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Proposal of a Four-Dimensional Model of Social Response

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Descriptive models of social response attempt to identify the conceptual dimensions necessary to define and distinguish various types of influence. Building on previous approaches, the authors propose a new response model and demonstrate that a minimum of 4 dimensions is necessary to adequately provide for such influence phenomena as conformity, minority influence, compliance, contagion, independence, and anticonformity in a single model. In addition, the proposed model suggests 5 potential types of response that have not been previously identified. These new types suggest directions for future research and theoretical development. Selected empirical evidence is reviewed in support of the validity and integrative power of the proposed model.

Social influence is central to the field of social psychology. In fact, social psychology can almost be defined as the study of social influence (Jones, 1985; for reviews, see Allen, 1965; Cialdini & Trost, 1998; Levine & Russo, 1987; Maass & Clark, 1984; Wood, Lundgren, Ouellette, Busceme, & Blackstone, 1994). 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).

Numerous research paradigms have been employed in the study of social influence. Some of the major paradigms include (a) the *conformity* or *majority influence paradigm,* which examines the potential influence of those holding a majority position in a group on those holding a minority position; (b) the *minority influence paradigm,* which examines the potential influence of the minority on the majority; (c) the *compliance paradigm,* which examines direct requests from one individual to another of equal or higher social status; and (d) the *obedience paradigm,* which examines direct requests from an authority figure to one or more persons of lower status.

Theoretical development concerning social influence has taken different forms. In the *phenotypic* or *descriptive* approach, theorists have attempted to identify the underlying dimensions necessary to define and distinguish (a) different social influence phenomena and (b) different types of response to social influence (see, e.g., Allen, 1965; Hogg & Turner, 1987; Jahoda, 1956, 1959; Krech, Crutchfield, & Ballachey, 1962; Montgomery, 1992; Nail, 1986; Nail & Ruch, 1990, 1992; Nail & Van Leeuwen, 1993; Willis, 1963, 1965a, 1965b; Willis & Levine, 1976). An important goal of the descriptive approach is to include as many influence phenomena as possible within a framework that is as simple as possible (see Nail, 1986, p. 191).

Descriptive models are valuable for several reasons: (a) They help organize empirical findings, (b) they help discriminate between closely related phenomena, and (c) they provide a foundation for integration *between* the descriptive and explanatory theoretical levels (see Eagly & Chaiken, 1993, p. 633; Kiesler, 1969, pp. 243–249; Nail, 1986, pp. 191, 202–203). Moreover, because of their typical factorial structure, descriptive models have frequently led to the discovery of new or previously unrecognized or undifferentiated influence phenomena; these new types, in turn, have frequently proven to be theoretically significant (see, e.g., Allen, 1965; Nail, 1986; Willis, 1965a).

Although numerous descriptive models have been proposed, none of the extant models includes all of the influence types that are generally recognized as theoretically significant and conceptually distinct. For example, the Willis (1963) model includes conformity and two types of nonconformity, independence and anticonformity, but the model does not distinguish between two widely recognized types of conformity: *conversion* and *compliance.* Conversion refers to conformity at both the public (behavioral) and private (attitudinal) levels, whereas compliance refers to

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public conformity without private acceptance.[1] Nail's (1986) model provides for conversion, compliance, independence, and anticonformity but, like other models, does not include *disinhibitory contagion* (Levy, 1992; also known as *behavioral contagion,* Wheeler, 1966). Disinhibitory contagion is similar to conformity in that, in both cases, an influencee changes his or her public behavior toward that of an external influence source. They are distinct, however, in that, with disinhibitory contagion, the influencee is in internal (intrapersonal) conflict before even being exposed to the influence source, whereas, with conformity, the influencee experiences conflict only after being exposed to a majority that disagrees with him or her. The exclusion of disinhibitory contagion from the existing models is noteworthy because contagion is a pervasive, real-world influence phenomenon (for reviews, see Levy & Nail, 1993; Wheeler, 1966). Further, disinhibitory contagion provides a compelling explanation concerning one of social psychology's most intriguing phenomena—how behavior ignites and spreads through crowds during riots (see Wheeler, 1966; Wheeler, Deci, Reis, & Zuckerman, 1978).[2]

Considering these conditions, the goal of this article is to propose a new descriptive model of social response—a model that not only includes disinhibitory contagion but also integrates other major types of influence such as conformity, minority influence, compliance, independence, and anticonformity, all with a single set of theoretical concepts. The proposed model is unique in that, for the first time in the descriptive-models literature, it considers circumstances where a potential influencee's *initial* or *preinfluence* public and private positions do not agree. As a result, the model opens up a wide range of research and response possibilities that we regard as empirically testable, theoretically interesting, and socially relevant. As a foundation, we turn first to the strategy typically employed in constructing descriptive models.

The General Strategy in Constructing Descriptive Models

The strategy employed by almost all descriptive theorists is known as *combinatorial analysis* (Inhelder & Piaget, 1958). The basic idea is that once the variables or dimensions that define conformity by a particular model have been identified, they should be considered in all possible combinations. Combinatorial analysis is what provides for various alternatives to conformity.

Combinatorial analysis can be illustrated by considering a model derived from Willis's scheme for symbolizing possible responses to social influence (see Nail, 1986, p. 194; Willis, 1963, p. 502). The logic behind the model is most easily captured by crossing two dichotomous dimensions: (a) the agreement or disagreement between a target and source of influence before the target is called upon to respond to influence (i.e., *preexposure agreement or disagreement*) and (b) the agreement or disagreement between the target and source after the target responds to influence (i.e., *postexposure agreement or disagreement*). As can be seen in Figure 1, *conformity* in this model is operationally defined by implicit positive movement, specifically, by preexposure (pre) disagreement between the target and source that is followed by postexposure (post) agreement. *Independence* is defined by the absence of movement, pre disagreement/post disagreement; *anticonformity* by negative movement, pre agreement/post disagreement; and *congruence* or *uniformity* by the absence of movement, pre agreement/post agreement.

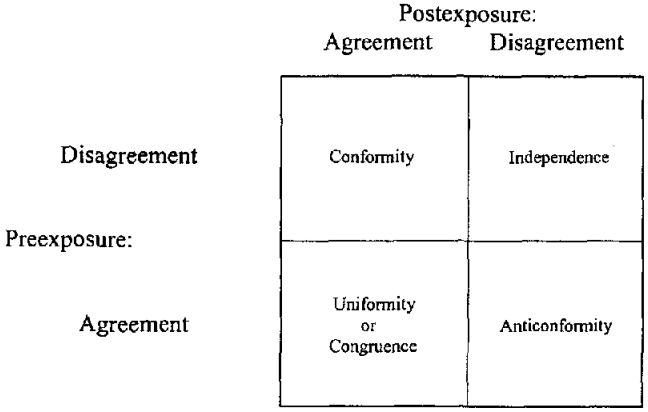

Figure 1. A model derived from Willis's (1963) scheme for symbolizing possible responses to social influence.

At the time of its proposal, the Willis (1963) model represented a substantial advancement in the understanding of influence phenomena in that it clearly captured for the first time the heart of the distinction between independence and anticonformity. The responses are similar in that in both cases the target of influence does not conform; the target shows postexposure disagreement with the source's position. However, with independence, the target is merely resisting influence by sticking with his or her initial position—sticking to one's guns, so to speak. In contrast, with anticonformity, the target actively rebels against influence; the target shows postexposure disagreement with the source despite his or her preexposure agreement.

Before continuing, a point about descriptive response labeling is in order. In many settings, multiple proximal and remote sources of influence and conflicting norms are possible (Cialdini, Kallgren, & Reno, 1991; Raven, 1993; Staub, 1972). This point is noteworthy because what can be conformity to one source can at the same time be anticonformity to another—a teenager's conformity to peers can be anticonformity to his or her parent(s). All response labels herein are offered in reference to and assuming a single, proximal source of influence. Further, this source can be either an individual or a group. We turn now to conceptual and operational definitions for major types and subtypes of social influence phenomena.

[1] It is important to note that the term compliance has two standard but distinct meanings in the social influence literature. On the one hand, compliance is a type of social influence paradigm, where one person makes a direct request of another. On the other hand, compliance is also a type of social response, specifically, a special type of conformity where the influencee changes to agree with the influence source publicly but not privately.

[2] Disinhibitory contagion is included in a recent social influence model proposed by Levy, Collins, and Nail (1998). This model, however, is different in kind from most previous models. The Levy et al. model is focused more toward classifying broad, social influence paradigms (e.g., conformity, obedience, social facilitation, social loafing), whereas classic descriptive models are concerned more with distinguishing between social influence responses (e.g., conversion, compliance, independence, anticonformity).

