments depends intimately on many of the source, message, and recipient factors that we have described, while also influencing the nature of attitude change (e.g., stability and subsequent strength). For instance, politicians may frequently endorse popular values as a means of earning voter support, but how do they know which values to support? A cursory examination of party leadership campaigns would reveal that conservative and liberal leaders cite different values to match their respective audiences. In other words, they intuitively use arguments that address the functions of their recipients' attitudes. An interesting question is what would happen if a politician tried to convince people that he or she could effectively support the party values *and* other important values that are shared, but not emphasized by the party. Would this approach make the appeal more or less effective? Also, should the arguments be phrased rhetorically or directly, concretely or abstractly, metaphorically or plainly? Do the effects of these variables depend on other message and recipient factors as well as on the desired effects of the message?

Similar attention could profit an understanding of communication discrepancy's effects on persuasion. The sometimes-powerful impact of message framing suggests that communication discrepancy could be similarly powerful. Yet, although early persuasion researchers regarded this factor as extremely important, contemporary researchers have given it short shrift. The availability of enhanced methods, coupled with the interesting theoretical insights of contemporary theories, ought to infuse the subject of communication discrepancy renewed vigor (see Zanna, 1994, for some plausible directions). Given that the effects of message framing and argument quality appear to rest on the same evaluative processes, it would make sense that the effects of both of these variables rest on more general principles such as framing research has pursued (e.g., Rothman & Salovey,

1997). Unfortunately, the two variables rarely if ever appear in the same study and an intellectual integration has not yet appeared.

With regard to the desired effects of the message, an important issue is the extent to which the source, message, and recipient factors exert different effects on explicit and implicit measures of attitude. Prior research informs us that some of these factors receive less conscious scrutiny under conditions of high personal relevance (e.g., source attractiveness). Consistent with the past research, this lack of scrutiny should cause the factors to be less likely to emerge in people's conscious deliberations of their attitude during the completion of explicit measures. In contrast, they may influence implicit measures of attitude, which may tap information that has been seen but not necessarily recognized at a conscious level. Other persuasion variables (e.g., detailed message content) receive more scrutiny in conditions of high personal relevance, enabling them to influence both the explicit and implicit measures (see also Wilson, Lindsey, & Schooler, 2000). Such potential effects are deserving of comprehensive consideration.

In closing this chapter, we note that the world continues to face such major challenges as poverty, terrorism, global warming and extreme weather events, and communicable diseases such as HIV and Zika. These and other serious issues in our society involve attitudes toward social groups (e.g., people with AIDS). Advances in theory, methods, and analysis have given researchers an abundance of tools with which to examine communication and persuasion processes, yet comparatively little research has examined changing group-based attitudes. Although some attitude researchers have broached the topics of prejudice and discrimination or used persuasion to gauge prejudice (e.g., Saucier & Miller, 2003), there have been few advances with respect to changing group-based attitudes. For example, how do we change attitudes toward the poor, such that new attitudes would lead to actions aimed at remediating poverty and the inequities created by poverty? Similarly, how can persuasion researchers use the tools available to them to change negative and hostile attitudes toward members of religious outgroups? Although attitude change research targeting real-world issues such as those mentioned above is difficult, this chapter bears testimony to the fact that across history, industrious and creative researchers have overcome many theoretical, methodological, and practical obstacles in pursuit of a greater understanding of communication and attitude change. If turned to real-world issues rather than relatively trivial laboratory issues, communication and persuasion theory and research may hold the keys to better life.

References

- Ahluwalia, R., & Burnkrant, R. E. (2004). Answering questions about questions: A persuasion knowledge perspective for understanding the effects of rhetorical questions. *Journal of Consumer Research*, 31(1), 26–42.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Albarracín, D. (2002). Cognition in persuasion: An analysis of information processing in response to persuasive communications. *Advances in Experimental Social Psychology*, 34, 61–130.
- Albarracín, D., & Kumkale, G. T. (2003). Affect as information in persuasion: A model of affect identification and discounting. *Journal of Personality and Social Psychology*, 84, 453–469.
- Albarracín, D., Kumkale, G. T., & Poyner-Del Vento, P. (2017). How people can become persuaded by weak messages presented by credible communicators: Not all sleeper effects are created equal. *Journal of Experimental Social Psychology*, 68, 171–180.
- Albarracín, D., & McNatt, P. S. (2005). Maintenance and decay of past behavior influences: Anchoring attitudes on beliefs following inconsistent actions. *Personality and Social Psychology Bulletin*, 31(6), 719–733.
- Albarracín, D., & Shavitt, S. (2018). Attitudes and attitude change. *Annual Review of Psychology*. doi:10.1146/annurev-psych-122216-011911
- Albarracín, D., Wallace, H. M., & Glasman, L. R. (2004). Survival and change in judgments: A model of activation and comparison. *Advances in Experimental Social Psychology*, 36, 251–315.
- Allen, M. (1991). Meta-analysis comparing the persuasiveness of one-sided and two-sided messages. *Western Journal of Speech Communication*, 55, 390–404.

- Allyn, J., & Festinger, L. (1961). The effectiveness of unanticipated persuasive communications. *Journal of Abnormal and Social Psychology, 62*, 35–40.
- Alwin, D. F., Cohen, R. L., & Newcomb, T. M. (1991). *Political attitudes over the life span: The Bennington women after fifty years*. Madison, WI: University of Wisconsin Press.
- Aquino, A., Haddock, G., Maio, G. R., Wolf, L. J., & Alparone, F. R. (2016). The role of affective and cognitive individual differences in social perception. *Personality and Social Psychology Bulletin, 42*(6), 798–810.
- Areni, C. S. (2003). The effects of structural and grammatical variables on persuasion: An Elaboration Likelihood Model perspective. *Psychology & Marketing, 20*, 349–375.
- Areni, C. S., & Lutz, R. J. (1988). The role of argument quality in the elaboration likelihood model. *Advances in Consumer Research, 15*, 197–203.
- Argyle, M. (1957). Social pressures in public and private situations. *Journal of Abnormal and Social Psychology, 54*, 172–175.
- Armitage, C. J., & Conner, M. (2000). Attitudinal ambivalence: A test of three key hypotheses. *Personality and Social Psychology Bulletin, 26*(11), 1421–1432.
- 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).
- Bagozzi, R. P., Baumgartner, H., & Yi, Y. (1992). State versus action orientation and the theory of reasoned action: An application to coupon usage. *Journal of Consumer Research, 18*, 505–518.
- Baker, S. M., & Petty, R. E. (1994). Majority and minority influence: Source-position imbalance as a determinant of message scrutiny. *Journal of Personality and Social Psychology, 67*, 5–19.
- Barden, J., & Petty, R. E. (2008). The mere perception of elaboration creates attitude certainty: Exploring the thoughtfulness heuristic. *Journal of Personality and Social Psychology, 95*(3), 489–509.
- Bargh, J. A. (1990). Auto-motives: Preconscious determinants of social interaction. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition* (Vol. 2, pp. 93–130). New York, NY: Guilford Press.
- Bargh, J. A., Chaiken, S., Govender, R., & Pratto, F. (1992). The generality of the automatic attitude activation effect. *Journal of Personality and Social Psychology, 62*, 893–912.
- Bassili, J. N. (1996). Meta-judgmental versus operative indexes of psychological attributes: The case of measures of attitude strength. *Journal of Personality and Social Psychology, 71*, 637–653.
- Bassili, J. N., & Provençal, A. (1988). Perceiving minorities: A factor-analytic approach. *Personality and Social Psychology Bulletin, 14*, 5–15.
- Bem, D. J. (1972). Self-perception theory. *Advances in Experimental Social Psychology, 6*, 1–62.
- Bentler, P. M., & Speckart, G. (1979). Models of attitude-behavior relations. *Psychological Review, 86*, 452–464.
- Bernard, M. M., Maio, G. R., & Olson, J. M. (2003). The vulnerability of values to attack: Inoculation of values and value-relevant attitudes. *Personality and Social Psychology Bulletin, 29*(1), 63–75.
- Blankenship, K. L., & Craig, T. Y. (2006). Rhetorical question use and resistance to persuasion: An attitude strength analysis. *Journal of Language and Social Psychology, 25*(2), 111–128.
- Blankenship, K. L., Wegener, D. T., & Murray, R. A. (2012). Circumventing resistance: Using values to indirectly change attitudes. *Journal of Personality and Social Psychology, 103*(4), 606.
- Blankenship, K. L., Wegener, D. T., & Murray, R. A. (2015). Values, inter-attitudinal structure, and attitude change value accessibility can increase a related attitude's resistance to change. *Personality and Social Psychology Bulletin, 41*, 1739–1750.
- Blascovich, J., Ernst, J. M., Tomaka, J., Kelsey, R. M., Salomon, K. L., & Fazio, R. H. (1993). Attitude accessibility as a moderator of autonomic reactivity during decision making. *Journal of Personality and Social Psychology, 64*, 165–176.
- Bless, H., Bohner, G., Schwarz, N., & Strack, F. (1990). Mood and persuasion: A cognitive response analysis. *Personality and Social Psychology Bulletin, 16*, 331–345.
- Bochner, S., & Insko, C. A. (1966). Communicator discrepancy, source credibility, and opinion change. *Journal of Personality and Social Psychology, 4*, 614–621.
- Bond, C. F., & DePaulo, B. M. (2006). Accuracy of deception judgments. *Personality and Social Psychology Review, 10*(3), 214–234.
- Bond, R. (2005). Group size and conformity. *Group Processes & Intergroup Relations, 8*(4), 331–354.
- Bond, R., & Smith, P. B. (1996). Culture and conformity: A meta-analysis of studies using Asch's (1952b, 1956) line judgment task. *Psychological Bulletin, 119*(1), 111–137.
- Boninger, D. S., Brock, T. C., Cook, T. D., Gruder, C. L., & Romer, D. (1990). Discovery of reliable attitude change persistence resulting from a transmitter tuning set. *Psychological Science, 1*(4), 268–271.
- Brannon, L. A., Tagler, M. J., & Eagly, A. H. (2007). The moderating role of attitude strength in selective exposure to information. *Journal of Experimental Social Psychology, 43*(4), 611–617.

