

Mind over Matter:
Target States, not Stimulus Characteristics, Determine Information Processing
in Minority Influence

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Mind and Matter in Minority Influence

Social influence is an everyday and ubiquitous phenomenon. At times, social influence is a function of the number of people who favor a certain attitudinal position. Such influence situations have been described as representing forms of majority influence when many or most people agree with a forwarded position, and as minority influence when only few people do so. A major theme of research in this domain is that majorities often represent the strong, the powerful, or basically the “good”, whereas minorities often are regarded as the weak, the powerless, or basically the “bad” (Moscovici, 1980). And yet, history is rife with examples of small groups or even single individuals who have instigated innovation and social change, confirming the famous statement ascribed to Margaret Mead: “Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has” (see Lutkehaus, 2008, p. 261). It might be this apparent paradox in the idea of “the powerless” vs. “the only way of change” that has motivated many scholars to investigate the antecedents and consequences of social influence by minorities.

The when and how of minority influence is an important issue in research on innovation and adaptation to ever-changing environments. The first theoretical account of minority influence, *conversion theory* (CT), was presented by Moscovici (1980). His predictions regarding the cognitive effort triggered by the confrontation with a majority or minority position, respectively, mapped on the distinction between shallow and in-depth information processing in persuasion theories that were developed roughly at the same time (Chaiken, 1980; Petty & Cacioppo, 1981). The core concepts of CT provide useful examples of the distinctions that we presently draw between “mind” and “matter”. Therefore, we start with a brief analysis of CT.

According to CT, minorities lack the means for direct influence. Hence, a minority can convince individuals only by drawing their attention to its own standpoint. The minority achieves interest, for example, when it displays a consistent behavioral style, in particular by repeating its position unanimously and frequently. The target of influence will then ascribe confidence and conviction to the minority members. This will instigate a validation process, whereby the individual engages in careful processing of issue-relevant information, including the arguments that the minority presents. Validation results in conversion, a slow and often indirect, but constant change toward the minority position.

Social influence by majorities, as conceived in CT, functions in a qualitatively different way. A conflict in attitudes between the majority and the target of influence revolves around the question of why the target sees things differently than most others would. The power of majorities to reward conformity and to punish deviance reminds the individual that disagreement with the majority position will likely result in discomfort and stress. To resolve this social conflict the individual will show compliance. Compliance means agreement with the majority position in public. Such influence is not backed up by thorough information processing and thus does not reflect the target's inner conviction.

We would like to highlight two features of CT that we presently analyze more thoroughly. First, we argue that CT refers to rather *specific circumstances* of social influence. As a starting point, CT takes the relevance of the social situation for granted; in other words, it does not address any conditions under which minority *vs.* majority information may be more or less relevant to the target. Is it possible that targets at times simply do not care about the minority or majority status of those who attempt to exert influence? And if they do care, is there always conflict in operation? In this regard, it is not clear how targets react to the influence of a minority that proposes the very same position that the target already holds. Additionally, one has to ask how targets respond to influence attempts regarding novel issues

on which they have not formed an attitude yet. Finally, even if there is conflict, does the minority necessarily represent the “underdogs”? Instead, minorities as potential sources of influence may represent an unspecified group, for example those who endorse a minority position in a survey or opinion poll drawn from a representative sample. Also, minorities can represent high-status groups, for example last year’s Nobel Prize Winners or the members of a board of experts whom the local government consulted. In sum, whereas CT highlights the case of relatively powerless, deviant minorities creating an alternative norm in situations of social conflict (“nomic” and “heterodox” minorities; Moscovici, 1976), we point out that the range of situations in which the positions of numerical majorities or minorities may influence attitudes is much wider, and we thus suggest a more universal view on minority (and majority) influence.

Second, CT may be mapped onto common distinctions in social influence and persuasion research. As for research in social influence, the distinction between compliance, based on social conflict with a majority, and conversion, based on issue-related information processing caused by a minority, resembles Deutsch and Gerard’s (1955) distinction between normative and informational influence. These authors proposed that normative influence relies on the social relationship between the influence source and the target. As long as the target’s focus remains on this social relationship, social influence will result in mere compliance (conforming or normative influence in Deutsch and Gerard’s words) at the expense of concerns with the “true” values and merits of the attitude object. It is clear that majority influence in terms of CT resembles normative influence, as it results from motivational concerns about not appearing deviant rather than from concerns with issue-related information. In situations of informational influence, in contrast, the target is assumed to be free to comply or not because the social implications of the target’s attitude are of minor relevance. Instead, the target will use the information provided by others as a source of the

“truth” regarding the issue under consideration. If influence occurs, it is assumed to be based on the processing of attitude-relevant information. Such conversion (or agreeing in Deutsch and Gerard’s words) will entail a long-lasting change, will be found in private as opposed to only publicly expressed judgments, and will resist counter-argumentation. Obviously, minority influence in terms of CT resembles informational influence.

As for research in persuasion, central tenets of CT resemble the distinction between two modes of processing that forms the core of dual-process models of persuasion, like the elaboration likelihood model (Petty & Cacioppo, 1986) and the heuristic-systematic model (Chaiken, Liberman, & Eagly, 1989). According to these models, the target of persuasive information will follow one of two routes to persuasion. The peripheral or heuristic pathway is associated with rather superficial processing of “cues” that help to save cognitive energy on the way to the final attitude judgment. An example for such a cue may be information on how many others agree on a given topic (i.e., consensus information; e.g., Erb & Bohner, 2010; Erb, Bohner, Schmäzle, & Rank, 1998). Although processing modes may co-occur (cf. Bohner, Moskowitz, & Chaiken, 1995), peripheral or heuristic processing often goes along with the neglect of issue-relevant processing. Attitude change on the basis of cue-processing alone will remain relatively superficial. Accordingly, such attitudes are weak predictors of attitude-related behavior and vulnerable to counter-attitudinal attacks. These features are shared by compliance after majority influence in terms of CT.

The other, central or systematic, pathway is defined by the in-depth processing of issue-relevant information. When following this route, targets are assumed to explicitly reason about content-related information, such as arguments referring to the attitude object under consideration. Attitude change in response to central or systematic processing will result in strong attitudes that are both predictive of behavior and not easily altered. All of these features are shared by conversion in response to minority influence in terms of CT.

Other researchers have borrowed Moscovici's (1980) idea of extensive information processing as a necessary condition of minority influence. They have proposed that a minority may be influential if (a) targets of influence are sufficiently motivated and able to invest cognitive effort in processing the message that the minority presents, and (b) the minority's message is convincing. Baker and Petty (1994), for example, showed that increased message scrutiny may result from surprise at the minority's unexpected position and, in turn, may lead to minority influence, given that the minority's arguments are strong. In a similar vein, Gardikiotis, Martin, and Hewstone (2005; Martin, Gardikiotis, & Hewstone, 2002) have repeatedly shown that minorities exert influence when targets process strong and convincing arguments advanced in favor of the minority's position. Other researchers have proposed that minorities will only be influential when some external factors motivate the targets to thoroughly elaborate and accept the arguments presented in the minority's message (e.g., De Vries, De Dreu, Gordijn, & Schuurman 1996; Moskowitz, 1996; Moskowitz & Chaiken, 2001). In fact, considerable empirical evidence has accumulated demonstrating that the in-depth processing of the minority's message, in combination with high message quality, may promote the influence of an otherwise non-influential minority (see also Bohner, Frank, & Erb, 1998).