Conceptual and Operational Definitions

Conformity

Conceptually, conformity can be defined as *behavior or belief that is consistent with the norms, positions, or standards of group members based on one or more motives on the part of the influencee.* These motives can include the influencee's desire to (a) be correct, (b) be socially accepted and avoid rejection or conflict, (c) accomplish group goals, (d) establish or maintain one's self-concept/social identity, and/or (e) align one's self with similar or liked others or with fellow in-group members. There are no new sources of motivation identified here: Motive (a) comes from Festinger's (1954) social comparison theory and Deutsch and Gerard's (1955) theory of informational influence; (b) comes from Deutsch and Gerard's theory of normative influence and Nord's (1969) social exchange theory of conformity; (c) comes from Festinger's (1950) group locomotion hypothesis; (d) comes from Freedman and Fraser's (1966) seminal work on the foot-in-the-door technique, Hogg and Turner's (1987; J. C. Turner, 1991) theory of referent informational influence, and Cialdini and Trost's (1998) integrative work; and (e) comes from Heider's (1958) balance theory. What is perhaps new is the recognition in a formal definition that all of the listed sources of motivation can be valid reasons for conformity.

The present definition stands in contrast to the classic and most often cited definition of conformity in the professional literature as "behavior *intended* to fulfill normative group expectancies as presently *perceived* by the individual" (Hollander & Willis, 1967, p. 64, emphasis in original; see also Levine & Russo, 1987, p. 15). The classic definition seems inadequate in that it appears to consider only normative influence as a source of motivation. Further, intended conformity may or may not result in actual or achieved conformity. The motives for conformity listed above point to actual, as well as intended, conformity.

Given the present conceptual definition, how can conformity be operationally defined? The answer depends largely on the degree of preexposure agreement between the target and source of influence. If there is preexposure *disagreement,* then conformity is best defined by *movement* on the part of the target to a position of agreement with the source (see Kiesler & Kiesler, 1969, pp. 2–11), what Hollander and Willis (1967) have referred to as *movement conformity* and what Sorrels and Kelley (1984) have referred to as *conformity by commission.* Alternatively, one can characterize movement conformity by preexposure disagreement followed by postexposure agreement (see Figure 1).[3]

Conversion versus compliance. In defining conformity, however, knowing that there is pre disagreement and post agreement is not sufficient because movement conformity can occur at either or both of two levels, the public and private levels (Allen, 1965; Festinger, 1953; Nail, 1986). Preexposure disagreement that is followed by post public agreement and post private agreement is a subtype of movement conformity known as conversion (Berger & Luckman, 1967; Nail, 1986) or *internalization* (Kelman, 1958). In contrast, preexposure disagreement that is accompanied by post public agreement but post private disagreement is a subtype of movement conformity known as compliance (Kelman, 1958; Nail, 1986) or *expedient conformity* (Krech et al., 1962; Thibaut & Kelley, 1959).

Congruence. What if there is preexposure agreement between the target and source of influence? Here, conformity is defined by the absence of movement. Alternatively, this type of conformity can be characterized by preexposure agreement accompanied by post public agreement and post private agreement. This combination was first formally labeled as congruence by Nail (1986). It is the same as Willis's (1963) uniformity or congruence (see Figure 1) except Nail simply made it explicit that the post agreement occurs at both the public and private levels.

Despite the absence of movement, congruence qualifies as a type of conformity for at least three reasons. First, if an individual initially agrees with a group's position or standard, he or she still has the freedom to either reveal or not reveal this agreement to the group. Indeed, several studies have found that individuals sometimes conceal their private agreement with group standards, apparently as an impression management strategy to project autonomy, independence, uniqueness, or dissimilarity (Baer, Hinkle, Smith, & Fenton, 1980; Boyanowsky & Allen, 1973; Cooper & Jones, 1969; Eagly, Wood, & Fishbaugh, 1981; Nail, Van Leeuwen, & Powell, 1996; Weir, 1971). Second, the decision to publicly reveal one's pre and post private agreement could still be based on any of the motives highlighted with the present conceptual definition of conformity. Third, conformity would be demonstrated in the absence of movement if a person fails to engage in a behavior that he or she would have performed were it not for social influence—what Sorrels and Kelly (1984) have neatly referred to as *conformity by omission* (see also Kiesler & Kiesler, 1969, p. 10).

Nonconformity

Literally, the term nonconformity means any behavior that is not conformity. Motives for nonconformity are in some ways the obverse of the motives listed above for conformity. However, because nonconformity can be further divided into at least two subtypes, independence and anticonformity (Krech et al., 1962; Nail & Van Leeuwen, 1993; Willis, 1963), we move directly to these subtypes for conceptual definitions.

Independence. Independence can be conceptually defined as *behavior or belief that results when the influence target gives zero weight to the norms, positions, or standards of another or others* (cf. Nail, 1986; Willis, 1965a). Motives for independence include the desire to (a) be correct (Asch, 1956; R. S. Baron, Vandello, & Brunsman, 1996), (b) accomplish group goals (as when an in-group member disagrees with the majority regarding how a group goal might best be accomplished; see J. C. Turner, 1991, p. 99), (c) avoid groupthink (Janis, 1982), and/or (d) maintain one's self-concept/social identity (Allen & Wilder, 1979; Merton, 1968; Newcomb, 1943). Operationally, independence can be defined as the absence of movement. Alternatively, independence can be characterized by preexposure disagreement between the target and influence source followed by post public/private disagreement (Allen, 1965; Nail, 1986). This operational definition is consistent

[3] Such movement can be a result of either (a) a change in the judgment of the object in question or (b) a change in the object of judgment, as in Asch's (1940) change-of-meaning hypothesis (see also Allen & Wilder, 1980; Wood, Pool, Leck, & Purvis, 1996).

with Willis's (1963) definition as illustrated in Figure 1. Allen (1965) and Nail (1986) simply made it explicit that the post disagreement occurs at both the public and private levels.

Anticonformity. Anticonformity can be conceptually defined as *behavior or belief that is not consistent with the norms, positions, or standards of another or others based on one or more motives of the influence target.* These motives can include the target's desire to (a) provoke group conflict (Hollander, 1975; Moscovici, 1976; Willis, 1965a), (b) distance the self from one or more dissimilar, disliked, or unattractive others or from out-group members (Cooper & Jones, 1969; Heider, 1958; Hogg & Turner, 1987; Wood, Pool, Leck, & Purvis, 1996), (c) establish or project behavioral freedom/autonomy (Baer et al., 1980; S. S. Brehm & Brehm, 1981; Eagly et al., 1981; Heilman & Toffler, 1976), (d) establish or project one's uniqueness (Snyder & Fromkin, 1980; Weir, 1971), (e) avoid groupthink (Janis, 1982), and/or (f) avoid the appearance of sycophancy (Jones & Wortman, 1973; Schlenker, 1980). Anticonformity can be best defined by movement away from the source on the part of the target. Assuming preexposure agreement between the target and source, anticonformity can be characterized by preexposure agreement followed by post disagreement (see Figure 1). Anticonformity is also possible assuming preexposure disagreement (J. W. Brehm & Mann, 1975; Willis, 1965b), that is, pre disagreement followed by increased post disagreement. Yet research concerned with the theory of psychological reactance has indicated that such anticonformity, at least in the laboratory, is unlikely to occur (see S. S. Brehm & Brehm, 1981; Nail & Van Leeuwen, 1993; Wright, 1986).[4]

Even knowing that there is preexposure agreement and postexposure disagreement, however, is not sufficient to adequately define anticonformity according to Nail (1986) because anticonformity, like conformity, can occur at the public and/or private levels. Nail proposed that, just as movement conformity can be divided into two subtypes (conversion and compliance), so too can anticonformity be divided into two subtypes: *anticonversion* and *anticompliance.*

Preexposure agreement that is followed by post public disagreement and post private disagreement is a type of anticonformity Nail (1986) labeled anticonversion; the influencee anticonforms both publicly and privately. Changing the salute of the United States flag after the rise of Nazism in the 1930s represents a good, real-world example of this type of anticonformity. It is a little-known fact today that before World War II, the standard American flag salute was similar to the Nazi *sieg heil* except that the former was delivered gently, with the palm up. The change to placing the hand over the heart was a symbolic gesture to disassociate American democratic ideals from Nazism (personal communication, Mrs. Nettie Moore, 86-year-old retired schoolteacher, April 15, 1999). Presumably, only Americans who were Nazi sympathizers would have privately favored a return to the former salute. Thus, the change represented anticonversion—preexposure agreement followed by postexposure public and private disagreement.

In contrast to anticonversion, preexposure agreement that is followed by post public disagreement but post private agreement is a type of anticonformity Nail (1986) labeled anticompliance; the influencee anticonforms publicly but not privately. An example of anticompliance is when a group member plays the role of the devil's advocate. Here, typically, the person fundamentally agrees with the group in private but takes a position in public that seems to go against the group for a time. Often, the motive is to protect the group from making a decision too quickly or hastily (Janis, 1982). Even the designation "*role* of the devil's advocate" reveals that the advocate's public disagreement does not reflect his or her true private position. The distinctions between conversion/compliance and anticonversion/anticompliance are all accommodated by the model developed below.[5]

Disinhibitory Contagion

Disinhibitory contagion may not be as familiar to some readers as many of the previously discussed influence phenomena; thus, it is presented here in some detail. To begin, consider the following example of disinhibitory contagion. A man who is out of work is thinking about stealing a portable stereo from a music store display. He knows how to steal the stereo and is motivated to steal it but does not because of the fear of getting caught. Later, however, the man observes a stranger throw a brick through the window and escape with an item, apparently without consequences, as a riot begins. In contagion theory parlance, the stranger is known as the *model, initiator,* or *trigger* (Redl, 1949; Wheeler, 1966). At this point, the man spontaneously grabs the stereo and runs off with it.