- Brehm, J. W. (1966). *A theory of psychological reactance*. San Diego, CA: Academic Press.
- Brehm, S. S., & Brehm, J. W. (1981). *Psychological reactance: A theory of freedom and control*. San Diego, CA: Academic Press.
- Briñol, P., Petty, R. E., & Barden, J. (2007). Happiness versus sadness as a determinant of thought confidence in persuasion: A self-validation analysis. *Journal of Personality and Social Psychology*, 93(5), 711–727.
- Brock, T. C. (1967). Communication discrepancy and intent to persuade as determinants of counterargument production. *Journal of Experimental Social Psychology*, 3, 269–309.
- Buehler, R., & Griffin, D. (1994). Change-of-meaning effects in conformity and dissent: Observing construal processes over time. *Journal of Personality and Social Psychology*, 67, 984–996.
- Cacioppo, J. T., & Petty, R. E. (1979). Effects of message repetition and position on cognitive response, recall, and persuasion. *Journal of Personality and Social Psychology*, 37, 97–109.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42, 116–131.
- 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., & Sidera, J. (1982). The effects of salient self-schema on the evaluation of pro-attitudinal editorials: Top-down versus bottom-up message processing. *Journal of Experimental Social Psychology*, 18, 324–338.
- Carpenter, C. J. (2015). A meta-analysis of the ELM's argument quality \times processing type predictions. *Human Communication Research*, 41, 501–534.
- Chaiken, S. (1979). Communicator physical attractiveness and persuasion. *Journal of Personality and Social Psychology*, 37(8), 1387–1397.
- 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. (1987). The heuristic model of persuasion. In M. P. Zanna, J. M. Olson, & C. P. Herman (Eds.), *Social influence: The Ontario symposium* (Vol. 5, pp. 3–39). Mahwah, NJ: Lawrence Erlbaum Associates.
- Chaiken, S., & Eagly, A. H. (1976). Communication modality as a determinant of message persuasiveness and message comprehensibility. *Journal of Personality and Social Psychology*, 34, 605–614.
- Chaiken, S., & Eagly, A. H. (1983). Communication modality as a determinant of persuasion: The role of communicator salience. *Journal of Personality and Social Psychology*, 45(2), 241–256.
- 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, NY: Guilford Press.
- Chen, H. C., Reardon, R., Rea, C., & Moore, D. J. (1992). Forewarning of content and involvement: Consequences for persuasion and resistance to persuasion. *Journal of Experimental Social Psychology*, 28, 523–541.
- Chen, S., & Chaiken, S. (1999). The heuristic-systematic model in its broader context. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 73–96). London, UK: Guilford Press.
- Chen, S., Shechter, D., & Chaiken, S. (1996). Getting at the truth or getting along: Accuracy versus impression motivated heuristic and systematic processing. *Journal of Personality and Social Psychology*, 71, 262–275.
- Cheung, C. M., Lee, M. K., & Rabjohn, N. (2008). The impact of electronic word-of-mouth: The adoption of online opinions in online customer communities. *Internet Research*, 18(3), 229–247.
- Cialdini, R. B. (2001). *Influence: Science and practice* (4th ed.). New York, NY: Harper.
- Clark, J. K., Wegener, D. T., & Fabrigar, L. R. (2008). Attitudinal ambivalence and message-based persuasion: Motivated processing of proattitudinal information and avoidance of counterattitudinal information. *Personality and Social Psychology Bulletin*, 34(4), 565–577.
- Clark, J. K., Wegener, D. T., Habashi, M. M., & Evans, A. T. (2012). Source expertise and persuasion: The effects of perceived opposition or support on message scrutiny. *Personality and Social Psychology Bulletin*, 38(1), 90–100.
- Clarkson, J. J., Tormala, Z. L., & Rucker, D. D. (2008). A new look at the consequences of attitude certainty: The amplification hypothesis. *Journal of Personality and Social Psychology*, 95(4), 810–825.
- Clarkson, J. J., Tormala, Z. L., & Rucker, D. D. (2011). Cognitive and affective matching effects in persuasion: An amplification perspective. *Personality and Social Psychology Bulletin*, 37(11), 1415–1427.
- Coleman, J. F., Blake, R. R., & Mouton, J. S. (1958). Task difficulty and conformity pressures. *Journal of Abnormal and Social Psychology*, 57, 120–122.
- Conway, M., & Dubé, L. (2002). Humor in persuasion on threatening topics: Effectiveness is a function of audience sex role orientation. *Personality and Social Psychology Bulletin*, 28(7), 863–873.
- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Chicago: Rand-McNally.

- Cook, T. D., & Flay, B. R. (1978). The persistence of experimentally induced attitude change. *Advances in Experimental Social Psychology*, 11, 1–57.
- Cooper, J., & Fazio, R. H. (1984). A new look at dissonance theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, (Vol. 17, pp. 229–266). San Diego, CA: Academic Press.
- Cooper, J., & Scher, S. J. (1994). When do our actions affect our attitudes? In S. Shavitt & T. Brock (Eds.), *Persuasion: Psychological insights and perspectives* (pp. 95–111). Boston: Allyn & Bacon.
- Crano, W. D., & Chen, X. (1998). The leniency contract and persistence of majority and minority influence. *Journal of Personality and Social Psychology*, 74(6), 1437–1450.
- Crowne, D. P., & Marlowe, D. (1964). *The approval motive: Studies in evaluative dependence*. New York, NY: Wiley.
- Crutchfield, R. S. (1955). Conformity and character. *American Psychologist*, 10, 191–198.
- Darke, P. R., Chaiken, S., Bohner, G., Einwiller, S., Erb, H.-P., & Hazlewood, J. D. (1998). Accuracy motivation, consensus information, and the law of large numbers: Effects on attitude judgment in the absence of argumentation. *Personality and Social Psychology Bulletin*, 24(11), 1205–1215.
- Das, E., & Fennis, B. M. (2008). In the mood to face the facts: When a positive mood promotes systematic processing of self-threatening information. *Motivation and Emotion*, 32(3), 221–230.
- Dasgupta, N., & Greenwald, A. G. (2001). On the malleability of automatic attitudes: Combating automatic prejudice with images of admired and disliked individuals. *Journal of Personality and Social Psychology*, 81(5), 800–814.
- DeBono, K. (2000). Attitude functions and consumer psychology: Understanding perceptions of product quality. In G. R. Maio & J. M. Olson (Eds.), *Why we evaluate: Functions of attitudes* (pp. 195–221). Mahwah, NJ: Lawrence Erlbaum Associates.
- De Hoog, N., Stroebe, W., & de Wit, J. B. (2007). The impact of vulnerability to and severity of a health risk on processing and acceptance of fear-arousing communications: A meta-analysis. *Review of General Psychology*, 11(3), 258–285.
- DeMarree, K. G., Wheeler, S. C., Briñol, P., & Petty, R. E. (2014). Wanting other attitudes: Actual—desired attitude discrepancies predict feelings of ambivalence and ambivalence consequences. *Journal of Experimental Social Psychology*, 53, 5–18.
- DePaulo, B. M. (1994). Spotting lies: Can humans learn to do better? *Current Directions in Psychological Science*, 3, 83–86.
- DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin*, 129(1), 74–118.
- DePaulo, B. M., Stone, J. I., & Lassiter, G. D. (1985). Deceiving and detecting deceit. In B. R. Schlenker (Ed.), *The self and social life* (pp. 323–370). New York, NY: McGraw-Hill.
- DeSteno, D., Petty, R. E., Rucker, D. D., Wegener, D. T., & Braverman, J. (2004). Discrete emotions and persuasion: The role of emotion-induced expectancies. *Journal of Personality and Social Psychology*, 86(1), 43–56.
- 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.
- Dijksterhuis, A. (2004). I like myself but I don't know why: Enhancing implicit self-esteem by subliminal evaluative conditioning. *Journal of Personality and Social Psychology*, 86(2), 345–355.
- Dillard, J. P., & Shen, L. (2005). On the nature of reactance and its role in persuasive health communication. *Communication Monographs*, 72, 144–168.
- Dubois, D., Rucker, D. D., & Galinsky, A. D. (2016). Dynamics of communicator and audience power: The persuasiveness of competence versus warmth. *Journal of Consumer Research*, 43(1), 68–85.
- Durantini, M. R., Albarraçin, D., Mitchell, A. L., Earl, A. N., & Gillette, J. C. (2006). Conceptualizing the influence of social agents of behavior change: A meta-analysis of the effectiveness of HIV-prevention interventionists for different groups. *Psychological Bulletin*, 132(2), 212–248.
- Eagly, A. H. (1974). Comprehensibility of persuasive arguments as a determinant of opinion change. *Journal of Personality and Social Psychology*, 29, 758–773.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando, FL: Harcourt Brace.
- Eagly, A. H., & Chaiken, S. (1995). Attitude strength, attitude structure, and resistance to change. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 413–432). Mahwah, NJ: Lawrence Erlbaum Associates.
- Eaton, A. A., Visser, P. S., Krosnick, J. A., & Anand, S. (2009). Social power and attitude strength over the life course. *Personality and Social Psychology Bulletin*, 35(12), 1646–1660.
- Edwards, K. (1990). The interplay of affect and cognition in attitude formation and change. *Journal of Personality and Social Psychology*, 59, 202–216.
- Ekman, P., & O'Sullivan, M. (1991). Who can catch a liar? *American Psychologist*, 46, 913–920.

