RESEARCH ARTICLE

Reflections on Gabriel Mugny's Contributions to Attitude-Centric Theory and Research on Minority Influence

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Pérez and Mugny (1987) extended the scope of minority influence research in a classic study that explicitly drew a distinction between in-group and out-group minority influence sources and their effects on majority acceptance. Their study also refocused the field from a social influence, perception-oriented view to a more dynamic persuasion, attitude-centric orientation. This paper reflects upon the generative nature of the original research, and that which followed, with a reflection on its impact on our own theorizing and research. The current work is focused on factors that affect the fundamental processes of minority influence, as viewed from the perspective of the leniency contract. Important factors considered in the model include (a) the in-group or out-group nature of the influence source, (b) the subjective or objective features of the judgment task, (c) the role of conflict with, and accommodation to the minority, (d) the genesis and potential outcome of indirect change effects on focal attitudes in response to persuasive minority communications and (e) the importance and utility of considering the structural interconnections among attitudes, and their implications for focal attitude change. Research by Mugny and his colleagues stimulated these and other important features of contemporary scholarship on minority influence. Progress and understanding of the intriguing minority-induced change process, a clear departure from the classic majority-based persuasion model, owes a great debt to Gabriel Mugny and his team of talented collaborators.

Keywords: Minority influence; Indirect influence; In-group minority; Out-group minority

Contemporary interest in minority influence is attributable to the pioneering work of Serge Moscovici, whose early theoretical positions and research on the effects of the minority on majority group perceptions produced results at odds with expectations based on the canons of classic persuasion theory (Hovland, Janis, & Kelley, 1953; McGuire, 1985a, 1985b). His approach was designed to advance understanding of ways minorities affected the majority, an issue rarely considered in prior research. His results could not be derived from the standard approaches, which involve powerful sources, receptive audiences, and one-way source-to-receiver communications. Moscovici's work, and that of his European colleagues (along with Nemeth), energized the field and advanced the study of social influence (Moscovici & Nemeth, 1974). Moscovici showed that the reported perceptions of minority group members, when in conflict with those of the majority, could influence the majority group's judgments. This influence was evident even in contexts involving the manipulation

Claremont Graduate University, US Corresponding author: Eusebio M. Alvaro (eusebio.alvaro@cgu.edu) of fundamental color perceptions (Moscovici & Lage, 1976; Moscovici, Lage & Naffrechoux, 1969).

Moscovici's early minority influence research was based on the "blue-green" paradigm, in which obviously blue slides were apparently perceived as green by a minority of (confederate) respondents. Over a series of judgments, the minority's consistent, if obviously incorrect responses came to have a measurable influence on the responses of participants from the naïve majority.¹ The blue-green paradigm drew inspiration from the conformity research of Solomon Asch (1956, 1961). The two models involve a challenge to subjects' perceptual judgments: in Asch's case, participants were assigned the role of the minority; in Moscovici's research, they were in the majority. Both paradigms took the form of a "quasi-physical judgment" on the "latent modifications in the perceptual-cognitive code" in response to others' judgmental reports (Moscovici & Lage, 1976, p. 149). Notably, in both research series, the defection of even one person in the influence group defused all social influence.

The influence sources were effective in both paradigms, although in Asch's studies it was not clear if participants' reports matched their perceptions, owing to the social pressure the majority group (all confederates) may have exerted on the respondent, a minority of one (Crano, 1970). Moscovici's methodology improved upon Asch's, insofar as his studies were substantially less susceptible to claims of experimental demand than those of Asch. Moscovici's paradigm shielded respondents from demand, and his blue-green work reflects his concern with measurement validity (Brewer & Crano, 2014). Later studies by Mugny (1984) refined the Asch approach and extended the research to factors that affected the indirect effects of minorities on majority respondents.

Although objections have been raised regarding some of the early perceptual studies, this stream of research served two invaluable purposes. First, the studies facilitated theoretical development and interest in the construct of indirect influence. Second, they provided valuable methodological models – in terms of measurement validity and the operationalization and examination of indirect effects. Moscovici's approach, comparable to that innovated by a long-neglected study of Hood and Sherif (1962), emphasized the necessity of obtaining valid selfreport data in the face of strong social pressure.

A Limitation of Perception-based Social Influence Research

The foundational work in minority influence was set firmly in the domain of conformity – one of the many features of the broader study of social influence. The examination of the impact of social actors and forces on individual perceptions and behaviors has a rich history in psychology (e.g. Crano & Prislin, 2006; Cialdini & Goldstein, 2004), with theory and research addressing obedience, conformity, and compliance gaining. As a starting point for minority influence research, it was well chosen. Nonetheless, the dependence on perceptual judgments in the blue-green paradigm limited the reach of early minority influence research. Although it attracted considerable interest and controversy, ways to apply and generalize this research to substantive concerns were not always readily evident. The gulf between conflicting judgments of blue vs. green spheres projected onto a screen, to crucial social issues like ethnic cleansing, group discrimination and segregation - obviously relevant to minority wellbeing and survival, was not easily traversed. To appeal to a wider audience, it was necessary that research on minority influence be expanded beyond the perception-focused social influence paradigm, to issues involving meaningful persuasion on critical substantive beliefs, attitudes, intentions and behaviors - social psychology's heart and soul (Allport, 1935).

In our view, minority influence research attains its greatest relevance and application to social change in the realm of persuasion. Persuasion is an intentionally achieved change in a target's attitudes that is achieved via the elaboration of a written or verbal communication or image. It assumes a context in which the target is confronted by a communication contrary to existing beliefs (Crano & Prislin, 2006). Given satisfaction of certain requisites, resulting behavior changes are effected by, and based on, an individual's changed attitudes, and as such are more enduring than those arising from simple social pressures studied in obedience or conformity research. In social influence research, changes often are accomplished by simple messages (e.g., "blue" or "green") that do not require complex judgmental processes involving the elaboration of information contained in more complex verbal or written communication (e.g., Crano, 1970, 2000a; Petty, Wegener & Fabrigar, 1999; Priester & Petty, 2003).

With the move from the perceptual to the social behavioral laboratory, the phenomenon of minority influence and its implications for the conduct of human interaction in the face of conflict – for surely minority influence involves conflict between the haves and the havenots - became clear (Crano & Seyranian, 2007; Moscovici, 1994; Moscovici, Mugny & Pérez, 1985; Moscovici & Pérez, 2007; Mugny & Pérez, 1988). Changing the focus from social influence to persuasion, from perception to attitude, extended the breadth of phenomena that could be studied and created the fertile ground for today's minority influence research (Crano, 2010, 2012; Crano & Alvaro, 2013, 2014; Crano & Seyranian, 2007, 2009; R. Martin & Hewstone, 2008; R. Martin, Hewstone, P. Martin, & Gardikiotis, 2008). The move from a focus on reports of perceptual judgments to the more complex study of attitude change in response to meaningful persuasive communications, which involve elaboration of complex verbal or text-based communications, strongly enhanced the utility, applicability, and relevance of minority influence research to important social issues.