In sum, CT as a theory of major impact on research into minority influence, as well as more recent work inspired by CT, revolve around the idea that minorities are perceived as "bad" in general and thus need to compensate for this perception in order to exert influence. Most of those models further rest on the assumption that minority influence is qualitatively different from majority influence in that it follows central or systematic message processing, and equates to informational influence for that matter.

Moscovici's CT had an extremely energizing effect on research into social influence, as some more recent theorizing has built on CT in one way or another (e.g., Crano, 2001; De

Dreu, 2007; Martin & Hewstone, 2008; Nemeth & Goncalo, 2005). Perhaps, CT gained a lot of attention because its basic assumptions provided a good explanation of “real-world” observations, such as the success of the ecological movement or the women’s movement. Empirical tests under laboratory conditions, however, yielded less clear-cut results (e.g., Martin, 1998; W. Wood, Lundgren, Ouellette, Busceme, & Blackstone, 1994). It appeared that minorities as well as majorities could instigate more thorough information processing, depending on conditions (e.g., Baker & Petty, 1994; Erb, Bohner, Rank, & Einwiller, 2002; Mackie, 1987). Thus, it seems worthwhile to critically consider the core concepts of CT and ask whether it is possible to gain a deeper and broader understanding of how individuals react to minority positions than CT would be able to offer.

In particular, we propose that CT and related theorizing has much too long considered the target as a recipient of social influence who reacts to stimuli in the social environment in a predetermined, rather inflexible way. Such an approach results in assumptions about the target’s reaction to the specific information provided in the influence setting. It suggests that, whenever faced with a majority position, targets will engage in social comparison and will eventually show public compliance, and whenever faced with a minority position, targets will engage in a validation process and may eventually show private acceptance or indirect attitude change (Moscovici, 1980, pp. 212–216; see also Mugny, 1982; Nemeth, Swedlund, & Kanki, 1974). This perspective represents what we mean by theorizing in terms of “matter” instead of “mind”. According to theory building in terms of “matter”, one may come up with the assumption that a minority source should be necessarily regarded as a negative “cue” that provides sufficient reasons to disparage the minority message from the start. Yet, it is possible that not the “matter” in the form of minority source information, but the “mind” in the form of the target’s *subjective perception* of the minority source information (e.g., Erb, Bohner, Werth, Hewstone, & Reinhard, 2006) will determine the psychological consequences of being

exposed to a minority source. We propose that target states, not stimulus characteristics, determine information processing in reaction to minority source information.

In a related vein, the distinction between normative and informational influence is connected with information on the consensus regarding a given attitudinal position (high for majorities and low for minorities). Accordingly, influence has mostly been assumed to be normative (i.e., based on the satisfaction of social motives) in response to majorities and informational (i.e., based on issue-related information) in response to minorities. The possibility that social motives may play a role also in minority influence has been suggested by proponents of *social identity theory*. According to this approach, social influence hinges on shared social identity (Turner, 1991; Turner & Oakes, 1989). Attitudes and opinions are at times defining features of groups, and these features are assigned to their members. Attitude change arises from identification with a valued in-group, with the aim to maintain in-group consensus about the attitudinal issue under consideration (and supposedly beyond). Thus, the position proposed by those who are categorized as sharing a social identity with the target will be accepted as correct. In accordance with this presumption, David and Turner (2001) presented empirical evidence for the idea that a minority has to be perceived as part of the target's in-group to be influential, and that out-group minorities will not exert influence because their position can be refuted easily based on the fact that the minority does not form part of the target's in-group (see Pérez & Mugny, 1987).

In another line of theorizing, Crano (2010; Crano & Chen, 1998) combined assumptions from social identity theory and Moscovici's CT into the *leniency contract model*. In terms of an implicit "leniency contract", minority influence relies on the indulgence that targets of influence exhibit toward in-group minorities. Leniency operates if the minority is relevant to the target's social identity. This is assumed to be the case if the minority members belong to the target's in-group. Because accepting or rejecting their message will have

consequences for the individual's social identity and position within the group, only minorities from the target's in-group are considered as relevant influence sources. If a minority position is seen as threatening the group identity, the minority is likely to be expelled from the group and to be regarded as an out-group; the minority message can thus be ignored or belittled. However, if the minority's position does not threaten the group, targets will engage in processing of the minority's message. Leniency will motivate majority members to consider the minority's arguments with only little or even no counter-arguing. At the cognitive level, such favorable elaboration creates a force toward attitude change, a process assumed to be identical to validation, resulting in conversion, in terms of CT. However, the minority influence is assumed to be "indirect" at first, showing only on related attitude objects. Only if the indirect attitude change was substantial, delayed "focal" attitude change may also occur (for a discussion, see also Glaser et al., 2015).

In sum, the research presented so far illustrates the issue that we presently would like to put under closer scrutiny. By and large, this research (a) has regarded minority status as an informational cue of negative valence and (b) has focused on compensatory factors like social identification and resulting leniency, behavioral consistency, positive attributions, strong arguments etc., which were regarded as necessary conditions to overcome a minority's assumed negative status.

Yet, from our perspective (Erb & Bohner, 2007, 2010; Erb et al., 2003), stimulus characteristics – the "matter" in form of minority source information – and psychological reactions by the perceiver should not be equated, as doing so would sketch the human mind as rather mechanistic. We will argue that individuals react more flexibly when being exposed to minority source information. Such reactions may involve shallow or extensive processing, and minority influence may rest on issue-related information processing as well as on the fulfillment of subjective needs. Accordingly, the distinctions of cue processing vs. argument

processing, of normative influence vs. informational influence, and of compliance vs. conversion, however intuitively appealing, will prove insufficient to tell the complete story about minority influence.

Minority Status – Is it a Cue, and is it of Negative Valence?

When Moscovici (1980, p. 210) described target perceptions as “what the minority does is bad, because there are few who do it”, he might have had in mind that information about the minority status of an influence source comes as a short-cut to draw a fast and negative conclusion about the particular influence attempt. Other researchers have presented this assumption more explicitly (e.g., Martin & Hewstone, 2008) and have argued that minority status of an influence source allows for a fast and effortless rejection of whatever will follow. However, at least two questions related to this assumption remain to be answered. First, it is not clear whether targets always care about the minority status of the potential influence source. At times they may closely attend to consensus information, whereas at other times they may not. If so, what are the conditions that make consensus information subjectively relevant at all? Second, there may be situations in which targets would not ascribe negative valence to a minority source. What, then, are the conditions that turn low consensus into a positive feature? Below, we address these two aspects in turn.