- Elliot, A. J., & Devine, P. G. (1994). On the motivational nature of cognitive dissonance: Dissonance as psychological discomfort. *Journal of Personality and Social Psychology*, *67*, 382–394.
- Elms, A. C. (1966). Influence of fantasy ability on attitude change through role playing. *Journal of Personality and Social Psychology*, *4*, 36–43.
- Erb, H., Bohner, G., Schmälzle, K., & Rank, S. (1998). Beyond conflict and discrepancy: Cognitive bias in minority and majority influence. *Personality and Social Psychology Bulletin*, *24*, 620–633.
- Esses, V. M., & Maio, G. R. (2002). Expanding the assessment of attitude components and structure: The benefits of open-ended measures. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 12, pp. 71–102). Chichester, UK: John Wiley & Sons.
- Evans, L. M., & Petty, R. E. (2003). Self-guide framing and persuasion: Responsibly increasing message processing to ideal levels. *Personality and Social Psychology Bulletin*, *29*, 313–324.
- Eysenck, M. W. (1979). Anxiety, learning, and memory: A reconceptualization. *Journal of Research in Personality*, *13*, 363–385.
- Eysenck, M. W. (1982). *Attention and arousal, cognition and performance*. Berlin, Germany: Springer-Verlag.
- Fabrigar, L. R., & Petty, R. E. (1999). The role of affective and cognitive bases of attitudes in susceptibility to affectively and cognitively based persuasion. *Personality and Social Psychology Bulletin*, *25*, 363–381.
- Fazio, R. H. (1995). Attitudes as object–evaluation associations: Determinants, consequences, and correlates of attitude accessibility. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 247–282). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Fazio, R. H. (2000). Accessible attitudes as tools for object appraisal: Their costs and benefits. In G. R. Maio & J. M. Olson (Eds.), *Why we evaluate: Functions of attitudes* (pp. 1–36). Mahwah, NJ: Lawrence Erlbaum Associates.
- Fazio, R. H., Blascovich, J., & Driscoll, D. M. (1992). On the functional value of attitudes: The influence of accessible attitudes upon the ease and quality of decision making. *Personality and Social Psychology Bulletin*, *18*, 388–401.
- Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their meaning and use. *Annual Review of Psychology*, *54*, 297–327.
- Fazio, R. H., Zanna, M. P., & Cooper, J. (1977). Dissonance and self-perception: An integrative view of each theory's proper domain of application. *Journal of Experimental Social Psychology*, *13*, 464–479.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.
- Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *Journal of Abnormal and Social Psychology*, *58*, 203–210.
- Festinger, L., Gerard, H. B., Hymovitch, B., Kelley, H. H., & Raven, B. (1952). The influence process in the presence of extreme deviants. *Human Relations*, *5*, 327–346.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fishbein, M., & Ajzen, I. (1981). Acceptance, yielding, and impact: Cognitive processes in persuasion. In R. E. Petty, T. M. Ostrom, & T. C. Brock (Eds.), *Cognitive responses in persuasion* (pp. 339–359). Hillsdale, NJ: Erlbaum.
- Fisher, J. D., Fisher, W. A., Bryan, A. D., & Misovich, S. J. (2002). Information-motivation-behavioral skills model-based HIV risk behavior change intervention for inner-city high school youth. *Health Psychology*, *21*(2), 177–186.
- Florack, A., Piontkowski, U., Knocks, I., Rottmann, J., & Thiemann, P. (2002). Attitude change: The case of attitudes towards the “green card” in Germany. *Current Research in Social Psychology*, *8*(3), 1–11.
- Fransen, M. L., & Fennis, B. M. (2014). Comparing the impact of explicit and implicit resistance induction strategies on message persuasiveness. *Journal of Communication*, *64*(5), 915–934.
- French, J. R. P. Jr., & Raven, B. H. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies in social power* (pp. 150–167). Ann Arbor: University of Michigan.
- Friedrich, J., Fetherstonhaugh, D., Casey, S., & Gallagher, D. (1996). Argument integration and attitude change: Suppression effects in the integration of one-sided arguments that vary in persuasiveness. *Personality and Social Psychology Bulletin*, *22*, 179–191.
- Gallagher, K. M., & Updegraff, J. A. (2012). Health message framing effects on attitudes, intentions, and behavior: A meta-analytic review. *Annals of Behavioral Medicine*, *43*(1), 101–116.
- Garcia-Marques, T., & Mackie, D. M. (2001). The feeling of familiarity as a regulator of persuasive processing. *Social Cognition*, *18*, 9–34.
- Gawronski, B., & Strack, F. (2004). On the propositional nature of cognitive consistency: Dissonance changes explicit, but not implicit attitudes. *Journal of Experimental Social Psychology*, *40*(4), 535–542.
- Glasman, L. R., & Albarraçin, D. (2006). Forming attitudes that predict future behavior: A meta-analysis of the attitude-behavior relation. *Psychological Bulletin*, *132*(5), 778–822. doi:10.1037/0033-2909.132.5.778.