Key Results of Minority Influence Research: Delayed and Indirect Effects

Two noteworthy and remarkable results occurred. if irregularly, in the early days of minority influence research. They provoked the interest of many social psychologists and facilitated the impressive growth of research on minority influence (Crano, 2000b, 2010; Crano & Hemovich, 2011; Crano & Seyranian, 2007). One of these unusual results involved the delayed effects of the minority communication on majority attitudes (Crano & Chen, 1998; Mugny & Pérez, 1991; Tafani, Souchet, Codaccioni & Mugny, 2003; Wood, Lundgren, Ouellette, Busceme & Blackstone, 1994). A common, though not universal finding was that the minority's effect on a targeted attitude, when it occurred, often was not evident until after some time had passed between the influence intervention and the measurement of effects. The noteworthy feature of these findings is that the delayed effect on the focal attitude, as it has come to be called, occurred in the absence of an immediate acquiescent attitudinal response to the minority source's message. This result was not commonly found in the standard (i.e., majority-based) social influence research.

A second remarkable finding not anticipated by classic theories of persuasion involved findings of immediate persuasive effects of minorities on issues related, but not identical to the focus of the minority's appeal. In this research, the minority was found to influence not the focal, targeted attitude, but attitudes that were associated with it – even though the "indirect" attitude object might

never have been mentioned in the minority's persuasive appeal. This indirect change occurred in the absence of any movement of the focal attitude (Aebischer, Hewstone & Henderson, 1984; Alvaro & Crano, 1996; Gardikiotis, 2011; R. Martin & Hewstone, 2001; Mucchi-Faina & Pagliaro, 2008). It is difficult to know if indirect changes also might have occurred in majority-based social influence research, because a one-dependent-variableat-a-time model characterized the standard operating procedures of this paradigm, probably retarding insight into the interconnected nature of attitude systems (Crano & Lyrintzis, 2015).

The concept of indirect influence was central to Mugny's examination and understanding of minority influence (Mugny & Pérez, 1991; Pérez & Mugny, 1987). Our own explanatory model of indirect influence also accords a key role to indirect influence (Alvaro & Crano, 1996, 1997; Crano, 2001, 2010; Crano & Alvaro, 1998a, 1998b, 2013, 2014). Prior to Mugny, indirect influence – whether the term was used explicitly or not - was operationalized in different ways. For example, in their social influence perceptual judgment research, Moscovici and Personnaz (1980) conceptualized indirect influence as the reported difference in a perceptual afterimage (rather than the color of the slide itself) following exposure to a minorityendorsed judgment about the color of a projected slide. Aebischer and colleagues' (1984) examination of aesthetic judgments was an early study that assessed indirect minority influence outside the perceptual judgment context. It was concerned with musical preferences. Their view of indirect influence involved a self-reported musical preference that arguably was in line with, but not precisely that of a minority source. The research found greater acceptance of "contemporary" music following exposure to a minority-indicated preference for "hard rock." In the same period. Nemeth and colleagues were embarked on research investigating the role of minority and majority sources on creativity (Nemeth, 1986; Nemeth & Kwan, 1985, 1987). For them, indirect influence typically was operationalized as the manifestation of novel approaches in problem solving (vs. the exact approach advocated by a majority source).

Within this emerging tapestry of research examining the nature and effects of minority advocacy, Perez and Mugny (1987) embarked on their now-classic study that explicitly addressed *indirect* attitude change in response to minority influence. Mugny and his collaborators had conducted earlier examinations into minority influence in the context of attitude change (e.g., Mugny, 1975; Mugny, Kaiser, Papastamou & Pérez, 1984), but they had not explicitly addressed indirect attitude change. In Pérez and Mugny's (1987) work, indirect influence was operationalized as attitude change toward an object or issue that was related, but not identical to the focal issue addressed in a source's communicative appeal. As Mugny and Pérez (1991, p. 47) stated, "By indirect influence we mean a change in the position of subjects on issues the minority did not explicitly address when delivering its message."

The concept of indirect attitude change opened intriguing avenues for theory and research in persuasion,

and has become a staple in this growing literature (R. Martin, et al., 2008; Wood, 2000; Wood et al., 1994). This minority-inspired revolutionary view of the very nature of influence has met with consistent replication and growth in theory development, adding considerably our understanding of persuasion processes. to Intriguingly, and somewhat disconcertingly, the concept of indirect change has found little foothold in the broader persuasion literature. Minority influence researchers' conceptualization of attitude change fosters consideration of attitude change as operating within a context of multiple linked attitudes. This structural view promises to broaden our understanding of persuasion processes. An additional and not insignificant benefit is that it comports with our understanding of belief systems.

Mugny on Indirect Influence

Let us turn to a more detailed examination of Mugny's foundational view of indirect influence on attitudes. highlighting two core concepts that underlie his, as well as our views of minority influence. The interweaving of these two key elements helps elucidate minority-induced change. The first of these concepts involves a view of attitude change based on elaborated cognitive processing. From this perspective, message receivers are fully engaged in conflict of a cognitive nature, involving the beliefs they hold and the contradictory position advocated by a minority source. Under appropriate contextual conditions, this conflict arouses a need for consequent resolution involving self-aware cognitive effort in a search for understanding and the construction of meaning. This search involves consideration of characteristics of both the source and its message. The second foundational concept has to do with a conception of the structural relationships that exist among attitudes. For Mugny, individual attitudes are seen as linked semantically to one another; for linked attitude objects, "one and the same principle of a more general scope must underlie them" (Mugny & Pérez, 1991, p. 75).

The existence of an organizing principle is a crucial feature of Mugny's theorizing. Influence in the context of such inter-attitudinal relationships implies that an individual has engaged in an "inferential cognitive activity of a constructivist nature" (Mugny & Pérez, 1991, p. 48), whereby a message receiver has discovered and constructed or identified the principle underlying the minority's position. A coherent organizing principle evolves as a result of the considerable cognitive energy expended to understand a message source's position, which fosters its validation and paves the way to attitude change on issues implicated, but not addressed, by the source.

