Expanding the Scope of the Social Response Context Model

Geoff MacDonald

School of Psychology University of Queensland

Paul R. Nail

Department of Psychology Southwestern Oklahoma State University

David A. Levy

Department of Psychology Pepperdine University

Descriptive models of social response are concerned with identifying and discriminating between different types of response to social influence. In a previous article (Nail, MacDonald, & Levy, 2000), the authors demonstrated that 4 conceptual dimensions are necessary to adequately distinguish between such phenomena as conformity, compliance, contagion, independence, and anticonformity in a single model. This article expands the scope of the authors' 4-dimensional approach by reviewing selected experimental and cultural evidence, further demonstrating the integrative power of the model. This review incorporates political psychology, culture and aggression, self-persuasion, group norms, prejudice, impression management, psychotherapy, pluralistic ignorance, bystander intervention/nonintervention, public policy, close relationships, and implicit attitudes.

Social influence refers to any situation in which a person's thoughts, feelings, or behaviors are affected by the real or imagined presence of one or more others (Allport, 1985). Response to social influence can be very complex. Consider an example of a man who doubts his future with his wife but persists in the relationship nonetheless. He meets a woman at work who tries to persuade him that his wife is wrong for him and pursues an affair with him. The man leaves his wife to begin an affair with his coworker, but when the affair fails to live up to his idealized fantasies, he becomes convinced that his wife is the right person for him after all. However, as a result of his increased commitment to his coworker, he continues the relationship with her.

How can we classify this example in terms of response to social influence? Classic models have considered social response as a unidimensional construct, ranging from nonconformity/independence at one extreme to conformity at the other extreme (Allport, 1934; Asch, 1951; see Nail & Van Leeuwen, 1993). Accordingly, the argument could be made that the man is conforming to influence from his coworker; she wanted to convince him to have an affair, and that is indeed what he is doing. However, the argument could also be made that he is nonconforming to his coworker because privately his affection for her has waned. It could further be argued that the man is demonstrating compliance to his coworker (Festinger, 1953; Kelman, 1958; Nail, 1986); he is publicly conforming to her wishes but privately no longer believes in the relationship. But can it truly be called compliance in the conventional sense, even though he wanted to pursue the affair in the first place?

This example highlights some of the complexities involved in attempting to adequately describe and classify responses to social influence. It also points to a serious weakness in traditional social response models. Specifically, the man in the scenario holds diverging public and private attitudes both before and after influence. That is, in the example, the man's private thoughts about his wife and his coworker

Requests for reprints should be sent to Geoff MacDonald, School of Psychology, University of Queensland, St. Lucia, QLD, 4072, Australia. E-mail: geoff@psy.uq.edu.au

do not match with his outward expressions, both before the affair and after it has started. The existence of public-private attitude discrepancies both before (e.g., McFarland, Ross, & Conway, 1984) and after (e.g., Kelman, 1958) influence has been well documented in the research literature. However, despite this evidence, such discrepancies have not been properly accounted for in any of the classic models of response to influence. Is it possible, then, to find a single response label or construct that can accurately describe the entirety of the man's response to his coworker's influence considering both the public and private levels? In general, how can we adequately account for the complexity of response to social influence in the most parsimonious way possible?

In a previous article (Nail et al., 2000), we proposed a four-dimensional descriptive model that provides a more comprehensive and inclusive framework for labeling various types of response to influence than is provided in traditional models (see Nail, 1986, for a review). In employing the descriptive approach, our goal was to identify the underlying dimensions necessary to operationally define and distinguish different types of response to social influence. Accurate description is an important step in the research process because it provides the clear discrimination between different phenomena and the common terminology that are essential to developing integrative theories. Our original impetus in this work was to bring together for the first time in a single model the major types of response that can occur in group-pressure and mass influence settings (e.g., conformity, contagion, and independence). In developing the model, however, we discovered numerous ties between our constructs and a wide range of basic and applied issues relevant to social psychologists, namely: obedience/disobedience to authority, minority influence, cognitive dissonance phenomena, copycat suicides, substance abuse prevention, and group therapy (see Nail et al., 2000, pp. 460, 463-464). The purpose of this article is to offer further evidence of the validity and integrative power of our four-dimensional model-what we refer to now as the Social Response Context Model (SRCM). We begin by describing the structure of the SRCM. We then extend the scope of the model by showing its relevance to additional areas of interest including political psychology, culture and aggression, self-persuasion, group norms, prejudice, impression management, psychotherapy, pluralistic ignorance, bystander intervention/nonintervention, public policy, and close relationships. Finally, we discuss the relevance of implicit attitudes to our model, and highlight some of the model's limitations and strengths.

THE GENERAL STRATEGY IN CONSTRUCTING DESCRIPTIVE MODELS

The strategy most commonly employed in constructing multidimensional social response models, including ours, is

Post Exposure Public:

Agreement Disagreement

Agreement Conversion Paradoxical Anticompliance

Post Exposure Private:

Compliance Independence

FIGURE 1 The Allen (1965) response model. The model assumes initial disagreement between the target and source of influence. Postexposure refers to the influence target's response to influence.

combinatorial analysis. This approach is quite familiar to most research psychologists as it is the heuristic that underlies factorial analysis of variance. Applied to social response models, once the factors that define successful influence have been identified by a particular model, combinatorial analysis dictates that they should be considered in all possible combinations. In most classic and contemporary models alike (e.g., Allen, 1965; Hogg & Turner, 1987; Jahoda, 1956, 1959; Montgomery, 1992; Nail, 1986; Nail & Van Leeuwen, 1993; Nail et al., 2000; Willis, 1963, 1965), this approach is what provides for various alternatives to conformity. In some models, combinatorial analysis provides for different *types* of conformity (Allen, 1965; Hogg & Turner, 1987; Jahoda, 1959; Nail, 1986; Nail et al., 2000).

Allen's (1965) model illustrated the application of combinatorial analysis (see Figure 1). The model proposes four basic responses: two types of conformity, conversion and compliance; independence; and an unconventional type of anticonformity, paradoxical anticompliance. The model assumes initial disagreement between the target and source of influence. Following exposure to influence, conversion is operationally defined by movement on the part of the target to a position of postexposure1 public and private agreement with the source (i.e., internalization, see also Kelman, 1958, 1974; Raven, 1965, 1993). Compliance is defined by movement to postexposure public agreement accompanied by continued private disagreement. Independence is defined by the absence of movement, specifically, by postexposure, public and private disagreement. Paradoxical anticompliance is defined by postexposure public disagreement but with positive movement to postagreement in private.

The distinctions between conversion, compliance, and independence are widely recognized among social influence researchers no doubt because of their prominence in empiri-

¹Throughout this article, the terms preexposure and postexposure are periodically referred to as simply pre and post.

cal studies (e.g., Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990; Asch, 1951; 1956; Deutsch & Gerard, 1955; Eagly, Wood, & Fishbaugh, 1981; Insko, Smith, Alicke, Wade, & Taylor, 1985; Sherif, 1935), as well as their correspondence to explanatory theories of social influence (e.g., Chaiken, Wood, & Eagly, 1996; Deutsch & Gerard, 1955; Hogg & Turner, 1987; Holzhausen & McGlynn, 2001; Petty & Cacioppo, 1986; Turner, 1991). Allen (1965) did not label or discuss the fourth cell, what we call paradoxical anticompliance, probably because his literature review turned up no empirical examples of such a response possibility. However, in majority influence settings, we conceptualize paradoxical anticompliance as a special type of anticonformity. We have uncovered a number of studies that support this interpretation (Abrams et al., 1990; Eagly et al., 1981; Feshbach, 1967; McFarland et al., 1984). Paradoxical anticompliance is included in the SRCM and is discussed in some detail later in this article.

Allen's (1965) model is significant because it supplied the foundation for the first formal attempts at integration between the descriptive and explanatory theoretical levels (see Allen, 1965; Nail, 1986; Nail et al., 2000). Nevertheless, a significant shortcoming of the model is that it fails to provide directly for the possibility of agreement between the source and target of influence before influence occurs. As a result, the model does not provide for the possibility of a number of important responses, including *anticonformity* (Nail, 1986; Nail & Van Leeuwen, 1993; Willis, 1965; also known as *counterformity*, Crutchfield, 1962; Krech, Crutchfield, & Ballachey, 1962), *congruence* (Beloff, 1958; Nail, 1986; Nail et al., 2000; Willis, 1965) and *disinhibitory contagion* (Levy & Nail, 1993; Nail et al., 2000; originally known as *behavioral contagion*, Wheeler, 1966).

Anticonformity is typically defined operationally simply as movement away from the influence source (i.e., preexposure agreement to postexposure disagreement; or preexposure disagreement to postexposure increased disagreement; see Nail et al., 2000, pp. 455, 457, respectively). It occurs, for example, when people want to distance themselves from dissimilar or disliked others or groups (e.g., Boyanowsky & Allen, 1973; Cooper & Jones, 1969; Plesser-Storr & Tedeschi, 1999; Wood, Pool, Leck, & Purvis, 1996).