Conceptually, disinhibitory contagion can be defined as *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; the model's behavior reduces the observer's avoidance gradient, thus freeing the observer to engage in the desired act* (cf. Levy, 1992; Levy & Nail, 1993; Wheeler, 1966). Levy (1992) selected the term disinhibitory in reference to contagion following the Bandura and Walters (1963) conceptualization of disinhibitory effects wherein the "observation of models . . . weaken[s] inhibitory responses" (p. 60). Further, Pavlov (cited in Kaplan, 1966) referred to disinhibition as "the inhibition of inhibition" (p. 167).

Operationally, disinhibitory contagion begins with the potential influencee in a state of internal psychological conflict, privately desiring to engage in a behavior but publicly not doing so. Then the influencee is exposed to a model or trigger who is behaving consistently with the influencee's private desires. If influence occurs, the influencee changes his or her public

[4] A strong, real-world example of anticonformity by increased disagreement occurred during the 1994 Christmas season in Little Rock, Arkansas. Soon after a Mr. Jennings Osborne received an Arkansas State Supreme Court order that he reduce the number of Christmas lights on his property, he proceeded to add hundreds of additional lights to the more than 3 million already on display. The court order was instigated by neighbors' complaints because of the continual overflow traffic in their and Mr. Osborne's exclusive residential neighborhood (Brokaw, 1994).

[5] Nail's (1986) label for pre agreement, post public disagreement/private agreement was actually anticompliance-2 rather than anticompliance. Nail's anticompliance and anticompliance-2 have been reversed in the present model for reasons of symmetry. Also, the cell Nail (1986, p. 201) originally labeled as anticompliance has been changed in the present model to paradoxical anticompliance (see below).

behavior from a position of disagreement with the model to one of agreement. The influencee thus ends up in a state of public and private agreement with the model (see Wheeler et al., 1978, pp. 53–54).

Disinhibitory contagion is central to the model developed below because it, for the first time in the descriptive-models literature, requires consideration of the possibility of a *preexposure public/private mismatch within the influencee.* With disinhibitory contagion, there is pre public (behavioral) disagreement with the eventual model but pre private (attitudinal) agreement.

In most cases, people should be internally motivated to resolve a discrepancy between public behavior and private attitude. A public/private discrepancy sets up a sort of tension system that might well leave people especially vulnerable to influence under such conditions as a riot, when emergent norms no longer discourage the expression of such private attitudes as the desire to steal (R. H. Turner & Killian, 1987). Under such conditions, it follows that the motivation to act on one's private attitude might become strong enough to elicit what would otherwise be improbable behavior. Although this analysis is speculative, it portends how the model developed below may help guide researchers toward a deeper understanding of the dynamics that make certain responses to influence more or less likely in various situations.

Influence in the form of disinhibitory contagion, interestingly, is not limited to antisocial behaviors. Consider a couple at a dance as the evening's opening song begins to play. Both members of the couple know how to dance and want to, but they hesitate because they don't want to be the first or only couple on the floor. Soon, however, another couple starts to dance and then another. At this point, the original couple joins the other dancers, and the dance floor quickly fills.

Disinhibitory contagion has been demonstrated and examined in numerous empirical studies (e.g., R. A. Baron & Kepner, 1970; Goethals & Perlstein, 1978; Levy, 1992; Russell, Wilson, & Jenkins, 1976; Wheeler & Caggiula, 1966; Wheeler & Levine, 1967; Wheeler & Smith, 1967). The Levy (1992) and Wheeler and Caggiula (1966) studies are described in some detail below.

A Four-Dimensional Model of Social Response

Given the above distinctions, the question is what is the minimum number of dimensions necessary to include all of the designated phenomena within a single model. We believe that at least four dimensions are necessary; the logic is as follows.

To distinguish between conformity and independence, a postexposure agreement/disagreement dimension is needed. With conformity, there is post agreement between the target and source of influence; with independence, there is post disagreement (see Figure 1). To distinguish between conversion conformity and compliance conformity (and, conversely, between anticonversion and anticompliance), a postexposure public/private dimension is needed. With conversion, there is post public agreement and post private agreement between the target and source; with compliance, there is post public agreement but post private disagreement. To distinguish between movement conformity and congruence conformity, a preexposure agreement/disagreement dimension is needed. For movement conformity to be possible (conversion or compliance), there must be preexposure disagreement between the target and source; for congruence conformity, there must be preexposure agreement (see Figure 1). Finally, to distinguish between conformity (most specifically, conversion) and disinhibitory contagion, a preexposure public/private dimension is needed. With conformity, there is preexposure public and private disagreement between the influencee and influence source; with disinhibitory contagion, there is preexposure public disagreement with the source but pre private agreement.

When these dimensions are integrated, arranged chronologically (i.e., from preexposure to postexposure), and combined factorially, the result is the 2^4 or 16 possibilities identified in Figure 2. The first dimension is the influencee's public behavior relative to that of an influence source before being exposed to influence, preexposure public agreement or disagreement. The second dimension is the influencee's preexposure private position relative to the source, preexposure private agreement or disagreement. The third dimension is the influencee's public response relative to the source, postexposure public agreement or disagreement. The fourth dimension is the influencee's private response relative to the source, postexposure private agreement or disagreement.

For purposes of exposition and communication, the 16 possibilities have been numbered. Precise operational definitions for any of the designated phenomena can be gleaned by starting on the left hand side of the model and working one step at a time to the right. For example, #16 independence is defined by preexposure public and private disagreement followed by postexposure public and private disagreement. Independence in Figure 2 is the same as independence in Figure 1. Figure 2 simply makes explicit what was assumed in Figure 1, namely, that independence begins (preexposure) and ends (postexposure) with public and private disagreement between the target and source of influence.

As can be seen, the model includes all seven of the recognized types of social response identified above: (a) three types of conformity: #1 congruence, #13 conversion, and #14 compliance; (b) two types of anticonformity: #3 anticompliance and #4 anticonversion; (c) #16 independence; and (d) #9 disinhibitory contagion. The model includes one unusual and largely unrecognized type of conformity (here labeled #2 *paradoxical compliance*) and one unusual and largely unrecognized type of anticonformity (here labeled #15 *paradoxical anticompliance*) that were first identified and labeled by Nail (1986) as compliance-2 and anticompliance, respectively. The model includes two responses that represent alternatives to #9 disinhibitory contagion first suggested by Redl (1949), here labeled #11 *inhibitory independence* and #12 *anticontagion.* Finally, the model provides for five potential types of influence that have not been previously identified or labeled: #5 *compliance/conversion,* #6 *continued compliance,* #7 *reversed anticompliance,* #8 *disinhibitory anticonversion,* and #10 *reversed compliance.*

Given the distinctions suggested by the present four-dimensional model, an important question is whether all these types and subtypes are really necessary. Is there any evidence from the literature that any of the unrecognized or underrecognized phenomena exist? If they do, do they have any bearing on important theoretical issues? Virtually all social psychologists recognize the distinctions between #1 congruence, #13 conversion, #14 com-

