Personalization and differentiation as moderators of triggered displaced aggression towards out-group targets

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Abstract

Two studies examined the reduction of triggered displaced aggression (TDA) via bottom-up processing modes of de-categorization. Participants were provoked by the experimenter and then interacted with an ostensible out-group member who either did or did not provide a second (triggering) provocation. Study 1 compared TDA toward a triggering out-group member who had previously been either differentiated from the out-group, made the focus of self-other comparison, or was in a no-information control condition. As predicted, both differentiation and self-other comparison reduced aggression relative to the control condition. Study 2 examined the effect of negative self-disclosure from the outgroup target, and contrasted its effects with both self-other comparison with a negative other, and a no-information control condition. As predicted, triggered participants in the negative self-disclosure condition aggressed less than those triggered in the negative self-other comparison or no-information control conditions. The liking induced by self-disclosure mediated its aggression-reducing effect. Copyright © 2006 John Wiley & Sons, Ltd.

Imagine a man who, after being angered by a severe reprimand from his boss, refrains from retaliation for fear of losing his job. A few minutes later, one of his co-workers—an out-group member—borrows a pen from his desk without permission. In response, he publicly berates the borrower for being presumptive and inappropriate, surprising those who witness his outburst in response to such a minor infraction. This scenario illustrates *triggered displaced aggression* (TDA). The TDA paradigm, as implemented by Pedersen, Gonzales, and Miller (2000), conceptually describes circumstances in which a minor provocation, the trigger, can elicit a retaliatory response of greater magnitude than is warranted by the tit-for-tat matching rule that generally governs social interaction (Axelrod, 1984). It identifies the experience of a previous, more intense provocation as a critical antecedent for this effect.

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Copyright © 2006 John Wiley & Sons, Ltd.

Received 10 February 2005 Accepted 23 January 2006 Empirical evidence suggests that higher levels of displaced aggression are expressed towards outgroup relative to in-group members (Pedersen, Bushman, Vasquez, & Miller, 2006). In our illustration, the insulting retaliatory outburst from the reprimanded worker is likely to be of greater intensity when the borrower is known to belong to a social category that differs from that of his own.

Both the induction of *differentiation* among out-group members and *personalized interaction* with them are *de-categorization processes* that can decrease prejudice (Brewer & Miller, 1984; Ensari & Miller, 2002). Consequently, they are also likely to reduce TDA. Additionally, because the purpose of the studies reported herein was to examine aggression-reducing effects, it makes sense to study target persons who are likely to elicit high levels of aggression, such as out-group members. Therefore, in two TDA studies we examined aggression-reducing effects of distinct modes of de-categorization: differentiation and self-other comparison (Study 1) and negative self-disclosure and comparison of self to a negative other (Study 2). In both studies the triggering person was an out-group member. This is the first research to assess such effects.

The introduction is organized in the following manner: First, we describe the TDA paradigm and discuss the moderating role of group membership on TDA effects. Then, we discuss the beneficial effects of two modes of de-categorization in reducing intergroup bias: differentiation and personalization. In doing so, we further distinguish two components of personalization: self-other comparison and self-disclosure. Finally, we make the argument that by employing procedures previously shown to reduce prejudice, such as de-categorization, we can reduce the level of retaliatory aggression expressed towards a triggering out-group member in the TDA paradigm.

TRIGGERED DISPLACED AGGRESSION

In the typical instance of displaced aggression, a person who is first provoked under conditions that preclude retaliation against its source subsequently aggresses against a seemingly innocent target (Dollard, Doob, Miller, Mowrer, & Sears, 1939; Hovland & Sears, 1940; Marcus-Newhall, Pedersen, Carlson, & Miller, 2000). The interesting (and puzzling) aspect of this phenomenon is that the target of aggression does not instigate retaliation from the aggressor, and thus, appears to be the innocent victim of a seemingly irrational act.

More recently, researchers have experimentally identified a form of displaced aggression termed *triggered* displaced aggression (Miller, Pedersen, Earlywine, & Pollock, 2003; Pedersen et. al., 2000). In our illustrative example, the reprimand from the boss is the initial provocation and the borrowing of the pen without permission is the trigger. Our fictitious example also illustrates an interesting characteristic of TDA: the aggressive response *violates* the ubiquitous matching rule (Axelrod, 1984), whereby provocations elicit responses of essentially matching intensity, which only escalate in increments that slightly exceed the previous provocation. Thus, the level of retaliation in the TDA paradigm can exceed the sum of the independent aggression-producing effects of the original provocation and the trigger (Pedersen et al., 2000).

Stable characteristics of the target of aggression, such as personality traits and group membership, can moderate aggressive responding (e.g., Anderson, Deuser, & DeNeve, 1995; Carlson, Marcus-Newhall, & Miller, 1990). For our purpose herein, the specific characteristic of interest is group membership. Countless reports of events throughout human history suggest that higher levels of aggression are expressed towards out-group, relative to in-group members—an outcome confirmed by experimental research (Baron, 1979; Carlson et al., 1990; Donnerstein & Donnerstein, 1978; Rogers & Prentice-Dunn, 1981; Struch & Schwartz, 1989).

This effect has also been demonstrated in the TDA paradigm. In one study, researchers manipulated the category of the target and found that higher levels of aggression were displaced towards out-group relative to in-group targets (Pedersen et al., 2006). The authors proposed two potential explanations for this effect. First, negative settings, including interactions with out-group members, are likely to prime or activate negative cognitions and affect, which then increase the magnitude of displaced aggression (Berkowitz, 1997; Marcus-Newhall et al., 2000). Second, making in-group membership salient is likely to provide a buffering effect against retaliation, either by impacting inhibitory factors or affective reactions to provocations. Our goal here, however, was not to test these potential explanations, but rather, to assess the efficacy of promising methods to reduce aggression towards out-group membership on aggressive behavior (Carlson et al., 1990; Marcus-Newhall et al., 2000; Pedersen et al., 2006) it is important to examine processes or techniques that may counter it. Towards this goal, we assume that a reduction in aggression toward out-group members can be accomplished by employing techniques that effectively reduce intergroup bias. Specifically, we focus on *differentiation* and *personalization*.

DE-CATEGORIZATION AND THE REDUCTION OF OUT-GROUP BIAS

Humans continuously categorize individuals into social groups, a process that differentiates out-groups from in-groups, and that many believe is the precursor to prejudice (Tajfel, 1978; Tajfel, Billig, Bundy, & Flament, 1971). Under category-based responding, a top-down processing mode, out-group members are subject to a negative bias. In the following sections we distinguish between top-down and bottom-up de-categorization processes, noting that both can reduce negative reactions toward out-group members. However, it is the bottom-up processing modes that we study herein as conceptually distinct means of reducing TDA.