Do Targets of Social Influence Always Attend to the “Minority Cue”?

In recent research, we have started to examine the conditions under which targets find a source’s minority status sufficiently relevant to draw their attention to the consensus information it provides (Hellmann & Erb, 2015a, 2015b; Thoben, 2012). As mentioned before, consensus information is defined as “information about the amount of socially shared agreement” (Erb & Bohner, 2010, p. 79). Our reasoning rests on the notion that individuals strive to gain knowledge of themselves by comparing themselves to others (Festinger, 1954;

Kruglanski & Mayseless, 1987). A considerable amount of research has addressed the how, when, why, etc. of social comparison. Yet, social comparison has mostly been studied as an interpersonal phenomenon, in the sense that an individual compares her- or himself with another concrete single individual. However, it is possible that comparisons with an abstract object such as information on how many other people feel or do the same may as well serve the need to “know thyself”. With reference to this idea, we proposed that consensus information would serve as a means to gain self-knowledge, as it allows comparing one’s own attitudinal position with the position of others “out there”.

In a series of experiments, Hellmann and Erb (2015a, 2015b) found that conditions that are indicative of a high need to compare one’s own attitudes (e.g., holding a highly accessible attitude toward a certain topic; Hellmann & Erb, 2015a) or cause a high need for social comparison (e.g., mortality salience or self-awareness; Gibbons & Buunk, 1999) were associated with higher attention paid to consensus information (Hellmann & Erb, 2015b). In one of these experiments, for instance, participants received consensus information in the form of a survey result regarding a certain attitude object (Hellmann & Erb, 2015a). At the beginning of the experimental session, participants’ attitude accessibility (e.g., Fazio, 1995) was assessed as an indicator of attitude importance (and, hence, of a need for comparison) with respect to the attitudinal issue under consideration (see Bassili, 2003; Festinger, 1954; McGarty, Turner, Oakes, & Haslam, 1993). Then, participants were exposed to a survey result stating that a minority favored and a majority opposed (*vs.* vice versa) the proposed position. The major dependent variable of interest was participants’ free recall of the presented consensus information as a measure of attention to the presented survey result.

Supporting the hypothesis, attitude accessibility was significantly related to the accuracy in recall of the consensus information presented in the survey result. In addition, the level of consensus (minority *vs.* majority) was unrelated to recall accuracy. In short, the study

provided first evidence that consensus can serve as a standard of comparison against which the individual evaluates her or his own attitudinal position. Consensus information allows the individual to assess his or her attitude with reference to the attitudes of “those others out there”. Whenever the need to compare one’s own position with that of others is high, individuals are to be expected to pay close attention to consensus information. Because self-activation increases the personal importance of social norms and behavioral standards as provided by consensus information (Carver, 2003; Duval & Wicklund, 1972) and attitudes closely related to the self are more accessible (DeMarree, Petty, & Briñol, 2007), it is plausible that attitude accessibility triggers high attention to consensus information. Thus, survey results pertaining to highly accessible attitudes receive especially high attention.

In another set of experiments (Hellmann & Erb, 2015b), a manipulation of mortality salience was used to vary the need for social comparison and, therefore, closer attention to consensus information. According to *terror management theory* (Greenberg, Pyszczynski, & Solomon, 1986), the awareness of one’s own death (mortality salience) harbors an enormous potential of fear. Mortality salience causes diverse defense strategies aimed at sustaining the individual’s cultural worldview as a means of protection against death anxiety. The cultural worldview includes socially shared conceptions of the world, such as personal attitudes. To secure its protecting function it has to be permanently validated. Hence, knowledge of the prevailing consensus presents an important condition for the validity of one’s cultural worldview. A parsimonious way to gain this knowledge is attending to consensus information in terms of survey results. First, applying a standard manipulation of mortality salience (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989), we found that participants who wrote down their personal thoughts and feelings regarding their own death reported a higher need for social comparison of opinions than did control participants. Second, participants who had engaged in thinking about their own death indeed paid more attention to

available consensus information that was presented in the form of a survey result. After they had filled out several auxiliary measures, participants were asked to recall the presented consensus information. In line with our reasoning, participants in the mortality salience condition showed higher recall accuracy of the presented consensus information than did participants in the control condition.

We conclude that the processing of information about consensus can serve as a routine standard for social comparisons that is particularly useful to save cognitive resources (Corcoran & Mussweiler, 2009). According to Rüter and Mussweiler (2005), people develop routine comparison standards that have proved to be useful for social comparisons in the past. Because people may know from prior (learning) experiences that “high consensus implies correctness” (e.g., Bohner, Dykema-Engblade, Tindale, & Meisenhelder, 2008; Darke et al, 1998; Mackie, 1987), consensus information may serve as a routine comparison standard that is highly *abstract* in the sense that it is detached from a single other person as the standard of comparison.

Social comparison with what can be regarded as the consensus about a given topic differs in at least two ways from social comparison with a single other person (which has already been widely studied; e.g., Guimond, 2006). We propose that the comparison with an abstract referent, namely an unspecified group of other people that agree about a certain attitudinal position, even provides some advantages over the social comparison with an individual referent. In particular, a major advantage of an abstract comparison is its potential to save social costs. Because holding a minority opinion is often experienced as aversive (Levine, 1980) social comparison on an abstract level may prevent the individual from such negative experiences. Learning that one’s own attitudinal position deviates from the position of another (cherished) person often results in negative emotions (Brickman & Bulman, 1977). In addition, in western societies social comparison of *opinions* is often considered as socially

undesirable and may even be sanctioned (e.g., J. V. Wood & Wilson, 2003; W. Wood, 2000). These assumed benefits of abstract social comparison via consensus information may explain the increasing frequency of published survey results in modern mass media.

On the theoretical level it seems important to note that simply presenting consensus information (the “matter”) does not come with the guarantee that the human mind will necessarily attend to it or use it for subsequent attitude judgments. Obviously, there are conditions under which individuals find consensus relevant and other conditions under which they do not. The research presented here points to the possibility that a high need for social comparison with respect to a certain attitude object is one factor that will render consensus information subjectively relevant and motivate individuals to process information on what “those others out there” feel or think. However, individuals who are not motivated to engage in such a comparison to begin with will have to be specifically induced to pay attention to consensus information. Otherwise the minority or majority status of those who attempt to exert influence may go undetected.

Is Minority Status Always a Negative Feature?

