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A tool for thought!

When comparative thinking reduces stereotyping effects

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Abstract

Stereotypes have pervasive, robust, and often unwanted effects on how people see and behave towards others. Undoing these effects has proven to be a daunting task. Two studies demonstrate that procedurally priming participants to engage in comparative thinking with a generalized focus on differences reduces behavioral and judgmental stereotyping effects. In Study 1, participants who were procedurally primed to focus on differences sat closer to a skinhead – a member of a negatively stereotyped group. In Study 2, participants primed on differences ascribed less gender stereotypic characteristics to a male and female target person. This suggests that comparative thinking with a focus on differences may be a simple cognitive tool to reduce the behavioral and judgmental effects of stereotyping.

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Stereotypes are a blessing for social perceivers. They allow them to form impressions of and make judgments about others, even when processing capacity or relevant information is scarce (Macrae, Milne, & Bodenhausen, 1994). However, this blessing is clearly mixed, as the efficiency advantages of stereotyping often come at the cost of reduced accuracy. Because social perceivers typically assimilate their judgments about members of a stereotyped group to the content of the pertinent stereotype, they may over-ascribe stereotypic characteristics to group members. Oftentimes, however, social perceivers are either internally motivated or externally pressured (Plant & Devine, 1998) to make judgments that remain uninfluenced by stereotypes. Achieving this goal is a daunting task that requires a sizeable chunk of the limited processing resources that cognitive misers (Taylor, 1981) have available (e.g., Bodenhausen, 1988, 1990; Galinsky & Moskowitz, 2000). What is more bothersome: Even if social perceivers allot precious processing resources, their judgments and behaviors are not necessarily protected against unwanted stereotypic influences. In fact, social perceivers who try to suppress a stereotype may later be troubled by rebound-effects that make stereotypic content even more accessible and consequently influence their judgment and behavior in subsequent tasks (Macrae, Bodenhausen, Milne, & Jetten, 1994). Because stereotype activation is often spontaneous (Bargh, 1999), its judgmental and behavioral consequences are difficult to undo.

This is not only unfortunate, it is also surprising -- particularly from a somewhat broader perspective on stereotyping. Stereotyping effects capture the consequences of thinking categorically about others (Macrae & Bodenhausen, 2000) and are thus in essence category activation effects on person judgment. Other examples of such effects have proven to be more malleable. Activating trait categories (e.g. aggressiveness), for example, only yields assimilation effects on subsequent person judgments under specific circumstances (for an overview, see Förster & Liberman, 2007).

Recently, it has been suggested that this flexible nature of trait category activation effects can be partly attributed to one of the most fundamental characteristics of person judgment, namely its comparative nature (Mussweiler & Damisch, 2008). When people judge themselves or others they inevitably make comparisons with accessible standards (Festinger, 1954). Such comparisons contribute to category activation effects, because activating a particular category also activates category-consistent comparison standards that can then be compared to the target person (Smith & Zaraté, 1992). Activating the trait category of aggressiveness, for example, activates aggressive person standards (e.g., George Bush) that are then compared to the target person (Mussweiler & Damisch, 2008). Typically, this comparison will yield assimilative effects, because as a default, judges focus on similarities between comparison target and standard (Mussweiler, 2003). However, if judges focus on differences between target and standard during a comparison, then target judgments are not assimilated to the activated category, and may even be contrasted away from it.

Recent research examining the consequences of trait category activation on person judgment demonstrates this possibility (Mussweiler & Damisch, 2008). Here, judges were procedurally primed to focus on either similarities or differences by comparing sketches of two scenes before a trait category was activated. This was done by simply asking half of the participants to list all the similarities between the two scenes they could find and asking the other half to list all the differences. Previous research has demonstrated that this task activates an informational focus on either similarities or differences that carries over to a subsequent person judgment task (Mussweiler, 2001). These person judgments were assimilated to the activated trait category if participants had been procedurally primed to focus on similarities, but not if they had been primed to focus on differences. A focus on differences thus countered the typical assimilative consequences of trait category activation. This finding extends earlier work examining how comparison thinking influences trait category priming effects (e.g.

Stapel & Koomen, 2001). Whereas this earlier research suggested that comparative thinking per se may work against assimilative priming effects, these more recent findings, demonstrate that this is only true for one particular type of comparative thinking, namely comparisons that involve a focus on differences.