A Classic Example of Persuasive Indirect Minority Influence

One of the earliest and most evocative of the indirect change studies in minority influence was reported by Juan Antonio Pérez and Gabriel Mugny (1987), whose research was concerned with the influence of in- and out-group minorities on the attitudes of Spanish high school women toward abortion, an issue on which the majority of the sample held negative attitudes. A number of features of this research deserve consideration. The research represents a clear break with the social influence research tradition that framed the manipulation of apparent perceptual judgments to study minority groups' effects on perceptual reports. In Pérez and Mugny's study, participants' judgments involved a controversial social issue, abortion. The study was significant not merely for the important results it disclosed, but for its extension of research from the investigation of social influence on reported visual perceptions to the more inclusive persuasion template. This study provides an open invitation to social psychologists, concerned with attitude change, to venture into the world of minority group research and to bring the insights of the persuasion laboratory to bear on the complex issues that had been suggested in investigations conducted under the aegis of the perceptual paradigm.

The broad outline of Pérez and Mugny's (1987) investigaton is widely known, but nevertheless bears reconsideration. The study was a 2(Minority source identity: ingroup, outgroup) \times 2(Majority opposition: ingroup, outgroup) repeated measures design with abortion and contraception attitudes as the repeated measures. Following the pretest measures, participants (165 females, 15-18 years of age) were asked to read; 1) a strong message in favor of voluntary abortion (a counter-normative or "minority" position in Spain at the time) attributed to an ingroup (female) or outgroup (male) minority source, then 2) a majority opposition manipulation where five message claims were noted as being opposed by either an ingroup (female) or outgroup (male). Main results regarding direct ("focal") influence on the issue of abortion indicated that focal influence was greater both when the source or the opposition was an outgroup. There was no clear influence due to the in-group minority source. The results are somewhat more intriguing when considering the indirect issue of contraception - an issue related to abortion yet not mentioned in the experimental communication. Here indirect influence appeared strongest for the minority ingroup (vs. outgroup).

The complications introduced for obvious reasons by including only a minority position (vs. both a minority and majority) and by operationalizing ingroup and outgroup status by gender (where subjects were all female) introduces a certain degree of uncertainty in interpretation of these results. Nonetheless, the core issues raised by this foundational study set the stage for new explorations of minortity influence. Measured in terms of focal attitude change, the study showed no evidence of minority influence. However, when an attitude obviously related to abortion (contraception) was assessed, the analysis disclosed a significant change in a direction consistent with the persuasive communication. The message, arguing for a liberalization of abortion, resulted in more liberal attitudes toward contraception among those for whom the persuasive communication was attributed to an in-group minority message source.

Pérez and Mugny's (1987) experiment was one of the early studies to show an indirect attitude change effect in a persuasion (vs. social influence) context. It was a harbinger of research concerned with the persuasive impact of minorities on the majority, but there was more to the study than the indirect change result. The research also emphasized the critical importance of a clear differentiation between in-group and out-group minorities, which much of the early research had confused, using the terms "minority" and "out-group" synonymously. Separating in-group from out-group minorities had been anticipated by the "double minorities" research of Maass and Clark (e.g., Clark & Maass, 1988; Maass & Clark, 1984; Maass, Clark & Haberkorn, 1982). Double minorities typically are attitudinally variant from the majority, and also distinguishable in terms of deviant or non-normative socio-demographic features like race or ethnicity or sexual preference. In their classic experiment, Pérez and Mugny (1987) appealed directly to Tajfel's (1978) distinction between in- and out-groups, thereby disentangling the formerly confounded status of minority group and outgroup. Anticipating later research, Pérez and Mugny (1987) found that the out-group minority had little influence on participants' attitudes toward abortion or contraception, the indirect attitude object.

Alvaro and Crano's Conception of Minority Influence

The key principles underlying Mugny's original views of indirect influence – an interconnected attitudinal network and a strong cognition-contingent information processing perspective – are foundational in our own explanation of minority influence. As soon will become evident, we till similar ground in other regards as well. Our shared concerns have, at least at the broadest levels, facilitated our further consideration of how minority influence may be understood.

A point of departure between our work and Mugny's concerns our conception of the majority as always reflecting the "in-group" (Seyranian, Atuel & Crano, 2008). In our view, there is an asymmetry between majority and minority in terms of in-group/out-group status. The majority defines the in-group; the minority may be either a part of the majority (i.e., an in-group minority) or not (an out-group minority). This renders a formal comparison between our research and Pérez and Mugny's (1987) study difficult, as their "majority out-group" condition is not possible in our formulation. Even so, their minority influence findings were exceptionally thought-provoking, and helped inspire our leniency contract model of minority influence.

Essential to our position is the proposition that attitudes, like memory and knowledge, are arranged in associative networks (Collins & Loftus, 1975; Fazio, Sanbonmatsu, Powell & Kardes, 1986). These networks are characterized by nodes that are interlinked via associative paths that vary in strength (Anderson, 1983; Fazio, 1986; Forgas, 2001; Greene, 1984; Smith, 1994). Given activation of a specific node, the broader network becomes engaged, distributing the initial activation to other nodes in the network. We have discussed how this associative network perspective can explain indirect minority influence in terms of changes on attitudes related to the one explicitly addressed in a persuasive communication (Alvaro & Crano, 1996, 1997; Crano, 2010; Crano & Alvaro, 2013, 2014), as well as delayed change in the focal attitude over time (Crano & Alvaro, 2013; Crano & Chen, 1998). Mugny also viewed these seemingly disparate attitude change phenomena as driven by the same underlying explanatory mechanism.

A second key aspect of Mugny's and our views is the centrality of a cognitive processing orientation in response to minority-based communications. One could argue that such an emphasis is necessarily implied by a structural view of attitudes; indeed, we explicitly link the two. The processing of persuasive communications engages ones' attitudinal network and affects related attitudinal nodes in predictable ways. We invoke the existence of an organizational framework for attitudes, but awareness of its existence and recognition or comprehension of its underlying logic does not necessarily enter into our explanatory calculus. Conceptualizing an associative network of attitudes mitigates the need for the conscious (or even subconscious) determination of an organizing principle underlying the attitudinal network, or the conscious consideration of the relationship between any given set of nodes in that network. In our view, whether during the encoding period as a network is being developed, or during the decoding period when attitudes within the network are being retrieved, a more automatic process is at work. For example, mere focused attention to a message, thereby activating the attitudinal nodes relevant to the message's core issue, activates related attitudes. Individuals do not have control over this process, nor are they necessarily aware of its existence.