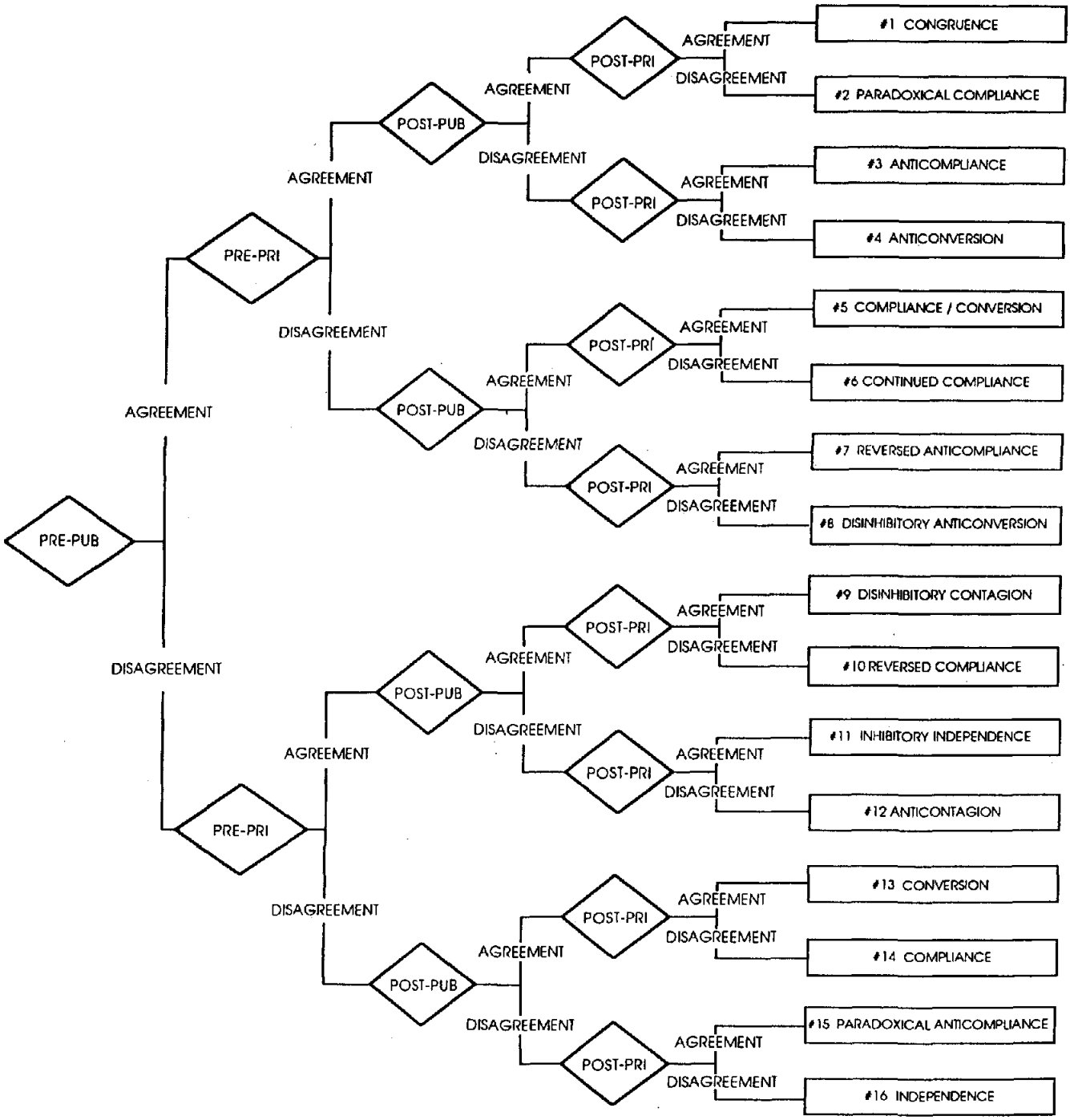

Figure 2. A four-dimensional model of social influence. PRE-PUB is the influencee's preexposure, public position relative to the influence source; PRE-PRI is the preexposure, private position; POST-PUB is the postexposure, public position; POST-PRI is the postexposure, private position.

pliance, and #16 independence. Further, there are now numerous empirical and theoretical papers that have demonstrated the validity and necessity of the distinction between public and private anticonformity, #3 anticompliance and #4 anticonversion (see, e.g., Argyle, 1957; Baer et al., 1980; Boyanowsky & Allen, 1973; J. W. Brehm & Mann, 1975; S. S. Brehm & Brehm, 1981; Cooper & Jones, 1969; Frager, 1970; Nail, 1986; Nail & Van Leeuwen, 1993; Nail et al., 1996; Wright, 1986; Wright & Brehm, 1982). Thus, we focus on the less recognized phenomena identified by the model.

Empirical Evidence and Theoretical Significance of the Novel or Less Recognized Phenomena of the Present Model

Conformity Versus #9 Disinhibitory Contagion

We turn first to the consideration of conformity (#13 conversion or #14 compliance) versus #9 disinhibitory contagion. We do so because if there are not valid and compelling reasons for distinguishing between these types of influence, there is no need for either a four-dimensional model or the entire middle half of Figure 2. Nail's (1986) three-dimensional model provides for all of the previously labeled influence types of the present model with the exception of #9 disinhibitory contagion. Specifically, Nail's (1986) model accommodates #1 through #4 and #13 through #16.

Authors such as Milgram (1974, pp. 113–122) and Shaw (1981, p. 432) have not distinguished between conformity and disinhibitory contagion. Specifically, they have labeled as conformity what we regard as #9 disinhibitory contagion. Milgram's classic obedience paradigm entailed an experimenter asking a "teacher" to deliver an electric shock to a "learner" (confederate) each time the learner made a mistake on a memory task. Shock intensity increased with each error. In one of many experimental variations, Milgram employed two additional confederates as supposed teachers who modeled disobedience, in turn, to the lone true participant. Milgram found that this modeling dramatically decreased the level of obedience as the percentage of completely obedient participants decreased from 65% in the original paradigm to only 10% in the modified paradigm. If we assume that participants began to privately question the advisability of delivering additional shocks as the intensity level increased, the influence of the disobedient teachers would represent #9 disinhibitory contagion; participants were freed to follow their private reservations against delivering any more shocks. This interpretation is supported by some of Milgram's interview data. For example, one participant who disobeyed early on reported, "Well, I was already thinking about quitting when the guy broke off" (Milgram, 1974, p. 118).

On the one hand, confusion over conformity and disinhibitory contagion is understandable given that both consist of a change in the influencee's behavior toward an influence source. Also, disinhibitory contagion, like conformity, can entail influence from a group (i.e., more than one influencer). However, for both axiomatic and empirical reasons, we believe that conformity and disinhibitory contagion should be regarded as separate and unique types of influence.

Axiomatically, conformity and disinhibitory contagion are different, as illustrated by the conceptual and operational definitions proposed herein. An especially interesting contrast in this regard is that between #14 compliance conformity and #9 disinhibitory contagion. What immediately follows draws heavily on insights first suggested by Wheeler (1966, pp. 180–183). Compliance and disinhibitory contagion are similar in that both involve conflict and both entail movement to a position of postexposure public agreement with the influence source. They are distinct, however, with respect to both (a) the respective causes and resolutions of the conflict and (b) the temporal sequence of the defining events.

As can be seen in Figure 3, with #14 compliance, the influencee starts out in a state of internal harmony but, through influence, ends up in a state of internal conflict. A subgroup of the participants studied by Asch (1951) represents a good example of this type of conformity. In the basic Asch paradigm, one true participant and six confederates were asked to make a series of simple perceptual judgments. The question was which of three comparison lines is closest in length to a standard. Initially, the participant is in a state of internal harmony; the participant perceives the correct answer, for example, to be Line A and the group says, "A." The participant is in harmony because he or she publicly and privately agrees with the group's judgment. Soon, however, the participant's harmony is disrupted when the group endorses a choice that is obviously incorrect (see Back & Bogdonoff, 1964). The subgroup Asch identified as *distortion of action* participants dealt with this conflict by frequently changing to a position of post public agreement with the group even though they later reported privately that they knew the group's judgments were wrong. Thus, these participants ended up in a state of conflict because their public responses were inconsistent with their private beliefs.

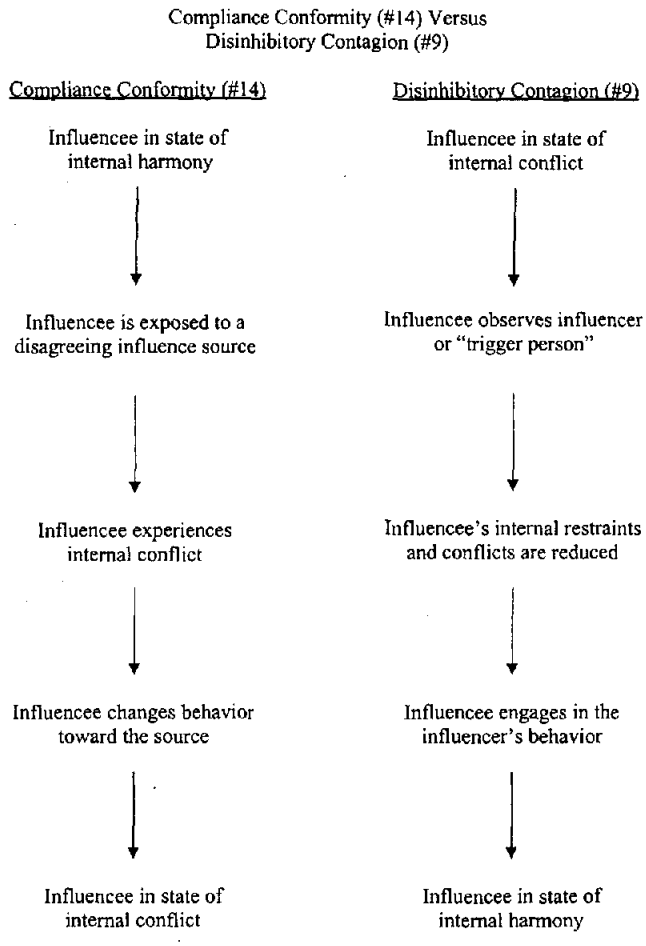

Figure 3. A flow chart contrasting #14 compliance conformity and #9 disinhibitory contagion.

With #9 disinhibitory contagion, in contrast, the sequence of events is just the reverse (see Figure 3). Here, the influencee starts out in a state of conflict between public behavior and private desire but, through influence, ends up in a state of harmony between the two. The reluctant dancing couple cited previously serves as a

good example. Specifically, they started out in a state of conflict because they privately wanted to dance but were not doing so. After being exposed to the couple who modeled dancing, however, the influencees started dancing too and thus ended up in a state of harmony because their post public behavior matched their private desire.