Congruence, like conversion and compliance, is a special type of conformity. It occurs when there is preexposure agreement between the target and source of influence accompanied by postexposure public and private agreement. Note that because there is preagreement, the target does not have to change to fit in with the group. This does not mean, however, that there is no social influence in cases of congruence. For example, although the valence of the target's postinfluence attitudes may not change, it is quite possible that the strength of these attitudes may change (e.g., through validation or increased accessibility; see Nail et al., 2000, p. 456). Beginning with Asch (1951), congruence has

been obtained in virtually every conformity study that has employed objective stimuli; it occurs on the *neutral* trials where experimental confederates give objectively correct answers (see Nail, 1986, p. 200; but see also Frager, 1970, for a striking counterexample).

Disinhibitory contagion is a type of social influence that "occurs when an individual who is in an approach—avoidance conflict experiences a reduction in restraints as a result of observing a model" (Nail et al., 2000, p. 457); the model's behavior reduces the observer's avoidance gradient or raises the approach gradient (or both), thus freeing the observer to engage in the desired act (Levy & Nail, 1993; Wheeler, 1966). An example of disinhibitory contagion is when looting or other privately desired antisocial behaviors spread through a crowd during a riot. Another is when an adolescent has the courage for the first time to telephone for a date as a result of observing the success of a friend's calling for a date.

Disinhibitory contagion has been demonstrated and examined in numerous empirical studies (e.g., Baron & Kepner, 1970; Goethals & Perlstein, 1978; Levy, 1992; Russell, Wilson, & Jenkins, 1976; Smith, Murphy, & Wheeler, 1964; Wheeler & Caggiula, 1966; Wheeler & Levine, 1967; Wheeler & Smith, 1967). Although disinhibitory contagion has sometimes been confused with conformity (e.g., Milgram, 1974, pp. 113-122; Shaw, 1981, p. 432), in our view there is now clear and compelling evidence that the two should be regarded as separate and unique forms of influence (see Nail et al., 2000, pp. 460-461). In fact, in a very real sense the two reflect opposite forms of influence. Whereas Asch-type conformity tends to create intrapersonal conflict, disinhibitory contagion tends to remove or free influencees from such conflict (see Asch, 1951, 1956; Back & Bogdonoff, 1964; Levy, 1992).

Levy (1992) selected the term *disinhibitory* in reference to this type of contagion following Pavlov (cited in Kaplan, 1966) who referred to disinhibition as "the inhibition of inhibition" (p. 167). In the terminology of the SRCM, we operationally define the approach—avoidance conflict inherent in disinhibitory contagion as a preexposure private attitude or desire that is not being expressed or acted on publicly. It was our desire to integrate such phenomena as conversion, compliance, independence, anticonformity, congruence, and disinhibitory contagion within a single model that led directly to our four-dimensional approach and the development of the SRCM. That is, we found that we could not discriminate between these phenomena with fewer than four dimensions (see Nail et al., 2000, p. 458).

THE SOCIAL RESPONSE CONTEXT MODEL

To reconcile the range of responses to social influence documented in the literature, a model must be able to account for an individual's public and private positions both before and after an influence attempt has been made (Nail et al., 2000). Essentially, the dimensions of the SRCM can be accessed by asking the following four questions (see Figure 2). What is a person's public position relative to an eventual influence source before exposure to influence (preexposure, public agreement/disagreement)? What is that person's private position before influence (preexposure, private agreement/disagreement)? What is that person's public response relative to an influence source after exposure to influence (postexposure, public agreement/disagreement)? What is that person's private response after influence (postexposure, private agreement/disagreement)? Answering all four questions and employing combinatorial analysis yields 16 basic responses to influence. For purposes of exposition and com-

munication, the 16 have been numbered and given a four-letter descriptor. The letters represent either agreement (A) or disagreement (D) on each relevant dimension. The first letter represents the public dimension before influence; the second letter represents the private dimension before influence. The third and fourth letters represent the public and private dimensions, respectively, after influence.

The model explicitly includes the six of the types of social response considered to this point: #1 is congruence (AA/AA), #9 is disinhibitory contagion (DA/AA), and #13 through #16 are the same four responses identified in Allen's (1965) model: conversion (DD/AA), compliance (DD/AD), paradoxical anticompliance (DD/DA), and independence (DD/DD), respectively (see Figure 2). The model also includes two addi-

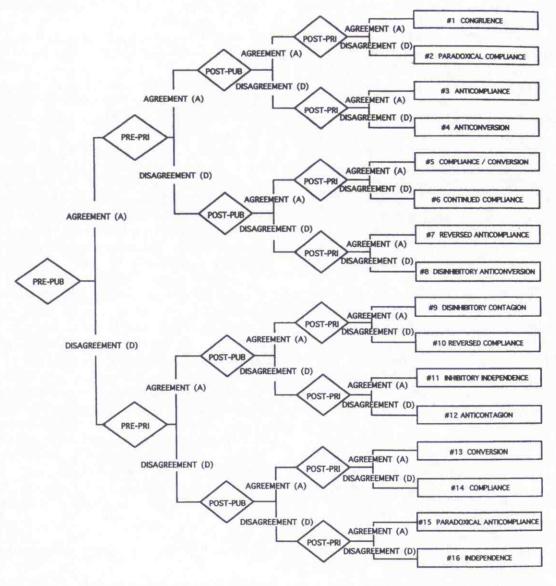


FIGURE 2 The Social Response Context Model. PRE-PUB is the influencee's preexposure, public position relative to the influence source; PRE-PRI is the preexposure private position; POST-PUB is the postexposure public position; POST-PRI is the postexposure private position. From "Proposal of a Four-Dimensional Model of Social Response" by Paul R. Nail, Geoff MacDonald, and David A. Levy, 2000, Psychological Bulletin, 126, p. 459. Copyright 2000 by the American Psychological Association. Used by permission.

tional types of anticonformity to go along with #15-paradoxical anticompliance (DD/DA): #3-anticompliance (AA/DA) and #4-anticonversion (AA/DD; discussed later; see also Nail et al., 2000, p. 457). We turn now to the task of expanding the scope of the model by incorporating additional evidence within its framework.

EXPANDING THE SCOPE OF THE SRCM

The SRCM proposes several unique responses to influence. In addition to incorporating avenues of research that have not been previously discussed in terms of the SRCM, our ancillary goal is to provide further support for some of these less recognized responses. Thus, we focus primarily on the lesser-known responses in our review. Providing support for these can be difficult because researchers have not consistently paid careful attention to the public/private distinction, especially before influence. However, accumulating evidence supports the validity of these responses.

#2-Paradoxical Compliance (AA/AD)

As implied by its name, #2-paradoxical compliance (AA/AD) represents a special type of (a) compliance and, more generally, (b) conformity. It is marked by preexposure public and private agreement between the target and source of influence. After influence, the target continues to agree with the source publicly but moves to a position of disagreement privately. This pattern represents a form of compliance because after influence the target maintains a public stance of agreement with the source despite his or her movement to private disagreement. Unlike #14-compliance (DD/AD), however, which is defined by positive movement (i.e., from preexposure public/private disagreement to postpublic agreement/private disagreement), #2-paradoxical compliance (AA/AD) is defined by negative movement (i.e., a private change from agreement to disagreement). Thus, the paradox-compliance defined by a shift away from the source of influence.

An example of paradoxical compliance comes from the work of Cohen and Vandello (2001) regarding the *culture of honor* that exists in many areas among the southeastern states of the United States (i.e., the Old South). Part of the system is that social disputes and conflicts, certainly insults, should be settled with violence. At one time, this system was the accepted way of life. However, according to Cohen and Vandello, it now exists primarily as a series of publicly accepted norms that are no longer held privately by the majority of southern residents. Ironically, then, Southerners' paradoxical compliance to these honor norms may well result in violence that, privately, is believed unnecessary. Similarly, Cohen and Vandello cite an article by Anderson (1994) that suggests that a process very similar to paradoxical compliance may keep residents of inner cities from challenging

street violence—the so-called law of the street—because those residents accept street norms publicly (assuming others accept those norms privately) despite their own private misgivings.

A more well-known example of paradoxical compliance is evident in a report by Howard Fineman of Newsweek regarding the contested presidential election of 2000. On November 30, 2000, as Democratic nominee Al Gore's ethical and legal challenges in Florida were into their third week, Fineman, a Washington insider, reported that while public support for Gore among Democrats on Capitol Hill remained strong, his private support was beginning to erode (Matthews, 2000). According to Fineman, there was a consensus among Democratic leaders-if events moved past a certain point, Gore would have to be persuaded to concede, if necessary with direct social/political pressure. If we assume that at the beginning of the controversy over the election results in mid-November that many or most Democratic politicians supported Gore both publicly and privately, the configuration reported on November 30 of public support accompanied by eroding private support represents #2-paradoxical compliance (AA/AD).

Politics also forms the backdrop for another striking example of paradoxical compliance, as described in James Schlesinger's account of his role in the decision to proceed with the Bay of Pigs invasion (cited in Janis, 1982). Schlesinger, caught up in the mood of "buoyant optimism" that characterized the early days of the Kennedy administration, reports that he was initially supportive of the operation. "Euphoria reigned; we thought for a moment that the world was plastic and the future unlimited" (Janis, 1982, p. 36). After learning more of the details of the invasion, however, Schlesinger became increasingly skeptical and suspect of the whole operation, and for good reason. Intelligence reports indicated, for instance, that Castro's forces might outnumber the returning or invading Cuban exiles by as many as 140 to 1. Approximately 1 week before the invasion, Schlesinger expressed his serious doubts about the operation in a private meeting with Secretary of State, Dean Rusk. Even so, Schlesinger was extremely reluctant to voice his objections publicly during White House meetings with Kennedy and other members of the "inner circle." Of these meetings, Schlesinger later wrote, "I can only explain my failure to do more than raise a few timid questions by reporting that one's impulse to blow the whistle on this nonsense was simply undone by the circumstances of the discussion" (Janis, 1982, p. 40). On the whole, then, Schlesinger began with initial public and private agreement with the invasion but ended in public agreement/private disagreement. These are the defining criteria for #2-paradoxical compliance (AA/AD).2 Overall, our model has the potential to be very useful in the realm of poli-

²We are indebted to Glenn Littlepage for recognizing and suggesting Schlesinger's behavior as an example of #2-paradoxical compliance.

tics and psychology, given the enormous self-presentational pressures politics present.