Top-Down Modes of Processing

There are at least three distinct top-down modes of information processing that, in principle, might reduce category-based responding, and hence, induce de-categorization. First, one can provide information indicating additional group categories to which out-group members belong. Such information makes the target of evaluation appear more complex, which can diminish the effects of the original categorization (Crisp, Hewstone, & Rubin, 2001). A second approach makes a superordinate category salient (Gaertner & Dovidio, 2000). The out-group is re-categorized into a broader in-group that includes the perceiver's category as well. A third mode of inducing de-categorization involves the presentation of additional counter-stereotypical information about a particular out-group *as a whole* (Miller, 2002). In response, the perceiver might develop a more differentiated perception of the out-group, but also, when receiving positive information, a perception that is less negative. In practice, however, this latter mode of inducing de-categorization has not been shown to be effective in reducing bias towards out-group members (Locksley, Borgida, Brekke, & Hepburn, 1980).

Bottom-Up Modes of Processing

Personalization

Separate from these three top-down modes of de-categorization, are bottom-up modes of reducing bias (Brewer & Miller, 1984). Personalization is one such bottom-up process. In a personalized interaction,

information encoded about an out-group member is not dominated by the relevant social category, but rather, by unique attributes of that individual that are relevant to the self. Personalized interaction can not only reduce bias against the out-group member involved in the interaction (Berg & Wright-Buckley, 1988; Fiske & Neuberg, 1990), but also, its benefits can extend to other members of the out-group, particularly when the out-group member with whom such interaction has occurred is perceived as representative (i.e., is typical) of his/her social category (Brown & Hewstone, 2005; Ensari & Miller, 2002, 2005; Hewstone & Brown, 1986; Hewstone & Lord, 1998).

Personalization, however, is a global concept that consists of a number of distinct bottom-up processing modes. Next, we discuss two modes of personalization: self-other comparison and self-disclosure. Self-other comparison involves the comparison of another's personal attributes with those of the *self* and not with the stereotyped image of out-group (Brewer & Miller, 1984). Necessarily, the out-group person involved in self-other comparison becomes individuated. Additionally, however, self-other comparison involves noticing similarities and differences between the self and other, which further reduces reliance on one's category-based stereotype, and increases the perceived variability of the out-group. Thus, the resulting evaluation of an out-group individual is based on his or her personal attributes. Its subsequent consequence can be a reduction of negative bias towards that person (Miller, 2002).

Self-disclosure refers to the sharing of intimate, personal information with another (see Collins & Miller, 1994; Miller, 2002). Thus, it too necessarily individuates. It may also induce self-other comparison in that when the discloser shares individuating information it may elicit comparisons to self along dimensions relevant to the self. In addition, self-disclosure may have other beneficial effects, such as decreasing anxiety and increasing familiarity. Together, these effects can lead to improved processing of individuating information (Rothbart & John, 1985; Sears, 1983; Wilder, 1984). Self-disclosure makes a unique contribution, however, by encouraging the other person to perceive the discloser as trusting. Imbedded in the act of self-disclosure is the implicit message that the discloser trusts the recipient (Steel, 1991; Worthy, Gary, & Kahn, 1969), which in turn, by motivating liking (Collins & Miller, 1994; Halverson & Shore, 1969) and friendship (Cook, 1978; Pettigrew, 1997) toward the discloser, can reduce out-group bias (Ensari & Miller, 2001, 2005; Miller, 2002).

Differentiation

Finally, differentiation is yet another form of de-categorization (Brewer & Miller, 1984). As a mode of bottom up processing, it consists of distinguishing a particular out-group person from his or her group. It corresponds to the first top-down mode of de-categorization discussed above, wherein an out-group is differentiated into sub-groups that differ from the out-group prototype in distinctive ways and thereby acts to promote a more differentiated perception of that group. In bottom-up differentiation, however, one learns that a particular out-group member possesses characteristics that are not in accord with the out-group stereotype. Consequently, that out-group member becomes de-categorized. This latter form of de-categorization corresponds to sub-typing, as discussed for instance, by Hewstone and Lord (1998). This mode of bottom-up de-categorization is distinct from the bottom-up modes of personalization that we previously discussed in that while it distinguishes the target person from his or her group, the information that creates such differentiation does not directly involve the self.

Individuation and Bottom-Up De-Categorization

It is important to consider the relation of individuation *per se* to these different bottom-up processing modes and to discuss why it is important to examine them individually. Although individuation

necessarily occurs during any interpersonal interaction, such interaction is not necessary for individuation. It can be provided instead by a third person or by reading autobiographical information about the individual. In contrast, though self-other comparison is possible with second-hand information, it is considerably more likely during direct interaction. Similarly, when one learns about the self-disclosure that has been made to a third party rather than the perceiver, though such information is individuating, the trust-inducing effects of that self-disclosure are likely to be vitiated. Finally, as previously discussed, when differentiation occurs as a bottom-up form of de-categorization, the information received does more than merely individuate that individual. By differentiating the individual group member from her group, that information de-categorizes that individual.

These distinct bottom-up processes may impact intergroup relations to different degrees. Moreover, as argued, self-other comparison, self-disclosure, and differentiation (sub-typing) implicate additional processes beyond individuation. Consequently, they are expected to impact bias more strongly than would individuation alone. Extending these ideas to aggressive contexts, we expect that each of these three conceptually distinct bottom-up processes—self-other comparison, self-disclosure, and differentiation—can reduce aggressive behavior.

In two studies, we used the TDA paradigm to examine the reduction of aggression toward an outgroup member by means of differentiation, self-other comparison, and self-disclosure, (but not individuation *per se*). Our key theoretical point regarding the effects of these three conceptually distinct factors is that they can change the perceptions of and/or attitude towards an out-group target in a positive manner, thereby reducing an aggressor's reaction to a triggering action by that out-group member. These expectations, as previously noted, are based on the fact that our studies focus on the reduction of aggression toward an individual out-group target, not the out-group category as a whole. Whether or not our manipulations of these three processes produce a sub-typing of the target of aggression, and whether observed reductions of aggression depend on such sub-typing is beyond our scope herein. Moreover, we do not contend that the valence of the information presented about the target person is irrelevant. Clearly, when such information is positive it would likely have a positive effect. Rather, our expectations are constrained to a comparison among conditions wherein the valence of information is controlled.

In summary, differentiation, self-other comparison, and self-disclosure can beneficially impact attitudes toward out-group members (Miller, 2002). Though each may have its impact through a distinct process, with differentiation and self-other comparison predominantly resting on cognitive, and self-disclosure on more motivational effects, nevertheless, we expect that each can decrease TDA.