Interestingly, both Mugny's and our views of the processes underlying indirect influence start with a consideration of similar motivational bases of cognition, but they diverge in emphasis. The role we ascribe to cognition differs substantively from that offered by Mugny and associates. Adhering to foundational theorizing on minority influence, Mugny ascribes a central motivating role to *conflict*. Obviously, we see resistance to counterattitudinal communications as given, and conflict is the inevitable result of resistance. However, for us, it is not conflict but *leniency* that serves as the gateway for processing the counterattitudinal information proffered by an in-group minority source (Crano, 2000b, 2010; Crano & Alvaro, 1998b, 2013).

It is of genuine interest to us that Mugny and we both start with a consideration of the fundamentals of perception and cognitive information processing, as embedded in early writings of philosophers such as Descartes. This orientation was described by Gilbert (1991), whose reflections on the basic cognitive processes involved in persuasion contrasted Cartesian with Spinozan perspectives. The Cartesian view, highlighted by Mugny and summarized in his nod to Emile-Auguste Chartier ("To think is to say no,"), is that information is assessed for its truth-value as it enters the perceptual system (Mugny & Pérez, 1991, p. 5). At its core, this perspective plays a key role in challenge or conflict, hence its relevance to, and congruence with, Mugny's explanation of indirect influence. It would indeed be an important element in any constructivist process underlying the validation of a minority's position. Such an interest appears central in Mugny's foundational work.

Beginning from the same considerations regarding the centrality of cognitive processing of persuasive messages, we diverge from Mugny in favoring what Gilbert has termed the Spinozan perspective. In this view, incoming information is first accepted as true. Its rejection is predicated upon a resource-heavy cognitive process that follows initial acceptance. To the extent that this "reconsideration" process is forestalled or interrupted, the initial communication enters the receiver's attitudinal network relatively unscathed – that is, with little counterargumentation. Once there, subject to operative features of the persuasive context (e.g., source, message factors, contextual variations that affect elaboration, etc.) and the structural characteristics and properties of the network, it exerts its influence.

This view comports with and gives rise to our proposition that leniency is a central feature of indirect influence, if the source of the attitudinally inconsistent information deserves consideration (i.e., if the contrary source is a member of one's in-group; we will consider minority out-group influence later). In this view, circumventing rigorous argumentation is the mechanism that opens the door to indirect influence. Regarding in-group minorities, an unconscious agreement to attend to a message on a topic lacking strong implications for group entitativity or existence sets the stage for attenuated counterargumentation. Such attenuation fails to reject the "truth value" of the message, thereby allowing a message source's arguments to enter the receiver's attitudinal network relatively unscathed (Crano, 2010; Crano & Alvaro, 1998a, 2013). In our view, this process requires no conscious awareness of the link between attitudes, nor an evolved understanding of a now-validated position.

To examine this perspective in a persuasion context, we turn to a brief consideration of one of our early studies (Alvaro & Crano, 1997). The central finding of this research was that a counterattitudinal message arguing against gays in the military, when attributed to an ingroup (vs. outgroup) minority, significantly changed participants' attitudes toward gun control in a message-consistent direction (i.e., contrary to gun control). No direct (i.e., focal) change was observed in this study. Preliminary research had established the structural linkage of the two issues via multidimensional scaling analysis, and also indicated that participants did not realize the link existed. We had proposed a model wherein an in-group minority was accorded leniency when espousing beliefs that while counter to those held by fellow in-group members were not central to the group's existence.

We assumed a university student would attend to information from fellow students. Upon discovering the counterattitudinal nature of the information (e.g., arguments opposing gays in the military), the student was thought likely to maintain current progressive beliefs; yet, in the interest of group harmony, courtesy, curiosity, etc., the student was expected to attend to the fellow students' statement. If the issue was not central to the group that provides a valuable feature of the student's identity (i.e., the perception of the university as a home of progressive thought), the message was not expected to be strongly counterargued, and its source was not expected to be seriously derided. "Live and let live" may be the operative reaction to foster group maintenance. However, as the Spinozan perspective would suggest, because the message has been elaborated and not actively rejected, it became subject to the operational properties of the attitudinal network. When the issue of gays in the military was recognized, the appropriate attitudinal node was activated - as were associated nodes such as those representing gun control (as suggested in our preliminary research). Direct change was forestalled, but the lenient and uncritical processing style activated by the in-group minority source allowed the new information to impact on related nodes. Moreover, as we proposed and found in later research (Crano & Chen, 1998; Crano & Alvaro, 2013;

Crano & Lyrensis, 2015), this effect on related nodes may destabilize the attitudinal network and, over time, result in a delayed change on the focal issue to restore balance across the attitude structure. The attitude objects (abortion and contraception) at the core of Perez and Mugpy's (1987) study clearly

at the core of Perez and Mugny's (1987) study clearly accommodate a view that a readily discernable and meaningful relationship links the two. Moreover, it follows that conscious consideration of one excites a common underlying position, thereby leading to consideration of the other. This line of reasoning clearly comports with a view of validation as an important element of indirect influence. However, our alternative explanation, which draws on similar underlying principles, accords a key role to leniency. Regardless, exposure to Pérez and Mugny's (1987) interesting and generative research, and the resultant theorizing it supported, was sufficiently intriguing to cause us to explore a more attitude-centric view of indirect influence, rooted equally in concerns of intergroup behavior, the necessity to maintain group coherence and the role of self- aware or non-self-aware cognition in persuasion.

This stream of research had, and continues to have, important implications both for minority influence and for an integration of the more general literature on attitude change and intergroup behavior. These implications led us to a new program of research. However, given our grounding in a Spinozan view of human cognition, as well as a desire to investigate the possibility of a more structural understanding of indirect change (Crano & Lyrintzis, 2015), we took a somewhat different track from Mugny's. Our study series purposely investigated indirect influence using attitude objects with no readily discernable association - as reported by the respondents themselves. This lack of awareness lends support to the possibility that indirect change is a product of leniency toward the communication source, not necessarily a result of conscious efforts at conflict

resolution. Alvaro and Crano's (1997) findings, relating the effects of an anti-gays in the military, conveys a shift to more conservative attitudes toward gun control with rather little counterargumentation of the focal communication of in-group minority sources (see also Crano & Chen, 1998), which indicates that a leniency conception is worthy of serious consideration.

Emphasizing the Source-Receiver Relationship

Another of Mugny's great contributions to the study of minority influence was his insistence that research be focused on features of the influence source. Here we are concerned specifically with the in-group or out-group status of the source and the attendant relationship between the source and the source's intended receiver. Mugny considered these matters early in the history of minority influence research, first in a general sense with Doise (Mugny & Doise, 1979), then more fully in an influential series of studies with Papastamou (Mugny & Papastamou, 1982). The latter served explicitly and elegantly to link minority influence with theory and research on intergroup behavior (Tajfel, 1978; Tajfel, Billig, Bundy & Flament, 1971; Turner, 1985). In these efforts, Mugny recognized the centrality of the in-group or out-group status of message sources. The validation process so central to minority influence theorizing at the time seems, in Mugny's work, to reflect more than a redefinition of a communication source. His focus on the in-group or out-group status of the source, combined with the indirect nature of influence set Pérez and Mugny's (1987) study apart and made it especially influential.