15-Paradoxical Anticompliance (DD/DA)

Just as it is possible under certain circumstances to display a type of conformity by moving away from the influence source (viz., #2-paradoxical compliance [AA/AD]), so is it possible to display a type of anticonformity by moving toward the source. Such is the case with #15-paradoxical anticompliance (DD/DA), which is the mirror image of #2-paradoxical compliance (AA/AD; see Figure 2; paradoxical anticompliance is also shown more straightforwardly in Figure 1). Paradoxical anticompliance (DD/DA) is marked by preexposure public and private disagreement with the source, postexposure public disagreement, but a change to postagreement in private. In majority influence settings, this pattern represents a form of anticonformity because after influence the target maintains (projects) a public stance of disagreement with the group despite his or her change to private agreement. Previously discussed examples (Nail et al., 2000) of this response include one study in which men were exposed to conformity pressure from a group that predominantly consisted of women (Eagly et al., 1981). These men moved to a position of relative postprivate agreement; yet, they projected autonomy by maintaining a stance of disagreement in public.

We now turn to previously unreported empirical examples of #15-paradoxical anticompliance. McFarland et al. (1984) investigated whether lasting persuasion could result from anticipatory attitude change (the tendency to shift toward an influence source's position even before influence is received), even if the message was never heard. They informed participants that they would be exposed to a strongly persuasive anti-exercise message that differed from their baseline attitudes. However, before completing any dependent measures, participants were told that the audio tape containing the message had been lost, and so they would not hear it after all. Half the participants completed the dependent measures anonymously (i.e., privately vis-à-vis the experimenter or influence source), while it was emphasized to the other half that their responses would be seen by the experimenter (i.e., would be public). In private, participants' attitudes moved toward agreement with the anti-exercise position advocated by the experimenter's (never heard) audio tape, a result of self-persuasion. In public, however, participants' attitudes did not change, thus projecting the appearance of independence in front of the experimenter3 (similar to what was shown by the Eagly et al.,1981, men). Considering public and pri-

³The lack of change at the public level in this study cannot be attributed to a lack of measurement sensitivity in the public condition, as participants in the other experimental condition (i.e., who were told they would hear the message) showed both public and private attitude change toward the source of influence (i.e., #13-conversion [DD/AA]).

vate participants together, these results demonstrate a pattern consistent with #15-paradoxical anticompliance (DD/DA). Of interest, the phenomenon of anticipatory attitude change represents a potential common source of preinfluence public/private attitude discrepancies.

In another example, Feshbach (1967) examined fraternity members' responses to influence on a perceptual task. Members were asked to choose which of two squares contained a higher number of dots. Norms were established by apparent consensus from other members and became increasingly incorrect over trials. Some of the participants were high in social status in their fraternity, others low in status. Furthermore, some participants were given accurate feedback regarding their status, others inaccurate feedback. Finally, some participants responded in public to the norms, others in private. The results indicated that high status members were essentially unaffected by manipulated status; they responded with greater conformity in public than in private (i.e., #14-compliance [DD/AD]) regardless of their experimentally induced status. In contrast, when low status members were given bogus feedback indicating that they were high in status, they responded to the group norms with relative public and private agreement (i.e., #13-conversion [DD/AA]). Most important for present purposes, when low status members were given accurate feedback regarding their genuinely low status, they responded with significantly more agreement in private than in public (i.e., #15-paradoxical anticompliance [DD/DA]). As Feshbach stated, "It is as if low-status, low experimentally induced status subjects welcomed the opportunity under public conditions to reject the group norm" (p. 61).

Before continuing, it should be noted that the pattern designated by cell #15 (DD/DA) also describes the pattern frequently found in studies of minority influence, although here the combination is properly regarded as a form of conversion (i.e., private acceptance of the minority position; see Nail et al., 2000, p. 463; MacDonald & Nail, 2002).

#3-Anticompliance (AA/DA) and #4-Anticonversion (AA/DD)

Anticompliance (AA/DA) and anticonversion (AA/DD) are the mirror images, respectively, of #14-compliance (DD/AD) and #13-conversion (DD/AA). They were first formally suggested as types of anticonformity by Nail (1986, p. 201) who demonstrated for both empirical and theoretical reasons that it is necessary to distinguish between public and private anticonformity just as it is necessary to distinguish between public and private conformity (see also Nail et al., 2000, p. 457). The distinction between #3-anticompliance (AA/DA) and #4-anticonversion (AA/DD) is significant because explanatory theories of anticonformity that emphasize self-presentational or impression management concerns correspond to #3-anticompliance (AA/DA; e.g., Baer, Hinkle, Smith, & Fenton, 1980; Heilman & Toffler, 1976; Snyder & Fromkin, 1980), whereas explanatory theories that empha-

size *motivational drives* correspond to #4-anticonversion (AA/DD; J. W. Brehm, 1966; S. S. Brehm & Brehm, 1981; Festinger & Aronson, 1968; see Nail, 1986, p. 203).

Anticompliance (AA/DA) has been obtained in numerous studies (e.g., Boyanowsky & Allen, 1973; Cooper & Jones, 1969; Frager, 1970; Nail, Van Leeuwen, & Powell, 1996; Plesser-Storr & Tedeschi, 1999; Schlenker & Weigold, 1990). For example, Boyanowsky and Allen (1973) led highly prejudiced white participants to believe that a black participant agreed with them on several personally relevant opinion items. Later, when the white participants were asked to state their opinions publicly to a group of white peers, they significantly changed their opinions so as to appear different from the black participant. Anticompliance (AA/DA) was indicated rather than anticonversion (AA/DD) in that white participants who stated their opinions only in private continued to agree with the black participant. Similarly, Cooper and Jones (1969) found that participants altered their public but not their private opinions so as to appear to disagree with an obnoxious participant or confederate.

A probable occurrence of #4-anticonversion (AA/DD) was reported in a laboratory experiment by Wood, Lundgren, Ouellette, Busceme, and Blackstone (1994). Participants learned that members of deviant groups (the Ku Klux Klan or the Radical Lesbian Feminists) agreed with them on attitudinal statements. Later, when the students were given the chance to restate their attitudes in private, many changed to positions of disagreement with the deviant groups. This study only represents a probable occurrence of #4-anticonversion (AA/DD), however, because public attitudes were not assessed.

Anticonversion (AA/DD) is evidenced by the change in the insignia of the U.S. Army's 45th Infantry Division following the rise of Nazism in the 1930s (see Figure 3). Prior to World War II, the division's insignia was a clockwise swastika, an ancient cosmic and religious symbol in many cultures (e.g., Na-

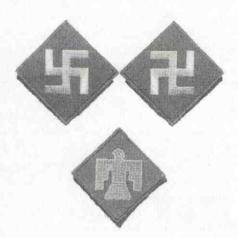


FIGURE 3 Two swastikas and a thunderbird. On the left is the Nazi swastika (1935–1945). On the right is the U.S. Army's, 45th Infantry's swastika (1924–1939). The thunderbird has served as the 45th Division's insignia from 1939 to the present.

vajo Indians). Shortly after a highly similar counterclockwise swastika was adopted by Hitler in 1935, however, the 45th Division changed its insignia to a thunderbird. The swastika had become "such an odious symbol that it had to be abandoned as the insignia of the 45th Infantry Division" ("The Thunderbird Is Born," 2001). If we assume that the majority of 45th Division members were privately opposed to Nazism and therefore wanted to distance themselves from its signs and symbols (i.e., disidentification), the change away from the Nazi swastika would represent preexposure public and private agreement (with the swastika symbol, but not Nazi philosophy) followed by postpublic and private disagreement, that is, #4-anticonversion (AA/DD).

#5-Compliance/Conversion (AD/AA) and #6-Continued Compliance (AD/AD)

Compliance/conversion (AD/AA) is similar to #13-conversion (DD/AA) in that an influencee's postprivate attitude is altered so as to come in line with an influence source's position. The difference is that with #5-compliance/conversion (AD/AA) there is preexposure public agreement/private disagreement, whereas with #13-conversion (DD/AA) there is prepublic/private disagreement. Analogously, #6-continued compliance (AD/AD) is similar to #14-compliance (DD/AD) in that both are characterized by postpublic agreement/private disagreement with the source. The difference is that with #6-continued compliance (AD/AD) there is preexposure public agreement/private disagreement, whereas with #14-compliance (DD/AD) there is prepublic/private disagreement.