STUDY 1

As noted, researchers have invoked prejudice¹ and negative priming (Pedersen et al., 2006) to explain the greater displacement of aggression towards triggering out-group members relative to triggering ingroup members. To develop methods of reducing such out-group-directed aggression, we made the following assumption: processes that reduce intergroup bias should also reduce the aggression that is often a consequence of bias. In Study 1, we compared the effects of two bottom-up types of information

¹We note that intergroup bias is distinct from intergroup aggression. Prior research suggests that bias, which is primarily driven by in-group favoritism, is conceptually distinct from aggression (Struch & Schwartz, 1989). In the presence of conflict between members of different groups, however, the likelihood of intergroup aggression increases. Under such conditions, aggression will parallel the out-group component of ethnocentric bias—characterized conceptually as the difference between in-group favoritism and out-group hatred. In other words, though bias and aggression are conceptually distinct, bias can affect aggression in the presence of a motivator, such as provocation.

processing, differentiation and self-other comparison, to a no-information control condition to examine their aggression-reducing effects within the TDA paradigm. We constrained the average valence of the information presented about the target person in the differentiation and the self-other comparison conditions to be neutral.

We made three predictions: first, we expected participants in the TDA paradigm, (persons who were provoked and subsequently triggered by an out-group member), to express higher levels of aggression than those not triggered; second, we expected triggered participants in both the differentiation and the self-other comparison conditions to aggress less than triggered participants in the no-information control condition.

Method

Participants and Design

Sixty-eight undergraduate students (47 females and 21 males) from an introductory Psychology class at the University of Southern California were recruited for voluntary participation. In each experimental session, a confederate, trained prior to the study, played the role of a second participant. Participants were randomly assigned to one of the six conditions in a between subjects design. The study was a 2 (trigger manipulation: trigger, no trigger) \times 3 (bottom-up processing manipulation: self-other comparison, differentiation, no-information control group) factorial design. All conditions were preceded by an initial provocation. We did not manipulate the presence or absence of the initial provocation because four previous studies have shown that in its absence, a subsequent minor trigger has no impact on aggression (Pedersen et al., 2000, two studies; Vasquez, Denson, Pedersen, Stenstrom, & Miller, 2005; Bushman, Bonacci, Pedersen, Vasquez, & Miller, 2005). Thus, there is no reason to expect the low-aggression levels expected in the provocation/no trigger conditions to differ from those in a no provocation conditions in which aggression is likely to vary (i.e., conditions in which there is an initial provocation). Thus, inclusion of a no provocation condition would only reduce efficiency without producing any clarifying results.

For a similar reason, we did not manipulate group membership, but instead made the target of TDA an out-group member in all conditions. In prior research, in-group membership decreased TDA such that the TDA in this condition was at the same levels as in the no-trigger conditions (Pedersen et al., 2006). Expecting personalization and differentiation to have little effect on aggression toward in-group members, we therefore focused on a condition that elicits higher baseline levels of aggression—an outgroup target condition—thereby increasing the likelihood of interesting results.

Procedure

Four confederates assisted us in this study. When the participant arrived for the experiment, he/she was seated in a room with a confederate who pretended to be another participant. The experimenter introduced herself and told the participants, as part of the cover story, that the purpose of the study was to examine how religious affiliation and personality influenced problem solving. The participant and the confederate were then given a form that asked for demographics, such as level of education, sex, age, major, and religious or non-religious affiliation (e.g., Christianity, Judaism, Buddhism, Hinduism, Islam, Atheism, and Agnosticism). The confederate had previously been instructed by the experimenter to enter a religious affiliation after they had noticed that the participant had indicated his/her own

religious affiliation. In order to be perceived as an out-group member, the confederate then wrote down a religious affiliation that differed from that of the participant. The questionnaire also included a section that required participants to rate the strength of their identification with their religious faith (1 = not at all, 7 = extremely) and write about one distinctive aspect of their faith that they believed makes it different from other religions. This section served to enhance in-group identity and make group membership salience. Group membership was also made salient by having the participant and the confederate wear nametags stating their respective religion. In addition each participant was asked to read a short article that described basic beliefs of the religion with which they identified in order to further increase their in-group identity.

The participants were then told that previous studies had found a significant correlation between one's religious faith and personality traits. It further explained that the experiment in which they were participating would expand on those findings by examining how religious affiliation and personality affect problem-solving and decision-making. For this purpose, the participants were told they would subsequently complete a personality questionnaire and form an impression of the other person. In addition, the experimenter stated that she was interested in how people solved problems and made decisions, both alone and in a team, and that, therefore, the participant would work alone on some tasks and with the other participant on other tasks.

The experimenter then asked the participant to complete a bogus personality questionnaire to ostensibly validate the previously mentioned findings on personality and religious affiliation. It consisted of 15 items, which assessed 6 positive, 3 neutral, and 6 negative personality traits. Participants were to indicate their level of agreement with the statements on the questionnaire (1 = strongly disagree, 7 = strongly agree). Items on the questionnaire included "I am generally friendly with people", "I do not like to be dependent on others", and "people often view me as irresponsible". When completed, the experimenter told the participants that they would be working on the remaining tasks individually and in different rooms. This also marked the end of any interaction between the confederate and the participant.

Provocation Induction

Following the completion of the previous task, all participants were provoked. To induce the provocation, the participant was asked to complete an anagram task, which required that s/he solve 15 anagrams (i.e., scrambled words) in 4 minutes while distractingly loud background music was played. The anagrams were listed on a sheet of paper in an increasing order of difficulty, with the first five being relatively easy (e.g., pizza, grass) and the last five being the most difficult (e.g., photograph, experiment). The participant was left to complete the task, which the experimenter subsequently collected and ostensibly scored in another room. On returning, the experimenter berated the participant for his/her poor performance on the anagram task. In a tone of voice that conveyed irritation, the experimenter told the participant that she should probably do the task again, but she (the experimenter) did not want to waste her time (see Pederson et al., 2000). Then, the participant was asked to complete mood manipulation checks. The experimenter then continued with the personalization manipulations.

Manipulation of De-Categorization

Participants were then told that the researchers wanted to examine the relation between their impressions of their partner and their scores on the personality questionnaire they had just completed in

order to compare it with previous research on personality and religious beliefs and thereby validate those findings.

Self-Other Comparison Participants in the self-other comparison condition were given a personality trait profile that visually depicted ratings of their partner's and their own personality traits, ostensibly based on the previously administered personality questionnaire (see Appendix A). The profile consisted of 15 personality traits, balanced for their valence: 6 positive, 6 negative, and 3 neutral traits. Each personality trait was depicted by a statement (e.g., I am not a pessimist; I am often careless in doing things), which was followed by color-coded boxes that indicated how the participant and the confederate comparatively scored on each trait using a seven-point scale that ranged from unusually low to unusually high (no numbers were assigned to the points on the scale). Yellow boxes indicated the participant's rating, and blue their partner's. The purpose of this personality profile was to help participants readily see similarities and differences between their own and their partner's scores.