Moscovici’s (1980) CT is geared toward contexts in which minorities are “bad” to begin with. Accordingly, in CT and related research considerable effort was devoted to identifying *compensating* conditions that would promote minority influence despite the fact that the minority lacks high consensus. According to CT itself, the key to success in minority influence lies in the consistent behavioral style and the positive attributions that such behavior elicits from the target. In a similar vein, Mugny and his colleagues have argued that minorities may induce social conflict “through their behavioural and negotiation styles *despite their being discriminated against*” (Mugny, Kaiser, Papastamou, & Perez, 1984, p. 317, emphasis ours). With reference to *self-categorization theory* (Turner, Hogg, Oakes, Reicher, &

Wetherell, 1987), David and Turner (2001) proposed that the minority can only be influential when it represents a part of the target's own in-group, thus taking advantage of the targets' interest in maintaining group coherence and a positive image of the group (for related research addressing the identification with a minority source, see Mugny & Papastamou, 1982). In the leniency contract model (Crano, 2001), minority influence arises from the leniency that the majority displays toward deviant in-group members. In Latané's *social impact theory* (Latané & Wolf, 1981; Nowak, Szamrej, & Latané, 1990), the minority can compensate for the disadvantage of representing low consensus by immediacy (e.g., physical closeness) and strength (e.g., social power). Finally, using an attributional framework (Kelley, 1967), Bohner, Erb, Reinhard, and Frank (1996; Bohner et al., 1998) showed that minorities may compensate for their low consensus by presenting positions of high distinctiveness. In sum, much research can be seen as attempts at finding conditions that help to promote the minority in spite of the fact that their position enjoys only little social support.

However, reactions toward minority-related stimuli may not necessarily be negative. In a study by Mucchi-Faina, Pacilli, and Pagliaro (2011), employing a lexical decision task with minority and majority words as primes and clearly valenced target words, an ambivalent pattern was found: Whereas majority words were consistently evaluated positively, minority words triggered both positive and negative reactions within the sample. Depending on motivational states, even at very low levels of cognitive elaboration the evaluation of minority cues might be moderated by factors that alter the valence of the term "minority" (Dickel & Bohner, 2012). Moreover, such initial reactions toward consensus stimuli should influence simple propositions toward the persuasive topic and might in turn bias more complex reasoning about the topic (Dickel & Bohner, 2012). The bottom line is that the "minority cue" may not always be negative and may have multiple consequences that depart from the mere "cue" effect in the primary sense of dual-process models of persuasion.

Against this background, we propose that minority positions are not inevitably regarded as “bad” or negative. If this is the case, then minorities may not necessarily need to compensate for a negative image they project. In fact, we have already studied conditions residing in the mind of the perceiver that can alter the valence associated with the minority (independently of any additional attributes that the minority may possess). In particular, individuals at times experience a high *need for uniqueness* (NfU; Snyder & Fromkin, 1980; also see Schumpe & Erb, 2015). In order to appear unique and different from most others, agreeing with a minority may appear more appealing than agreeing with a majority, for majorities represent what most others think or do.

Imhoff and Erb (2009) have studied the effect of NfU on minority influence in a series of experiments that followed up on findings suggesting that individuals sometimes strive to avoid being too similar to others (e.g., Snyder & Fromkin, 1980) or seek “optimal distinctiveness” (e.g., Brewer, 1991). That is, people aim at reaching the optimal balance between being distinct or unique from others and being “just like everyone else” (Maslach, 1974, p. 411). Thus, a majority position would be less attractive than a minority position for targets under high NfU, because sharing a high consensus position would magnify the feeling of being a non-distinct member of an unspecified majority. A low consensus position, in contrast, represents something “particular”, something of distinction, and thus allows one to gain a feeling of being unique.

In a first study linking NfU and minority influence, Imhoff and Erb (2009) used bogus personality feedback to induce high or low NfU (see Snyder & Fromkin, 1980). Specifically, participants learned that their personality was either “average” (high NfU condition) or “specific” (low NfU condition). In an ostensibly unrelated “second” experiment, participants were exposed to a persuasive message on a topic promoted by either a minority or a majority of others. Attitudes in the high NfU condition were indeed more favorable under minority

influence than under majority influence, whereas an opposite pattern was found in the low NfU condition. The same pattern of results was found when NfU as a personality trait (Snyder & Fromkin, 1977) was assessed rather than experimentally manipulated. But it disappeared when targets were given an alternative means to express their distinction and satisfy their NfU – a finding that affirms the effect’s motivational character (Imhoff & Erb, 2009).

However, the designs employed by Imhoff and Erb (2009) remained open to alternative interpretations: Did high NfU enhance minority influence or simply “block” majority influence? This question could not be answered based on Imhoff and Erb’s data because higher agreement with the minority position (as compared to the majority position) may either reflect a tendency to go along with the minority or a tendency to turn away from the majority position. In order to disentangle this confound empirically, the experimental design needs a “third option” in the sense that the target under high NfU is open to either prefer the minority option or a third possibility that reflects neither the majority nor the minority position. Only a clear tendency toward the minority position would be indicative of minority influence, whereas simply turning away from the majority position may well be accomplished by adherence to the “third option”.

Thus, Hellmann, Imhoff, and Erb (2015) extended the initial experimental design and demonstrated that high NfU not only blocks majority influence, but indeed enhances minority influence. Here, participants learned about three options to solve the “extensive traffic problems” of a given city: a bridge, a tunnel, or a ferry boat. In a fully counter-balanced design, these options were said to either represent (1) a majority’s or (2) a minority’s preferred solution, or (3) consensus was left unspecified. Under high NfU, targets of influence displayed a clear rejection of the majority’s position, thus replicating the findings by Imhoff and Erb (2009). In addition, high NfU led targets to clearly prefer the minority position over the alternative option for which consensus was left unspecified (see Figure 1).