In Nail et al. (2000, p. 463), we suggested that #5 and #6 correspond, respectively, to the insufficient and sufficient justification of behavior as in the cognitive dissonance literature (e.g., Festinger & Carlsmith, 1959). In fact, the quadrant of the SRC M that begins with preinfluence public agreement and private disagreement (responses #5 through #8) helps to frame the debate that occurred around the induced compliance paradigm between those who believed that induced compliance leads to genuine, private attitude change (e.g., Bem, 1967; Festinger & Carlsmith, 1959) and those who believed such attitude change is a public, self-presentational tactic (e.g., Tedeschi, Schlenker, & Bonoma, 1971). As the induced compliance paradigm definitionally begins with individuals agreeing with a request publicly that they disagree with privately, only responses #5 through #8 of the SRCM are possible outcomes of influence in such a setting. Consistency and self-perception theorists argued that the induced compliance paradigm led to #5-compliance/conversion (AD/AA), or attitude change at the public and private levels. Impression management theorists argued that the attitude change found in most forced compliance studies represented #6-continued compliance (AD/AD; an apt name from the self-presentation perspective), or conformity only at the public level. From the perspective of the SRCM, much of the research stimulated by the self-presentation argument is impressive because of the increased focus on carefully parsing public from private responding using techniques such as the bogus pipeline (Jones & Sigall, 1971). As a result, many studies have demonstrated various circumstances under which one can expect to find #5-compliance/conversion or #6-continued compliance (e.g., Baumeister & Tice, 1984; Paulhus, 1982; Reiss, Kalle, & Tedeschi, 1981) with clarity and precision. Had the SRCM been available at the time the original dissonance findings were published, it is possible the self-presentation debate would have been advanced much more quickly.

A related example of #5-compliance/conversion (AD/AA) can be found in Prentice and Miller's (1996) work on pluralistic ignorance. They found that first year college men reported a much lower comfort level with heavy consumption of alcohol than they perceived the attitudes of an average student to be (i.e., the campus norm). Thus, students who quickly followed the perceived norm and engaged in heavy drinking were in a state of preexposure (or early-exposure) public agreement/private disagreement with the perceived attitudes of their peers. However, Prentice and Miller also found that by the end of the first term (i.e., postexposure) many male students' attitudes toward drinking had become more positive and in line with the perceived norm. Male students who continued to drink heavily had not only contributed to a sort of self-fulfilling prophecy, they also exhibited #5-compliance/conversion (AD/AA); their preexposure public/private conflict had been resolved by private movement toward agreement with the perceived group norm. Of interest, women students as a group did not show attitude change at the private level; that is, their private attitudes toward drinking did not become more positive over the course of the semester. Thus, those women students who continued heavy drinking may well have engaged in #6-continued compliance (AD/AD).

8-Disinhibitory Anticonversion (AD/DD)

Disinhibitory anticonversion (AD/DD) is the mirror image of #9-disinhibitory contagion (DA/AA). It begins with an individual who agrees with an influence source publicly but not privately. Disinhibitory anticonversion (AD/DD) represents a form of anticonversion in that following influence the target moves away from the source to a position of public disagreement, thus ending in a state of public and private disagreement.

As disinhibitory anticonversion is one of the four possible outcomes of the induced compliance situation, it is not surprising that good examples of this response can be found in the self-presentation literature (Baer et al., 1980; Gaes, Kalle, & Tedeschi, 1978; Malkis, Kalle, & Tedeschi, 1982). For example, Gaes et al. (1978) asked participants to write a counterattitudinal essay against tooth brushing, and then measured postessay attitudes via both paper-and-pencil measures

and the bogus pipeline, with the order of assessment counterbalanced. When participants' postattitudes were measured with the bogus pipeline first, they reported disagreement with the essay's message at both levels of assessment. These participants, then, showed prepublic agreement/private disagreement with the antitooth brushing message, but postpublic and private disagreement. This pattern is consistent with #8-disinhibitory anticonversion (AD/DD).

The intended response to a psychotherapy technique known as paradoxical intention also provides an example (Frankl, 1967; see also, Loriedo & Vella, 1992). According to Frankl (1967), paradoxical intention can be appropriately and effectively employed with many clients but particularly those who are diagnosed with phobic or obsessive-compulsive disorders. With the technique, the therapist instructs or commands the client to engage in an exaggerated form of the very behavior that is dreaded or feared. As an example, consider a client with acrophobia (a fear of heights). At a point in the therapy after a basic level of trust has been established, the therapist informs the client that it is now time to confront his or her fear of heights, for instance, by climbing the steps to the second floor of an apartment building. Initially, the client typically resists, claiming that the climb will induce a panic attack. At this point, the client is instructed to climb the steps nonetheless and, most important, that he or she must have a panic attack. Ironically, in trying to force an attack, the client is frequently unable to have one. With continued support and encouragement in employing paradoxical intention, Frankl (1967) reported cure or improvement rates of 75%. Presumably, the technique works because in a backward sort of way it teaches the client that he or she does, in fact, have control over the focal behavior, that which was previously assumed to be uncontrollable. The response to paradoxical intention represents #8-disinhibitory anticonversion (AD/DD) because if successful the client publicly agrees, but privately disagrees, with the therapist's order to have a deliberate panic attack. The client's conflict is resolved, however, in postexposure public/private disagreement with the therapist when he or she is unable to have the attack.

Work by Monteith, Spicer, and Tooman (1998) can also be described as disinhibitory anticonversion. In their study, some participants were asked to write a passage about a gay couple while suppressing their use of stereotypes because, as the experimental instructions stated, "Psychological research has established that our impressions and evaluations of others are consistently biased by stereotypes" (Monteith et al., 1998, p. 362). High-prejudiced participants who received these suppression instructions did reduce their use of stereotypes in the passage, although given the difficulty of altering stereotypes, it is unlikely the researchers' instructions eliminated their private stereotypic beliefs. Assuming no genuine private change, high prejudice participants initially displayed #14-compliance (DD/AD), publicly acceding to the request to reduce the use of stereotypes in their passage despite their private belief in such stereotypes.

Subsequently, participants were asked to write a second passage about a different gay couple, but this time no suppression instructions were given. Participants were simply instructed to use their imagination in constructing the passage. The researchers did not rescind their claim that stereotypes lead to bias, so their implied stance was still against the use of stereotypes. The instructions, however, left participants with more freedom to choose how much stereotypic content to include. In the second passages, Monteith et al. (1998) found that high-prejudice participants significantly increased their use of stereotypes. That is, the high-prejudice participants changed their public position from one of agreement with the original suppression instructions (the source of influence) to one of disagreement. The overall pattern then, moving from public agreement/private disagreement to public disagreement/private disagreement, matches the defining criteria for #8-disinhibitory anticonversion (AD/DD).

In addition to providing an example of #8-disinhibitory anticonversion, the Monteith et al. (1998) research is significant because it highlights some little considered yet important aspects of social influence. First, it shows how social influence can be a liberating force (Levy, 1992; Nail et al., 2000; Wheeler, 1966; #8-disinhibitory anticonversion [AD/DD] is similar to # 9-disinhibitory contagion [DA/AA] in this way). Specifically, the second set of instructions freed high-prejudice participants to express their true private attitudes. This point is significant because in most accounts in the professional and popular media alike, social influence is portrayed chiefly as a force that causes people to act contrary to their better judgment or will (e.g., standard textbook descriptions of the conformity, obedience, and compliance; i.e., foot-in-the-door, paradigms). The Monteith et al. study is a good example of how social influence can also free people to act in accordance with their will, although freeing one's private attitudes does not yield socially desirable outcomes in all cases. The Monteith et al. (1998) research is also significant because the form that the influence took (i.e., the instructions to use one's imagination) represents indirect influence in that participants were not told explicitly how to express themselves (see Levy, Collins, & Nail, 1998; Raven, 1993). Nevertheless, this indirect influence clearly had an important impact on the participants' behavior.

#11-Inhibitory Independence (Noncontagion; DA/DA)

Inhibitory independence (noncontagion; DA/DA) is similar to #9-disinhibitory contagion (DA/AA) in that before exposure to influence the potential influencee is in an approach—avoidance conflict, privately desiring to engage in a behavior but publicly not doing so. Inhibitory independence (DA/DA) reflects the fact that not all approach—avoidance conflicts end with resolution to the conflict. Some nervous adolescents fail to telephone for a first date long after the successful calls of their peers; some talented music students refuse to solo in pub-

lic even after less talented students have succeeded in such performances. We selected the term *inhibitory* in reference to #11 to reflect the fact that in some cases a model's behavior can leave a potential influencee's restraints intact. We selected *independence* to indicate that in such instances the *potential* influencee remains just that, behaviorally uninfluenced by (independent of) the model's example.

The work of Darley and Latané (1968) with respect to bystander intervention, or rather nonintervention, provides a good example of #11-inhibitory independence (DA/DA), with the experimental confederate/victim in need of help conceptualized as the influence source and the true participant conceptualized as the potential influencee. Partway through a scheduled laboratory procedure, a confederate, who was in a nearby cubicle, had an apparent seizure. Participants were allowed up to 6 min from the beginning of the seizure to display their intent to help by emerging from their cubicle. Darley and Latané found that as the number of potential helpers increased, the likelihood of helping sharply decreased. Most germane for the present discussion, when participants believed that four other nonhelping participants were available to help, the incidence of helping was only 62%. Thus, if we assume that the nonhelping participants were at least somewhat inclined privately to help, which they apparently were (see Darley & Latané, 1968, pp. 381-382), 38% of the participants in this condition displayed #11-inhibitory independence (DA/DA)—the victim's rather obvious need for help was not enough in this condition to spur (disinhibit) a sizable minority to action.4

Darley and Latané's (1968) findings have had at least one significant impact on public policy. It is the recognition of the potential for nonaction (i.e., #11 inhibitory independence [DA/DA]) in emergency situations that has led legislators in some localities to implement so-called Good Samaritan laws—laws that eliminate or limit the legal liability of bystanders who try to help in an emergency. The intent, of course, is to enhance the persuasive power of injured individuals by removing at least one of the restraints from helping, namely, the fear of secondary lawsuits from reinjured or further-injured victims. In some jurisdictions, Good Samaritan laws go even farther, making bystanders liable if they do not help victims in need.