Ostensibly, the participant and their partner differed in their ratings of 11 traits. For 7 of the 15 traits (3 positive, 3 negative, and 1 neutral trait), however, the participant and the confederate ratings fell within what was alleged to be the average range of scores among previous participants. The confederate was rated as unusually low on one neutral and one negative trait, and as unusually high on two positive traits. In addition, in 4 of the 15 traits (1 positive, 1 neutral, and 2 negative traits) the participant and their partner had the same score. The experimenter told the participant that their overlap on these four traits was indicated by the green-colored (yellow + blue) boxes.

Our aim was to control for the potential effects of valence of information and extremity of the ratings and thereby assess uncontaminated effects of self-other comparison. The experimenter also emphasized that it was important that participants think about the relation between their own scores and those of their partner on each personality trait dimension, because past research has shown that doing so would enable them to process subsequent personality trait information better and assess their partner more accurately.

Differentiation In the differentiation condition, the participants received a trait profile identical (i.e., it contained the same 15 traits) to that given to the participants in the self-other comparison condition with the exception that the profile listed the ratings of their partner's personality traits as well as the (ostensible) typical personality traits of their partner's religious group (see Appendix B). Thus, in this condition participants did not see their own scores on the personality traits. These ratings were also color-coded to help participants see specific similarities and differences between their partner and the typical scores of other members of that out-group. Green-colored boxes represented traits on which scores for the out-group partner were identical to those of the typical member of that group. The identical scores occurred on the same traits as those on which the participant and the confederate overlapped in the self-other comparison condition. In addition, the confederate and the typical outgroup member differed on the same traits and to the same degree as did the participant and the confederate in the self-other comparison condition. In other words, the self-other comparison and differentiation conditions differed only in that in the former, the comparisons were between the participant and the typical outgroup member.

As in the self-other comparison condition, the experimenter emphasized the importance of thinking about how their partner's traits compare with those of most members of her group. The participants were told that past research had shown that making such comparisons would help them process the information better and assess their partner more accurately.

Control Condition

In the no-information control condition, participants received no personality trait scores. Instead, they were asked to assess the valence of the traits on the list used in the other conditions.

Trigger Manipulation

Following the manipulation of de-categorization, the experimenter engaged the participant in a bogus NASA task, which served as the context for the trigger manipulation. The participant was told that both s/he and the other participant (the confederate) would evaluate each other's work as part of a second impression-formation task.

The participant received the task instructions for the second NASA task in an envelope. She was instructed to think of five good characteristics, including traits, beliefs, and qualities that would be helpful to an astronaut. The experimenter left her alone to complete the task. When she completed it, the experimenter returned with a plain envelop containing the confederate's alleged completed work. The participant was then asked to place her own work in a similar envelop and then, to inspect her partner's work carefully and evaluate her partner's performance. As indicated, the purpose of these respective evaluations was to provide the basis for the trigger manipulation. After the experimenter had collected the participant's own evaluation of the confederate's performance, we gave her the bogus evaluation of her own work, ostensibly provided by the out-group confederate. The evaluation consisted of ratings of the participant's performance on the following six dimensions: (1) the originality of the confederate's answers; (2) the quality of the answers; (3) the effort put into the task; (4) the variety of answers; (5) the degree to which the answers made sense; (6) the confederate's overall performance on the task. The scale used to rate the performance ranged from 1 (no good at all) to 7 (extremely good).

In the trigger condition, the participant's performance on each of the dimensions was rated three or four, with an average overall rating of 3.5. In addition, in a space that was provided for additional comments, the confederate had ostensibly stated that the participant's performance "could have been better." In the no trigger condition, the participant's performance was rated a five or six on each of the relevant dimensions, with an average overall rating of 5.5. In addition, the confederate ostensibly stated that the participant's performance was rated a five or six on each of the relevant dimensions, with an average overall rating of 5.5. In addition, the confederate ostensibly stated that the participant's performance was fine. All the participants were given approximately 3 minutes to read the evaluation from the confederate.

Following the trigger manipulation, the participant was asked to complete another form containing manipulation checks.

Aggression Measure

The experimenter told the participant that the last task would examine the effects of decision making on performance under distraction. The participant was led to believe that prior research had determined that task performance was improved by making a decision prior to performing that task and that the current study sought to explore whether this remained true when the participant is distracted. Thus, for the last task, the participant and partner were to perform a cognitive task under distraction.

The decision-making aspect of the experiment involved having the participant decide the length of time that the confederate was to be distracted. The participant was told that the experimenters wanted to determine whether the effects of distraction differ depending on the senses stimulated. Different participants would be distracted through different senses (e.g., tactile, olfactory, visual, auditory),

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depending on the condition to which they had been randomly assigned. The participant then randomly select one of four folded pieces of paper on which the modality of the distraction was written. In reality, all four choices required distracting the confederate through the tactile sense. The experimenter also told the participant that his or her partner had been randomly assigned to perform the task first and consequently, the participant would decide on a duration for which the confederate was to be distracted. Based on the previously described selection by the participant, the confederate allegedly was to receive a tactile distraction by placing one hand in ice water. The experimenter further explained that once the participant's partner had completed his or her task, the participant: (a) would then receive visual distracted by them for a duration that had been selected by the other participant. The key-dependent measure of aggression was the duration that the participant had selected for the confederate to immerse his/her hand in ice water. Then, the participants evaluated their partner on a final impression evaluation form containing questions that served as a trigger manipulation check. The experimenter then provided a debriefing during which participants received an information sheet that explained the true purpose of the study.

Results

We withdrew 10 participants (8 females and 2 males) from the analyses because of suspicion. We conducted Fisher's exact test to assess whether there was differential attrition of participants across conditions. It showed no evidence of any differential attrition. Thus, the following analyses included a total of 58 participants.

Provocation and Trigger Manipulation Checks

Participants completed two mood measures during the experiment: one was completed shortly after the provocation but preceding the personalization manipulation; the other followed the trigger manipulation. The mood measure after the initial provocation used item scales that ranged from 1 (definitely) to 4 (not at all). The negative items on this scale (irritable, distressed, angry, annoyed, hurt, and tense) were combined to form a negative mood score ($\alpha = 0.83$). Similarly, positive mood items (elated, joyful, pleased, jittery, energetic, and relaxed) were combined to create a positive mood score ($\alpha = 0.65$). After the provocation, participants reported feeling more negative (M = 2.86) than positive (M = 3.44), t(68) = -4.15, p < 0.05.