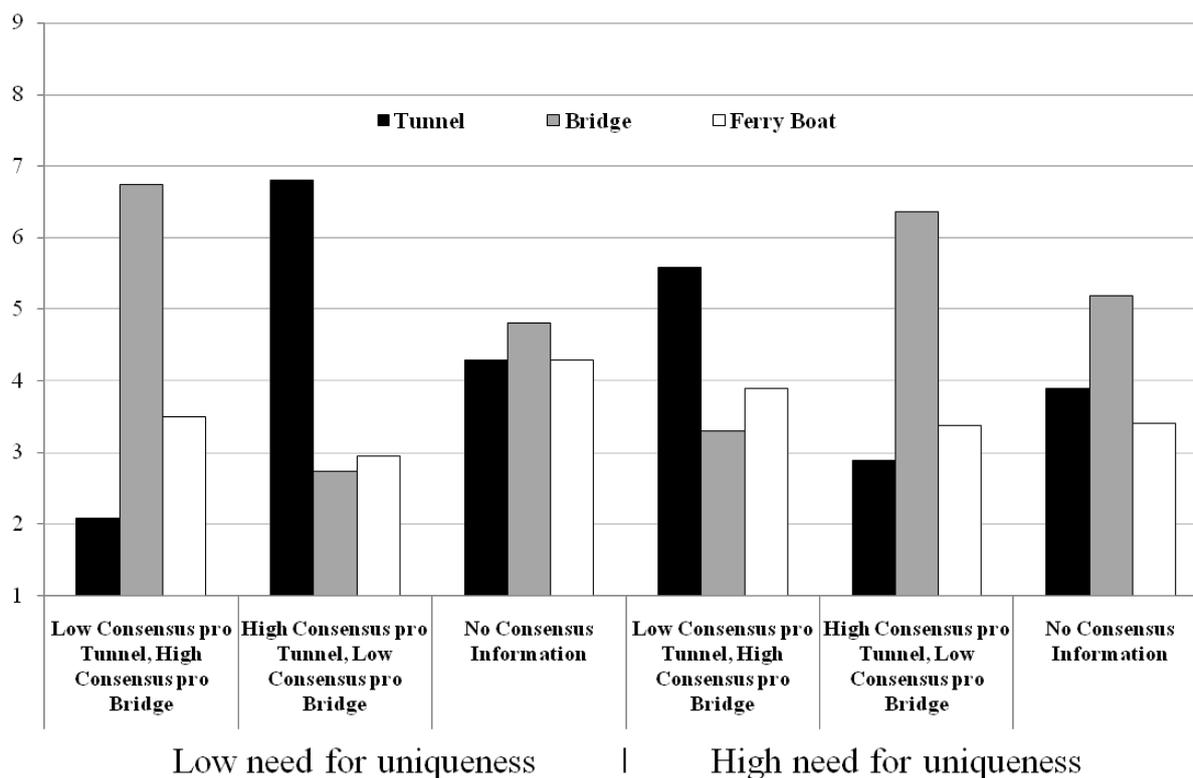


Figure 1. Post-influence attitudes regarding different solutions of traffic problems (tunnel vs. bridge vs. ferry boat) as a function of Need for Uniqueness (low vs. high), and consensus (low vs. high vs. unspecified). Adapted from Hellmann et al. (2015).

Note. Higher numbers indicate more favorable attitudes on a 9-point rating scale.

Obviously, the fact that one option was preferred by a minority of others made this option attractive and resulted in favorable attitudes toward this option under high NfU (see also Zhu & Argo, 2013). We conclude that, all else being equal, high NfU not only enhances rejecting the majority position, but over and above leads individuals to adopt the minority position.

In a related vein, Erb, Hilton, Bohner, and Roffey (2015) have studied another condition that may turn out to alter the negative valence typically associated with minority positions. In this research, it was shown that minority positions represent risky options, both

in a positive (e.g., daring, adventurous) and a negative sense (e.g., rash, risky). The notion that minority positions represent risky options rests on research demonstrating that objects are evaluated the more extreme the lower their prevalence (e.g., Ditto & Jemmott, 1989). As minority positions by definition represent attitudes of low prevalence, we assumed that they represent objects of evaluative extremity as well. Thus, an individual who shares an attitude with only few others may be regarded as very foolish if wrong or extremely clever if correct. As an example, let us consider a group discussion in which a person holds a position that deviates from those of most others. If this minority position turns out to be correct, the person will be regarded as “the only one who knew better”. If it turns out to be incorrect, she or he will be considered rather unwise, because “everybody else knew better”. In contrast, sharing a (highly prevalent) attitude with a majority of others will result in less extreme evaluations because neither does it hurt much to be incorrect with most others, nor is it very rewarding to be correct if that holds true for nearly everybody else.

Risk in the context of minority positions seems to be related to the amplified anticipated (dis-)approval either by oneself or by others and thus falls into the category of “social risk” (Weber, Blais, & Betz, 2002). Accordingly, any atypical attitude, decision, choice, or action may come with the expectation that pleasure or regret and similar emotional reactions to varying outcomes will be more pronounced under low consensus. From this perspective, it seems straightforward to predict that individuals may opt for the minority position whenever they tend toward risk in a given context.

Research on minority influence under high NfU (and presumably under risk preference) goes considerably beyond previous work on minority influence, because in our approach minority status is not regarded as an inevitable negative feature of the influence agent. Other models of minority influence discuss conditions that foster minority influence *despite* the drawback that minorities represent positions of low consensus. If minority status is

regarded as negative by default, it makes little sense to study conditions where minority status appears attractive to targets. And yet, we have good reasons to challenge the notion that minority status inevitably denotes a negative feature. The research presented above demonstrates that specifiable conditions render minorities influential *because* they represent sources of low consensus. Such conditions increase the influence of low consensus sources on the focal issue (and not only on related issues). At the same time, such conditions reduce the influence of high consensus sources, thus – technically speaking – producing an interaction effect with consensus information in their impact on the final judgments (Erb & Bohner, 2010).

From this perspective, variables that likely produce mere main effects for minorities and majorities alike (and presumably other sources of influence as well) should not be regarded as viable explanatory constructs for minority influence. For example, behavioral consistency was ascribed major explanatory relevance in Moscovici's (1980) CT. However, consistency also played a major role in Asch's (1956) experiments on majority influence. The same considerations hold for factors such as identification with the influence group (e.g., David & Turner, 2001), strong arguments (e.g., Baker & Petty, 1994), position distinctiveness (Bohner et al., 1996, 1998), and a host of other variables that *generally* increase influence – independent of the agent's group size.

With reference to the distinction of mind *vs.* matter, our research (Erb et al., 2015; Hellmann et al., 2015; Imhoff & Erb, 2009) provides examples for conditions under which the minority position in itself may appear more attractive to targets than does the majority position. It does not only invalidate the idea that minority status is invariably a negative feature of an influence group. Instead, this research demonstrates that the target appears to react more flexibly to the exposure of minority source information. What seems to be decisive is not the *matter* in terms of a low consensus stimulus, but the *mind* in terms of how the low

consensus stimulus is subjectively perceived, processed, and used as subjectively relevant evidence to form a judgment.

Besides these theoretical considerations, it may be worthwhile to consider the findings presented here in terms of their application potential as well (see also Erb & Bohner, 2010). Often (and in most cases successfully), attempts by marketing professionals to alter targets' attitudes feature information that a majority of others already share the proposed position (Erb, 1998). However, these professionals would do well to consider uniqueness strivings, referring to individual dispositions as well as particular situations when distinctiveness is highly valued. The present discussion suggests that a "high consensus implies correctness" strategy may be ill-advised if other aspects of the influence situation promote, for example, targets' striving for uniqueness, individual risk preferences, or some other condition yet to be discovered in future research (see Chan, Berger, & Van Boven, 2012). Reasoning in terms of "mind" instead of "matter" may result in a more fine-grained analysis of the influence situation and hence be useful in generating more tailor-made influence attempts.

Conclusion

We began this chapter with an extensive discussion of several distinctions in stimuli that are present in minority influence situations. These distinctions were often portrayed as dichotomies, such as the concept of "normative" vs. "informational" influence (Deutsch & Gerard, 1955), "compliance" vs. "conversion" (Moscovici, 1980), and "extensive argument processing" vs. "superficial cue processing" (Chaiken et al., 1989; Petty & Cacioppo, 1986). Judging by their popularity, these distinctions appear to be important and more or less self-evident. And yet, we have presented a number of theoretical considerations as well as some empirical evidence that thinking in terms of these dichotomies, however tempting their simplicity, may lead to the erroneous perception that individual reactions are generally the

function of the stimuli presented in the influence situation – the “matter” in terms of the present discussion. The huge advancement that this kind of reasoning has generated notwithstanding, we have presented an alternative that rests more on considerations of when and how the individual will react in response to minority influence – the “mind”, respectively.