#12-Anticontagion (DA/DD)

Anticontagion (DA/DD) is similar to #11-inhibitory independence (DA/DA) except that the influencee's private re-

⁴If the multiple (apparent) nonintervening bystanders are taken as the source of influence in this example rather than the victim in need of help, the nonhelp of the bystanders would reflect #6-continued compliance (AD/AD), a special case of Sorrels and Kelley's (1984) *conformity by omission*. Response labels are always offered only in reference to a particular influence source. For example, conformity to coworkers can at the same time represent anticonformity to company policies.

sponse changes from preexposure agreement to postexposure disagreement. That is, not only is the potential influencee not positively influenced by the model, he or she moves in a direction opposite to that implied by the model's behavior with regard to the postexposure private response, hence the label *anti*contagion (DA/DD).

The only example we have located in the literature that represents a potential case of #12-anticontagion (DA/DD) is in the work of Redl (1949). In his group therapy sessions with adolescents, Redl found that latent hostility would sometimes ignite and spread from one group member to others. Specifically, the overt verbal hostility of a single initiator toward the therapist could precipitate verbal hostility in others (i.e., # 9-disinhibitory contagion [DA/AA]). Not all group members, however, would join in. Some would sit passively, acting only as observers. If we assume latent hostility among at least some of these passive observers, such inaction would reflect #11-inhibitory independence (DA/DA). A private change to reduced or zero hostility, however, would reflect #12-anticontagion (DA/DD). Such a private change may have occurred in group members who were more active in resisting the initiator's influence, those, for example, who distanced themselves physically from the initiator and the rest of the group after verbal hostility had occurred. Unfortunately, Redl's rich qualitative narrative does not include an assessment of private attitudes that would be necessary for the identification of #12-anticontagion (DA/DD) versus # 11-inhibitory independence (DA/DA). Nonetheless, it is not difficult to think of plausible examples of #12-anticontagion (DA/DD).

Extending a previous example, if an adolescent boy observed that a friend was turned down after asking for a date, it seems likely that the boy's preexposure private desire for a date might quickly change to postexposure private nondesire. That is, the boy's approach—avoidance conflict could be resolved in favor of avoidance, at least in the short term. Such preexposure public disagreement/private agreement with a model that resolves in postpublic and private disagreement fit the defining criteria for #12-anticontagion (DA/DD).

#10-Reversed Compliance (DA/AD) and #7-Reversed Anticompliance (AD/DA)

We have as yet been unable to discover empirical evidence to validate the constructs of #10-reversed compliance (DA/AD) and #7-reversed anticompliance (AD/DA). Reversed compliance (DA/AD) describes a situation where an individual displays preexposure public disagreement/private agreement with an influence source. After influence, however, the individual switches at both the public and private levels and ends in a state of postpublic agreement/private disagreement. Reversed anticompliance (AD/DA) also represents a complete prereversal or postreversal in the influencee's public and private positions, but it is the mirror image of #10-reversed

compliance (DA/AD). Because so little research has been conducted in circumstances characterized by preexposure public/private discrepancies, and because a complete reversal at both levels of attitudes is probably unusual, it is not surprising that empirical examples of these constructs have proved to be elusive. Nonetheless, the example given at the beginning of this article does serve as a realistic possible manifestation of #10-reversed compliance (DA/AD), with the man in the affair conceptualized as the influencee and his coworker as the influence source.

Recall that the example begins with the man in public disagreement/private agreement with his coworker in that he is not yet having an affair with her even though he privately thinks he might like a new relationship. Once his coworker does convince him to become involved with her, however, he finds that his romantic illusions are dispelled, and he once again longs for his wife. Yet, just as commitment initially kept him with his wife, the commitment that stemmed from becoming involved with his new partner keeps him with her. Thus, he winds up publicly (behaviorally) agreeing with his new partner although privately disagreeing. Taken as a whole he has experienced #10-reversed compliance (DA/AD). Of interest, if the man's wife is conceptualized as the influence source rather than the coworker, this same example would represent #7-reversed anticompliance (AD/DA): preexposure public agreement/private disagreement followed by postpublic disagreement/private agreement. Overall, the commitment and self-presentational pressures present in many romantic relationships suggest that the SRCM is a potentially useful tool in this domain.

IMPLICIT ATTITUDES

One of the most dynamic and interesting areas of research with respect to one potential form of public/private attitude discrepancy is that of implicit attitudes. Implicit attitudes have been defined as unconscious, automatic associations with an attitude object that are spontaneously triggered when that attitude object, or a symbol of that attitude object, is experienced (e.g., Devine, 1989). Thus, whenever an attitude object is perceived, associated implicit attitudes should be activated. Social influence may often, if not always, lead to the activation of corresponding implicit attitudes because such influence, by definition, will highlight one or more attitude objects. Thus, it is important to account for implicit attitudes to fully demonstrate the SRCM's comprehensiveness.

Of interest, implicit attitudes tend to be weakly, if at all, related to individuals' explicit or conscious attitudes toward the same attitude objects. This weak link has been consistently found in research on prejudice and stereotyping (Blair, 2001; Brauer, Wasel, & Niedenthal, 2000; Karpinski & Hilton, 2001) and self-attitudes (Bosson, Swann, &

Pennebaker, 2000; Greenwald & Farnham, 2000; Hetts, Sakuma, & Pelham, 1999; Jordan, Spencer, & Zanna, in press). For example, Gaertner and Dovidio (1986; see also Son Hing, Li, & Zanna, 2002) coined the term aversive racists to describe individuals who consciously endorse attitudes but who have negative, nonprejudicial nonconscious, automatic associations with various minority groups. Self-esteem researchers have capitalized on the orthogonal nature of implicit and explicit attitudes, and have been able to predict narcissism from a combination of low implicit and high explicit self-regard (Bosson & Swann, 1998; Jordan et al., in press). Of note is the fact that scales measuring implicit attitudes tend to have low reliability compared with explicit measures (Bosson et al., 2000; Cunningham, Preacher, & Banaji, 2001; Kawakami & Dovidio, 2001), presenting the possibility that researchers underestimate the strength of the relation between implicit and explicit measures due to attenuation of correlations. However, even research designed to account for this attenuation has found only a small correlation between implicit and explicit measures (Cunningham et al., 2001; Lane, Brescoll, & Bosson, 2001).

What implications do implicit attitudes have for the SRCM? As they are attitudes that are not publicly expressed, implicit attitudes may seem like a form of private attitudes. However, categorizing implicit attitudes in this way is not supported by research or theory. We conceptualize private attitudes as being consciously recognizable, controllable, and not directly accessible to anyone other than the attitude-holder (MacDonald & Nail, in press). As mentioned, implicit attitudes have been shown to have little relation to people's consciously held attitudes. Implicit attitudes are uncontrolled reactions occurring out of conscious awareness and are not even directly accessible to the attitude-holder (Kawakami & Dovidio, 2001; Wilson, Lindsey, & Schooler, 2000). Thus, implicit attitudes do not fit our definition of private attitudes.

The key question becomes: Is it necessary to expand our model to incorporate implicit attitudes as a third level of attitudes? Such an expansion could build on Wilson et al.'s (2000) dual attitudes model that separates implicit from explicit attitudes. In Wilson et al.'s terms, we would further subdivide explicit attitudes, thus measuring three levels of attitudes (explicit public, explicit private, and implicit). Although this may prove to be an interesting consideration for the study of attitude structure in general, it is important to note that the focus of the SRCM is social influence or attitude change. Implicit attitudes have generally been considered to be relatively unchangeable in the short term (Dovidio, Kawakami, & Gaertner, 2000; Wilson et al., 2000). However, some recent work has suggested that implicit attitudes may be more malleable than originally proposed. For example, experimental procedures in which participants consistently pair an attitude object with an evaluation counter to the valence of their preexisting implicit attitude have been shown to lead to a modification of the valence of the implicit attitude (Karpinski & Hilton, 2001; Kawakami, Dovidio, Moll, Hermsen, & Russin, 2000). It should be noted, however, that the learning phase in this method has consisted of hundreds of trials. Other research has shown that the valence of implicit attitudes can be affected by the context in which the attitude object is perceived (Blair, Ma, & Lenton, 2001; Dasgupta & Greenwald, 2001; Lowery, Hardin, & Sinclair, 2001; Wittenbrink, Judd, & Park, 2001). However, it is questionable whether this method produces change in implicit attitudes, or the triggering of a different set of implicit attitudes. Thus, it appears to be too early to conclude that implicit attitudes are easily changeable. On the other hand, the highly malleable nature of explicit attitudes is well documented (e.g., Asch, 1956). Thus, incorporating implicit attitudes into a model of social response (and thus attitude change) does not currently appear to be warranted by the available evidence. However, this issue will need to be revisited if future research shows the malleability of implicit attitudes to be comparable to that of explicit attitudes.