- Gluszek, A., & Dovidio, J. F. (2010). The way they speak: A social psychological perspective on the stigma of nonnative accents in communication. *Personality and Social Psychology Review*, *14*(2), 214–237.
- Gorn, G. J., & Goldberg, M. E. (1980). Children's responses to repetitive television commercials. *Journal of Consumer Research*, *6*, 421–424.
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, *91*, 481–510.
- Greenwald, A. G. (1968). Cognitive learning, cognitive response to persuasion, and evaluation change. In A. G. Greenwald, T. C. Brock, T. M. Ostrom (Eds.), *Psychological foundations of evaluations* (pp. 147–170). New York: Academic Press.
- Grewal, D., Kavanoor, S., Fern, E. F., Costley, C., & Barnes, J. (1997). Comparative versus noncomparative advertising: A meta-analysis. Grewal, D., Kavanoor, S., Fern, E. F., Costley, C., & Barnes, J. (1997). Comparative versus non-comparative advertising: A meta-analysis. *Journal of Marketing*, *61*(4), 1–15.
- Griffin, D., & Buehler, R. (1993). Role of construal processes in conformity and dissent. *Journal of Personality and Social Psychology*, *65*, 657–669.
- Gruder, C. L., Cook, T. D., Hennigan, K. M., Flay, B. R., Alessis, C., & Halamaj, J. (1978). Empirical tests of the absolute sleeper effect predicted from the discounting cue hypothesis. *Journal of Personality and Social Psychology*, *36*, 1061–1074.
- Haddock, G., Maio, G. R., Arnold, K., & Huskinson, T. (2008). Should persuasion be affective or cognitive? The moderating effects of need for affect and need for cognition. *Personality and Social Psychology Bulletin*, *34*(6), 769–778.
- Haddock, G., Rothman, A. J., Reber, R., & Schwarz, N. (1999). Forming judgments of attitude certainty, intensity, and importance: The role of subjective experiences. *Personality and Social Psychology Bulletin*, *25*(7), 771–782.
- Hafer, C. L., Reynolds, K., & Obertynski, M. A. (1996). Message comprehensibility and persuasion: Effects of complex language in counterattitudinal appeals to laypeople. *Social Cognition*, *14*, 317–337.
- Hamilton, R., Vohs, K. D., & McGill, A. L. (2014). We'll be honest, this won't be the best article you'll ever read: The use of dispreferred markers in word-of-mouth communication. *Journal of Consumer Research*, *41*(1), 197–212.
- Han, S. P., & Shavitt, S. (1994). Persuasion and culture: Advertising appeals in individualistic and collectivistic societies. *Journal of Experimental Social Psychology*, *30*(4), 326–350.
- Hansen, J., & Wänke, M. (2009). Liking what's familiar: The importance of unconscious familiarity in the mere-exposure effect. *Social Cognition*, *27*(2), 161–182.
- Harkins, S. G., & Petty, R. E. (1981). The multiple source effect in persuasion: The effects of distraction. *Personality and Social Psychology Bulletin*, *7*, 627–635.
- Harkins, S. G., & Petty, R. E. (1987). Information utility and the multiple source effect. *Journal of Personality and Social Psychology*, *52*, 260–268.
- Harmon-Jones, C., Schmeichel, B. J., Inzlicht, M., & Harmon-Jones, E. (2011). Trait approach motivation relates to dissonance reduction. *Social Psychological and Personality Science*, *2*(1), 21–28.
- Harmon-Jones, E. (2000). Cognitive dissonance and experienced negative affect: Evidence that dissonance increases experienced negative affect even in the absence of aversive consequences. *Personality and Social Psychology Bulletin*, *26*, 1490–1501.
- Harmon-Jones, E., Amodio, D. M., & Harmon-Jones, C. (2009). Action-based model of dissonance: A review, integration, and expansion of conceptions of cognitive conflict. *Advances in Experimental Social Psychology*, *41*, 119–166.
- Harmon-Jones, E., Brehm, J. W., Greenberg, J., Simon, L., & Nelson, D. E. (1996). Evidence that the production of aversive consequences is not necessary to create cognitive dissonance. *Journal of Personality and Social Psychology*, *70*, 5–16.
- Harmon-Jones, E., & Mills, J. (Eds.). (1999). *Cognitive dissonance: Progress on a pivotal theory in social psychology*. Washington, DC: APA.
- Hart, J. (2014). Toward an integrative theory of psychological defense. *Perspectives on Psychological Science*, *9*(1), 19–39.
- Hartwig, M., & Bond Jr, C. F. (2011). Why do lie-catchers fail? A lens model meta-analysis of human lie judgments. *Psychological Bulletin*, *137*(4), 643–659.
- Hass, R. G., & Grady, K. (1975). Temporal delay, type of forewarning, and resistance to influence. *Journal of Experimental Social Psychology*, *11*, 459–469.
- Hauch, V., Sporer, S. L., Michael, S. W., & Meissner, C. A. (2016). Does training improve the detection of deception? A meta-analysis. *Communication Research*, *43*(3), 283–343.
- Haugtvedt, C. P., & Petty, R. E. (1992). Personality and persuasion: Need for cognition moderates the persistence and resistance of attitude changes. *Journal of Personality and Social Psychology*, *63*, 308–319.

- Heesacker, M., Petty, R. E., & Cacioppo, J. T. (1983). Field dependence and attitude change: Source credibility can alter persuasion by affecting message-relevant thinking. *Journal of Personality and Social Psychology*, *51*, 653–666.
- Heine, S. J., & Lehman, D. (1997). Culture, dissonance, and self-affirmation. *Personality and Social Psychology Bulletin*, *23*, 389–400.
- Herek, G. M., & McLemore, K. A. (2013). Sexual prejudice. *Annual Review of Psychology*, *64*, 309–333.
- Hicks, J. A., & King, L. A. (2011). Subliminal mere exposure and explicit and implicit positive affective responses. *Cognition and Emotion*, *25*(4), 726–729.
- Hill, S. J., Lo, J., Vavreck, L., & Zaller, J. (2013). How quickly we forget: The duration of persuasion effects from mass communication. *Political Communication*, *30*, 521–547.
- Hochbaum, G. M. (1954). The relation between group members' self-confidence and their reactions to group pressure to conformity. *American Sociological Review*, *19*, 678–687.
- Hofmann, W., De Houwer, J., Perugini, M., Baeyens, F., & Crombez, G. (2010). Evaluative conditioning in humans: A meta-analysis. *Psychological Bulletin*, *136*(3), 390–421.
- Hofmann, W., Gawronski, B., Gschwendner, T., Le, H., & Schmitt, M. (2005). A meta-analysis on the correlation between the Implicit Association Test and explicit self-report measures. *Personality and Social Psychology Bulletin*, *31*(10), 1369–1385.
- Holland, R. W., Verplanken, B., & Van Knippenberg, A. (2002). On the nature of attitude-behavior relations: The strong guide, the weak follow. *European Journal of Social Psychology*, *32*(6), 869–876.
- Horcajo, J., Petty, R. E., & Briñol, P. (2010). The effects of majority versus minority source status on persuasion: A self-validation analysis. *Journal of Personality and Social Psychology*, *99*(3), 498–512.
- Hornsey, M. J., & Fielding, K. S. (2017). Attitude roots and Jiu Jitsu persuasion: Understanding and overcoming the motivated rejection of science. *The American Psychologist*, *72*(5), 459–473.
- Hoshino-Browne, E., Zanna, A. S., Spencer, S. J., Zanna, M. P., Kitayama, S., & Lackenbauer, S. (2005). On the cultural guises of cognitive dissonance: The case of easterners and westerners. *Journal of Personality and Social Psychology*, *89*(3), 294–310.
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion: Psychological studies of opinion change*. New Haven, CT: Yale University Press.
- Hovland, C. I., Lumsdaine, A. A., & Sheffield, F. D. (1949). *Experiments on mass communication*. Princeton, NJ: Princeton University Press.
- Howard, D. J., & Kerin, R. A. (2011). The effects of name similarity on message processing and persuasion. *Journal of Experimental Social Psychology*, *47*(1), 63–71.
- Howe, L. C., & Krosnick, J. A. (2017). Attitude strength. *Annual Review of Psychology*, *68*, 327–351.
- Huntsinger, J. R., & Smith, C. T. (2009). First thought, best thought: Positive mood maintains and negative mood degrades implicit-explicit attitude correspondence. *Personality and Social Psychology Bulletin*, *35*(2), 187–197.
- Hurwitz, S. D., Miron, M. S., & Johnson, B. T. (1992). Source credibility and the language of expert testimony. *Journal of Applied Social Psychology*, *22*, 1909–1939.
- Huskinson, T. L. H., & Haddock, G. (2004). Individual differences in attitude structure: Variance in the chronic reliance on affective and cognitive information. *Journal of Experimental Social Psychology*, *40*, 82–90.
- Insko, C. A., Smith, R. H., Alicke, M. D., Wade, J., & Taylor, S. (1985). Conformity and group size: The concern with being right and the concern with being liked. *Personality and Social Psychology Bulletin*, *11*, 41–50.
- Jacks, J. Z., & Devine, P. G. (2000). Attitude importance, forewarning of message content, and resistance to persuasion. *Basic and Applied Social Psychology*, *22*, 19–29.
- Janssen, L., Fennis, B. M., & Pruyn, A. T. H. (2010). Forewarned is forearmed: Conserving self-control strength to resist social influence. *Journal of Experimental Social Psychology*, *46*(6), 911–921.
- Johar, G. V., & Sengupta, J. (2002). The effects of dissimulation on the accessibility and predictive power of weakly held attitudes. *Social Cognition*, *20*, 257–293.
- Johnson, B. T., & Boynton, M. H. (2010). Putting attitudes in their place: Behavioral prediction in the face of competing variables. In J. P. Forgas, J. Cooper, & W. D. Crano (Eds.), *The psychology of attitudes and attitude change* (pp. 19–38). New York, NY: Psychology Press.
- Johnson, B. T., & Eagly, A. H. (1989). Effects of involvement on persuasion: A meta-analysis. *Psychological Bulletin*, *106*, 290–314.
- Johnson, B. T., Lin, H., Symons, C. S., Campbell, L. A., & Ekstein, G. (1995). Initial beliefs and attitudinal latitudes as factors in persuasion. *Personality and Social Psychology Bulletin*, *21*, 502–511.
- Johnson, B. T., Maio, G. R., & Smith-McLallen, A. (2005). Communication and attitude change: Causes, processes, and effects. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 617–670). Mahwah, NJ: Lawrence Erlbaum Associates.
- Johnson, B. T., Michie, S., & Snyder, L. B. (2014). Effects of behavioral intervention content on HIV prevention outcomes: A meta-review of meta-analyses. *Journal of Acquired Immune Deficiency Syndromes*, *66*, S259–S270.