Our research also places the relationship between source and receiver at the forefront of consideration (Alvaro & Crano, 1996, 1997; Crano, 2001, 2010; Crano & Alvaro, 1998a, 1998b, 2013). We believe this approach has much to offer in terms of theory development, insofar as it grounds minority influence research firmly in the rich contexts of intra- and inter-group interaction and persuasion, two research traditions that do not always converse well. Moreover, consideration of the in-group or out-group nature of the source affords considerable clarity when reviewing the diverse body of minority influence research and its often apparently inconsistent outcomes. It is with this dual goal of theoretical development and cohesion that we present some reflections on the interplay between factors that have played a key role in both Mugny's and our thinking on the nature of minority influence. Specifically, we offer our thoughts regarding the impact of an out-group minority's relationship with its own in-group on its capacity to influence others, and the motivational factors that might underlie processing of minority out-group communications. It is important to understand that our reflections are relevant to attitude change settings in which receivers are exposed to sources espousing counterattitudinal positions, not attitude formation contexts, the focus of some earlier research on minority influence effects (e.g., Crano & Hannula-Bral, 1994), because in the latter context, the "standard" rules do not apply.

Judgmental Dynamics and Responses to Sources: Issue Subjectivity or Objectivity

What motivates attention to an out-group minority? Why should one ever attend to an out-group appeal? Our view favors a process that may share some similarities with validation. In our model (Alvaro & Crano, 1997; Crano, 2001, 2010), the subjective or objective nature of the issue under consideration creates different judgmental dynamics in in-group or out-group influence contexts. Generally, out-group minorities are considerably less effective than in-group minorities in moving the majority to their position (Clark & Maass, 1988; Maass & Clark, 1984; Maass et al., 1982; R. Martin & Hewstone, 2008). While not stated explicitly, it is noteworthy that most attitude-centric minority influence research appears to be concerned with subjective issues – with matters of taste or opinion. We have proposed that objective contexts – those in which an objectively valid conclusion can or must be determined - may reduce out-group disadvantage, and may even provide a persuasive advantage. In objective judgment contexts, the out-group may be seen as providing a useful source of cross-validation unsullied by in-group biases (Goethals & Nelson, 1973; Olson, Ellis & Zanna, 1983; Suls & Wheeler, 2012). In these circumstances, its information may be sought out for its diagnostic value (Gorenflo & Crano, 1989; Laughlin & Ellis, 1986). To take advantage of this possibility, outgroup minorities must stress the objective nature of their appeals, and take special precautions to prevent the majority from redefining the issue as one involving subjective judgments (Crano, 2012).

When subjective judgments are at issue, all the familiar intergroup biases can operate, and it becomes far more cognitively efficient to be informed by these biases and dismiss discordant information from out-groups. There is no need to resolve intergroup differences with out-groups on subjective issues, as they are expected, perhaps even desired. However, pressures to maintain the integrity of the group weigh heavily when conflicts with an in-group minority arise, and leniency offers a way to offset the competing pressures of maintaining group entitativity while defending established attitudes. So long as the in-group minority does not threaten the integrity or cohesion of the group, or in other words, its very existence, it will be treated with apparent respect. The in-group minority's message will be granted a platform for discussion, its message will not be strongly counterargued, and its source will not be sharply disparaged. These conditions appear to provide the ideal grounds for persuasion, but experience indicates that groups are not overly susceptible to in-group minority calls for changes of positions on important, much less central group beliefs and practices. Conflicts with in-group minorities are allayed through an implied contract – which we have termed the leniency contract - in which the majority's largess comes at the cost of a mutually recognized agreement that change will not occur, that is, the minority will not prevail. We hold that this implied leniency agreement is a process common to all established groups; it is designed to maintain the equilibrium of the group and to defuse the intensity of in-group minority grievances. However, as we have noted, the contract comes at a potential cost to the majority insofar as the change pressure introduced into the cognitive systems of majority group members may be expressed in terms of changes on issues related to the matter under debate and subsequent focal change over time, if the indirect change is sizeable (Crano & Chen, 1998).

Concluding Thoughts on Minority-induced Attitude Change, with Special Reference to Indirect Influence

The field owes a debt of gratitude to Gabriel Mugny and his collaborators for highlighting an avenue that fostered new explorations of attitude and behavior change. The view of attitudes and attitude change as rooted in both cognitive processes and intergroup dynamics facilitated by properties of inter-attitudinal relationships offers potentially useful insights into the complex dynamics involved in individual and group change. In our own work, Pérez and Mugny's (1987) study was of great heuristic value, and Mugny's later efforts have continued to provide much food for thought in our own ongoing theorizing on the nature of minority-induced change. We believe that considerations of indirect attitude change a construct elucidated by Mugny – have contributed greatly to minority influence scholarship in particular, and to the social psychology of attitude change in general.

Consideration of attitude structure has a long history in the study of attitudes and attitude change (Heider, 1946; Rosenberg, Hovland, McGuire, Abelson & Brehm, 1960; Zajonc, 1960). However, from the outset, the bulk of theory and research on attitude structure centered on relationships among various attitude components between cognitions, affective responses and behaviors or between the individual beliefs comprising a more general attitude. Little consideration has been accorded the relationships among apparently disparate attitudes, and this disregard continues to this day. Outside the context of minority influence, exciting theoretical headway has been made in research on intra-attitude structure (e.g., Dalege et al., 2016; Monroe & Read, 2008), but only sporadic attention has been paid to inter-attitudinal relationships and their attendant implications for attitude change (Kaplowitz & Fink, 1992; Spellman, Ullman, & Holyoak, 1993; Vallacher, Read & Nowak, 2002). While a focus on a lone attitude object may create a straightforward experimental context in which to study attitude change, it is long past due that our understanding of broader influence processes is nourished in the fertile ground of minority influence scholarship.

Contemporary attitude research and theory, building on this knowledge, may profit from close consideration of inter-attitudinal relationships and attendant indirect, and possibly direct influence. The necessary ground has been broken, and it will eventually bear fruit. For that, among many other reasons, we are indebted to the work of Gabriel Mugny.