Nevertheless, research has shown that implicit attitudes do have important implications for attitudes and behavior generally. How can implicit attitudes be reconciled with our model? We believe that implicit attitudes do not need to be incorporated explicitly into a *descriptive* model of attitude change because the research evidence suggests that they are not likely to change as a result of influence. However, implicit attitudes may have important theoretical implications, affecting vulnerability to influence at either the explicit public or explicit private level. That is, although implicit attitudes are not themselves likely to change due to an influence attempt, they may be responsible for increased malleability or rigidity in either public or private attitudes under certain conditions.

A study by Son Hing, Li, and Zanna (2002) helps to illustrate this point. In this study, aversive racists (operationalized as those who held egalitarian beliefs despite implicit racist attitudes toward Asians) and low prejudice participants (those who held egalitarian beliefs and nonracist implicit attitudes toward Asians) were asked to indicate how much of a cut in funding various campus groups should receive as a result of a budget reduction. In the baseline conditions, aversive racists ascribed more cuts to an Asian students association than did low prejudice participants. Some aversive racists and low prejudice participants were randomly assigned to a hypocrisy manipulation-immediately after writing a proegalitarian essay they were instructed to reflect on times in the past when they had not lived up to their egalitarian beliefs. The hypocrisy induction produced guilt in aversive racists and resulted in significantly lower budget reductions for the Asian Student Association compared to the aversive racist/control participants. The hypocrisy manipulation, however, had no influence on the funding recommendations of low prejudice participants.

This example demonstrates a number of things. First, the pattern of influence displayed by aversive racists provides a good example of #9 disinhibitory contagion (DA/AA). Taken as a whole, these participants reported (a) preexposure public disagreement/private agreement with the researchers' attempt to make people behave in a less racist fashion (as shown by control participants' egalitarian beliefs and discriminatory budget cuts) but (b) postpublic and private agreement (as shown by hypocrisy participants' egalitarian beliefs and nondiscriminatory budget allocations). Thus, the label of #9 disinhibitory contagion (DA/AA) is warranted. Without our four-dimensional approach, however, one might be tempted to label aversive racist/hypocrisy participants as demonstrating conversion (conceptualized herein as DD/AA), a label that is clearly inaccurate and misleading in this context. The privately held egalitarian beliefs of the aversive racists made them more vulnerable to influence (a point Son Hing et al., 2000, not only acknowledged, but relied on). Successfully obtaining less racist behavior in the absence of such egalitarian private attitudes would likely prove a much tougher task. That is, #9 disinhibitory contagion (DA/AA) seems far easier to achieve than #13 conversion (DD/AA).

Furthermore, the Son Hing et al. (2000) study showed how knowledge of implicit attitudes is not needed at the descriptive level. We can accurately describe the aversive racist/hypocrisy participants as demonstrating #9 disinhibitory contagion, and the low prejudice/hypocrisy participants as demonstrating #1 congruence, without referring to their implicit attitudes. However, by knowing individuals' implicit attitudes, we can better explain why some people with nonracist explicit attitudes displayed disinhibitory contagion while others displayed congruence. In addition, the public/private distinction helps us pinpoint a cause for the behavior of participants in this study. By knowing that aversive racist participants were acting against their privately held beliefs by being discriminatory, we would be more likely to attribute the success of the hypocrisy manipulation to factors such as guilt than to factors such as self-presentation. Without the descriptive labels provided by our model, proper explanation becomes far more difficult.

Finally, the Son Hing et al. (2000) study provided an excellent example of how the SRCM can help in the study of important social issues. One of the biggest challenges in the stereotype literature is finding effective ways to change stereotypes. This challenge is further complicated by the facts that many people (a) appear less prejudiced than they are by hiding their true private attitudes and (b) behave more prejudicially than they would like because of their negative implicit attitudes. By implying clear and consistent definitions of racial attitudes, both at the public and private levels, we hope our model can be a useful tool for generating theory for stereotype researchers.

SOME LIMITATIONS AND STRENGTHS OF THE MODEL

Limitations

Notwithstanding the comprehensiveness and integrative power of the SRCM, it is not without limitations (see also Nail et al., 2000, p. 465-466). One limitation is that not all recognized forms of social response are directly included in the model. Such responses include identification (Kelman, 1958, 1974), echo contagion (Levy & Nail, 1993), and hysterical contagion (Colligan, Pennebaker, & Murphy, 1982; Johnson, 1945; Kerckhoff & Back, 1968). Identification is very similar to #13-conversion (i.e., internalization; DD/AA) in that the influencee changes from a position of preexposure public/private disagreement with the source to one of postpublic/private agreement. However, with identification the change is not fully internalized/integrated schematically because the public and private agreement continue only as long as the influencer remains salient in the mind of the influencee (see Kelman, 1974, pp. 142-148; Raven, 1965, pp. 373-375). Echo contagion occurs when an unconflicted individual "imitates or reflects spontaneously the affect or behavior of an initiator" (Levy & Nail, 1993, p. 270), for example, a little leaguer who knocks imaginary dirt clods from his or her "spikes" with a bat even though wearing only tennis shoes. Hysterical contagion refers to "the spread of physical symptoms from an initiator to a conflicted recipient in the absence of an identifiable pathogen" (Levy & Nail, 1993, p. 272), for example, when a phantom infestation spreads through stressed-out workers in a factory (Kerckhoff & Back, 1968), or when symptoms from a phantom anesthetist (i.e., a "gasser") spread through numerous residents of a small town (Johnson, 1945).

Another limitation of the model is that it does not distinguish between influence attempts that are perceived by the influence as being *intentional* versus *unintentional* on the part of the influence source (see Levy et al., 1998; Raven, 1993). This is a potential problem because, according to Levy and Nail (1993), a major factor that distinguishes the contagion paradigms (disinhibitory, echo, or hysterical) from the majority influence, minority influence, obedience, and compliance paradigms is that with contagion influencees do not perceive the source's influence to be intentional. With the majority influence paradigm, the influence attempt can be perceived as either intentional/unintentional (see Asch, 1956; Levy et al., 1998; Raven, 1993). The intentional/unintentional dimension is one that should perhaps be included in future descriptive models.

Finally, the model conceptualizes approach-avoidance conflicts only in terms of preexposure public disagreement/private agreement with and eventual influence source. Yet, as Lewin (1935) described, approach-avoidance conflicts can occur totally within the private realm. There is little

doubt that a form of disinhibitory contagion can occur given prepublic disagreement/private ambivalence.

Strengths

Strengths of the SRCM include its usefulness in organizing vast empirical findings, clearly discriminating between closely related phenomena, proposing novel types of influence, and laying the foundation for an integration between the descriptive and theoretical levels (Nail et al., 2000, p. 465).

The dichotomous focus on agreement and disagreement, although in some ways a limitation (Nail et al., 2000), also has its advantages. First, the model is applicable to all social influence situations, regardless of the valence of the attitudes. That is, the model is equally applicable whether a disagreement stems from an influence source holding either a more or less positive attitude than the target (e.g., Joseph, Gaes, Tedeschi, & Cunningham, 1979). Furthermore, to the extent that many of life's choices are categorical, several research paradigms easily lend themselves to such a dichotomization (e.g., choice of political candidate or romantic partner). Even in attitude domains where the attitude can be conceptualized as running along a continuum, "People may often subjectively represent socially important issues as two relatively independent viewpoints or categories of beliefs and attitudes" (Wood et al., 1994, p. 337). Such a phenomenological conceptualization of attitudes as dichotomous would have important implications for a target's response to influence that are captured neatly by our model. Thus, it may be important for social influence researchers to consider implementing an operational definition of agreement/disagreement in their research. One potential strategy is to have participants indicate latitudes of acceptance and rejection (e.g., Fazio, Zanna, & Cooper, 1977). This method allows participants to set their own idiosyncratic criteria for agreement without needlessly eliminating the power that comes from assessing attitudes using continuous variables.

Another strength of the model not previously discussed is its ability to easily integrate research from both the persuasion and social influence paradigms. Persuasion researchers have focused on detailed arguments often divorced from social settings, while social influence researchers have focused on simpler positions advocated by some important social entity (Wood, 2000). Both types of research are accommodated without difficulty by the SRCM, providing a potential integration point.

CONCLUSION

In this article, we have shown how areas as discrepant as prejudice, psychotherapy, and bystander nonintervention can be accommodated within the SRCM's framework. Few would argue against the notion that in these and many other situations in our society individuals are expected or required to act in a manner that can conflict with their true private beliefs. Certainly, to assume that everyone who purports to be heterosexual at work, who does not show signs of being deeply religious to nonreligious friends, or who displays a lack of interest during car-buying negotiations is evidencing true beliefs would be incorrect. Cognitive dissonance phenomena have been extremely well researched, in part, because researchers in this area apparently sensed the commonality of being in situations where people are not able or willing to act in accordance with their private beliefs. The Social Response Context Model is the first in the social response models literature to suggest that such discrepancies need to be considered as potentially existing before social influence occurs. Future work on such discrepancies would afford the opportunity to address questions relevant to important social issues. For example, the following set of questions could shed light on some of the social influence dynamics this article addresses: Under what conditions do closet homosexuals take a stand against homophobic jokes, and under what conditions do they join in? How do politicians who are forced to toe the party line respond to attacks on their party's position? How do privately dissatisfied romantic partners respond to the temptation of an affair? Once again, it is evident that the preexposure public/private distinction is not a trivial one. Thus, it should be included in descriptive models of social response and is deserving of greater theoretical and research attention as well.