- Johnson, B. T., & Nichols, D. R. (1998). Social psychologists' expertise in the public interest: Civilian morale research during World War II. *Journal of Social Issues, 54*(1), 53–77.
- Johnson, B. T., Redding, C. A., DiClemente, R. J., Mustanski, B. S., Dodge, B., Sheeran, P., . . . Fishbein, M. (2010). A network-individual-resource model for HIV prevention. *AIDS and Behavior, 14*, 204–221.
- Johnson, B. T., Scott-Sheldon, L. A. J., LaCroix, J. M., Smoak, N. D., Anderson, J., & Carey, M. P. (2009). Behavioral interventions for African Americans to reduce sexual risk of HIV: A meta-analysis of randomized controlled trials. *Journal of Acquired Immune Deficiency Syndromes, 51*, 492–501.
- Johnson, B. T., Smith-McLallen, A., Killeya, L. A., & Levin, K. D. (2004). Truth or consequences: Overcoming resistance to persuasion with positive thinking. In E. S. Knowles & J. Linn (Eds.), *Resistance and persuasion* (pp. 215–233). Mahwah, NJ: Lawrence Erlbaum Associates.
- Johnson, H. H., & Watkins, T. A. (1971). The effects of message repetitions on immediate and delayed attitude change. *Psychonomic Science, 22*(2), 101–103.
- Jonas, K., Diehl, M., & Brömer, P. (1997). Effects of attitude ambivalence on information processing and attitude-intention consistency. *Journal of Experimental Social Psychology, 33*, 190–210.
- Karmarkar, U. R., & Tormala, Z. L. (2010). Believe me, I have no idea what I'm talking about: The effects of source certainty on consumer involvement and persuasion. *Journal of Consumer Research, 36*(6), 1033–1049.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly, 24*, 163–204.
- Kaufman, M. R., Cornish, F., Zimmerman, R. S., & Johnson, B. T. (2014). Health behavior change models for HIV prevention and AIDS care: Practical recommendations for a multi-level approach. *JAIDS Journal of Acquired Immune Deficiency Syndromes, 66*, S250–S258.
- Kawakami, K., Phills, C. E., Steele, J. R., & Dovidio, J. F. (2007). (Close) distance makes the heart grow fonder: Improving implicit racial attitudes and interracial interactions through approach behaviors. *Journal of Personality and Social Psychology, 92*(6), 957–971.
- Kelman, H. C. (1958). Compliance, identification, and internalization: Three processes of attitude change. *Journal of Conflict Resolution, 2*, 51–60.
- Kelman, H. C. (1974). Further thoughts on the processes of compliance, identification, and internalization. In J. T. Tedeschi (Ed.), *Perspectives on social power* (pp. 125–171). Chicago, IL: Aldine.
- Kelman, H. C., & Eagly, A. H. (1965). Attitude toward the communicator, perception of communication content, and attitude change. *Journal of Personality and Social Psychology, 1*, 63–78.
- Kelman, H. C., & Hovland, C. I. (1953). “Reinstatement” of the communicator in delayed measurement of opinion change. *The Journal of Abnormal and Social Psychology, 48*(3), 327–335.
- Kerr, N. (2002). When is a minority a minority? Active versus passive minority advocacy and social influence. *European Journal of Social Psychology, 32*, 471–484.
- Killeya, L. A., & Johnson, B. T. (1998). Experimental induction of biased systematic processing: The directed-thought technique. *Personality and Social Psychology Bulletin, 24*(1), 17–33.
- Knowles, E. S., & Linn, J. A. (2004). Alpha and Omega strategies for change. In E. S. Knowles & J. A. Linn (Eds.), *Resistance and persuasion* (pp. 117–148). Mahwah, NJ: Lawrence Erlbaum Associates.
- Knowles, E. S., & Riner, D. D. (2007). Omega approaches to persuasion: Overcoming resistance. In A. Pratkanis (Ed.), *The science of social influence: Advances and future progress* (pp. 83–114). New York, NY: Psychology Press.
- Krosnick, J. A., Boninger, D. S., Chuang, Y. C., Berent, M. K., & Carnot, C. G. (1993). Attitude strength: One construct or many related constructs? *Journal of Personality and Social Psychology, 65*(6), 1132–1151.
- Krosnick, J. A., & Petty, R. E. (1995). Attitude strength: An overview. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 1–24). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Kruglanski, A., & Thompson, E. (1999). Persuasion by a single route: A view from the unimodel. *Psychological Inquiry, 10*, 83–109.
- Kruglanski, A. W. (1989). The psychology of being “right”: The problem of accuracy in social perception and cognition. *Psychological Bulletin, 106*, 395–409.
- Kruglanski, A. W., Thompson, E. P., & Spiegel, S. (1999). Separate or equal? Bimodal notions of persuasion and a single-process “Unimodel.” In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 293–313). New York, NY: Guilford Press.
- Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: “Seizing” and “freezing.” *Psychological Review, 103*, 263–283.
- Kruglanski, A. W., Webster, D. M., & Klem, A. (1993). Motivated resistance and openness to persuasion in the presence or absence of prior information. *Journal of Personality and Social Psychology, 65*, 861–861.
- Kumkale, G. T., & Albarracín, D. (2004). The sleeper effect in persuasion: A meta-analytic review. *Psychological Bulletin, 130*, 143–172.

- Latané, B. (1981). The psychology of social impact. *American Psychologist*, 36, 343–356.
- Latané, B., & Wolf, S. (1981). The social impact of majorities and minorities. *Psychological Review*, 88, 438–453.
- LeBoeuf, R. A., & Simmons, J. P. (2010). Branding alters attitude functions and reduces the advantage of function-matching persuasive appeals. *Journal of Marketing Research*, 47(2), 348–360.
- Lee, A. Y., & Aaker, J. L. (2004). Bringing the frame into focus: The influence of regulatory fit on processing fluency and persuasion. *Journal of Personality and Social Psychology*, 86, 205–218.
- Lee, J.-G., & Thorson, E. (2008). The impact of celebrity—product incongruence on the effectiveness of product endorsement. *Journal of Advertising Research*, 48(3), 433–449.
- Leventhal, H. (1970). Findings and theory in the study of fear communications. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*, 5, 119–187.
- Livingston, R. W. (2001). What you see is what you get: Systematic variability in perceptual-based social judgment. *Personality and Social Psychology Bulletin*, 27, 1086–1097.
- Maass, A., & Clark, R. D. (1984). Hidden impact of minorities: Fifteen years of minority influence research. *Psychological Bulletin*, 95, 428–450.
- Maass, A., Clark, R. D., & Haberhorn, G. (1982). The effects of differential ascribed category membership and norms on minority influence. *European Journal of Social Psychology*, 12, 89–104.
- MacDonald, T. K., & Zanna, M. P. (1998). Cross-dimension ambivalence toward social groups: Can ambivalence affect intentions to hire feminists? *Personality and Social Psychology Bulletin*, 24, 427–441.
- Mackie, D. M. (1987). Systematic and nonsystematic processing of majority and minority persuasive communications. *Journal of Personality and Social Psychology*, 53, 41–52.
- Maio, G. R., Bell, D. W., & Esses, V. M. (1996). Ambivalence and persuasion: The processing of messages about immigrant groups. *Journal of Experimental Social Psychology*, 32, 513–536.
- Maio, G. R., & Esses, V. M. (2001). The need for affect: Individual differences in the motivation to approach or avoid emotions. *Journal of Personality*, 69(4), 583–614.
- Maio, G. R., Esses, V. M., & Bell, D. W. (2000). Ambivalence and inconsistency are distinct constructs. *Canadian Journal of Behavioral Science*, 32, 71–83.
- Maio, G. R., & Olson, J. M. (1995a). The effect of attitude dissimulation on attitude accessibility. *Social Cognition*, 13, 127–144.
- Maio, G. R., & Olson, J. M. (1995b). Involvement and persuasion: Evidence for different types of involvement. *Canadian Journal of Behavioural Science*, 27, 64–78.
- Maio, G. R., & Olson, J. M. (1998). Attitude dissimulation and persuasion. *Journal of Experimental Social Psychology*, 34, 182–201.
- Maio, G. R., & Olson, J. M. (2000). What is a “value-expressive” attitude. In G. R. Maio & J. M. Olson (Eds.), *Why we evaluate: Functions of attitudes* (pp. 249–269). Mahwah, NJ: Psychology Press (Taylor and Francis Group).
- Martin, R., Hewstone, M., & Martin, P. Y. (2007). Systematic and heuristic processing of majority and minority-endorsed messages: The effects of varying outcome relevance and levels of orientation on attitude and message processing. *Personality and Social Psychology Bulletin*, 33(1), 43–56.
- McGuire, W. J. (1960). A syllogistic analysis of cognitive relationships. In M. J. Rosenberg, C. I. Hovland, W. J. McGuire, R. P. Abelson, & J. W. Brehm (Eds.), *Attitude organization and change: An analysis of consistency among attitude components* (pp. 65–111). New Haven, CT: Yale University Press.
- McGuire, W. J. (1964). Inducing resistance to persuasion. *Advances in Experimental and Social Psychology*, 1, 192–229.
- 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. (1985). Attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *Handbook of Social Psychology* (3rd ed., Vol. 2, pp. 233–346). New York: Random House.
- McGuire, W. J. (2000). Standing on the shoulders of ancients: Consumer research, persuasion, and rhetorical language. *Journal of Consumer Research*, 27, 109–114.
- Mercier, H., & Sperber, D. (2011). Why do humans reason? Arguments for an argumentative theory. *Behavioral and Brain Sciences*, 34, 57–74.
- Meyerowitz, B. E., & Chaiken, S. (1987). The effect of message framing on breast self-examination attitudes, intentions, and behavior. *Journal of Personality and Social Psychology*, 52, 500–510.
- Mikels, J. A., Shuster, M. M., Thai, S. T., Smith-Ray, R., Waugh, C. E., Roth, K., . . . Stine-Morrow, E. A. (2016). Messages that matter: Age differences in affective responses to framed health messages. *Psychology and Aging*, 31(4), 409.