To assess the effectiveness of our trigger manipulation, we created a composite using two items that measured how subject reacted after receiving the evaluation from their partner: irritated and pleased. The latter was reversed coded ($\alpha = 0.57$). As expected, participants in the trigger condition reported feeling more irritation and less pleased (M = 4.76) with their partner's evaluation of their NASA task performance relative to those in the no trigger condition (M = 3.14), t(1, 56) = 4.88, p = 0.00.

Aggression

The aggression measure consisted of the assigned duration for which participants required their partners to immerse their hand in ice water. We found no gender effects, and thus, pooled males and females in our analyses. We conducted a $2 (\text{trigger/no trigger}) \times 3 (\text{no-information control/} differentiation/self-other comparison}) ANOVA, and found a main effect for the latter variable$



Figure 1. Mean aggression as a function of trigger and de-categorization conditions

F(2, 52) = 17.74, p = 0.00, but no main effect of trigger, F(1, 52) = 1.58, p > 0.20. This, however, was qualified by the expected trigger × differentiation/self-other comparison/control interaction, F(2, 52) = 3.16, p = 0.05 (see Figure 1). Relative to participants in the control/no trigger condition (M = 4.00, SD = 1.25, n = 10), those in the no-information control/triggered condition expressed higher levels of aggression (M = 5.60, SD = 1.43, n = 10), t(18) = 2.67, p = 0.02, d = 1.19. In the differentiation condition, however, we found no difference in aggression levels between triggered (M = 2.60, SD = 1.26, n = 10) and non-triggered participants (M = 2.73, SD = 1.27, n = 11), t(19) = 0.23, p > 0.20, d = -0.09. Similarly, in the self-other comparison condition, triggered participants (M = 2.67, SD = 1.00, n = 9) did not differ in aggression levels from non-triggered participants (M = 2.88, SD = 1.36, n = 8), t(15) = 0.15, p > 0.20, d = 0.18. Finally, as expected for triggered participants, aggression was reliably lower in the differentiation and self-other comparison conditions relative to that seen in the control condition, t(18) = 4.97, p = 0.00, d = -2.23 and, t(18) = 5.02, p = 0.00, d = -2.36, respectively.

Discussion

Our examination of the effects of self-other comparison and differentiation on TDA confirmed our expectations. Both self-other comparison and differentiation reduced aggression toward an out-group target in the trigger and no-trigger conditions relative to the control condition (i.e., no decategorization). However, their aggression-reducing effects were greater when the out-group target had triggered the participant.

Although we did not have direct measures of category salience, we assume that our decategorization manipulations had reduced the category salience of the out-group target, as well as having individuated her. In turn, this made her appear less negative to the participant, thereby reducing TDA. These findings are consistent with and analogous to previous research in which valenced target attributes, such as group membership and personality traits (likeable or dislikeable target), were shown moderate the magnitude of retaliatory aggression in the TDA paradigm (Pedersen et al., 2006). More specifically, Pedersen et al. showed that provoked and triggered participants aggressed most towards targets who possessed negative attributes (either possessed negative personality traits or were outgroup members), relative to those who possessed positive attributes or were in-group members.

A limitation of Study 1 is that we did not have manipulation checks that directly assessed the effects of our de-categorization manipulations. In Experiment 2, we included such checks. In addition, we examined the effects of another component of personalization, self-disclosure, on aggression toward an out-group member in the TDA paradigm.

STUDY 2

Self-Disclosure

Self-disclosure refers to the voluntary disclosure of personal, relatively intimate information to another person or persons. Numerous studies (Cozby, 1972; Jourard, 1971, as well as meta-analysis (Collins & Miller, 1994) show a positive relation between self-disclosure and liking for the discloser. In addition, and more pertinent here, self-disclosure can also reduce bias against out-groups (Brewer & Miller, 1984; Ensari & Miller, 2001, 2002; in press; Urban & Miller, 1998; Worchel, 1986). In keeping with these effects, we expected self-disclosure to reduce aggression towards a triggering out-group member who self-disclosed to the aggressor.

In Experiment 2 we used negative self-disclosure to induce comfort and trust in participants. Negative self-disclosure involves disclosing negative aspects of the self to another. Although disclosing more extreme negative attributes and behaviors can reduce liking for the discloser by making him/her appear threatening, maladjusted, and/or inappropriate (Collins & Miller, 1994), by contrast, the disclosure of moderately or mildly negative qualities is likely to increase liking and comfort. Additionally, and perhaps even more strongly than when disclosing moderately positive intimate aspects of the self, negative self-disclosure carries with it the implicit message that the discloser trusts and likes the participant. This increased trust and liking is the more potent effect, overcoming the potential negative effect of the moderately negative substantive information that is revealed. It is this implicit message of trust and liking that then induces reciprocal liking for the discloser (Ensari & Miller, 2001, 2002, 2005).

Note also, however, that an induction of positive self-disclosure would be a more ambiguous manipulation. Not only will the act of self-disclosure itself have positive effects on perceptions of the discloser, but so too will the positive content of that which is disclosed. By contrast, any positive effects on perceptions of the discloser that are elicited by the disclosure of negative information can only be attributed to the act of disclosing itself, and not to the content of the disclosed information. In sum, then, under conditions of negative self-disclosure we expected a triggering out-group member to be perceived more positively. Consequently, there will be a reduction in the degree to which the triggering act will induce retaliatory aggressive behavior.

Negative Self-Other Comparison

In Study 2 we also sought to show that all forms of self-other comparison will not invariably reduce TDA toward and our-group member. Recall that in Study 1, we carefully controlled valence in our depiction of the participant's out-group partner. We did so by balancing the valence of the trait scores on the personality profile of the out-group member to assure that the overall valence of his or her personality, as depicted by his or her scores across the traits comprising the profile, was neutral. Under these conditions, self-other comparison had the expected beneficial effect of reducing aggressive responding after the participant had been provoked and subsequently triggered by that out-group

member. By contrast, in Study 2, we induced negative self-other comparison, and hence, expected a different effect.

When one learns that one's out-group partner is characterized by moderately negative attributes, and in addition, one has no reason to believe that one is liked and trusted by the possessor of those attributes, the negative information revealed by the self-other comparison will have detrimental effect on ones attitudes toward that out-group member. From Pedersen et al. (2006), we can not only expect more aggression in the TDA paradigm to be displaced towards a person with undesirable attributes, but also, toward a person who belongs to an out-group. From Study 1, however, wherein valence of information was controlled, we learned that the act of self-other comparison with an out-group member has the beneficial effect of reducing TDA. Under a condition of negative self-other comparison with an out-group member, however, the positive effect of self-other comparison *per se* is likely to be counteracted by the effect of the negative substantive information that is revealed. Therefore, as a result of these two counteracting forces, we expected the level of TDA under negative self-other comparison to match that of the no-information control condition and to differ from that seen in the self-disclosure condition. Study 2 tested this prediction.