ACKNOWLEDGMENTS

We thank Helen Harton, Eric Knowles, Mark Leary, Todd Lucas, Leanne Son Hing, and Mark Zanna for their insightful comments on previous drafts of this article. Continuing appreciation goes to R. H. Willis. Thanks also go to Jennifer Bass, Madeline Baugher, David Gwinn, and Janice Sperle for their technical expertise and assistance. Work on this article was supported in part by a Social Sciences and Humanities Research Council of Canada Post-Doctoral Fellowship awarded to the first author. I (G.M.) am extremely grateful for the opportunities provided for me by the Canadian government via this fellowship.

REFERENCES

Abrams, D., Wetherell, M., Cochrane, S., Hogg, M. A., & Turner, J. C. (1990). Knowing what to think by knowing who you are: Self-categorization and the nature of norm formation, conformity and group polarization. *British Journal of Social Psychology*, 29, 97–119.

Allen, V. L. (1965). Situational factors in conformity. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 2, pp. 133–175). New York: Academic.

- Allport, G. W. (1934). The J-curve hypothesis of conforming behavior. *Journal of Social Psychology*, 5, 141–183.
- Allport, G. W. (1985). The historical background of social psychology. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., Vol. 1, pp. 1–46). New York: Random House.
- Anderson, E. (1994). The code of the streets. Atlantic Monthly, 5, 81–94.
- Asch, S. (1951). Effects of group pressure upon the modification and distortion of judgments. In H. Guetzkow (Ed.), Groups, leadership, and men (pp. 177–190). Pittsburgh, PA: Carnegie.
- Asch, S. (1956). Studies of independence and conformity: I. A minority of one against a unanimous majority. *Psychological Monographs*, 70(9, Whole No. 416).
- Back, K. W., & Bogdonoff, M. D. (1964). Plasma lipid responses to leadership, conformity, and deviation. In P. H. Leiderman & D. Shapiro (Eds.), Psychobiological approaches to social behavior (pp. 24–42). Stanford, CA: Stanford University Press.
- Baer, R., Hinkle, S., Smith, K., & Fenton, M. (1980). Reactance as a function of actual versus projected autonomy. *Journal of Personality and Social Psychology*, 38, 416–422.
- Baron, R. A., & Kepner, C. R. (1970). Model's behavior and attraction to the model as determinants of adult aggressive behavior. *Journal of Personal*ity and Social Psychology, 14, 335–344.
- Baumeister, R. F., & Tice, D. M. (1984). Role of self-presentation and choice in cognitive dissonance under forced compliance: Necessary or sufficient causes? *Journal of Personality and Social Psychology*, 46, 5–13.
- Beloff, H. (1958). Two forms of social conformity: Acquiescence and conventionality. *Journal of Abnormal and Social Psychology*, 56, 99–104.
- Bem, D. J. (1967). Self-perception: An alternative interpretation of cognitive dissonance phenomena. *Psychological Review*, 74, 183–200.
- Blair, I. V. (2001). Implicit stereotypes and prejudice. In G. Moskowitz (Ed.), Cognitive Social Psychology. Mahwah, NJ: Lawrence Erlbaum Associates. Inc.
- Blair, I. V., Ma, J. E., & Lenton, A. P. (2001). Imagining stereotypes away: The moderation of implicit stereotypes through mental imagery. *Journal of Personality and Social Psychology*, 81, 828–841.
- Bosson, J. K., & Swann, W. B. (1998, May). Explicit and implicit self-esteem and narcissism. Poster session presented at the 10th annual convention of the American Psychological Society, Washington, DC.
- Bosson, J. K., Swann, W. B. Jr., & Pennebaker, J. W. (2000). Stalking the perfect measure of implicit self-esteem. *Journal of Personality and Social Psychology*, 79, 631–643.
- Boyanowsky, E. O., & Allen, V. L. (1973). Ingroup norms and self-identity as determinants of discriminatory behavior. *Journal of Personality and Social Psychology*, 25, 408–418.
- Brauer, M., Wasel, W., & Niedenthal, P. (2000). Implicit and explicit components of prejudice. Review of General Psychology, 4, 79–101.
- Brehm, J. W. (1966). A theory of psychological reactance. New York: Academic.
- Brehm, S. S., & Brehm, J. W. (1981). Psychological reactance: A theory of freedom and control. New York: Academic.
- Chaiken, S., Wood, W., & Eagly, A. H. (1996). Principles of persuasion. In E. T. Higgins & A. W. Kruglanski (Eds.), Social psychology: Handbook of basic principles (pp. 702–742). New York: Guilford.
- Cohen, D., & Vandello, J. (2001). Honor and "faking" honorability. In R. Nesse (Ed.), The evolution of commitment (pp. 163–185). New York: Russell Sage.
- Colligan, M. J., Pennebaker, J. W., & Murphy, L. R. (1982). Mass psychogenic illness: A social psychological analysis. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Cooper, J., & Jones, E. E. (1969). Opinion divergence as a strategy to avoid being miscast. *Journal of Personality and Social Psychology*, 13, 23–30.
- Crutchfield, R. S. (1962). Conformity and creative thinking. In H. E. Gruber, G. Terrell, & M. Wertheimer (Eds.), Contemporary approaches to creative thinking (pp. 120–140). New York: Atherton.

- Cunningham, W. A., Preacher, K. J., & Banaji, M. R. (2001). Implicit attitude measures: Consistency, stability, and convergent validity. *Psychological Science*, 12, 163–170.
- Darley, J. M., & Latané, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8, 377–383.
- 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, 800–814.
- 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.
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56, 5–18.
- Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2000). Reducing contemporary prejudice: Combating explicit and implicit bias at the individual and intergroup level. In S. Oskamp (Ed.) Reducing prejudice and discrimination. 'The Claremont symposium on applied social psychology' (pp. 137–163). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Eagly, A. H., Wood, W., & Fishbaugh, L. (1981). Sex differences in conformity: Surveillance by the group as a determinant of male nonconformity. Journal of Personality and Social Psychology, 40, 384–394.
- 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, 69, 464–479.
- Feshbach, N. D. (1967). Nonconformity to experimentally induced group norms of high-status versus low-status members. *Journal of Personality* and Social Psychology, 6, 55–63.
- Festinger, L. (1953). An analysis of compliant behavior. In M. Sherif & M. O. Wilson (Eds.), Group relations at the crossroads (pp. 232–256). New York: Harper.
- Festinger, L., & Aronson, E. (1968). Arousal and reduction of dissonance in social contexts. In D. Cartwright & A. Zander (Eds.), Group dynamics: Research and theory (3rd ed., pp. 125–136). New York: Harper & Row.
- Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *Journal of Abnormal and Social Psychology*, 47, 203–210.
- Frager, R. (1970). Conformity and anticonformity in Japan. Journal of Personality and Social Psychology, 15, 203–210.
- Frankl, V. E. (1967). Logotherapy. Israel Annals of Psychiatry and Related Disciplines, 5, 142–155.
- Gaertner, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In J. F. Dovidio & S. L. (Eds.), *Prejudice*, discrimination and racism (pp. 61–86). Orlando, FL: Academic.
- Gaes, G. G., Kalle, R. J., & Tedeschi, J. T. (1978). Impression management in the forced compliance situation. *Journal of Experimental Social Psychology*, 14, 493–510.
- Goethals, G. R., & Perlstein, A. L. (1978). Level of instigation and model similarity as determinants of aggressive behavior. Aggressive Behavior, 4, 115–124.
- Greenwald, A. G., & Farnham, S. D. (2000). Using the Implicit Association Test to measure self-esteem and self-concept. *Journal of Personality and Social Psychology*, 79, 1022–1038.
- Heilman, M. E., & Toffler, B. L. (1976). Reacting to reactance: An interpersonal interpretation of the need for freedom. *Journal of Experimental Social Psychology*, 12, 519–521.
- Hetts, J. J., Sakuma, M., & Pelham, B. W. (1999). Two roads to positive regard: Implicit and explicit self-evaluation and culture. *Journal of Experimental Social Psychology*, 35, 512–559.
- Hogg, M. A., & Turner, J. C. (1987). Social identity and conformity: A theory of referent information influence. In W. Doise & S. Moscovici (Eds.), Current issues in European social psychology (Vol. 2, pp. 139–182). Cambridge, England: Cambridge University Press.