To that end, we have described evidence that individuals do not always attend to minority source information (Hellmann & Erb, 2015a, 2015b). According to that research, targets use consensus information as an abstract standard of comparison in order to assess their individual attitudes in light of the attitudes of “those others out there”. Future research may find other conditions that (de-)motivate potential targets of minority influence to pay attention to consensus information. Simply providing consensus information does not come with the guarantee that targets of social influence will process this information and use it to form their judgments. With reference to the distinction between cues and arguments, it seems fair to conclude that even a very simple consensus cue may go unutilized when targets find it irrelevant.

We have also presented evidence that even when targets become aware of the minority status of an influence agent they may well react positively, depending on the circumstances (Erb et al., 2015; Hellmann et al., 2015; Imhoff & Erb, 2009). These findings diverge from one of CT’s assumptions, namely, that minority status is regarded as a negative feature of an influence source and that minorities need compensating factors to exert their influence (Moscovici, 1980).

The guiding principle behind the two lines of research presented here is the assumption that stimulus characteristics are *not* the same as individual reactions. Instead, we propose to reason in terms of how and under what conditions a given stimulus – the minority status of the influence agent in the present context – will interact with the state of the

perceiver's mind (see Erb et al., 2003; Kruglanski, Erb, Pierro, Mannetti, & Chun, 2006). In order to form a judgment, the individual will use information that she or he will find relevant in the given situation. One relevant piece of information *may* be the minority status of the influence agent, but this is not necessarily so (Hellmann & Erb, 2015a, 2015b).

Thus, an important question to answer is what exactly a target finds relevant in a given situation. A possible answer to this question may be found in the idea that subjective relevance is high whenever a target finds background knowledge that allows drawing conclusions from the information given (Erb et al., 2003; Kruglanski et al., 2006). For example, a person with a high NfU may encounter the information that “a minority of others” favors a certain attitudinal position. Given the background knowledge that “minorities represent what only few others think or do” the individual will likely come up with a favorable judgment because subscribing to the minority view will foster his or her self-perception as a unique person. Such an outcome would represent a form of “motivated reasoning” (Kruglanski, 1999; Kunda & Sinclair, 1999) in that a motivational bias toward uniqueness enhances the use of low consensus information. This in turn, yields the desired conclusion to be special and distinct from others in the sense of *uniqueness theory* (Snyder & Fromkin, 1977, 1980).

Viewed from such a perspective, the distinction between normative and informational influence (Deutsch & Gerard, 1955) becomes a question of motivation energized by two distinct motives. On the one hand, normative influence meets the need to belong (Baumeister & Leary, 1995) and to maintain a positive social identity (Tajfel, 1981; Tajfel & Turner, 1979). Holding attitudes in accordance with one's in-group will produce a feeling of social belonging and enhance the individual's self-image. Informational influence, on the other hand, seems to be related to motives like holding an accurate view of the world (e.g., Chaiken et al., 1989) and possibly related motivations like experiencing accountability (Tetlock, 1985),

a high need for cognition (Cacioppo & Petty, 1982), or a low need for cognitive closure (Kruglanski & Webster, 1996). And yet, the normative–informational distinction refers only to a limited number of motives with potential impact in minority influence situations. The effects of NfU, for example, are difficult to subsume under this dichotomy: Even if one – debatably – categorizes NfU in the same class with the abovementioned motives relating to others, minority influence as a consequence of high NfU does not necessarily have to be normative.

Similar difficulties arise when we try to subsume our findings regarding the NfU construct under the umbrella of CT’s distinction between compliance and conversion. Although it seems reasonable that the initial pro-minority judgment may well be followed or even justified by “conversion” (see Prislin & Wood, 2005, for a discussion of potentially underlying mechanisms), the term “conversion” appears to be wrong as a characterization of the presumed motivational mechanism driving this effect. Neither was a conflict in operation, nor was high-effort processing of content-related information necessary to produce the effect, nor was the influence “indirect” in the sense that it would have been displaced to “related” issues (cf. Mugny, 1982).

We conclude that the distinctions of cues *vs.* arguments, normative *vs.* informational influence, and compliance *vs.* conversion describe only a subset of countless other surface factors potentially present in minority influence situations. These dichotomies refer to different types of information the target may or may not use to form a judgment depending on a number of conditions. One such condition is the perceived relevance of a given piece of information, as discussed above. Other conditions include the target’s willingness and ability to invest cognitive effort in processing such potentially relevant information. Some information may require less effort because it is simple, brief, highly salient, and so forth, whereas other information may require high effort because it is complex, lengthy, non-salient

etc. Another condition refers to the motivational biases that make targets prone to the use of information that satisfies their momentary needs. It may turn out in future research that reasoning in terms that focus on the target's mind more than on the only seemingly compelling characteristics of the present stimuli will broaden our understanding of minority influence phenomena.

References

- Asch, S. E. (1956). Studies of independence and conformity: A minority of one against a unanimous majority. *Psychological Monographs*, *70*, 1–70.
- Baker, S. M., & Petty, R. E. (1994). Majority and minority influence: Source-position imbalance as a determinant of message scrutiny. *Journal of Personality and Social Psychology*, *67*, 5–19.
- Bassili, J. N. (2003). The minority slowness effect: Subtle inhibitions in the expression of views not shared by others. *Journal of Personality and Social Psychology*, *84*, 261–276.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497–529.
- Bohner, G., Dykema-Engblade, A., Tindale, R. S., & Meisenhelder, H. (2008). Framing of majority and minority source information in persuasion: When and how “consensus implies correctness”. *Social Psychology*, *39*, 108–116.
- Bohner, G., Erb, H.-P., Reinhard, M.-A., & Frank, E. (1996). Distinctiveness across topics in minority and majority influence: An attributional analysis and preliminary data. *British Journal of Social Psychology*, *35*, 27–46.
- Bohner, G., Frank, E., & Erb, H.-P. (1998). Heuristic processing of distinctiveness information in minority and majority influence. *European Journal of Social Psychology*, *28*, 855–860.
- Bohner, G., Moskowitz, G. B., & Chaiken, S. (1995). The interplay of heuristic and systematic processing of social information. *European Review of Social Psychology*, *6*, 33–68.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, *17*, 475–482.
- Brickman, P., & Bulman, R. J. (1977). Pleasure and pain in social comparison. In J. M. Suls, & R. L. Miller (Eds.), *Social comparison processes: Theoretical and empirical perspectives* (pp. 149–186). Washington, DC: Hemisphere.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, *42*, 116–131.
- Carver, C. S. (2003). Self-awareness. In M. R. Leary, & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 179–196). New York, NY: Guilford Press.
- Chaiken, S. (1980). Heuristic versus systematic processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology*, *39*, 752–766.
- Chaiken, S., Liberman, A., & Eagly, A. H. (1989). Heuristic and systematic information processing within and beyond the persuasion context. In J. S. Uleman, & J. A. Bargh (Eds.), *Unintended thought* (pp. 212–252). New York, NY: Guilford.
- Chan, C., Berger, J., & Van Boven, L. (2012). Identifiable but not identical: Combining social identity and uniqueness motives in choice. *Journal of Consumer Research*, *39*, 561–573.