- Millar, M. G., & Millar, K. U. (1990). Attitude change as a function of attitude type and argument type. *Journal of Personality and Social Psychology*, *59*, 217–228.
- Miller, N., Maruyama, G., Beaber, R. J., & Valone, K. (1976). Speed of speech and persuasion. *Journal of Personality and Social Psychology*, *34*(4), 615–624.
- Misra, S., & Beatty, S. E. (1990). Celebrity spokesperson and brand congruence: An assessment of recall and affect. *Journal of Business Research*, *21*, 159–173.
- Mitchell, J. P., Nosek, B. A., & Banaji, M. R. (2003). Contextual variations in implicit evaluation. *Journal of Experimental Psychology: General*, *132*(3), 455–469.
- Monahan, J. L., Murphy, S. T., & Zajonc, R. B. (2000). Subliminal mere exposure: Specific, general, and diffuse effects. *Psychological Science*, *11*(6), 462–466.
- Montoya, R. M., Horton, R. S., Vevea, J. L., Citkovicz, M., & Lauber, E. A. (2017). A re-examination of the mere exposure effect: The influence of repeated exposure on recognition, familiarity, and liking. *Psychological Bulletin*, *143*(5), 459–498. doi:10.1037/bul0000085
- Moscovici, S. (1980). Toward a theory of conversion behavior. *Advances in Experimental Social Psychology*, *13*, 209–239.
- Mouton, J. S., Blake, R. R., & Olmstead, J. A. (1956). The relationship between frequency of yielding and the disclosure of personal identity. *Journal of Personality*, *24*, 339–347.
- Murray, S. L., Haddock, G., & Zanna, M. P. (1996). On creating value-expressive attitudes: An experimental approach. In C. Seligman & J. M. Olson (Eds.), *The psychology of values: The Ontario symposium* (pp. 107–133). Mahwah, NJ: Lawrence Erlbaum Associates.
- Nail, P. R. (1986). Toward an integration of some models and theories of social response. *Psychological Bulletin*, *100*, 190–206.
- Nail, P. R., MacDonald, G., & Levy, D. A. (2000). Proposal of a four-dimensional model of social response. *Psychological Bulletin*, *126*, 454–470.
- Nemeth, C. J. (1986). Differential contributions of majority and minority influence. *Psychological Review*, *93*, 23–32.
- Newcomb, T. L. (1943). *Personality and social change: Attitude formation in a student community*. New York: Dryden Press.
- Norton, M. I., Dunn, E. W., Carney, D. R., & Ariely, D. (2012). The persuasive “power” of stigma? *Organizational Behavior and Human Decision Processes*, *117*(2), 261–268.
- Nosek, B. A. (2007). Implicit–explicit relations. *Current Directions in Psychological Science*, *16*(2), 65–69.
- Nosek, B. A., & Smyth, F. L. (2007). A multitrait-multimethod validation of the implicit association test. *Experimental Psychology*, *54*(1), 14–29.
- Nottleman, E. D., & Hill, K. T. (1977). Test anxiety and off-task behaviour in evaluative situations. *Child Development*, *48*, 225–231.
- O’Keefe, D. J. (1999). How to handle opposing arguments in persuasive messages: A meta-analytic review of the effects of one-sided and two-sided messages. *Annals of the International Communication Association*, *22*(1), 209–249.
- O’Keefe, D. J. (2013). The elaboration likelihood model. In J. P. Dillard & L. Shen (Eds.), *The Sage handbook of persuasion: Developments in theory and practice* (pp. 137–149). London, UK: Sage.
- O’Keefe, D. J., & Jensen, J. D. (2006). The advantages of compliance or the disadvantages of noncompliance? A meta-analytic review of the relative persuasive effectiveness of gain-framed and loss-framed messages. *Annals of the International Communication Association*, *30*(1), 1–43.
- Olson, M. A., & Fazio, R. H. (2006). Reducing automatically activated racial prejudice through implicit evaluative conditioning. *Personality and Social Psychology Bulletin*, *32*(4), 421–433.
- Oriña, M. M., Wood, W., & Simpson, J. A. (2002). Strategies of influence in close relationships. *Journal of Experimental Social Psychology*, *38*, 459–472.
- Ostrom, T. M., Steele, C. M., & Smilansky, J. (1974). Perceived discrepancy and attitude change: An unsubstantiated relationship. *Representative Research in Social Psychology*, *5*, 7–15.
- Papageorgis, D. (1968). Warming and persuasion. *Psychological Bulletin*, *70*, 271–282.
- Park, H. S., & Levine, T. R. (1999). The theory of reasoned action and self-construal: Evidence from three cultures. *Communications Monographs*, *66*(3), 199–218.
- Park, H. S., Levine, T. R., Kingsley Westerman, C. Y., Orfgen, T., & Foregger, S. (2007). The effects of argument quality and involvement type on attitude formation and attitude change: A test of dual-process and social judgment predictions. *Human Communication Research*, *33*(1), 81–102.
- Peters, G.-J. Y., Ruiters, R. A., & Kok, G. (2013). Threatening communication: A critical re-analysis and a revised meta-analytic test of fear appeal theory. *Health Psychology Review*, *7*(1), 8–31.
- Peterson, R. S., & Nemeth, C. J. (1996). Focus versus flexibility: Majority and minority influence can both improve performance. *Personality and Social Psychology Bulletin*, *22*, 14–23.

- Petrocelli, J. V., Tormala, Z. L., & Rucker, D. D. (2007). Unpacking attitude certainty: Attitude clarity and attitude correctness. *Journal of Personality and Social Psychology, 92*(1), 30–41.
- Petty, R. E. (1994). Two routes to persuasion: State of the art. In G. d'Ydewalle, P. Bertelson, & P. Eelen (Eds.), *International perspectives on psychological science, Vol. 2: The state of the art* (pp. 229–247). Hillsdale, NJ: Erlbaum.
- Petty, R. E. (2006). A metacognitive model of attitudes. *Journal of Consumer Research, 33*(1), 22–24.
- Petty, R. E., Briñol, P., & DeMarree, K. G. (2007). The Meta-Cognitive model (MCM) of attitudes: Implications for attitude measurement, change, and strength. *Social Cognition, 25*(5), 657–686.
- 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. (1979). Effects of forewarning of persuasive intent and involvement on cognitive responses and persuasion. *Personality and Social Psychology Bulletin, 5*, 173–176.
- Petty, R. E., & Cacioppo, J. T. (1984). The effects of involvement on responses to argument quantity and quality: Central and peripheral routes to persuasion. *Journal of Personality and Social Psychology, 46*, 69–81.
- Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. *Advances in Experimental Social Psychology, 19*, 123–205.
- Petty, R. E., Cacioppo, J. T., & Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. *Journal of Personality and Social Psychology, 41*, 847–855.
- Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research, 10*(2), 135–146.
- Petty, R. E., Fleming, M. A., & White, P. H. (1999). Stigmatized sources and persuasion: Prejudice as a determinant of argument scrutiny. *Journal of Personality and Social Psychology, 76*, 19–34.
- Petty, R. E., Harkins, S. G., & Williams, K. D. (1980). The effects of group diffusion of cognitive effort on attitudes: An information processing view. *Journal of Personality and Social Psychology, 38*, 81–92.
- Petty, R. E., Haugtvedt, C. P., & Smith, S. M. (1995). Elaboration as a determinant of attitude strength: Creating attitudes that are persistent, resistant, and predictive of behavior. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 93–130). Mahwah, NJ: Lawrence Erlbaum Associates.
- Petty, R. E., & Wegener, D. T. (1998a). Attitude change: Multiple roles for persuasion variables. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology*, Vol. 1 (4th ed., pp. 323–390). New York, NY: McGraw-Hill.
- Petty, R. E., & Wegener, D. T. (1998b). Matching versus mismatching attitude functions: Implications for scrutiny of persuasive messages. *Personality and Social Psychology Bulletin, 24*, 227–240.
- Petty, R. E., & Wegener, D. T. (1999). The elaboration likelihood model: Current status and controversies. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 41–72). London, UK: Guilford Press.
- Petty, R. E., Cacioppo, J. T., & Heesacker, M. (1981). Effects of rhetorical questions on persuasion: A cognitive response analysis. *Journal of Personality and Social Psychology, 40*(3), 432–440.
- Petty, R. E., Wells, G. L., & Brock, T. C. (1976). Distraction can enhance or reduce yielding to propaganda: Thought disruption versus effort justification. *Journal of Personality and Social Psychology, 34*, 874–884.
- Petty, R. E., Wells, G. L., Heesacker, M., Brock, T. C., & Cacioppo, J. C. (1983). The effects of recipient posture on persuasion: A cognitive response analysis. *Personality and Social Psychology Bulletin, 9*, 209–222.
- Petty, R. E., Wheeler, S. C., & Bizer, G. Y. (2000). Attitude functions and persuasion: An elaboration likelihood approach to matched versus mismatched messages. In G. R. Maio & J. M. Olson (Eds.), *Why we evaluate: Functions of attitudes* (pp. 133–162). Mahwah, NJ: Lawrence Erlbaum Associates.
- Pfau, M., Roskos-Ewoldsen, D., Wood, M., Yin, S., Cho, J., Lu, K.-H., & Shen, L. (2003). Attitude accessibility as an alternative explanation for how inoculation confers resistance. *Communication Monographs, 70*(1), 39–51.
- Pomerantz, E. M., Chaiken, S., & Tordesillas, R. S. (1995). Attitude strength and resistance processes. *Journal of Personality and Social Psychology, 69*, 408–419.
- Pornpitakpan, C. (2004). The persuasiveness of source credibility: A critical review of five decades' evidence. *Journal of Applied Social Psychology, 34*(2), 243–281.
- Pratkanis, A. R., Greenwald, A. G., Leippe, M. R., & Baumgardner, M. H. (1988). In search of reliable persuasion effects III. The sleeper effect is dead. Long live the sleeper effect. *Journal of Personality and Social Psychology, 54*, 203–218.
- Pratto, F., Lee, I., Tan, J., & Pitpitan, E. (2011). Power basis theory: A psycho-ecological approach to power. In D. Dunning (Ed.), *Social motivation* (pp. 191–222). New York, NY: Psychology Press.
- Prentice, D. A. (1987). Psychological correspondence of possessions, attitudes, and values. *Journal of Personality and Social Psychology, 53*, 993–1003.