- Holzhausen, K. G., & McGlynn, R. P. (2001). Beyond compliance and acceptance: Influence outcomes as a function of norm plausibility and processing mode. *Group Dynamics*, 5, 136–149.
- 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.
- Jahoda, M. (1956). Psychological issues in civil liberties. American Psychologist, 11, 234–240.
- Jahoda, M. (1959). Conformity and independence. Human Relations, 12, 99–120.
- Janis, I. L. (1982). Groupthink (2nd ed.). Boston: Houghton Mifflin.
- Johnson, D. M. (1945). The "phantom anesthetist" of Mattoon: A field study of mass hysteria. *Journal of Abnormal and Social Psychology*, 40, 175–186.
- Jones, E. E., & Sigall, H. (1971). The bogus pipeline: A new paradigm for measuring affect and attitudes. Psychological Bulletin, 76, 349–364.
- Jordan, C. H., Spencer, S. J., & Zanna, M. P. (2003). "I love me ... I love me not": Implicit self-esteem, explicit self-esteem, and defensiveness. In S. J. Spencer, S. Fein, M. P. Zanna, & J. M. Olson (Eds.), Motivated social perception: The Ontario symposium on personality and social psychology (Vol. 9; pp, 117–145). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Joseph, J. M., Gaes, G. G., Tedeschi, J. T., & Cunningham, M. R. (1979). Impression management effects in the forced compliance situation. *Journal of Social Psychology*, 107, 89–98.
- Kaplan, M. (Ed.). (1966). Essential works of Pavlov. New York: Bantam Books.
- Karpinski, A., & Hilton, J. L. (2001). Attitudes and the implicit associations test. *Journal of Personality and Social Psychology*, 81, 774–788.
- Kawakami, K., & Dovidio, J. F. (2001). The reliability of implicit stereotyping. Personality and Social Psychology Bulletin, 27, 212–225.
- Kawakami, K., Dovidio, J. F., Moll, J., Hermsen, S., & Russin, A. (2000). Just say no (to stereotyping): Effects of training in the negation of stereotypic associations on stereotype activation. *Journal of Personality and Social Psychology*, 78, 871–888.
- Kelman, H. C. (1958). Compliance, identification and internalization: Three processes of attitude change. *Journal of Conflict Resolution*, 2, 51–60.
- Kelman, H. C. (1974). Attitudes are alive and well and gainfully employed in the sphere of action. American Psychologist, 29, 310–324.
- Kerckhoff A. C., & Back, K. W. (1968). The June bug: A study in hysterical contagion. New York: Appleton-Century-Crofts.
- Krech, D., Crutchfield, R. S., & Ballachey, E. L. (1962). Individual in society. New York: McGraw-Hill.
- Lane, K., Brescoll, V., & Bosson, J. (2001, June). Relationship between implicit and explicit measures of self-esteem. Poster session presented at the conference of the American Psychological Society, Toronto.
- Levy, D. A. (1992). The liberating effects of interpersonal influence: An empirical investigation of disinhibitory contagion. *The Journal of Social Psychology*, 132, 469–473.
- Levy, D. A., Collins, B. E., & Nail, P. R. (1998). A new model of interpersonal influence characteristics. *Journal of Social Behavior and Personal*ity, 13, 715–733.
- Levy, D. A., & Nail, P. R. (1993). Contagion: A theoretical and empirical review and reconceptualization. Genetic, Social, and General Psychology Monographs, 119, 233–284.
- Lewin, K. (1935). A dynamic theory of personality. New York: McGraw-Hill.
- Loriedo, C., & Vella, G. (1992). Paradox and the family system. New York: Brunner/Mazel.
- Lowery, B. S., Hardin, C. D., & Sinclair, S. (2001). Social influence effects on automatic racial prejudice. *Journal of Personality and Social Psychol*ogy, 81, 842–855.
- MacDonald, G., & Nail, P. R. (in press). Attitude change and the public-private attitude distinction. British Journal of Social Psychology.
- Malkis, F. S., Kalle, R. J., & Tedeschi, J. T. (1982). Attitudinal politics in the forced compliance situation. The Journal of Social Psychology, 117, 79–91.

- Matthews, C. (Managing Editor). (2000, November). Hardball. New York: National Broadcasting Company.
- McFarland, C., Ross, M., & Conway, M. (1984). Self-persuasion and self-presentation as mediators of anticipatory attitude change. *Journal of Personality and Social Psychology*, 46, 529–540.
- Milgram, S. (1974). Obedience to authority: An experimental view. New York: Harper & Row.
- Monteith, M. J., Spicer, C. V., & Tooman, G. D. (1998). Consequences of stereotype suppression: Stereotypes on and not on the rebound. *Journal of Experimental Social Psychology*, 34, 355–377.
- Montgomery, R. L. (1992). Social influence and conformity: A transorientational model. In D. Granberg & G. Sarup (Eds.), Social judgment and intergroup relations: Essays in honor of Muzafer Sherif (pp. 175–200). New York: Springer-Verlag.
- 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.
- Nail, P. R., & Van Leeuwen, M. D. (1993). An analysis and restructuring of the diamond model of social response. *Personality and Social Psychology Bulletin*, 19, 106–116.
- Nail, P. R., Van Leeuwen, M. D., & Powell, A. B. (1996). The effectance versus the self- presentational view of reactance: Are importance ratings influenced by anticipated surveillance? *Journal of Social Behavior and Personality*, 11, 573–584.
- Paulhus, D. (1982). Individual differences, self-presentation, and cognitive dissonance: Their concurrent operation in forced compliance. *Journal of Personality and Social Psychology*, 43, 838–852.
- Petty, R. E., & Cacioppo, J. T. (1986). Communication and persuasion: Central and peripheral routes to attitude change. New York: Springer-Verlag.
- Plesser-Storr, D., & Tedeschi, J. T. (1999). Self-presentation of men to attractive and unattractive women: Cognitive vs. motivational explanations. Unpublished manuscript. State University of New York—Albany.
- Prentice, D. A., & Miller, D. T. (1996). Pluralistic ignorance and the perpetuation of social norms by unwitting actors. In M. P. Zanna (Ed.), Advances in experimental social psychology (Vol. 28, 161–209). New York: Academic.
- Raven, B. H. (1965). Power and leadership. In I. D. Steiner & M. Fishbein (Eds.), Current studies in social psychology (pp. 371–382). New York: Holt, Rinehart & Winston.
- Raven, B. H. (1993). The bases of power: Origins and recent developments. Journal of Social Issues, 49, 227–251.
- Redl, F. (1949). The phenomenon of contagion and "shock effect" in group therapy. In K. R. Eissler (Ed.), Searchlight on delinquency (pp. 315–328). New York: International Universities Press.
- Reiss, M., Kalle, R. J., & Tedeschi, J. T. (1981). Bogus pipeline attitude assessment, impression management, and misattribution in induced compliance settings. *Journal of Social Psychology*, 115, 247–258.
- Russell, J. C., Wilson, D. O., & Jenkins, J. F. (1976). Informational properties of jaywalking models as determinants of imitated jaywalking: An extension to model sex, race and number. *Sociometry*, 39, 270–273.
- Schlenker, B. R., & Weigold, M. F. (1990). Self-consciousness and self-presentation: Being autonomous versus appearing autonomous. *Journal of Personality and Social Psychology*, 59, 820–828.
- Shaw, M. E. (1981). Group dynamics: The psychology of small group behavior (3rd ed.). New York: McGraw-Hill.
- Sherif, M. (1935). A study of some social factors in perception. Archives of Psychology, 27, 1–60.
- Smith, S., Murphy, D. B., & Wheeler, L. (1964). Relation of intelligence and authoritarianism to behavioral contagion and conformity. *Psychological Reports*, 14, 248.
- Snyder, C. R., & Fromkin, H. L. (1980). Uniqueness: The human pursuit of difference. New York: Plenum.

- Son Hing, L. S., Li, W., & Zanna, M. P. (2002). Inducing hypocrisy to reduce prejudicial responses among aversive racists. *Journal of Experimental Social Psychology*, 38, 71–78.
- Sorrels, J. P., & Kelley, J. (1984). Conformity by omission. Personality and Social Psychology Bulletin, 10, 302–305.
- Tedeschi, J. T., Schlenker, B. R., & Bonoma, T. V. (1971). Cognitive dissonance: Private ratiocination or public spectacle? *American Psychologist*, 26, 685–695.
- The Thunderbird Is Born. (2001). Retrieved January 5, 2001, from http://www.45thdivisionmuseum.com/DivFormed/Divformed.htm.
- Turner, J. C. (1991). Social influence. Pacific Grove, CA: Brooks/Cole.
- Wheeler, L. (1966). Toward a theory of behavioral contagion. Psychological Review, 73, 179–192.
- Wheeler, L., & Caggiula, A. R. (1966). The contagion of aggression. *Journal of Experimental Social Psychology*, 2, 1–10.
- Wheeler, L., & Levine, L. (1967). Observer-model similarity in the contagion of aggression. Sociometry, 30, 41–49.
- Wheeler, L., & Smith, S. (1967). Censure of the model in the contagion of aggression. *Journal of Personality and Social Psychology*, 6, 93–98.

- Willis, R. H. (1963). Two dimensions of conformity–nonconformity. Sociometry, 26, 499–513.
- Willis, R. H. (1965). Conformity, independence, and anticonformity. *Human Relations*, 18, 373–388.
- Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. Psychological Review, 107, 101–126.
- Wittenbrink, B., Judd, C. M., & Park, B. (2001). Spontaneous prejudice in context: Variability in automatically activated attitudes. *Journal of Per*sonality and Social Psychology, 81, 815–827.
- Wood, W. (2000). Attitude change: Persuasion and social influence. Annual Review of Psychology, 51, 539–570.
- Wood, W., Lundgren, S., Ouellette, J. A., Busceme, S., & Blackstone, T. (1994). Minority influence: A meta analytic review of social influence processes. *Psychological Bulletin*, 115, 323–345.
- Wood, W., Pool, G. J., Leck, K., & Purvis, D. (1996). Self-definition, defensive processing, and influence: The normative impact of majority and minority groups. *Journal of Personality and Social Psychology*, 71, 1181–1193.

Copyright of Basic & Applied Social Psychology is the property of Lawrence Erlbaum Associates and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.