In sum, the purpose Study 2 was to assess the effects of negative self-disclosure and negative selfother comparison on TDA towards an out-group member. Our first prediction was that moderately negative self-disclosure from a triggering out-group member would reduce TDA towards that target relative to control (no personalization) or negative self-other comparison conditions. Our second prediction concerned the expected levels of aggression for triggered participants in the negative selfother comparison condition. On the one hand, given our hypothesis about the potential negative priming effects of out-group membership, one might expect that a self-other comparison which presents additional negative characteristics about the out-group target would produce higher levels of aggression relative to the control condition. We have argued instead, however, that the negative content revealed by the self-other comparison information presented in Study 2 would merely counteract the positive effect of self-other comparison *per se* that was shown in Study 1, wherein the average valence of the information revealed by the self-other comparison was controlled to be neutral. Thus, as a result of the canceling effect of these two counteracting forces, we expected negative self-disclosure to merely confirm the participant's pre-existing idea that out-group members are unlikable, yet fail to further augment aggressive retaliation beyond that exhibited in the control condition.

Finally, in Study 2 we used a different dimension to define group membership. All participants were Liberals. They were always paired with a confederate who claimed to be a Conservative.

Method

Participants and Design

Fifty-two lower division undergraduate females from the University of Southern California participated in the experiment for course credit. They were randomly assigned to one of the six conditions in a 2 (trigger/no trigger) \times 3 (negative self-other comparison; negative self-disclosure; no-information control) factorial design with a constant antecedent provocation.

Procedure

Upon arrival, each participant was seated individually in a room and told that another female was simultaneously participating in their experimental session. They were led to expect to work alone on

the first and third of three tasks, but work with the other participant on the second. Participants were told that our purpose was to investigate how certain characteristics, including personality traits and ideology, affected a person's problem-solving and decision-making skills. Ostensibly, we used each participant's political affiliation as a measure of his or her general ideological perspective. Participants were asked to complete consent forms and provide demographic information, including political affiliation.

Information on participants' political affiliation was used to make group membership salient and enhance in-group identification. Participants were first asked to complete a bogus personality questionnaire and then instructed to list 10 issues in which their own opinion differed from those of members of the opposing political party. In addition, they were asked to pick the most important issue and write why they believed their own opinion was more defensible than that of members of the other political party. The experimenter then collected these materials.

Next, the participant was told that she would be paired with either a democrat or a republican, depending on the other person's category membership, and that the experimenter would assess and compare their performances on a NASA task to see how members of similar or different parties performed. The true purpose of this task was to make future self-disclosure more believable and natural by acquainting the participant and her partner. In reality, all participants were paired with an alleged out-group member, a confederate. Both members of the pair received a nametag that stated political identity, and asked to write their identity on every response form.

The participant was then given materials for the "NASA task." The written instructions asked her to imagine that she had been forced to land on the moon, 200 miles away from a rendezvous point with a mother ship. Each participant was given the same list of 15 items and asked order their priority for the trek to the mother ship, from most to least important. They were to work together and discuss suggestions for the list carefully. Then, each independently would make a ranking. They were instructed to avoid discussing anything other than their work. After 5 minutes the experimenter collected their finished work and told them that they would once again work in separate rooms. After the confederate left the room, and the experimenter continued the session with the participant alone.

Provocation

The provocation induction was the same as that employed in Study 1.

Manipulation of Self-Disclosure and Self-Other Comparison

Next, we manipulated the relevant personalization components: negative self-disclosure and negative self-other comparison. In the self-disclosure condition, as part of our cover story, we told the participants to form an impression of their partner using (a) their impressions, (b) the results of the bogus personality questionnaire her partner had completed, and (c) her score on the other tasks they had completed. Ostensibly, we intended to examine links between personality, ideology, and cognitive performance and examine their match with that of previous studies.

In addition, we told participants that we were interested in examining the facilitating effect of drawing from their partner's (i.e., the confederate) personality questionnaire to form a more complete and accurate impression of her. This provided a rationale for reading about their partner's personality traits. We told participants that we had evaluated their partner's responses to the personality questionnaire they had previously completed, and that their partner had scored high on five different personality traits (which we describe below). These traits were listed on a single sheet of paper, along

with additional information pertinent to the experimental manipulations. We led the participant to believe that she had been randomly placed in a condition in which her partner had the option of allowing her to use her personality traits to try to from an impression. We led her to believe that her partner had indeed willingly decided to let the participant see and use the results of the questionnaire. We expected this to lead participants to believe that their partners were voluntarily sharing or self-disclosing the negative personal information that would subsequently appear on the partner's personality profile. To further strengthen this perception, we created a bogus release form in which the confederate indicated that she had read the information that the personality questionnaire had revealed and had given the participant permission to read and use it.

Research shows that self-disclosing to another person also increases liking for the recipient of information as well as the self-discloser (Collins & Miller, 1994). To ensure that our self-disclosure effects could only be attributed to the receipt of negative personal information from the confederate, all participants were told that they did not have the option of disclosing to the confederate. Instead, they were in an experimental condition wherein their partner would form an impression of her based solely on the short interaction they had had.

The participants in the negative self-other comparison condition received and read the same list of personality traits and the same basic cover story as those in the self-disclosure condition. In addition, we stated that we wanted them to combine their impressions of the confederate with the results of the personality questionnaire that the confederate had completed earlier in order to form a single composite of their partner's personality. Consequently, they received a personality profile showing both their own and their partner's scores. They were further instructed that past research had shown that people processed information better and assessed their partner more accurately if they thought about where their partner falls on each trait dimension in comparison with themselves.

The participants in the control condition received no information about personality traits; they were only asked to form an impression of their partner. They merely completed a two-page packet to indicate the impression they formed of the confederate.

Valence of Information

The list of personality traits included five traits, three of which—impractical, unpunctual, and unobservant—were rated as moderately negative in previous work containing normative data on a large set of traits (Anderson, 1968). To reduce suspicion about a confederate who possessed several negative attributes and to lower the likelihood that the confederate would be perceived as maladjusted by revealing too much negative/intimate information (see Collins & Miller, 1994), two of the selected traits—moralistic and conventional—were ones that had been rated as neutral.

Trigger Manipulation

Following the personalization manipulation, the participants engaged in a second NASA task that subsequently provided the context for and manipulation of the trigger. This second NASA task and the manipulation of the trigger paralleled that in Study 1.