Notes

¹ The minority's judgments were obviously incorrect if the consensual judgments of an untreated control group are taken as definitive. In this case, the controls' responses were almost invariably different from those reported by the influence agents of the minority group.

Competing Interests

The authors have no competing interests to declare.

References

- Aebischer, V., Hewstone, M. R., & Henderson, M. (1984). Minority influence and musical preference: Innovation by conversion not coercion. *European Journal of Social Psychology*, *14*, 23–33. DOI: https://doi. org/10.1002/ejsp.2420140103
- Allport, G. W. (1935). Attitudes. In: Murchison, C. (Ed.), Handbook of social psychology, 798–884. Worcester, MA: Clark University Press.
- Alvaro, E. M., & Crano, W. D. (1996). Cognitive responses to minority- or majority-based communications: Factors that underlie minority influence. *British Journal of Social Psychology, 35*, 105–121. DOI: https://doi. org/10.1111/j.2044-8309.1996.tb01086.x
- Alvaro, E. M., & Crano, W. D. (1997). Indirect minority influence: Evidence for leniency in source evaluation and counterargumentation. *Journal of Personality and Social Psychology*, *72*, 949–964. DOI: https:// doi.org/10.1037/0022-3514.72.5.949
- Anderson, J. R. (1983). *The architecture of Cognition*. Hillsdale, NJ England: Lawrence Erlbaum Associates, Inc.
- Asch, S. E. (1956). Studies of independence and conformity: I. A minority of one against a unanimous majority. *Psychological Monographs: General and Applied*, *70*, 1–70. DOI: https://doi.org/10.1037/h0093718
- Asch, S. E. (1961). Issues in the Study of Social Influences on Judgment. In: Berg, I. A., & Bass, B. M. (Eds.), *Conformity and Deviation*, 143–158. New York, NY US: Harper and Brothers. DOI: https://doi. org/10.1037/11122-005
- Brewer, M. B., & Crano, W. D. (2014). Research design and issues of validity. In: Reis, H. T., & Judd, C. M. (Eds.), Handbook of Research Methods in Social and Personality Psychology (2nd ed.), 11–26. New York, NY, US: Cambridge University Press.
- Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology*, *55*, 591–621. DOI: https://doi. org/10.1146/annurev.psych.55.090902.142015
- Clark, R. D., & Maass, A. (1988). Social categorization in minority influence: The case of homosexuality. *European Journal of Social Psychology*, 18, 347–364. DOI: https://doi.org/10.1002/ejsp.2420180405
- Collins, A. M., & Loftus, E. (1975). A spreading activation theory of semantic memory. *Psychological Review, 82,* 407–428. DOI: https://doi. org/10.1037/0033-295X.82.6.407
- **Crano, W. D.** (1970). Effects of sex, response order, and expertise in conformity: A dispositional approach.

Sociometry, 33, 239–252. DOI: https://doi. org/10.2307/2786155

- Crano, W. D. (2000a). Milestones in the psychological analysis of social influence. *Group Dynamics: Theory, Research, and Practice, 4,* 68–80. DOI: https://doi. org/10.1037/1089-2699.4.1.68
- **Crano, W. D.** (2000b). Social influence: Effects of leniency on majority- and minority-induced focal and indirect attitude change. *Revue Internatioinale de Psychologie Sociale/International Review of Social Psychology, 15,* 89–121.
- Crano, W. D. (2001). Social influence, social identity, and ingroup leniency. In: De Dreu, C. K. W., & De Vries, N. K. (Eds.), *Group Consensus and Minority Influence: Implications for Innovation*, 122–143. Malden, MA: Blackwell.
- Crano, W. D. (2010). Majority and minority influence in attitude formation and attitude change: Context/categorization–leniency contract theory. In: Martin, R. & Hewstone, M. (Eds.), *Minority Influence and Innovation: Antecedents, Processes and Consequences*, 53–77. New York: Psychology Press.
- Crano, W. D. (2012). *The Rules of Influence*. New York: St. Martin's Press.
- Crano, W. D., & Alvaro, E. M. (1998a). The context/comparison model of social influence: Mechanisms, structure, and linkages that underlie indirect attitude change. In: Stroebe, W., & Hewstone, M. (Eds.), *European Review of Social Psychology, 8*, 175–202. Hoboken, NJ US: John Wiley & Sons Inc.
- Crano, W. D., & Alvaro, E. M. (1998b). Indirect minority influence: The leniency contract revisited. *Group Processes & Intergroup Relations, 1,* 99–115. DOI: https://doi.org/10.1177/1368430298012001
- **Crano, W. D.,** & **Alvaro, E. M.** (2013). Social factors that affect the processing and subsequent effect of persuasive communications. In: Forgas, J. P., Laszlo, J., & Vincze, O. (Eds.), *Social Cognition and Communication*, 297–312. New York, NY: Psychology Press.
- Crano, W. D., & Alvaro, E. M. (2014). Social factors that affect the processing of minority-sourced persuasive communications. In: Forgas, J. P., Vincze, O., & Laszlo, J. (Eds.), *Social Cognition and Communication*, 297–312. New York: Psychology Press.
- 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. DOI: https://doi. org/10.1037/0022-3514.74.6.1437
- Crano, W. D., & Hannula-Bral, K. A. (1994). Context/categorization model of social influence: Minority and majority influence in the formation of a novel response norm. *Journal of Experimental Social Psychology, 30,* 247–276. DOI: https://doi. org/10.1006/jesp.1994.1012
- Crano, W. D., & Hemovich, V. (2011). Intergroup relations and majority or minority group influence. In: Kramer, R. M., Leonardelli, G. J., & Livingston, R. W. (Eds.), Social Cognition, Social Identity, and Intergroup Relations: A Festschrift in Honor of Marilynn