Empirically, several studies have supplied evidence that #14 compliance and #9 disinhibitory contagion are separate phenomena. If the two are separate, it follows that they would not be correlated with the same personality variables. Smith, Murphy, and Wheeler (1964) found that authoritarianism adjusted for I.Q. was significantly and positively correlated with the degree of influence in an Asch-type conformity paradigm but not with the degree of influence in a disinhibitory contagion paradigm (viz., the disinhibition of prohibited game playing).

If #14 compliance and #9 disinhibitory contagion are separate, it follows that the two would produce different degrees of influence, all extraneous factors being equal. Wheeler and Caggiula (1966) examined participants in groups of three, one true participant and two confederates. Some participants were exposed to (a) a target/confederate who publicly made socially deviant statements followed by (b) a model/confederate who verbally aggressed against the target (disinhibitory contagion condition). Other participants were exposed only to either (a) the target's deviant statements (no-model condition) or (b) the model's aggression toward the target (compliance condition). The dependent variable was the participants' subsequent aggression toward the target. The results indicated significantly greater aggression by disinhibitory contagion participants than by no-model or compliance participants. What is more, the combination of Factors (a) and (b) produced a greater frequency of aggression than a simple additive model would predict, thus further supporting the viability of disinhibitory contagion as a unique type of influence.

Empirical evidence showing that conformity and disinhibitory contagion follow different influence principles would provide strong support for the argument that the two should be regarded as separate phenomena. There is such evidence. Consider the usual finding regarding conformity that similar others produce greater influence than dissimilar others (see, e.g., Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990; Burn, 1991; Hornstein, Fisch, & Holmes, 1968; Murray, Leupker, Johnson, & Mittlemark, 1984; Wilder, 1990). With disinhibitory contagion, however, things appear to work the other way, at least in some settings. Three studies that investigated the disinhibitory contagion of aggression found that dissimilar models produced greater influence than similar models (R. A. Baron & Kepner, 1970; Goethals & Perlstein, 1978; Wheeler & Levine, 1967). Goethals and Perlstein (1978) offered an explanation for this pattern of results in terms of Kelley's (1967) attribution theory, the so-called triangulation effect.

> If an individual finds that a dissimilar other makes the same judgment about an entity that he does, he can be more confident that his judgment is an accurate reflection of the entity rather than a biased person-caused response. The agreement of a similar other may be caused by the same biasing characteristics and is thus less impressive. (Goethals & Perlstein, 1978, p. 116)

Levy (1992) has provided perhaps the strongest evidence that conformity and disinhibitory contagion should be regarded as separate—direct experimental evidence for the notion that #14 compliance conformity results in greater levels of internal conflict than #9 disinhibitory contagion. Participants were recruited for a study that was supposedly investigating personality and attitudes. Each session included two supposed participants who were given a packet of personality scales to complete. One of the participants was actually a confederate. Midway through the scale completion tasks, the experimenter interrupted and asked if the participants would volunteer to help with some tedious clerical tasks during the upcoming week. The confederate (model) always responded first, acceding to the request in the compliance conformity condition but refusing in the disinhibitory contagion condition. The participants then returned to the personality scales, which at this point included several state measures of personal psychological conflict/distress.

The results indicated that disinhibitory contagion participants volunteered significantly less time and reported significantly less conflict than compliance conformity participants. Disinhibitory contagion participants reported less conflict because the model had apparently freed them from the power of the social responsibility norm (Schwartz, 1975), the social obligation to help someone in need. Compliance conformity participants, in contrast, reported greater conflict because many had committed their time and energy to something they really did not want to do (i.e., they publicly complied even though they privately disagreed).

Taken as a whole, the conceptual distinctions and empirical findings in this section indicate that conformity and disinhibitory contagion are almost certainly separate influence phenomena. Although both entail a change of the influencee's behavior toward that of the influence source, they are at the same time fundamentally opposite forms of influence. Whereas conformity tends to direct, narrow, and restrict the influencee's behavior, disinhibitory contagion frees one from such restrictions, although such freedom is by no means always helpful or beneficial for all concerned (e.g., looting during riots). Conformity, too, is not always helpful or beneficial. For present purposes, the important point is that all four dimensions in Figure 2 appear to be necessary and justified.

#2 Paradoxical Compliance

As indicated by its name, #2 paradoxical compliance is a form of compliance. As such, it is similar to the more well-known or standard type, #14 compliance (see Figure 2). In both types, an influencee's postexposure public agreement with the source is accompanied by post private disagreement, and post public agreement/private disagreement is the heart of compliance. The two differ only with respect to the preexposure position relative to the influence source. Whereas #14 compliance begins with preexposure public and private disagreement between the target and source of influence, #2 paradoxical compliance begins with preexposure public and private agreement. This preexposure agreement is followed by continued agreement in public, but in private, the influencee changes to a position of disagreement (see Figure 2).

An anecdote from the life of Sir Isaac Newton may clarify #2 paradoxical compliance as a type of compliance. According to Asimov (1982), Newton, as a scholar of his day, was quite interested in theology. "He speculated endlessly on theological matters and produced a million and a half useless words on the more mystical passages of the Bible" (p. 231). Interestingly, he eventually developed "Unitarian notions that he kept strictly to himself, for he could not have remained at Cambridge had he openly denied

the divinity of Christ" (p. 231). If we assume that Newton arrived at Cambridge with orthodox views both publicly and privately, his subsequent private change to Unitarianism accompanied by continued public Christianity would represent #2 paradoxical compliance.

This example shows how, under certain circumstances, conformity can be correctly characterized, paradoxically, by movement *away* from the influence source, hence the label "paradoxical" compliance. Note that even though Newton moved *away* from his original orthodox views at the private level, *between* the private and public levels regarding his *postexposure* response Newton showed *implicit* movement *toward* the orthodox position. Thus, #2 paradoxical compliance qualifies as a type of compliance and, more generally, as a type of conformity.

#15 Paradoxical Anticompliance

Consistent with Nail (1986) and as with #3 anticompliance and #4 anticonversion, we conceptualize #15 paradoxical anticompliance as a special type of anticonformity. As can be seen in Figure 2, #15 paradoxical anticompliance is characterized by preexposure public and private disagreement between the target and source, postexposure public disagreement, but a change to postexposure private agreement. As such, #15 paradoxical anticompliance represents the mirror image of #2 paradoxical compliance (see Figure 2).

Two known studies have found empirical evidence for #15 paradoxical anticompliance (Abrams et al., 1990, Experiment 2; Eagly et al., 1981). Eagly et al. (1981) had participants report to the laboratory in groups of four, two male and two female participants. Participants were led to believe that the other three members of their group disagreed with them on several campus issues. The supposed positions of the other group members were communicated in writing and included supporting arguments. After receiving the others' positions, participants were asked to express their own attitudes under conditions of either public or private responding relative to the other group members. The dependent variable was the degree of attitude change.

The results indicated that there was no difference in the amount of attitude change for female participants in the public and private conditions; both groups moved to a position of relative agreement with the other group members (i.e., #13 conversion). Male participants in private also moved to a position of relative agreement. However, for male participants in public there was significantly less movement. Thus, considering male participants as a whole, there was preexposure public and private disagreement with the source, postexposure public disagreement, but postexposure private agreement. These, of course, are the defining criteria for #15 paradoxical anticompliance.

Consistent with Nail (1986), we propose that, under certain circumstances, anticonformity can be correctly characterized, paradoxically, by movement *toward* the influence source. Note that even though the Eagly et al. (1981) male participants moved significantly *toward* the group at the private level, *between* the public and private levels regarding their *postexposure* response the male participants showed *implicit* movement *away from* the group's position. Thus, #15 paradoxical anticompliance qualifies as a type of anticompliance and, more generally, as a type of anticonformity.

The Eagly et al. (1981) results are interesting, however, not only because they supply empirical evidence for #15 paradoxical anticompliance but also because of their implications for how gender differences in conformity ought to be most accurately conceptualized and studied. The difference between male and female participants was caused not because public female participants conformed more than the other groups but because public male participants conformed less; the experimental group that stood out was the public male participants. Accordingly, Eagly et al. suggested that explanations for gender differences in conformity should focus not on the female role but on the male role, specifically, on "the compatibility of *nonconformity* with the emphasis of the male gender role on independence from other people" (p. 384, emphasis added). However, the behavior Eagly et al. labeled as male nonconformity is more explicitly and appropriately labeled as #15 paradoxical anticompliance. The label nonconformity is not sufficiently precise because, again, any behavior besides conformity can be correctly regarded as nonconformity.

Paradoxical anticompliance (#15) was obtained by Abrams et al. (1990, Experiment 2) in a modified replication of the Asch paradigm. Each session included three confederates and one true participant. The confederates were represented as either being or not being members of an important reference group for the participant (i.e., in-group vs. out-group manipulation). Crosscutting the group membership manipulation was a public/private manipulation. In the public conditions, participants announced their judgments for all to hear. In the private conditions, true participants gave their judgments only in writing. Conformity was operationally defined by the number of times participants agreed with the erroneous judgments of the confederates.