- Corcoran, K., & Mussweiler, T. (2009). The efficiency of social comparisons with routine standards. *Social Cognition, 27*, 939–948.
- Crano, W. D. (2001). Social influence, social identity, and ingroup leniency. In C. K. W. De Dreu, & N. K. De Vries (Eds.), *Group consensus and minority influence: Implications for innovation* (pp. 122–143). Oxford, UK: Blackwell.
- Crano, W. D. (2010). Majority and minority influence in attitude formation and attitude change: Context/categorization – leniency contract theory. In R. Martin, & M. Hewstone (Eds.), *Minority influence and innovation: Antecedents, processes and consequences* (pp. 53–77). Hove, UK: Psychology.
- Crano, W. D., & Chen, X. (1998). The leniency contract and persistence of majority and minority influence. *Journal of Personality and Social Psychology, 74*, 1437–1450.
- Darke, P., Chaiken, S., Bohner, G., Einwiller, S., Erb, H.-P., & Hazlewood, D. (1998). Accuracy motivation, consensus information, and the law of large numbers: Effects on attitude judgment in the absence of argumentation. *Personality and Social Psychology Bulletin, 24*, 1205–1215.
- David, B., & Turner, J. C. (2001). Majority and minority influence: A single process self-categorization analysis. In C. K. W. De Dreu, & N. K. De Vries (Eds.), *Group consensus and minority influence: Implications for innovation* (pp. 91–121). Oxford, UK: Blackwell.
- De Dreu, C. K. W. (2007). Minority dissent, attitude change, and group performance. In A. R. Pratkanis (Ed.), *The science of social influence: Advances and future progress* (pp. 247–270). New York, NY: Psychology.
- DeMarree, K. G., Petty, R. E., & Briñol, P. (2007). Self and attitude strength parallels: Focus on accessibility. *Social and Personality Psychology Compass, 1*, 441–468.
- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational influences upon individual judgement. *Journal of abnormal and Social Psychology, 51*, 629–636.
- De Vries, N. K., De Dreu, C. K. W., Gordijn, E., & Schuurman, M. (1996). Majority and minority influence: A dual role interpretation. *European Review of Social Psychology, 7*, 145–172.
- Dickel, N., & Bohner, G. (2012). Minority and majority influence on attitudes. In G. Rossi (Ed.), *Psychology* (pp. 249–271). Zagreb, Croatia: InTech.
- Ditto, P. H., & Jemmot, J. B. (1989). From rarity to evaluative extremity: Effects of prevalence information on evaluations of positive and negative characteristics. *Journal of Personality and Social Psychology, 57*, 16–26.
- Duval, S., & Wicklund, R. A. (1972). *A theory of objective self-awareness*. New York, NY: Academic Press.
- Erb, H.-P. (1998). Sozialer Einfluss durch Konsens: Werbung mit Meinungsübereinstimmung. *Zeitschrift für Sozialpsychologie, 29*, 156–164.
- Erb, H.-P., & Bohner, G. (2007). Social influence and persuasion: Recent theoretical developments and integrative attempts. In K. Fiedler (Ed.), *Frontiers of social psychology: Social communication* (pp. 191–221). New York, NY: Psychology.

- Erb, H.-P., & Bohner, G. (2010). Consensus as the key: Towards parsimony in explaining minority and majority influence. In R. Martin, & M. Hewstone (Eds.), *Minority influence and innovation: Antecedents, processes and consequences* (pp. 79–103). Hove, UK: Psychology.
- Erb, H.-P., Bohner, G., Rank, S., & Einwiller, S. (2002). Processing minority and majority communications: The role of conflict with prior attitudes. *Personality and Social Psychology Bulletin*, *28*, 1172–1182.
- Erb, H.-P., Bohner, G., Schmälzle, K., & Rank, S. (1998). Beyond conflict and discrepancy: cognitive bias in minority and majority influence. *Personality and Social Psychology Bulletin*, *24*, 620–633.
- Erb, H.-P., Bohner, G., Werth, L., Hewstone, M., & Reinhard, M.-A. (2006). Large minorities and small majorities: Interactive effects of inferred and explicit consensus on attitudes. *Basic and Applied Social Psychology*, *28*, 222–231.
- Erb, H.-P., Hilton, D. J., Bohner, G., & Roffey, L. (2015). The minority decision – A risky choice. *Journal of Experimental Social Psychology*, *57*, 43–50.
- Erb, H.-P., Kruglanski, A. W., Chun, W. Y., Pierro, A., Mannetti, L., & Spiegel, S. (2003). Searching for commonalities in human judgment: The parametric unimodel and its dual-model alternatives. *European Review of Social Psychology*, *14*, 1–47.
- Fazio, R. H. (1995). Attitudes as object-evaluation associations: Determinants, consequences, and correlates of attitude accessibility. In R. E. Petty, & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 247–282). Mahwah, NJ: Erlbaum.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*, 117–140.
- Gardikiotis, A., Martin, R., & Hewstone, M. (2005). Group consensus in social influence: Type of consensus information as a moderator of majority and minority influence. *Personality and Social Psychology Bulletin*, *31*, 1163–1174.
- Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: Development and validation of a measure of social comparison orientation. *Journal of Personality and Social Psychology*, *76*, 129–142.
- Glaser, T., Dickel, N., Liersch, B., Rees, J., Süßenbach, P., & Bohner, G. (2015). Lateral attitude change. *Personality and Social Psychology Review*, *19*, 257–276.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R. F. Baumeister (Ed.), *Public self and private self* (pp. 189–212). New York, NY: Springer.
- Guimond, S. (Ed.) (2006). *Social comparison and social psychology: Understanding cognition, intergroup relations and culture*. Cambridge, UK: University Press.
- Hellmann, D. F., & Erb, H.-P. (2015a). *Antecedents and consequences of processing survey results*. Manuscript submitted for publication.
- Hellmann, D. F., & Erb, H.-P. (2015b). *Abstract standards of comparison – Why people attend to survey results (and what happens if they do)*. Manuscript in preparation.
- Hellmann, D. F., Imhoff, R., & Erb, H.-P. (2015). *Motives for nonconformity: Need for uniqueness leads to minority influence*. Manuscript in preparation.