In much the same way, a comparison focus on differences may also work against the assimilative effects of social category activation and may thus reduce stereotyping effects. Just as the activation of a trait category activates consistent standards, the activation of a social category is likely to activate stereotypic category members that are then compared to a target person (Smith & Zaraté, 1992). If this comparison involves a focus on differences, the previously described research suggests (Mussweiler & Damisch, 2008) that stereotyping effects may be reduced. The present research was designed to examine this possibility. To do so, we procedurally primed participants to focus on similarities or differences before they engaged in a stereotyping task. Study 1 examined how these alternative comparison foci influenced participants' behavior towards the member of a stereotyped group. Study 2 examined how these foci influenced judgments of group members. In both cases, we expected that a comparison focus on differences would reduce stereotyping effects.

Study 1

In our first experiment, we procedurally primed (Smith, 1994) participants with a focus on similarities versus differences (Mussweiler & Damisch, 2008; Mussweiler, 2001) and then assessed their behavior towards a member of a stereotyped group. Specifically, we observed how far participants seated themselves from a chair that appeared to be occupied by a skinhead (Macrae, Bodenhausen et al., 1994). If a focus on differences reduces the extent to which negative stereotypic attributes are ascribed to the target person, this should reduce the tendency for participants to put distance between themselves and the skinhead, leading them to sit closer to him.

Methods

We recruited 36 university students as participants and offered them a compensation of €6.

The experiment was modeled after the classic study by Macrae and colleagues (Macrae, Bodenhausen et al., 1994). Participants completed three different tasks that were ostensibly unrelated. First, participants worked on the stereotype activation task. Here, they were given a picture of a skinhead and asked to take 5 min to describe a typical day in his life.

In the second, the procedural priming task, we manipulated participants' focus on similarities vs. differences (Mussweiler & Damisch, 2008, see also Mussweiler, 2001). All participants received sketches of two scenes depicting urban squares in the 19th century. We instructed about half of our participants to write down as many similarities and the other half to write down as many differences between the two scenes as they could find. Previous research (Mussweiler, 2001) has established that this task induces a focus on similarities versus differences that carries over to subsequent tasks.

Participants were then informed that the final task would be administered in a different lab. While leading them to a nearby waiting room, the experimenter explained that they would be asked to take off their shoes and socks for a biopsychological study on temperature perception with one's feet. In the waiting room, seven chairs stood along the wall. The second-closest chair to the door was ostensibly occupied by another person. A bomber jacket was hanging over the back of the chair and a pair of white laced military boots with sports socks was lying in front of it. These items are prototypical of the standard skinhead attire. As soon as participants took a seat, the experimenter ended the study and debriefed participants using funneled debriefing. Here, participants were probed for whether they saw a connection between the different tasks, and whether they had seen the target person as belonging to a social category other than skinhead.

In sum, Study 1 is based on a single factor (similarity vs. dissimilarity focus) between-subjects design.

Results and Discussion

The funneled debriefing revealed that four participants saw the target person as a left-wing punk – a category associated with characteristics that are opposite to those of the skinhead category. Given that – as is true for most items that could be realistically used in our experimental setup – the bomber jacket and military boots are not exclusively associated with a single social category, such alternative categorizations are inevitable. Five participants saw a connection between priming and seating task. These participants were excluded from further analyses, leaving a final sample of 27 participants.

Our central dependent variable is participants' seating position. We coded participants' choice of chairs such that 1 indicates one of the chairs next to, and 5 the chair furthest away from, the chair occupied by the skinhead, who presumably may return at any moment. If participants are less likely to stereotype the skinhead when focused on differences than when focused on similarities, this should be apparent in their seating choice. The results are consistent with this reasoning. Participants primed to focus on differences sat closer to the chair of the skinhead ($M = 2.31, SD = 1.11$) than did participants primed to focus on similarities ($M = 3.29, SD = 1.2$), $t(25) = 2.19, p < .04, d = 0.85$.

These findings suggest that a difference focus may reduce behavioral stereotyping effects. Stereotyping, however, is not only apparent in how we behave towards others, but also in how we judge and evaluate them. Study 2 was designed to examine whether judgmental stereotyping effects may be similarly reduced by a difference focus.

Study 2

To do so, we again induced participants to focus on similarities versus differences with a procedural priming task. Subsequently, they judged a male versus female target person

with respect to a number of characteristics that are closely related to the gender stereotype.