The results indicated that the independent variables interacted. There was no significant difference in the amount of conformity between in-group and out-group participants in private; these participants conformed on 33.3% and 25.9% of the critical trials, respectively. However, when responding was public, conformity for in-group participants increased significantly (58.1% conformity), whereas conformity for out-group participants decreased significantly (0.08% conformity). Thus, overall, out-group participants showed preexposure public and private disagreement, postexposure public disagreement, but postexposure private agreement. Again, these are the defining criteria for #15 paradoxical anticompliance.

At the explanatory level of analysis, the Abrams et al. (1990) findings are important because they supply support for Hogg and Turner's (1987, p. 151; J. C. Turner, 1991) theory of *referent informational influence* (see also Pool, Wood, & Leck, 1998; Wood et al., 1996). The key concept in this theory is *social identification*—the changes in self-image and perception that occur once people categorize themselves as members or not of a particular social organization or group. The theory predicts that people will (a) conform to those with whom they identify, (b) remain independent from those with whom they do not identify, and (c) anticonform to those with whom they disidentify (e.g., out-group members who give obviously incorrect answers on a simple line-judgment task). Similar predictions would result from a balance theory perspective (Heider, 1958).

The Abrams et al. (1990) findings are also important because they indicate that motives for conformity are not necessarily simply additive. The motive informational influence occurs when a

person accepts input from one or more others as "*evidence* about reality" (Deutsch & Gerard, 1955, p. 629, emphasis as original). Normative influence, in contrast, occurs when a person is only concerned with meeting the "expectations of another" (i.e., gaining acceptance and avoiding rejection; Deutsch & Gerard, 1955, p. 629). Abrams et al. implemented informational influence by exposing participants to unanimous disagreement from the laboratory group. They manipulated normative influence between participants by assigning some participants to respond in public and others in private. Yet informational and normative influences were not simply additive; adding normative influence (public responding) to informational influence increased the degree of influence among in-group participants but decreased influence among out-group participants.

Changing perspectives somewhat, it is noteworthy that there are at least two interpretations in the literature of the configuration represented by #15 that have nothing to do with paradoxical anticompliance as a type of anticonformity. Kiesler and Kiesler (1969, p. 4) offered the example of a smoker who is finally persuaded at a private, attitudinal level by friends or professionals to stop smoking but still finds it difficult to publicly act on his or her new beliefs. A still different interpretation for Cell #15 has emerged from studies employing the minority influence or "Asch-backwards" paradigm. When the minority is successful, affected majority members frequently display #15—preexposure public and private disagreement with the minority, postexposure public disagreement with the minority, but postexposure private agreement (see, e.g., Doms & Van Avermaet, 1980; Moscovici, Lage, & Naffrechoux, 1969; Nemeth & Wachtler, 1974, 1983).

Moscovici (1980), Wood et al. (1994), and others have appropriately referred to #15 in minority influence settings as a type of conversion. It is conversion vis-à-vis the minority in that at least some members of the majority have been influenced at the private level to accept the minority position. Minority influence is not usually revealed publicly apparently because so doing would mean defecting from the still powerful majority (Maass & Clark, 1984; Wood et al., 1994).

Successful minority influence does not always end, however, with majority members in post public disagreement/private agreement with the minority view. As described by Nemeth and Wachtler (1983), "Sometimes one person from the majority moves [publicly] to the minority position. When that occurs, the process 'snowballs' and members of the majority tend to move together" (p. 48). Interestingly, Nemeth and Wachtler's portrayal of this phase of minority influence is a near-perfect description of the trigger person and subsequent influence that occurs during #9 disinhibitory contagion.

#5 Compliance/Conversion and #6 Continued Compliance

Compliance/conversion (#5) is a construct being incorporated into a descriptive model for the first time, but it is hardly a concept new to social psychology. The construct is similar to #13 conversion in that an influencee's private attitude is altered so as to come in line with an influence source's position. The difference is that with #5 compliance/conversion, there is preexposure public agreement with the influence source. Compliance/conversion, in fact, represents one of the most heavily researched areas in social psychology in that it describes the pattern of attitude change frequently reported in induced-compliance studies. Festinger and Carlsmith's (1959) classic experiment is a good example of the form compliance/conversion can take.

Participants completed manual tasks that were purposefully designed to be dull and boring. They were then offered either $1 or $20 to misrepresent the tasks as interesting and enjoyable to a supposed incoming participant, actually an experimental confederate. Later, when participants were asked to rate how enjoyable the tasks were, $1 participants gave significantly higher ratings than $20 participants; Festinger and Carlsmith (1959) interpreted these findings in line with cognitive dissonance theory (Festinger, 1957). Participants experienced dissonance because their claims to the confederate that the tasks were enjoyable did not square with the facts. Twenty-dollar participants could justify this misrepresentation because of the large compensation. One-dollar participants, however, had to reduce their dissonance by attitude change—deciding that the tasks were actually fairly enjoyable after all.

To appreciate these results in reference to the present four-dimensional model, one needs to think of participants as passing through the model twice. Acceding to the experimenter's request to dissemble to the next participant (confederate) is captured by #14 compliance—here, participants show (presumably) prerequest public and private disagreement that the tasks are enjoyable, postrequest private disagreement, but post public agreement vis-à-vis the experimenter and confederate. At this point, participants are recycled, so to speak, with reflecting on the monetary compensation conceptualized as the source of influence. One dollar is such a paltry sum that, when $1 participants were asked directly to rate the enjoyableness of the tasks, they had to justify their behavior. They changed their private attitude so that it was now more in line with their public behavior. Thus, in Cycle 2, $1 participants passed from preexposure (prereflection) public agreement/private disagreement that the tasks were enjoyable to postexposure (postreflection) public and private agreement. They passed from compliance to conversion, hence the label compliance/conversion. Interestingly, $20 participants displayed a pattern in Cycle 2 captured by #6 continued compliance. They (presumably) publicly agreed but privately disagreed that the tasks were enjoyable both before (preexposure) and after (postexposure) reflecting on the tasks.

#8 Disinhibitory Anticonversion

Disinhibitory anticonversion (#8), too, has not been explicitly identified previously, but we believe it has the potential to be a very viable type of influence, worthy of separate recognition and study in its own right. As the name implies, it is a form of anticonversion and, more generally, a form of anticonformity. Accordingly, the influencee is negatively influenced by the source. Specifically, as can be seen in Figure 2, the influencee's preexposure conflict, public agreement/private disagreement with the source, resolves in post public and private disagreement. As with #4 anticonversion, #8 disinhibitory anticonversion results in postexposure public/private disagreement with the source.

Another way of thinking about disinhibitory anticonversion (#8) is that it is the mirror image of disinhibitory contagion (#9). Just as preexposure private agreement can be disinhibited by behavior change toward the source in the case of #9 disinhibitory contagion,

preexposure private disagreement can be disinhibited by behavior change away from the source in the case of #8 disinhibitory anticonversion.

For example, say that a junior high school boy is a participant in a drug-abuse prevention class. Before taking the class, his public behavior agrees with the thrust of the program in that he has never used illegal drugs. However, he privately thinks that drugs are probably okay for occasional, recreational use because he believes many successful people use drugs (i.e., he exhibits preexposure public agreement/private disagreement with the influence source, the prevention class teacher/materials). Contrary to design, however, the class has a negative effect. That is, after starting the class, he begins experimenting with drugs and so passes into postexposure public and private disagreement with the influence source (i.e., #8 disinhibitory anticonversion).

Though fictional, this scenario is all too real according to several recent evaluation studies of drug, alcohol, tobacco, eating disorder, and suicide prevention programs (see, e.g., Donaldson, Graham, & Hansen, 1994; Donaldson, Graham, Piccinin, & Hansen, 1995; Mann et al., 1997; Shaffer, Garland, Vieland, Underwood, & Busner, 1991). That is, interventions sometimes backfire, increasing the very behaviors they were designed to reduce. An important factor appears to be the perception sometimes inadvertently created by the programs that the behavior in question is typical or normative for individuals like those under study (see Donaldson et al., 1995). However, programs that foster peer-group norms incompatible with the undesired behavior have produced the intended results (see, e.g., Donaldson et al., 1994, 1995).

The precise designation of #8 disinhibitory anticonversion is not certain in any known evaluation studies reporting negative change because of various measurement shortcomings. Nevertheless, typical descriptive terms such as "boomerang" or "backfire" are not adequate in that any outcome that shows negative behavior and/or attitude change could be labeled as such (e.g., #3 anticompliance, #4 anticonversion, #15 paradoxical anticompliance). This is potentially a serious problem because, as demonstrated with #14 compliance and #9 disinhibitory contagion, similar influence types do not always follow the same principles of influence.

#11 Inhibitory Independence (Noncontagion) and #12 Anticontagion

Not all cases beginning with preexposure public disagreement/private agreement end with #9 disinhibitory contagion. Some who are thinking about looting during a riot do not; some who want desperately to dance do not, even after the dance floor is filled. Redl (1949), a pioneer in the study of contagion, was perhaps the first to write about the absence of influence (noncontagion) when potential influencees are in an approach–avoidance conflict, here labeled inhibitory independence (#11).