B. Brewer, 221–246. New York, NY US: Psychology Press.

- Crano, W. D., & Lyrintzis, E. (2015). Structure and change of complex political attitudes. In: Forgas, J. P. Fiedler, K., & Crano, W. D. (Eds.), *Social Psychology and Politics*, 21–39. New York, NY, US: Psychology Press.
- Crano, W. D., & Prislin, R. (2006). Attitudes and persuasion. *Annual Review of Psychology*, *57*, 345– 374. DOI: https://doi.org/10.1146/annurev. psych.57.102904.190034
- Crano, W. D., & Seyranian, V. (2007). Majority and minority influence. *Social and Personality Psychology Compass, 1,* 572–589. DOI: https://doi. org/10.1111/j.1751-9004.2007.00028.x
- Crano, W. D., & Seyranian, V. (2009). How minorities prevail: The context/comparison-leniency contract model. *Journal of Social Issues*, *65*, 335–363. DOI: https://doi.org/10.1111/j.1540-4560.2009.01603.x
- Dalege, J., van den Berg, Н., Borsboom, D., van Harreveld, F., Conner, М., & van der Maas, H. L. J. (2016). Toward a formalized account of attitudes: The causal attitude network (CAN) model Psychological Review, 123, 2-22. DOI: https://doi.org/10.1037/a0039802
- Fazio, R. H. (1986). How do attitudes guide behavior? In: Sorrentino, R. M., & Higgins, E. T. (Eds.), *The Hand*book of Motivation and Cognition: Foundations of Social Behavior, 204–243.
- Fazio, R. H., Sanbonmatsu, D. M., Powell, M. C., & Kardes, F. R. (1986). On the automatic activation of attitudes. *Journal of Personality and Social Psychology, 50*, 229–238. DOI: https://doi. org/10.1037/0022-3514.50.2.229
- Forgas, J. P. (2001). Introduction: The role of affect in social cognition. In: Forgas, J. P. (Ed.), *Feeling and Thinking: The Role of Affect in Social Cognition*, 1–28.
- Gardikiotis, A. (2011). Minority influence. Social and Personality Psychology Compass, 5, 679–693. DOI: https://doi.org/10.1111/j.1751-9004.2011.00377.x
- Gilbert, D. T. (1991). How mental systems believe. *American Psychologist, 46*, 107–119. DOI: https:// doi.org/10.1037/0003-066X.46.2.107
- Goethals, G. R., & Nelson, R. E. (1973). Similarity in the influence process: The belief-value distinction. *Journal of Personality and Social Psychology, 25,* 117–122. DOI: https://doi.org/10.1037/h0034266
- Gorenflo, D. W., & Crano, W. D. (1989). Judgmental subjectivity/objectivity and locus of choice in social comparison. *Journal of Personality and Social Psychology, 57*, 605–614. DOI: https://doi. org/10.1037/0022-3514.57.4.605
- Greene, J. O. (1984). A cognitive approach to human communication: An action assembly theory. *Communication Monographs, 51,* 289–306. DOI: https://doi. org/10.1080/03637758409390203
- **Heider, F.** (1946). Attitudes and cognitive organization. *Journal of Psychology, 21,* 107–112. DOI: https://doi. org/10.1080/00223980.1946.9917275
- Hood, W. R., & Sherif, M. (1962). Verbal report and judgment of an unstructured stimulus. *The Journal*

of Psychology: Interdisciplinary and Applied, 54, 121–130. DOI: https://doi.org/10.1080/00223980 .1962.9713102

- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). Communication and Persuasion: Psychological Studies of Opinion Change. New Haven, CT USA: Yale University Press.
- Kaplowitz, S. A., & Fink, E. L. (1992). Dynamics of attitude change. In: Levine, R. L., & Fitzgerald, H. E. (Eds.), *Analysis of Dynamic Psychological Systems, 2*, 341–369. New York, NY, US: Plenum. DOI: https:// doi.org/10.1007/978-1-4615-6440-9_14
- Laughlin, P. R., & Ellis, A. L. (1986). Demonstrability and social combination processes on mathematical intellective tasks. *Journal of Experimental Social Psychology, 22,* 177–189. DOI: https://doi. org/10.1016/0022-1031(86)90022-3
- Maass, A., & Clark, R. D. (1984). Hidden impact of minorities: Fifteen years of minority influence research. *Psychological Bulletin, 95*, 428–450. DOI: https:// doi.org/10.1037/0033-2909.95.3.428
- Maass, A., Clark, R. D., & Haberkorn, G. (1982). The effects of differential ascribed category membership and norms on minority influence. *European Journal of Social Psychology, 12*, 89–104. DOI: https://doi.org/10.1002/ejsp.2420120107
- Martin, R., & Hewstone, M. (2001). Determinants and consequences of cognitive processes in majority and minority influence. In: Forgas, J. P., & Williams, K. D. (Eds.), *Social Influence: Direct and Indirect Processes*, 315–330. New York, NY, US: Psychology Press.
- Martin, R., & Hewstone, M. (2008). Majority versus minority influence, message processing and attitude change: The source-context-elaboration model. In: Zanna, M. P. (Ed.), *Advances in Experimental Social Psychology*, 49, 238–326. New York: Academic. DOI: https://doi.org/10.1016/s0065-2601(07)00005-6
- Martin, R., Hewstone, M., Martin, P., & Gardikiotis, A. (2008). Persuasion from majority and minority groups. In: Crano, W. D., & Prislin, R. (Eds.), *Attitudes* and Attitude Change, 361–384. New York, NY, US: Psychology Press.
- McGuire, W. J. (1985a). Attitudes and attitude change. In: Lindzey, G., & Aronson, E. (Eds.), *Handbook of Social Psychology* (3rd ed.), *3*, 233–346. New York: Random House.
- McGuire, W. J. (1985b). Toward social psychology's second century. In: Koch, S., & Leary, D. E. (Eds.), *A Century of Psychology as Science*, 558–590. Washington, DC US: American Psychological Association.
- Monroe, B. M., & Read, S. J. (2008). A general connectionist model of attitude structure and change: The ACS (Attitudes as Constraint Satisfaction) model. *Psychological Review, 115,* 733–759. DOI: https://doi.org/10.1037/0033-295X.115.3.733
- **Moscovici, S.** (1994). Three concepts: Minority, conflict, and behavioral style. In: Moscovici, S., Mucchi-Faina, A., & Maass, A. (Eds.), *Minority Influence*, 233–251. Chicago, IL, US: Nelson-Hall Publishers.