- Priester, J. R., & Petty, R. E. (1996). The gradual threshold model of ambivalence: Relating the positive and negative bases of attitudes to subjective ambivalence. *Journal of Personality and Social Psychology*, 71, 431–449.
- Prislin, R. (1996). Attitude stability and attitude strength: One is enough to make it stable. *European Journal of Social Psychology*, 26, 447–477.
- Prislin, R., & Ouellette, J. (1996). When it is embedded, it is potent: Effects of general attitude embeddedness on formation of specific attitudes and behavioral intentions. *Personality and Social Psychology Bulletin*, 22, 845–861.
- Prislin, R., & Pool, G. J. (1996). Behavior, consequences, and the self: Is all well that ends well? *Personality and Social Psychology Bulletin*, 22, 933–948.
- Puckett, J., Petty, R. E., Cacioppo, J. T., & Fisher, D. (1983). The relative impact of age and attractiveness stereotypes on persuasion. *Journal of Gerontology*, 38, 340–343.
- Quick, B. L., Shen, L., & Dillard, J. P. (2013). Reactance theory and persuasion. In J. P. Dillard & L. Shen (Eds.), *The SAGE handbook of persuasion: Developments in theory and practice* (pp. 167–183). Thousand Oaks, CA: Sage.
- Ragunathan, R., & Trope, Y. (2002). Walking the tightrope between feeling good and being accurate: Mood as a resource in processing persuasive messages. *Journal of Personality and Social Psychology*, 83, 510–525.
- Rains, S. A. (2013). The nature of psychological reactance revisited: A meta-analytic review. *Human Communication Research*, 39, 47–73.
- Ranganath, K. A., Smith, C. T., & Nosek, B. A. (2008). Distinguishing automatic and controlled components of attitudes from direct and indirect measurement methods. *Journal of Experimental Social Psychology*, 44(2), 386–396.
- Raven, B. H. (1992). A power/interaction model of interpersonal influence: French and Raven thirty years later. *Journal of Social Behavior and Personality*, 7, 217–244.
- Rhodes, N., & Wood, W. (1992). Self-esteem and intelligence affect influenceability: The mediating role of message perception. *Psychological Bulletin*, 111, 156–171.
- Riemer, H., Shavitt, S., Koo, M., & Markus, H. R. (2014). Preferences don't have to be personal: Expanding attitude theorizing with a cross-cultural perspective. *Psychological Review*, 141(4), 619–648.
- Rogers, R. W. (1983). Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. T. Cacioppo and R. E. Petty (Eds.), *Social psychophysiology: A sourcebook* (pp. 153–176). New York, NY: Guilford Press.
- Ronis, D. L., Baumgardner, M. H., Leippe, M. R., Cacioppo, J. T., & Greenwald, A. G. (1977). In search of reliable persuasion effects: I. A computer-controlled procedure for studying persuasion. *Journal of Personality and Social Psychology*, 35(8), 548–569.
- Roskos-Ewoldsen, D. R., Bichsel, J., & Hoffman, K. (2002). The influence of accessibility of source likeability on persuasion. *Journal of Experimental Social Psychology*, 38, 137–143.
- Roskos-Ewoldsen, D. R., & Fazio, R. H. (1992). The accessibility of source likability as a determinant of persuasion. *Personality and Social Psychology Bulletin*, 18, 19–25.
- Ross, L., & Nisbett, R. E. (1991). *The person and the situation: Perspectives of social psychology*. Pinter & Martin Publishers.
- Ross, M., McFarland, C., Conway, M., & Zanna, M. P. (1983). Reciprocal relation between attitudes and behavior recall: Committing people to newly formed attitudes. *Journal of Personality and Social Psychology*, 45(2), 257–267.
- Rothman, A. J., & Salovey, P. (1997). Shaping perceptions to motivate healthy behavior: The role of message framing. *Psychological Bulletin*, 121, 3–19.
- Ruiter, R. A., Abraham, C., & Kok, G. (2001). Scary warnings and rational precautions: A review of the psychology of fear appeals. *Psychology & Health*, 16, 613–630.
- Sagarin, B. J., Cialdini, R. B., Rice, W. E., & Serna, S. B. (2002). Dispelling the illusion of invulnerability: The motivations and mechanisms of resistance to persuasion. *Journal of Personality and Social Psychology*, 83, 526–541.
- Sanbonmatsu, D. M., & Kardes, F. R. (1988). The effects of physiological arousal on information processing and persuasion. *Journal of Consumer Research*, 15, 379–385.
- Saucier, D. A., & Miller, C. T. (2003). The persuasiveness of racial arguments as a subtle measure of racism. *Personality and Social Psychology Bulletin*, 29, 1303–1315.
- Sawicki, V., Wegener, D. T., Clark, J. K., Fabrigar, L. R., Smith, S. M., & Durso, G. R. (2013). Feeling conflicted and seeking information when ambivalence enhances and diminishes selective exposure to attitude-consistent information. *Personality and Social Psychology Bulletin*, 39(6), 735–747.
- Schultz, T., & Fielding, K. (2014). The common in-group identity model enhances communication about recycled water. *Journal of Environmental Psychology*, 40, 296–305. doi:10.1016/j.jenvp.2014.07.006