A psychiatrist with a psychoanalytic orientation, Redl (1949) became interested in contagion based on his firsthand experiences as a group therapist with juveniles. For example, group members may be privately angry with a therapist but not publicly act out this anger because of ego or superego constraints. However, if one group member, the initiator, expresses open hostility toward the therapist and other members then quickly follow, contagion has occurred (#9 disinhibitory contagion). Redl's observation of noncontagion (#11 inhibitory independence) by some members in such settings was explained as resulting from a personality structure that favored ego and/or superego control over release. This pattern reflects "inhibition" because the restraints against open hostility for such members remained intact. It reflects "independence" because such individuals were not influenced relative to the initiator.

Even more interesting than inhibitory independence is Redl's (1949) description of what we have labeled anticontagion (#12), the so-called *shock effect.* Occasionally during contagion, an observer's fear of loss of control was so great that he or she actively rejected influence from the initiator—for example, by physically withdrawing from the group. Redl interpreted such behavior as resulting from a private desire for the expression of hostility but a stronger reaction formation against it. It is conceivable that during such episodes an observer's private desire for hostility could change as well. In our nonpsychoanalytic terminology, such an event would reflect #12 anticontagion—preexposure public disagreement/private agreement with the initiator's overt hostility that resolves in postexposure public and private disagreement with the initiator.

#7 Reversed Anticompliance and #10 Reversed Compliance

Cells #7 and #10 represent the least intuitive responses of the present model. However, given that all four of the designated dimensions are necessary to accommodate some of the more important and recognized influence types, these somewhat odd possibilities are logically necessary for a complete model. As the names imply, #7 reversed anticompliance represents a type of anticompliance, whereas #10 reversed compliance represents a type of compliance. We conceptualize #7 reversed anticompliance as a type of anticompliance because it ends in post public disagreement/private agreement—the same outcome as both #3 anticompliance and #15 paradoxical anticompliance (see Figure 2). Conversely, #10 reversed compliance is a type of compliance because it ends in post public agreement/private disagreement—the same as #14 compliance, #2 paradoxical compliance, and #6 continued compliance. We have labeled #7 and #10 reversed because both configurations indicate a complete reversal from the preexposure public and private positions to the postexposure public and private responses (see Figure 2).

Reversed anticompliance (#7) might occur in a situation similar to the beginning drug user example cited previously. If the teenager's drug-abuse prevention class backfired, his private inclinations to try illegal drugs might be initially disinhibited resulting in #8 disinhibitory anticonversion. If this same person were subsequently to become addicted to drugs, however, his post private disagreement with the prevention class might very well eventually change to post/post private agreement even while he continued to use drugs because of the addiction. Such an outcome would ultimately correspond to #7 reversed anticompliance.

Reversed compliance (#10) might occur in a situation similar to the looter example cited previously. Sometime after escaping safely with the portable stereo, the looter might feel guilty and privately wish he had not taken the stereo after all; his post private agreement with the original looter (the initiator) might change to post/post private disagreement. Such a reversal would reflect #10 reversed compliance.

Strengths and Limitations of the Present Model

Strengths

As set out in the introduction, a good descriptive model should accomplish four goals: It should help organize empirical findings, help discriminate between closely related phenomena, provide a foundation for integration between the descriptive and explanatory levels, and suggest new or previously unrecognized types of influence.

The present model helps organize empirical findings in a variety of ways. It shows the precise conceptual relationship between all 16 of the identified phenomena. Many of these, in turn, are relevant to the four major social influence paradigms: majority influence, minority influence, compliance, and obedience. For example, #9 disinhibitory contagion not only describes how behavior can ignite and sweep through a crowd but also describes the modeled disobedience that occurs in the modified Milgram (1974) paradigm, as well as illustrating how minority influence at the private level can become manifest at the public level. Further, the present model provides for the behavioral compliance (#14 compliance) and subsequent attitude change (#5 compliance/conversion) that typically occur in induced-compliance experiments (e.g., Festinger & Carlsmith, 1959).

The present model successfully discriminates between numerous phenomena that are closely related. For example, #9 disinhibitory contagion and #13 conversion both involve pre to post behavioral change toward the influence source, and both result in postexposure public and private agreement with the source. However, it is intuitively obvious that there is something quite different between the sort of behavior that can ignite and spread through a crowd during a riot and an honest change in attitude. The model clearly spells out that the fundamental difference is the nature of the influencee's preexposure public and private positions. Whereas #9 disinhibitory contagion entails preexposure public disagreement/private agreement with the source, #13 conversion entails preexposure public and private disagreement.

The model helps provide for further integration between the descriptive and explanatory levels of analysis. In #15 paradoxical anticompliance, the model provides a descriptive foundation for Hogg and Turner's (1987) explanatory theory of anticonformity, referent informational influence theory. In #5 compliance/conversion and #6 continued compliance, the model provides for integration between the present model and cognitive dissonance theory, as well as, potentially, other consistency-based explanatory theories (e.g., Aronson, 1999; Heider, 1958; Swann, 1983).

It should be noted that in the absence of the present conceptualization of #15 paradoxical anticompliance as a type of anticonformity, the Abrams et al. (1990) data could not be taken as support for any explanatory theory of anticonformity. The Abrams et al. participants did not display any type of explicit negative movement, and negative movement is the conventional sine qua non of anticonformity. Nevertheless, we submit that #15 paradoxical anticompliance qualifies as a type of anticonformity because it entails implicit negative movement between an influencee's postexposure private and public responses; influencees can still project public disagreement even when, post influence, they have changed to private agreement with the source.

Regarding new types of influence, the present model suggests five possibilities that have not been previously identified or labeled in the response-models literature: #5 compliance/conversion, #6 continued compliance, #7 reversed anticompliance, #8 disinhibitory anticonversion, and #10 reversed compliance. We have argued for the viability or potential viability of each of these.

Limitations

One limitation of the present model is that, for the sake of simplicity, we constructed it in a dichotomous format. We made this choice in order to represent the various influence types as clearly as possible, thus allowing for the greatest degree of differentiation between the possible outcomes. However, there can be no doubt that an important degree of detail is missed with this approach. Of course, the public/private and agree/disagree dichotomies can be continua, depending on the specifics of a study's methodology (see Levy, 1997, pp. 23–26, for a discussion of problems inherent in the dichotomous vs. continuous distinction). Further, in most research settings, it would be desirable to assess the comparative strength of a person's pre/post agreement/disagreement relative to an influence source.

A different limitation of the dichotomous format is that it necessarily omits certain recognized and interesting social influence phenomena. One is *compromise,* where an influencee moves to a position of intermediate agreement with the source in public but remains essentially unmoved in private (Asch, 1956; Gerard, 1965). Another is *overconformity,* where an influencee moves to a position exceeding that indicated by the influence source (Sherif, 1951; Thibaut & Kelley, 1959). Of further interest, overconformity can reflect either *superconformity*—highly valued behavior that strongly promotes group goals—or, ironically, a form of nonconformity, even anticonformity, depending on the group and context (see March, 1954; Nail, 1986, p. 192; Willis, 1965a, p. 377).

A quite different limitation of the model is that it implicitly defines social influence solely in terms of movement. Yet Nemeth and her colleagues (see, e.g., Nemeth, 1986; Nemeth, Mayseless, Sherman, & Brown, 1990) have broadened the definition of influence to include not only movement but also qualitatively different ways of thinking about issues; influence can include differences in kind (qualitative differences) as well as differences in degree (quantitative differences). Nemeth's research indicates that, whereas majority influence tends to foster convergent thinking regarding the issues in question, minority influence is more likely to foster divergent thinking.

One of the model's strengths, its complexity (comprehensiveness), can also be a limitation. Although we believe we have shown the four dimensions to be minimally necessary, the corresponding complexity may make the model appear cumbersome to apply to social influence research. It is clearly difficult to gauge both public and private attitudes. To be required to do so both before and after influence could be an overly demanding task in many research settings. However, we are not suggesting that the full model must be considered in every instance. For example, studies based on the Asch paradigm are unlikely to need to consider anything other than the four response choices #13 through #16; with such stimuli as line lengths, it is unlikely that participants would hold any preexposure position other than public/private disagreement with the erroneous group judgment. Thus, the parts of the model that need to be considered depend greatly on the type of influence one is examining.

At the same time, on the basis of Asch's (1956) participant interviews, it seems clear that the present four-dimensional model represents a significant and necessary improvement over the unidimensional conformity–independence model implicitly employed by Asch, which is still the dominant model in social influence research (Nail, 1986; Nail & Van Leeuwen, 1993). Indeed, employing the Asch paradigm in Japan, Frager (1970) found that some participants displayed #3 anticompliance on what were supposed to be the neutral, "filler" trials where confederates gave objectively correct answers! The present model neatly accommodates such unanticipated results.[6]

Directions for Future Research and Theoretical Development

Future Research

The consideration of a preexposure public/private dimension suggests that more research is needed in several important and interrelated areas. Most generally, the model suggests a number of responses to social influence that are novel and without empirical precedence. There is no study to our knowledge that has explicitly demonstrated the configurations defined by #2 paradoxical compliance, #7 reversed anticompliance, #8 disinhibitory anticonversion, or #10 reversed compliance. If the goal is a more complete picture of social influence, consideration should be given to the motives and conditions under which such responses might occur.