Aggression

Following the trigger manipulation, participants completed the aggression measure, which paralleled that of Study 1. It asked them to decide how long their partner should hold her hand in icy water,

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ostensibly as a distraction while performing another task. They used a 9-point Likert-type scale starting at '1 = *no distraction at all*' which increased by 10-second intervals to '9 = 80 seconds/very strong *distraction*'. They then slid this aggression response sheet under the door so that a second research assistant could administer the task to the bogus partner. Next, they completed seven trigger manipulation check items using a 7-point Likert-type scale that ranged from 1(not at all) to 7 (extremely so) to react to the evaluation they had received from the confederate on the second NASA task: (1) happy; (2) annoyed; (3) complimented; (4) irritated; (5) pleased; (6) angry; (7) offended.

Results

Trigger Manipulation Checks

We withdrew three participants from the analyses because of suspicion. We formed a composite of the seven trigger manipulation check items ($\alpha = 0.93$). As expected, participants in the trigger condition reacted more negatively to the evaluation from the confederate (M = 4.99) than those in the no trigger condition (M = 2.74), t(45) = 7.36, p = 0.00.

Self-Disclosure and Self-Other Comparison Manipulation Checks

The participants used a 7-point Likert-type scale that ranged from '1 = not at all' to '7 = extremely so' to indicate the degree to which they felt comfortable with the confederate, trusted her, and liked her. We created a composite using these three items ($\alpha = 0.72$). A one-way ANOVA showed a reliable self-disclosure effect, indicating that participants felt more positively toward the confederate in the negative self-disclosure condition (M = 4.81), relative to the negative self-other comparison (M = 3.94) and no-information control conditions (M = 4.03), F(2, 48) = 4.33, p = 0.02. A *post-hoc* multiple comparison applying the Bonferroni method to the three levels of personalization showed a more favorable attitude toward the confederate in the negative self-disclosure condition relative to the self-other comparison (p = 0.03) or the no-information control conditions (p = 0.06). The latter two conditions did not differ.

To assess the degree to which the participants engaged in self-other comparison with the confederate, they indicated how often they had: (1) thought about their partner's personality in comparison with their own, (2) thought about general similarities and differences between themselves and their partner, and (3) thought about similarities and differences in ideology between themselves and their partner, using a Likert-type scaled that ranged from '1 = not at all' to '7 = extremely so.' In a one-way ANOVA applied to the composite of the three self-other comparison items ($\alpha = 0.75$) participants in the negative self-other comparison condition directionally thought more often about similarities and differences between themselves and the confederate (M = 2.98) relative to the negative self-disclosure (M = 2.90) and neutral conditions (M = 2.80), but no reliable differences emerged.

Aggression

As previously described, the aggression measure consisted of the length of time the confederate should put her hand in ice water. A 2 (trigger/no trigger) × 3 (negative self-disclosure/negative self-other comparison/neutral control) between subjects ANOVA revealed a main effect of trigger, F(1, 48) = 11.08, p = 0.00 and a main effect of personalization condition, F(2, 48) = 3.93, p = 0.03. These effects, however, were qualified by an interaction between trigger and personalization condition,



Figure 2. Mean aggression as a function of trigger and personalization components (viz., negative self-disclosure and negative self-other comparison)

F(2, 43) = 3.25, p = 0.05 (see Figure 2). Relative to participants in the no-information control/no trigger condition (M = 2.67, SD = 1.58, n = 9), those in the no-information control /triggered condition expressed higher levels of aggression (M = 5.50, SD = 2.33, n = 8), t(15) = 2.97, p = 0.01, d = 1.44. Similarly, triggered participants in the negative self-other comparison condition (M = 5.50, SD = 1.93, n = 8) aggressed more strongly than non-triggered participants in the negative self-other comparison condition (M = 3.13, SD = 1.81, n = 8), t(14) = 2.54, p = 0.02, d = 1.28. In the negative self-disclosure condition, however, we found no difference in aggression levels between triggered (M = 2.63, SD = 1.85, n = 8) and non-triggered participants (M = 2.75, SD = 0.89, n = 8), t(14) = -0.17, p > 0.20, d = -0.08. Finally, as expected for triggered participants, aggression was reliably lower in the self-disclosure condition relative to that seen in the no-information control, t(14) = -2.74, p = 0.02, d = -1.37 and negative self-other comparison conditions, t(14) = -3.05, p = 0.01, d = 1.52.

Testing the Process Model

We hypothesized that negative self-disclosure produces a positive attitude toward the discloser, which functions to inhibit aggression. In addition, self-disclosure was expected to produce a less-negative reaction to the trigger, thereby reducing the motivation to aggress. We created a path model to explore this hypothesis (Figure 3). Because we found no differences in aggression or on the manipulation-check comparisons between the negative self-other comparison and no-treatment control conditions, we pooled them for the mediational analysis. The hypothesized model proved to be a relatively good fit to the data as demonstrated by a non-significant chi-square goodness-of-fit test, $\chi^2(3) = 2.75$, p = 0.25, a high-comparative fit index, CFI = 0.97, and root mean square error of approximation, RMSEA = 0.09.

We tested two additional models to rule out alternative explanations for the relationship among our variables. First, we tested a model in which personalization, in addition to predicting liking, also predicted aggression. Liking predicted negative reactions to the trigger, which in turn, predicted aggression. This model differed from the first in that we added a direct path from personalization to aggression. It did not fit the data as well as the first, $\chi^2(2) = 3.37$, p = 0.19, CFI = 0.95, and RMSEA = 0.12.

Second, we tested a model in which personalization predicted liking, negative reactions to the trigger, and aggression. Liking predicted negative reactions to the trigger, which in turn, predicted



Figure 3. Path model demonstrating the expected relationships between negative self-disclosure, liking for the target, negative reactions to the trigger, and physical aggression; all paths are significant at p < 0.05

aggression. As with the first alternative model, this second alternative model did not fit the data as well as our original model, $\chi^2(1) = 1.58$, p = 0.21, CFI = 0.98, RMSEA = 0.11.

Discussion

As predicted, negative self-disclosure from the triggering out-group member reduced TDA. In contrast, negative self-other comparison did not reduce TDA relative to the no-information control condition. Although seemingly paradoxical at first, an out-group member's voluntary disclosure of moderately negative aspects of the self to the participant augmented liking for the discloser. This more favorable attitude functioned to suppress aggression. Negative self-disclosure also reduced the negative affective reaction to the trigger, thereby reducing the motivation to retaliate (see Figure 3). As previously stated, this two-step mediation model was shown to be a good fit of the data.