- See, Y. H. M., Petty, R. E., & Fabrigar, L. R. (2008). Affective and cognitive meta-bases of attitudes: Unique effects on information interest and persuasion. *Journal of Personality and Social Psychology*, *94*(6), 938–955.
- Sengupta, J., & Johar, G. V. (2001). Contingent effects of anxiety on message elaboration and persuasion. *Personality and Social Psychology Bulletin*, *27*, 139–150.
- Shavitt, S. (1990). The role of attitude objects in attitude functions. *Journal of Experimental Social Psychology*, *26*, 124–148.
- Sherif, C. W., Sherif, M., & Nebergall, R. E. (1965). *Attitude and attitude change: The social judgment-involvement approach* (pp. 127–167). Philadelphia, PA: Saunders.
- Sherif, M. (1935). A study of some social factors in perception. *Archives of Psychology*, *27*, 1–60.
- Silvia, P. J. (2006). Reactance and the dynamics of disagreement: Multiple paths from threatened freedom to resistance to persuasion. *European Journal of Social Psychology*, *36*, 673–685.
- Slusher, M. P., & Anderson, C. A. (1996). Using causal persuasive arguments to change beliefs and teach new information: The mediating role of explanation availability and evaluation bias in the acceptance of knowledge. *Journal of Educational Psychology*, *88*, 110–122.
- Smith, M. B., Bruner, J. S., & White, R. W. (1956). *Opinions and personality*. New York, NY: Wiley.
- Smith, S. M., & Shaffer, D. R. (1995). Speed of speech and persuasion: Evidence for multiple effects. *Personality and Social Psychology Bulletin*, *21*, 1051–1060.
- Snyder, M. (1987). *Public appearances/private realities: The psychology of self-monitoring*. New York, NY: Freeman.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. *Advances in Experimental Social Psychology*, *21*, 261–302.
- Steele, C. M., Spencer, S. J., & Lynch, M. (1993). Self-image resilience and dissonance: The role of affirmational resources. *Journal of Personality and Social Psychology*, *64*, 885–896.
- Steinmetz, H., Knappstein, M., Ajzen, I., Schmidt, P., & Kabst, R. (2016). How effective are behavior change interventions based on the theory of planned behavior? A three-level meta-analysis. *Zeitschrift für Psychologie*, *224*(3), 216–233.
- Stiff, J. (1986). Cognitive processing of persuasive message cues: A meta-analytic review of the effects of supporting information on attitudes. *Communication Monographs*, *53*, 75–89.
- Strick, M., Holland, R. W., van Baaren, R. B., & van Knippenberg, A. (2012). Those who laugh are defenseless: How humor breaks resistance to influence. *Journal of Experimental Psychology: Applied*, *18*(2), 213–223.
- Tannenbaum, M. B., Hepler, J., Zimmerman, R. S., Saul, L., Jacobs, S., Wilson, K., & Albarracín, D. (2015). Appealing to fear: A meta-analysis of fear appeal effectiveness and theories. *Psychiatric Bulletin*, *141*(6), 1178–1204.
- Tetlock, P. E. (1983). Accountability and complexity of thought. *Journal of Personality and Social Psychology*, *45*, 74–83.
- Thompson, E. P., Kruglanski, A. W., & Spiegel, S. (2000). Attitudes as knowledge structures and persuasion as a specific case of subjective knowledge acquisition. In G. R. Maio & J. M. Olson (Eds.), *Why we evaluate: Functions of attitudes* (pp. 59–95). Mahwah, NJ: Lawrence Erlbaum Associates.
- Thompson, M. M., Zanna, M. P., & Griffin, D. W. (1995). Let's not be indifferent about (attitudinal) ambivalence. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 361–386). Mahwah, NJ: Lawrence Erlbaum Associates.
- Till, B. D., & Busler, M. (2000). The match-up hypothesis: Physical attractiveness, expertise, and the role of fit on brand attitude, purchase intent and brand beliefs. *Journal of Advertising*, *29*(3), 1–13.
- Tormala, Z. L., Clarkson, J. J., & Petty, R. E. (2006). Resisting persuasion by the skin of one's teeth: The hidden success of resisted persuasive messages. *Journal of Personality and Social Psychology*, *91*(3), 423–435.
- Tormala, Z. L., DeSensi, V. L., & Petty, R. E. (2007). Resisting persuasion by illegitimate means: A metacognitive perspective on minority influence. *Personality and Social Psychology Bulletin*, *33*(3), 354–367.
- Tormala, Z. L., & Petty, R. E. (2002). What doesn't kill me makes me stronger: The effects of resisting persuasion on attitude certainty. *Journal of Personality and Social Psychology*, *83*, 1298–1313.
- Tormala, Z. L., & Rucker, D. D. (2007). Attitude certainty: A review of past findings and emerging perspectives. *Social and Personality Psychology Compass*, *1*(1), 469–492.
- Törn, F. (2012). Revisiting the match-up hypothesis: Effects of brand-incongruent celebrity endorsements. *Journal of Current Issues & Research in Advertising*, *33*(1), 20–36.
- Triandis, H. C. (1977). *Interpersonal behavior*. Monterey, CA: Brooks/Cole.
- Triandis, H. C. (1980). Values, attitudes, and interpersonal behavior. In H. E. Howe, Jr. & M. M. Page (Eds.), *Nebraska Symposium on Motivation*, 1979 (Vol. 27, pp. 195–259). Lincoln: University of Nebraska Press.
- Tyson, M., Covey, J., & Rosenthal, H. E. (2014). Theory of planned behavior interventions for reducing heterosexual risk behaviors: A meta-analysis. *Health Psychology*, *33*(12), 1454–1467.

- Van Harreveld, F., Van der Pligt, J., & de Liver, Y. N. (2009). The agony of ambivalence and ways to resolve it: Introducing the MAID model. *Personality and Social Psychology Review*, 13(1), 45–61.
- Van Schie, E., Martijn, C., & Van Der Pligt, J. (1994). Evaluative language, cognitive effort and attitude change. *European Journal of Social Psychology*, 24(6), 707–712.
- Vinokur, A., & Burnstein, E. (1978). Novel argumentation and attitude change: The case of polarization following group discussion. *European Journal of Social Psychology*, 8(3), 335–348.
- Visser, P. S., & Krosnick, J. A. (1998). Development of attitude strength over the life cycle: Surge and decline. *Journal of Personality and Social Psychology*, 75(6), 1389–1410.
- Watts, W. A., & Holt, L. E. (1979). Persistence of opinion change induced under conditions of forewarning and distraction. *Journal of Personality and Social Psychology*, 37, 778–789.
- Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological bulletin*, 132, 249–268.
- Wegener, D. T., & Petty, R. E. (1994). Mood management across affective states: The hedonic contingency hypothesis. *Journal of Personality and Social Psychology*, 66, 1034–1048.
- Wegener, D. T., Petty, R. E., & Smith, S. M. (1995). Positive mood can increase or decrease message scrutiny: The hedonic contingency view of mood and message processing. *Journal of Personality and Social Psychology*, 69, 5–15.
- White, P. H., & Harkins, S. G. (1994). Race of source effects in the elaboration likelihood model. *Journal of Personality and Social Psychology*, 67, 790–807.
- Wiers, R. W., Eberl, C., Rinck, M., Becker, E. S., & Lindenmeyer, J. (2011). Retraining automatic action tendencies changes alcoholic patients' approach bias for alcohol and improves treatment outcome. *Psychological Science*, 22(4), 490–497.
- 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(2), 181–192.
- Witte, K., & Allen, M. (2000). A meta-analysis of fear appeals: Implications for effective public health campaigns. *Health Education and Behavior*, 27, 591–615.
- Wolf, L. J., von Hecker, U., & Maio, G. R. (2017). Affective and cognitive orientations in intergroup perception. *Personality and Social Psychology Bulletin*, 43(6), 828–844.
- Wolf, S. (1987). Majority and minority influence: A social impact analysis. In M. P. Zanna, J. M. Olson, & C. P. Herman (Eds.), *Social influence: The Ontario symposium* (Vol. 5, pp. 207–235). Mahwah, NJ: Lawrence Erlbaum Associates.
- Wolsko, C., Ariceaga, H., & Seiden, J. (2016). Red, white, and blue enough to be green: Effects of moral framing on climate change attitudes and conservation behaviors. *Journal of Experimental Social Psychology*, 65, 7–19.
- Wood, W., Kallgren, C. A., & Preisler, R. M. (1985). Access to attitude-relevant information in memory as a determinant of persuasion: The role of message attributes. *Journal of Experimental Social Psychology*, 21, 73–85.
- Wood, W., & Quinn, J. M. (2003). Forewarned and forearmed? Two meta-analysis syntheses of forewarnings of influence appeals. *Psychological Bulletin*, 129, 119–138.
- Wood, W., Rhodes, N., & Biek, M. (1995). Working knowledge and attitude strength: An information-processing analysis. In R. E. Petty and J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 283–313). Mahwah, NJ: Lawrence Erlbaum Associates.
- Worchel, S., & Brehm, J. W. (1970). Effect of threats to attitudinal freedom as a function of agreement with a communicator. *Journal of Personality and Social Psychology*, 14, 18–22.
- Wyer, R. S., Jr. (1974). *Cognitive organization and change: An information-processing approach*. Potomac, MD: Erlbaum.
- Wyer, R. S., & Albarracín, D. (2005). Belief formation, organization, and change: Cognitive and motivational influences. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 273–322). Mahwah, NJ: Lawrence Erlbaum Associates.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9(2), 1–27.
- Zanna, M. P. (1994). Message receptivity: A new look at the old problem of open- versus closed-mindedness. In A. A. Mitchell (Ed.), *Advertising exposure, memory, and choice* (pp. 141–162). Mahwah, NJ: Erlbaum.
- 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., Higgins, E. T., & Taves, P. A. (1976). Is dissonance phenomenologically aversive? *Journal of Experimental Social Psychology*, 12, 530–538.

- 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.
- Zebrowitz, L. A., White, B., & Wieneke, K. (2008). Mere exposure and racial prejudice: Exposure to other-race faces increases liking for strangers of that race. *Social Cognition, 26*(3), 259–275.
- Zhang, Y., Feick, L., & Price, L. J. (2006). The impact of self-construal on aesthetic preference for angular versus rounded shapes. *Personality and Social Psychology Bulletin, 32*(6), 794–805.
- Ziegler, R., Diehl, M., & Ruther, A. (2002). Multiple source characteristics and persuasion: Source inconsistency as a determinant of message scrutiny. *Personality and Social Psychology Bulletin, 28*, 496–508.
- Zuckerman, M., DePaulo, B. M., & Rosenthal, R. (1981). Verbal and nonverbal communication of deception. *Advances in Experimental Social Psychology, 14*, 1–59.
- Zuckerman, M., & Driver, R. E. (1985). Telling lies: Verbal and nonverbal correlates of deception. In A. W. Siegman & J. S. Feldstein (Eds.), *Multichannel integrations of nonverbal behavior* (pp. 129–147). Hillsdale, NJ: Lawrence Erlbaum Associates.