We hypothesized that participants who focused on differences would see and judge the target persons in less stereotypic ways.

Methods

We recruited 91 male and female university students as participants and offered them a chocolate bar as compensation.

Upon arrival in the lab, participants were asked to work on two separate tasks. The first task was the procedural priming task, which was identical to the one used in the Study 1. The second task was the stereotyping task. Here participants were instructed to assume the role of a personnel manager and to evaluate whether an employee was qualified for an IT-training program based on some general information (e.g., short CV, comments from coworkers). For about half of the participants, the employee was female (“Christiane Müller”) for the other half he was male (“Christian Müller”). After forming an impression of the employee, participants were asked to judge him/her on nine dimensions including four critical ones. The critical attributes were closely related to stereotypes about male (technically skilled, logically skilled) and female (sympathetic, and compassionate) professional skills. They appeared in the 3rd, 4th, 6th, and 8th position and were interspersed with stereotype-unrelated dimensions (e.g., enthusiastic). Participants made their ratings for each attribute on a 9-point rating scale ranging from 1 (a little) to 9 (very). After completion of this task, participants were fully debriefed using a funneled debriefing, thanked for their participation, and offered their compensation. None of the participants were aware of the actual connection between the ostensibly unrelated tasks.

In sum, Study 2 is based on a 2 (similarity vs. difference focus) X 2 (female vs. male target) between subjects experimental design.

Results and Discussion

We combined participants' judgments on the stereotypic dimensions into one stereotypicality index by calculating the mean of the four attribute ratings (after reverse-scoring ratings for the stereotypically male dimensions). Thus, higher values on this index indicate that the target person was ascribed more stereotypically female skills and fewer stereotypically male skills. An analysis of ratings on the stereotype-unrelated dimensions revealed that they were uninfluenced by the gender of the target and the procedural priming, all F 's < 1.

However, the procedural priming influenced participants' rating on the stereotypic dimensions. As inspection of Figure 1 reveals, participants primed with a similarity focus judged the female target ($M = 5.61, SD = 0.58$) to be more stereotypically female than the male target ($M = 5.12, SD = 0.71$), $t(87) = 2.49, p < .02$. For participants primed with a dissimilarity focus, this was not the case ($M = 5.16, SD = 0.42$ vs. $M = 5.25, SD = 0.78$), $t < 1$. This pattern produced a significant interaction effect in a 2 (similarity vs. difference focus) X 2 (female vs. male target) ANOVA using the stereotypicality index as the dependent measure, $F(1, 87) = 4.91, p < .029, \eta_p^2 = .05$; $F < 2.1, p > .24$ for remaining effects. Including participant gender as a factor in this analysis did not change the results, and no effect including gender reached significance (all F s < 1).

These findings demonstrate that an induced focus on differences eliminates the judgmental consequences of activated stereotypes.

General Discussion

These two studies provide converging support for the notion that a comparison focus on differences may reduce the judgmental and behavioral consequences of stereotyping. Participants who were procedurally primed to focus on differences sat closer to a member of a negatively stereotyped group (skinhead) and ascribed less gender-stereotypic characteristics to

a male and female target person. This finding seems particularly noteworthy because stereotyping effects are typically fairly robust and difficult to correct for.

The present research extends previous findings examining the influence of different mindsets on stereotype activation (Sassenberg & Moskowitz, 2005). Specifically, this earlier research demonstrates that activating a broad mindset of creative thinking reduces the extent to which stereotypic associations are activated automatically. Although in this research a broad mindset of creative thinking was activated by simply asking participants to describe situations in which they had behaved creatively, one may speculate that among other things, this activated mindset also involves a focus on differences. The present studies go beyond this earlier demonstration, by (1) activating a specific information processing mechanism, namely a focus on differences, rather than a broad mind-set, (2) using a procedural priming manipulation to directly induce this difference focus, and (3) assessing consequences for stereotype use on the level of judgments and behavior rather than mere stereotype activation on the level of semantic associations.

In the present research, we used a procedural priming task to directly induce a generalized focus on similarities versus differences. These respective foci, however, can also be induced by unobtrusive environmental cues. For example, past research has demonstrated that simply exposing participants to advertisement headlines that refer to differences (“feel the difference”) is sufficient to induce a focus on differences that shapes comparison processes and their ensuing judgmental consequences (Häfner, 2004). In light of the present findings, such subtle cues may also help to reduce stereotyping effects.