- Moscovici, S., & Lage, E. (1976). Studies in social influence: III. Majority versus minority influence in a group. *European Journal of Social Psychology, 6*, 149–174. DOI: https://doi.org/10.1002/ejsp.2420060202
- Moscovici, S., Lage, E., & Naffrechoux, M. (1969). Influence of a consistent minority on the responses of a majority in a color perception task. *Sociometry, 32*, 365–380. DOI: https://doi.org/10.2307/2786541
- **Moscovici, S., Mugny, G.,** & **Pérez, J. A.** (1985). Les effets pervers du déni (par la majorité) des opinions d'une minorité. [The contrary effect of denial (by a majority) of the opinions of a minority.] *Bulletin de Psychologie, 38*, 803–812.
- **Moscovici, S., & Nemeth, C.** (1974). Social influence: II. Minority influence. *Social Psychology: Classic and Contemporary Integrations.* Oxford, England: Rand Mcnally.
- Moscovici, S., & Pérez, J. A. (2007). A study of minorities as victims. *European Journal of Social Psychology, 37*, 725–746. DOI: https://doi.org/10.1002/ejsp.388
- **Moscovici, S.,** & **Personnaz, B.** (1980). Studies in social influence: V. Minority influence and conversion behavior in a perceptual task. *Journal of Experimental Social Psychology, 16*, 270–282. DOI: https://doi.org/10.1016/0022-1031(80)90070-0
- Mucchi-Faina, A., & Pagliaro, S. (2008). Minority influence: The role of ambivalence toward the source. *European Journal of Social Psychology, 38*, 612–623. DOI: https://doi.org/10.1002/ejsp.486
- **Mugny, G.** (1975). Negotiations, image of the other and the process of minority influence. *European Journal of Social Psychology, 5*, 209–228. DOI: https://doi. org/10.1002/ejsp.2420050206
- Mugny, G. (1984). Compliance, conversion and the Asch paradigm. *European Journal of Social Psychology*, *14*, 353–368. DOI: https://doi.org/10.1002/ ejsp.2420140402
- **Mugny, G.,** & **Doise, W.** (1979). Sociological and psychosociological factors in cognitive development: A new experimental illustration. *Anuario de Psicología, 21*, 3–25.
- Mugny, G., Kaiser, C., Papastamou, S., & Pérez, J. A. (1984). Intergroup relations, identification and social influence. *British Journal of Social Psychology, 23*, 317–322. DOI: https://doi.org/10.1111/j.2044-8309.1984.tb00647.x
- **Mugny, G., & Papastamou, S.** (1982). Minority influence and psycho-social identity. *European Journal of Social Psychology, 12,* 379–394. DOI: https://doi.org/10.1002/ejsp.2420120405
- Mugny, G., & Pérez, J. A. (1988). Conflicto intergrupal, validación e influencia minoritaria inmediata y diferida. [Intergroup conflict, validation, and immediate and delayed minority influence]. *Revista de Psicología Social*, *3*, 23–36. DOI: https://doi.org/10. 1080/02134748.1988.10821572
- Mugny, G., & Pérez, J. A. (1991). *The Social Psychology* of *Minority Influence* (V. W. Lamongie, Trans.). New York, NY, US; Paris, France: Cambridge University

Press and Editions de la Maison des Sciences de l'Homme.

- Nemeth, C. J. (1986). Differential contributions of majority and minority influence. *Psychological Review*, 93, 23–32. DOI: https://doi. org/10.1037/0033-295X.93.1.23
- Nemeth, C. J., & Kwan, J. L. (1985). Originality of word associations as a function of majority vs. minority influence. *Social Psychology Quarterly, 48*, 277–282. DOI: https://doi.org/10.2307/3033688
- Nemeth, C. J., & Kwan, J. L. (1987). Minority influence, divergent thinking and detection of correct solutions. *Journal of Applied Social Psychology, 17,* 788–799. DOI: https://doi.org/10.1111/j.1559-1816.1987. tb00339.x
- Olson, J. M., Ellis, R. J., & Zanna, M. P. (1983). Validating objective versus subjective judgments: Interest in social comparison and consistency information. *Personality and Social Psychology Bulletin, 9*, 427–436. DOI: https://doi.org/10.1177/0146167283093013
- 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. DOI: https://doi. org/10.1002/ejsp.2420170204
- Petty, R. E., Wegener, D. T., & Fabrigar, L. T. (1999). The elaboration likelihood model: Current status and controversies. *Annual Review of Psychology, 48,* 609–647. DOI: https://doi.org/10.1146/annurev. psych.48.1.609
- Priester, J. R., & Petty, R. E. (2003). The influence of spokesperson trustworthiness on message elaboration, attitude strength, and advertising effectiveness. *Journal of Consumer Psychology*, 13, 408–421. DOI: https://doi.org/10.1207/S15327663JCP1304_08
- Rosenberg, M. J., Hovland, C. I., McGuire, W. J., Abelson, R. P., & Brehm, J. W. (1960). Attitude Organization and Change: An Analysis of Consistency among Attitude Components. (Yale's Studies in Attitude and Communication), 3. Oxford, England: Yale University Press.
- Seyranian, V., Atuel, H., & Crano, W. D. (2008). Dimensions of majority and minority groups. *Group Processes & Intergroup Relations, 11,* 21–37. DOI: https://doi.org/10.1177/1368430207084843
- Smith, E. R. (1994). Procedural knowledge and processing strategies in social cognition. In: Wyer, R. S., Jr. & Srull, T. K. (Eds.), *Basic Processes*, *1*, 99–151.
- Spellman, B. A., Ullman, J. B., & Holyoak, K. J. (1993). A coherence model of cognitive consistency: Dynamics of attitude change during the Persian Gulf War. *Journal of Social Issues, 49,* 147–165. DOI: https://doi.org/10.1111/j.1540-4560.1993.tb01185.x
- Suls, J., & Wheeler, L. (2012). Social comparison theory. In: Van Lange, P. A. M., Kruglanski, A. W., & Higgins, E. T. (Eds.), *Handbook of Theories of Social Psychology*, 1, 460–482. Thousand Oaks, CA: Sage Publications Ltd. DOI: https://doi.org/10.4135/9781446249215. n23

- Tafani, E., Souchet, L., Codaccioni, C., & Mugny, G. (2003). Influences majoritaire et minoritaire sur la représentation sociale de la drogue. *Nouvelle Revue de Psychologie Sociale, 2*, 343–354.
- **Tajfel, H.** (1978). *Differentiation between Social Groups: Studies in the Social Psychology of Intergroup Relations*. Oxford England: Academic Press.
- Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology*, *1*, 149–178. DOI: https://doi.org/10.1002/ejsp.2420010202
- **Turner, J. C.** (1985). Social categorization and the selfconcept: A social cognitive theory of group behavior. *Advances in Group Processes, 2,* 77–122.
- Vallacher, R. R., Read, S. J., & Nowak, A. (2002). The dynamical perspective in personality and social

psychology. *Personality and Social Psychology Review, 6*, 264–273. DOI: https://doi.org/10.1207/ S15327957PSPR0604_01

- Wood, W. (2000). Attitude change: Persuasion and social influence. *Annual Review of Psychology, 51*, 539–570. DOI: https://doi.org/10.1146/annurev. psych.51.1.539
- 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. DOI: https:// doi.org/10.1037/0033-2909.115.3.323
- Zajonc, R. B. (1960). The process of cognitive tuning in communication. *The Journal of Abnormal and Social Psychology, 61*, 159–167. DOI: https://doi. org/10.1037/h0047987

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