Some of the frequently undifferentiated types of anticonformity identified herein (viz., #3, #4, and #15) have been obtained in a few studies (e.g., Abrams et al., 1990; Baer et al., 1980; Boyanowsky & Allen, 1973; Cooper & Jones, 1969; Eagly et al., 1981; Nail et al., 1996). Yet little is known about the situational and individual difference variables that are related to such behaviors. Compared with the study of majority influence, minority influence, and compliance, little is known about the principles and dynamics of anticonformity, whatever the research paradigm or specific form anticonformity might take (#3, #4, #7, #8, #12, or #15). Theory and research should focus on the development of a more adequate social psychology of anticonformity.

Most specific to the present thrust, future research needs to focus on the ways social influence principles might operate differently when an individual's preexposure public and private positions do not match. Again, the disinhibitory contagion of aggression has been found to be stronger and more likely when the model is dissimilar to the target (Baron & Kepner, 1970; Goethals & Perlstein, 1978; Wheeler & Levine, 1967) rather than similar, as is the case with conformity. However, it is not known with any degree of certainty whether this dissimilarity effect is (a) a general feature of social influence when public and private attitudes are discrepant, (b) a general feature of disinhibitory contagion, or (c) simply an idiosyncrasy of the disinhibition of aggression. Thus, research needs to be conducted on a wide range of situations with discrepant preexposure public and private attitudes to discover what variables control the expression of influence in such settings.

If so-called copycat suicides are taken as a special case of disinhibitory contagion (Phillips, 1974, 1980; Stack, 1987; see also Cialdini, 1993, pp. 116–123; and especially Phillips, 1989), the available evidence suggests that the dissimilarity effect may be a limited phenomenon. Imitative suicides following highly publicized suicides do not increase for the population in general; rather, they tend to increase only among those similar to the suicide initiator in terms of age and/or gender (Phillips, 1980; Schmidtke & Hafner, 1988). Thus, the dissimilarity effect may not be a feature of disinhibitory contagion in general, or even of the disinhibition of aggression in particular, as long as the target of aggression is oneself. Research is needed to establish the limit and boundary conditions of similarity and dissimilarity effects and how they might apply to different types of influence.

Future Theoretical Development

Research should also focus on situations involving preexposure public/private inconsistency because of its relevance to a different type of descriptive social influence theorizing—mathematical models. For example, Latané's (1981) social impact theory proposes that the degree of social influence is a multiplicative function of the strength, immediacy, and number of influencers relative to influencees. Latané has provided compelling support for the theory across some of social psychology's most enduring and historically important research paradigms (e.g., majority influence, imitation, bystander intervention, social loafing, social facilitation/interference [viz., stage fright]).

A critical question regarding social impact theory, however, is whether the theory applies equally well to all of the influence phenomena identified by the present model. The dissimilarity effect appears to be inconsistent with social impact theory: Should not dissimilarity between the initiator and influencee *decrease* social impact rather than increasing it? Yet not all findings regarding #9 disinhibitory contagion contradict social impact theory. Again, similarity between the suicide initiator and members of the population enhances the probability of the disinhibition of suicide (Phillips, 1980; Schmidtke & Hafner, 1988). Further, Russell et al. (1976) found that the contagion of jaywalking increased when the number of jaywalking models was raised from one to two. If disinhibitory aggression against others does not follow all the principles of social impact theory, what principles does it follow? What principles do the other novel or underrecognized influence phenomena of the present model follow? The interface between the less recognized and novel types of influence identified by the present model and mathematical models of social influence is fertile, largely unplowed ground for future theory and research.

A very different direction for theoretical development concerns further integration between the descriptive and explanatory theoretical levels. Allen (1965) was the first to make explicit the correspondence between the purely descriptive concepts of a response model and the explanatory constructs of a process model. He proposed that Deutsch and Gerard's (1955) theory of informational influence corresponds to conversion conformity (#13, i.e., internalization), whereas Deutsch and Gerard's theory of normative influence corresponds to compliance conformity (#14). From

[6] In attempting to explain his results, Frager (1970) reported a significant correlation between a measure of cultural alienation and the degree of #3 anticompliance. Further, the data were collected in the spring of 1966 only a few months before a series of student uprisings that occurred in 1967. Thus, Frager's #3 anticompliance findings "can be seen as a symptom of the psychological resistance and negativism that later fanned the flames of student riots" (p. 210).

the definition of informational influence—accepting input from one or more others as evidence about reality—it follows that informational influence typically leads to private acceptance as well as public agreement (#13 conversion). In contrast, from the definition of normative influence—meeting the expectations of one or more others—it follows that normative influence, by itself, leads to public agreement but not private acceptance (#14 compliance).

Nail (1986) supported Allen's (1965) integration in principle and cited numerous additional studies consistent with it (Nail, 1986, p. 202). Nail also provided for further integration between the descriptive and explanatory levels in reference to types of anticonformity (p. 203). In essence, Nail proposed that theories and conceptualizations of anticonformity (negative influence) that emphasize motivational drives correspond to public and private anticonformity (i.e., #4 anticonversion; J. W. Brehm, 1966; S. S. Brehm & Brehm, 1981; Festinger & Aronson, 1968), whereas theories/conceptualizations of anticonformity that emphasize self-presentational or impression management concerns correspond to anticonformity only at the public level (i.e., #3 anticompliance or #15 paradoxical anticompliance; Baer et al., 1980; Heilman & Toffler, 1976). Research by Baer et al. (1980), Boyanowsky and Allen (1973), Cooper and Jones (1969), Eagly et al. (1981), Nail et al. (1996), Pool et al. (1998), and Weir (1971) supports Nail's integration.

Herein, in pointing to the correspondence (a) between #15 paradoxical anticompliance and Hogg and Turner's (1987) explanatory theory of anticonformity and (b) between #5 compliance/conversion ($1 participants), #6 continued compliance ($20 participants) and Festinger's (1957) cognitive dissonance theory, we have proposed further integration between the descriptive and explanatory levels. At the same time, the various novel phenomena of the present model raise numerous additional possibilities for future integration. For example, does Allen's (1965) integration between normative influence and #14 compliance apply as well to the other types of compliance identified herein (#2 paradoxical compliance, #6 continued compliance, and #10 reversed compliance)? How do the motives for conformity such as to (a) accomplish group goals or (b) align oneself with similar or liked others correspond to the different types of conformity identified herein? How do the various motives for conformity interface with #9 disinhibitory contagion? Clearly, the present analysis provides numerous possibilities for further theoretical integration.

Considering the issue of descriptive/explanatory theoretical integration more generally, it is important to note that explanatory theorists have arrived at different response possibilities by hypothesizing various underlying mental processes. For example, Festinger and Carlsmith (1959) came to the distinction between what we have labeled #6 continued compliance and #5 compliance/conversion with respect to the hypothesized psychological operations of sufficient versus insufficient justification, respectively, for counter-attitudinal behavior. Descriptive theorists have frequently arrived at the identical response possibilities by employing a *qualitatively different type of theorizing*—taking already established phenomena such as conversion, compliance, and contagion and factorially extending the essential, defining criteria. Thus, it would seem that the explanatory and descriptive levels are complementary and that they provide a type of convergent validity for one another. As Hollander and Willis (1967) stated, "refinements at either level can be expected to facilitate progress at the other" (p. 64).

Conclusion

The present four-dimensional model, we believe, represents an important step forward in descriptive social influence theorizing. While providing for disinhibitory contagion—a theoretically significant and pervasive form of social influence—the model also includes most of the commonly recognized and most important forms of social response. Further, the model suggests several previously unrecognized or underrecognized types of influence that have been demonstrated to be related to well-known and important, basic and applied issues such as obedience/disobedience to authority, gender differences in conformity, minority influence, cognitive dissonance phenomena, drug-abuse prevention, and group therapy.

Given the centrality of disinhibitory contagion to this article, it seems appropriate that we close with a possible example of such on a grand scale. The sudden fall of communism in Eastern Europe in 1989 may be a case in point (Chua-Eoan, 1989). Preexposure (pre-1989) support for greater personal, political, and economic freedom among Eastern Europeans is supported by (a) the large numbers who voted with their feet in fleeing from the East to the West between 1945 and 1989 and (b) the unsuccessful uprisings that had previously occurred (e.g., in East Germany in 1953, Hungary in 1956, Czechoslovakia in 1968). In contagion theory terms, Poland was the initiator. When Poland's democratic reforms in the spring and summer of 1989 went uncharacteristically unchallenged by the Soviet military, it apparently signaled to the rest of Eastern Europe that democratic reforms would be, for the first time, tolerated. The nonpunishing consequences of Poland's reforms apparently reduced the restraints toward greater freedom and democratization, and thus, the movement quickly spread, a sort of reverse domino theory effect.

Chua-Eoan (1989) described this rapid overthrow of communism as "an irresistible tide" (p. 36). We describe it simply as a special case of social influence, namely, disinhibitory contagion.

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