In contrast to alternative strategies that may be used to correct for stereotyping effects (Strack, 1992; Wegener & Petty, 1997) or to suppress unwanted stereotypes altogether, a difference focus does not drain social perceivers’ limited processing resources. In fact, it has been demonstrated that comparative thinking has efficiency advantages that allow judges to

make judgments quicker without becoming less accurate (Mussweiler & Epstude, 2008). This suggests that a difference focus may be the perfect tool in the cognitive misers' toolbox (Macrae, Milne, & Bodenhausen, 1994) to undo the unwanted behavioral and judgmental consequences of stereotype activation.

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References

- Bargh, J. A. (1999). The cognitive monster: The case against controllability of automatic stereotype effects. In S. Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology*. New York: Guilford.
- Bodenhausen, G. V. (1988). Stereotypic biases in social decision making and memory: Testing process models of stereotype use. *Journal of Personality and Social Psychology*, *55*, 726-737.
- Bodenhausen, G. V. (1990). Stereotypes as judgmental heuristics: Evidence of circadian variations in discrimination. *Psychological Science*, *1*, 319-322.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*, 117-40.
- Förster, J. & Liberman, N. (2007). Knowledge activation. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social Psychology: Handbook of basic principles* (2nd ed., pp. 201 - 231). New York: Guilford.
- Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology*, *78*, 708-724.
- Häfner, M. (2004). How dissimilar others may still resemble the self: Assimilation and contrast after social comparison. *Journal of Consumer Psychology*, *14*, 187 – 196.
- Macrae, C. N., & Bodenhausen, G. V. (2000). Social cognition: Thinking categorically about others. *Annual Review of Psychology*, *51*, 93-120.
- Macrae, C. N., Bodenhausen, G. V., Milne, A. B., & Jetten, J. (1994). Out of mind but back in sight: Stereotypes on the rebound. *Journal of Personality and Social Psychology*, *67*, 808-817.

Macrae, C. N., Milne, A. B., & Bodenhausen, G. V. (1994). Stereotypes as energy-saving devices: A peek inside the cognitive toolbox. *Journal of Personality and Social Psychology, 66*, 37-47.

Mussweiler, T. (2001). Focus of comparison as a determinant of assimilation versus contrast in social comparison. *Personality and Social Psychology Bulletin, 27*, 38-47.

Mussweiler, T. (2003). Comparison processes in social judgment: Mechanisms and consequences. *Psychological Review, 110*, 472-489.

Mussweiler, T., & Darmisch, L. (2008). Going back to Donald - How comparisons influence judgmental priming effects. *Journal of Personality and Social Psychology, in press*.

Mussweiler, T., & Epstude, K. (2008) Relatively fast! Efficiency advantages of comparative thinking. *Journal of Experimental Psychology: General, in press*.

Plant, E. A., & Devine P. G. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology, 75*, 811-832.

Smith, E. R. (1994). Procedural knowledge and processing strategies in social cognition. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition* (2nd ed., Vol. 1, pp. 99–152). Hillsdale, NJ: Erlbaum.

Smith, E. R., & Zárate, M. A. (1992). Exemplar-based model of social judgment. *Psychological Review, 99*, 3-21.

Sassenberg, K., & Moskowitz, G. B. (2005). Don't stereotype, think different! Overcoming automatic stereotype activation by mindset priming. *Journal of Experimental Social Psychology, 41*, 506-514.

Stapel, D. A., & Koomen, W. (2001). The impact of interpretation versus comparison mindsets on knowledge accessibility effects. *Journal of Experimental Social Psychology, 37*, 134-149.

Strack, F. (1992). The different routes to social judgments: Experiential versus informational strategies. In L.L. Martin & A. Tesser (Eds.), *The construction of social judgment* (pp. 249-275). Hillsdale, NJ: Erlbaum.

Taylor, S. E. (1981). The interface of cognitive and social psychology. In J. Harvey (Ed.), *Cognition, social behavior, and the environment* (pp.182–211). Hillsdale, NJ: Erlbaum.

Wegener, D. T., & Petty, R. E. (1997). The flexible correction model: The role of naive theories of bias in bias correction. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 141-208). San Diego, CA: Academic.

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Figure 1: Means and standard errors for stereotypicality of judgments about a female or male target person (1-9) by similarity focus vs. difference focus. Higher values represent more stereotypically female evaluations. * $p < .05$

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Figure 1