Interestingly, triggered participants in the negative self-other comparison condition also learned about these same undesirable attributes of the out-group confederate, but their aggression did not differ from that seen in the trigger/no-information control condition. One might argue that an out-group member with negative characteristics should prime higher aggression levels relative to the no-information condition. Although the lack of difference in aggression between the control and negative self-other comparison conditions might at first appear anomalous, we argued previously that it was to be expected. Study 1 had shown a positive effect for self-other comparison when the overall valence of information presented about both self and other was controlled to be neutral. This positive effect was expected to counter the negative substantive information revealed about the other in the negative self-other comparison condition, making aggression toward the confederate equal to that seen in the no-information control condition.

GENERAL DISCUSSION

In two studies we have shown that distinct forms of bottom-up processing of information about a specific out-group person—differentiation and self-other comparison (Study 1), and self-disclosure (Study 2)—can reduce TDA towards an out-group member. Numerous previous studies have shown that personalization can reduce intergroup bias (Brown & Hewstone, 2005). The most interesting

implication of our findings, however, is that the beneficial effects of the individual components of personalization (and differentiation too) can extend to situations in which an individual has been instigated to aggress and has the opportunity to retaliate against a triggering out-group member. In other words, bottom-up de-categorization can produce positive results not only in the absence of provocation, but also, when an aggressor has been triggered by an out-group member and is presumably strongly motivated to retaliate against that individual. Our research is the first to examine this effect in the TDA paradigm.

At the same time, the different effects of self-other comparison seen in our two studies suggest that the relative positivity/negativity of that which is revealed by such comparison is important too. In Study 1, wherein the average valence of the information that was made salient about both self and other was constrained to be neutral, comparison of self to other had an aggression reducing effect by comparison with the no-information control condition. In Study 2, wherein the content of self-other comparison was made to reveal that the attributes of the other were on average both negative, and more negative than those of the self, no such benefit emerged.

Our data also allowed us to be more analytical with respect to an understanding of the process by which self-disclosure produced its aggression-buffering effect in the TDA paradigm. There are two potential explanations for the process through which personalization might reduce aggression. One explanation is that participants in the trigger/personalization conditions inhibit aggressive responding after they have been induced to perceive the target more positively. Accordingly, they may be irritated by the trigger just as much as those in the trigger/no-personalization condition, but they are *more forgiving of a triggering event* from a target who they had perceived more positively only minutes before.

A second explanation is that triggered participants who perceive their out-group target positively are *not irritated by the trigger*, and thus, retaliate to a lesser degree than those who maintain more negative perceptions of their out-group target. Our findings support this latter explanation. We have provided interesting, albeit limited, evidence suggesting that these personalization processes reduce aggression by (1) inducing a more favorable attitude toward the target, which, in turn, reduces aggression, and by (2) limiting the negative impact of the trigger. In turn, this lowered negative reaction to the trigger reduced their motivation to aggress against the triggering target. In contrast, when personalization provided a negative image of the triggering confederate without inducing trust (viz. the negative self-other comparison condition), aggression remained comparable to that seen in the neutral control condition.

Limitations

Some might object that we only studied out-group targets, wishing instead that we had included both an in-group and a no-group control condition. In-group targets might add an interesting comparison by providing, for instance, the opportunity to examine Black-Sheep-like effects in the negative self-other comparison conditions of Study 2. And had we included both in-group and no-group comparison conditions, we could speak definitively on whether the personalization components and decategorization procedures that we studied interact with group membership. That, however, was not our focus. Believing that the display of aggression toward out-group persons is the more pressing problem, we focused our research solely on aggression toward an out-group member.

A more telling criticism, however, is that we did not incorporate individuation-only control conditions in our designs. This omission precludes assessment of the degree to which the manipulated personalization components reduced aggression beyond the reduction that might have been seen from individuation alone. Note, however, that although our differentiation, self-other comparison, and

self-disclosure procedures are each likely to simultaneously individuate the target of aggression, this confounding with individuation per se was constant, not differential. That is, within each study, our procedures assured that identical amounts of identically valenced pieces of individuating information about the target person were presented in each of the distinct inductions of bottom-up processing. Thus, although the effect of our manipulations may indeed be attributable in part to individuation *per se*—a fundamental component of any personal interaction—one cannot attribute the convergent and divergent effects of our manipulations of distinct components of bottom-up de-categorization to any confounding with differential levels of individuation in that (with the exception of the no-information control condition) we always held constant the level of individuation within each study. Nevertheless, from an analytical sense it will be important in future research to isolate the unique contribution of individuation *per se*.

It should be noted that our research herein was constrained to examine the aggression-reducing effects of bottom-up processing of personal information about a particular triggering out-group member. The effects of our manipulations on inclinations to aggress toward other members of that triggering out-group person's social category remain unstudied.

In conclusion, elsewhere (Miller et al., 2003) we have argued that the occurrence of TDA is relatively frequent in real-world interactions. Our studies herein show that when triggered by an out-group stranger, aspects of personalized interaction with that out-group member (viz. self-other comparison and self-disclosure) as well as a bottom-up processing of information that differentiates that out-group member from the group stereotype can reduce its magnitude.

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APPENDIX A

Personality Trait Evaluation

Below is the list of personality traits that both you and your partner have just assessed. **Remember to think about where** your partner falls on different personality dimensions as compared to yourself. The ratings have been color-coded to facilitate your processing of the information.

Please refer to the color key here:

Your You	Partner
1.	I am generally friendly with people
2.	I do not always get angry with others
3.	I am empathetic to people around me
4.	I am not a pessimist
5.	I can be relied on to get things done
6.	I do not like to be dependent on others
7.	I can be quite stubborn at times
8.	I tend to be absent-minded at times
9.	People generally find me predictable
10.	I can be quite selfish sometimes
11.	Sometimes I get arrogant for my accomplishments.
12.	I am suspicious of people and things easily
13.	People often view me as irresponsible
14.	I am not always tolerant of others.
15.	I am often careless in doing things

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Unusually Low <------ Average-----> Unusually High

APPENDIX B

Personality Trait Evaluation

Below is the list of personality traits that both you and your partner have just assessed. Remember to think about where your partner falls on different personality dimensions as compared to others with the same religion: ______.

The ratings have been color-coded to facilitate your processing of the information. Please refer to the color key here:

Your Partner				
Typical Others	Unusually Low	<	>	Unusually High
1. I am generally friendly with people			a print.	
2. I do not always get angry with others				
3. I am empathetic to people around me				
4. I am not a pessimist				
5. I can be relied on to get things done				
6. I do not like to be dependent on others				
7. I can be quite stubborn at times				
8. I tend to be absent-minded at times				
9. People generally find me predictable				
10. I can be quite selfish sometimes		_		
11. Sometimes I get arrogant for my accomplishments.		_		
12. I am suspicious of people and things easily				
13. People often view me as irresponsible				
14. I am not always tolerant of others				
15. I am often careless in doing things			interior de	

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