- Imhoff, R., & Erb, H.-P. (2009). What motivates nonconformity? Uniqueness seeking blocks majority influence. *Personality and Social Psychology Bulletin*, *35*, 309–320.
- Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska symposium on motivation* (Vol. 15, pp. 192–238). Lincoln, NE: University of Nebraska Press.
- Kruglanski, A. W. (1999). Motivation, cognition, and reality: Three memos for the next generation of research. *Psychological Inquiry*, *10*, 54–58.
- Kruglanski, A. W., Erb, H.-P., Pierro, A., Mannetti, L., & Chun, W. Y. (2006). On parametric continuities in the world of binary either ors. *Psychological Inquiry*, *17*, 153–165.
- Kruglanski, A. W., & Maysseless, O. (1987). Motivational effects in the social comparison of opinions. *Journal of Personality and Social Psychology*, *53*, 834–842.
- Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: “Seizing” and “freezing”. *Psychological Review*, *103*, 263–283.
- Kunda, Z., & Sinclair, L. (1999). Motivated reasoning with stereotypes: Activation, application, and inhibition. *Psychological Inquiry*, *10*, 12–22.
- Latané, B., & Wolf, S. (1981). The social impact of majorities and minorities. *Psychological Review*, *88*, 438–453.
- Levine, J. M. (1980). Reaction to opinion deviance in small groups. In P. B. Paulus (Ed.), *Psychology of group influence* (pp. 375–429). Hillsdale, NJ: Erlbaum.
- Lutkehaus, N. C. (2008). *Margaret Mead: The making of an American icon*. Princeton, NJ: University Press.
- Mackie, D. M. (1987). Systematic and nonsystematic processing of majority and minority persuasive communications. *Journal of Personality and Social Psychology*, *53*, 41–52.
- Martin, R. (1998). Majority and minority influence using the afterimage paradigm: A series of attempted replications. *Journal of Experimental Social Psychology*, *34*, 1–26.
- Martin, R., Gardikiotis, A., & Hewstone, M. (2002). Levels of consensus and majority and minority influence. *European Journal of Social Psychology*, *32*, 645–665.
- Martin, R., & Hewstone, M. (2008). Majority versus minority influence, message processing and attitude change: The source-context-elaboration model. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 40, pp. 237–326). San Diego, CA: Academic Press.
- Maslach, C. (1974). Social and personal bases of individuation. *Journal of Personality and Social Psychology*, *29*, 411–425.
- McGarty, C., Turner, J., C., Oakes, P. J., & Haslam, S. A. (1993). The creation of uncertainty in the influence process: The roles of stimulus information and disagreement with similar other. *European Journal of Social Psychology*, *23*, 17–38.
- Moscovici, S. (1976). *Social influence and social change*. London, UK: Academic Press.
- Moscovici, S. (1980). Toward a theory of conversion behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6, pp. 149–202). New York, NY: Academic Press.

- Moskowitz, G. B. (1996). The mediational effects of attributions and information processing in minority social influence. *British Journal of Social Psychology*, *35*, 47–66.
- Moskowitz, G. B., & Chaiken, S. (2001). Mediators of minority social influence: Cognitive processing mechanisms revealed through a persuasion paradigm. In C. K. W. De Dreu, & N. K. De Vries (Eds.), *Group innovation. Fundamental and applied perspectives* (pp. 60–90). Oxford, UK: Blackwell.
- Mucchi-Faina, A., Pacilli, M. G., & Pagliaro, S. (2011). Automatic reactions to the labels “minority” and “majority” are asymmetrical: Implications for minority and majority influence. *Social Influence*, *6*, 181–196.
- Mugny, G. (1982). *The power of minorities*. London, UK: Academic Press.
- Mugny, G., Kaiser, C., Papastamou, S., & Pérez, J. A. (1984). Intergroup relations, identification and social influence. *British Journal of Social Psychology*, *23*, 317–322.
- Mugny, G., & Papastamou, S. (1982). Minority influence and psycho-social identity. *European Journal of Social Psychology*, *12*, 379–394.
- Nemeth, C., & Goncalo, J. A. (2005). Influence and persuasion in small groups. In T. C. Brock, & M. C. Green (Eds.), *Persuasion: Psychological insights and perspectives* (pp. 81–116). Thousand Oaks, CA: Sage.
- Nemeth, C., Swedlund, M., & Kanki, B. (1974). Patterning of the minority’s responses and their influence on the majority. *European Journal of Social Psychology*, *4*, 53–64.
- Nowak, A., Szamrej, J., & Latané, B. (1990). From private attitude to public opinion: A dynamic theory of social impact. *Psychological Review*, *97*, 362–376.
- Pérez, J. A., & Mugny, G. (1987). Paradoxical effects of categorization in minority influence: When being an outgroup is an advantage. *European Journal of Social Psychology*, *17*, 157–169.
- Petty, R. E., & Cacioppo, J. T. (1981). *Attitudes and persuasion: Classic and temporary approaches*. Dubuque, IA: Brown.
- Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 123–203). New York, NY: Academic Press.
- Prislin, R., & Wood, W. (2005). Social influence: The role of social consensus in attitudes and attitude change. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes and attitude change* (pp. 671–706). Hillsdale, NJ: Erlbaum.
- Rosenblatt, A., Greenberg, J., Solomon, S., Pyszczynski, T., & Lyon, D. (1989). Evidence for terror management theory I: The effects of mortality salience on reactions to those who violate or uphold cultural values. *Journal of Personality and Social Psychology*, *57*, 681–690.
- Rüter, K., & Mussweiler, T. (2005). Bonds of friendship: Comparative self-evaluations evoke the use of routine standards. *Social Cognition*, *23*, 137–160.
- Schumpe, B. M., & Erb, H.-P. (2015). Humans and uniqueness. *Science Progress*, *98*, 1–11.
- Snyder, C. R., & Fromkin, H. L. (1977). Abnormality as a positive characteristic: The development and validation of a scale measuring need for uniqueness. *Journal of Abnormal Psychology*, *86*, 518–527.

- Snyder, C. R., & Fromkin, H. L. (1980). *Uniqueness, the human pursuit of difference*. New York, NY: Pelnum.
- Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*. Cambridge, UK: University Press.
- Tajfel, H., & Turner J. C. (1979). An integrative theory of intergroup conflict. In S. Worchel, & W. G. Austin (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks/Cole.
- Tetlock, P. E. (1985). Accountability: A social check on the fundamental attribution error. *Social Psychology Quarterly*, *48*, 227–236.
- Thoben, D. F. (2012). *Bedingungen und Konsequenzen der Rezeption von Konsensinformation in Form von Umfrageergebnissen* (Doctoral thesis). Hamburg: Helmut-Schmidt-University.
- Turner, J. C. (1991). *Social influence*. Pacific Grove, CA: Brooks/Cole.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Blackwell.
- Turner, J. C., & Oakes, P. J. (1989). Self-categorization and social influence. In P. B. Paulus (Ed.), *The psychology of group influence* (pp. 233–275). Hillsdale, NJ: Erlbaum.
- Weber, E. U., Blais, A.-R., & Betz, N. E. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making*, *15*, 263–290.
- Wood, J. V., & Wilson, A. E. (2003). How important is social comparison? In M. R. Leary, & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 344–366). New York, NY: Guilford.
- 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.
- Zhu, R., & Argo, J. J. (2013). Exploring the impact of various shaped seating arrangements on persuasion. *Journal of Consumer Research*.