At the Heart of Egalitarianism: How Morality Framing Shapes Cardiovascular Challenge Versus Threat in Whites

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Abstract

Work on morality framing has demonstrated that emphasizing moral ideals (vs. obligations) elicits positive intergroup attitudes among Whites (Does, Derks, & Ellemers, 2011). The current research goes beyond self-reported attitudes, by examining the effect of morality framing on more automatic, less consciously controlled responses of Whites. We tested the hypothesis that morality framing affects Whites' appraisals of equality as challenging (vs. threatening) by measuring cardiovascular reactivity. Thirty-seven native Dutch participants gave an oral presentation of social equality in terms of moral ideals versus obligations, while we measured their motivations with cardiovascular (i.e., challenge vs. threat; Blascovich & Tomaka, 1996) and behavioral (i.e., eager vs. vigilant goal pursuit; Higgins, 1997) indicators. As hypothesized, and in contrast to the obligations frame, the ideals frame was found to motivate advantaged group members to approach and view equality as more of a challenge than a threat.

Keywords

egalitarianism, motivation, morality, social psychophysiology

Over the years, social norms have shifted toward egalitarianism—the social philosophy advocating the removal of inequalities among people—in the United States and most Western societies (Oyamot, Borgida, & Fisher, 2006). However, the extent to which individuals consider racial equality as a central goal has been shown to depend, in part, on their group membership. Namely, compared to non-Whites, Whites are significantly less likely to rate racial equality as an important personal goal (Eibach & Ehrlinger, 2006). At the same time, research in intergroup interactions demonstrates that Whites are highly concerned with being seen as moral and nonprejudiced (Bergsieker, Shelton, & Richeson, 2010; Vorauer, 2006). Also, prior work has shown how presenting equality as a moral ideal (vs. obligation) improves Whites' self-reported intergroup attitudes and their attitudes toward equality (Does et al., 2011).

Although morality frames of ideals versus obligations (Does et al., 2011) are both aimed at motivating advantaged group members toward social change, the ideals frame is more effective in shifting attitudes in favor of equality. It seems that emphasizing distinct moral incentives (i.e., attaining ideals vs. meeting obligations) elicits different *types* of motivation among Whites. Indeed, many recent studies demonstrate the importance of considering group members' goal orientation and self-regulation in understanding intergroup processes and relations (e.g., Jonas, Sassenberg, & Scheepers, 2010; Shah, Brazy, & Higgins, 2004; Vorauer & Turpie, 2004). Therefore,

the current work tests the hypothesis that morality framing shapes Whites' behavioral (i.e., eager vs. vigilant strategies to goal attainment; Higgins, 1997) and physiological (i.e., cardiovascular [CV] responses indicating psychological challenge vs. threat; Blascovich & Tomaka, 1996) responses. The central aim of the current research is to go beyond previous examinations of the impact of morality framing on Whites' intergroup attitudes (Does et al., 2011), by illuminating the motivational processes elicited by moral ideals versus obligations.

Inequality Framing: Affective and Attitudinal Outcomes

There is a growing body of work outlining the implications of inequality framing for individuals' attitudinal and affective responses to intergroup inequality. For example, it has been shown that describing inequality as White advantage as

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opposed to Black disadvantage leads to lower collective esteem, less prejudice, more collective guilt, and more support for redistributive policies among Whites (Doosje, Branscombe, Spears, & Manstead, 1998; Iyer, Leach, & Crosby, 2003; Powell, Branscombe, & Schmitt, 2005; Swim & Miller, 1999). Research focused specifically on the affective route of inequality framing has shown that when discrimination is framed in terms of the advantaged in-group (i.e., discrimination *by Whites*) this increases collective guilt, whereas discrimination framed in terms of the disadvantaged out-group (i.e., discrimination *against Blacks*) leads to increases in sympathy among Whites. Importantly, although sympathy and collective guilt both increase Whites' support for compensatory policies, only sympathy leads to support for equal opportunity policies. It has been argued that this difference between these two emotions may be due to sympathy's other-focused rather than self-focused nature (Iyer et al., 2003). Taken together, this work demonstrates how the psychological discomforts that are associated with the recognition of the in-group's unwarranted advantages can motivate advantaged group members toward social change.

However, these same discomforts can also motivate advantaged group members to avoid, oppose, and/or reject in-group frames of inequality. Indeed, there is work showing that framing inequality as dominant-group advantage can lead to opposition or defensive reactions among members of dominant groups. More specifically, when motivated to avoid negative psychological implications, such as collective guilt, members of advantaged groups may downplay existing status differences (Van Knippenberg, 1984), deny their group's privileges (Lowery, Knowles, & Unzueta, 2007), or deemphasize inequality altogether (Ellemers, Spears, & Doosje, 2002), all of which make social change less probable. Most recently it has thus been theorized that it may be more advantageous to describe inequality in a way which motivates advantaged group members to boost, rather than redeem, the perception of the in-group as moral (Does et al., 2011).

Morality Framing: Motivational and Behavioral Outcomes

The motivation to maintain a positive self-concept (e.g., being moral) can lead Whites to either want to restore (e.g., by supporting compensatory affirmative action policies; Iyer et al., 2003) or defend their group's moral standing by denying or downplaying the illegitimate privileges of the in-group (Lowery et al., 2007). However, Does and colleagues (2011) established that moral concerns do not necessarily lead to defensive or restorative reactions among Whites. Namely, their work shows that presenting equality as a moral *ideal* (vs. moral obligation) is less threatening to Whites' collective self-esteem, increases their support for affirmative action, and elicits more favorable attitudes toward cultural diversity within organizations. In addition, the latter was found to increase Whites' prioritization of equality. These findings demonstrate the effectiveness of moral incentives in establishing, beyond restoration and/or compensation, *positive* intergroup attitudes among Whites.

Recent studies underline the importance of considering group members' goal orientation and self-regulation in understanding intergroup processes and relations (e.g., Jonas et al., 2010; Shah et al., 2004; Vorauer & Turpie, 2004). In line with this trend, the current study examines the effects of morality framing on motivational and behavioral responses of Whites. Namely, we hypothesize that morality framing will affect how Whites pursue the goal of social equality—assessed by their choice of goal pursuit strategy (eager vs. vigilant). We base this prediction on regulatory focus theory (Higgins, 1997), which posits that the way individuals perceive a goal—as either an *ideal* or an *ought*—determines their type of goal pursuit as either eager or vigilant, respectively. Because the morality frames tap into the ideal/ought distinction outlined by Higgins (1997), we argue that they will affect Whites' goal pursuit strategies accordingly. Indeed, it has been found that morality framing predicts Whites' self-reported action tendencies in terms of do's (approach) versus don'ts (avoidance; Does et al., 2011). However, the current research will be the first step in determining whether morality framing shapes the *behavioral* goal pursuit strategy Whites adopt with regard to equality.

Furthermore, there may be an additional way in which the effect of morality framing on Whites is manifested: through physiological arousal. Indeed, moral values and/or concerns are considered guiding principles in people's lives and important regulators of human behavior (Ellemers, Pagliaro, Barreto, & Leach, 2008; Leach, Ellemers, & Barreto, 2007; Schwartz, 1992; Shavell, 2002). Due to the importance people ascribe to morality, framing equality in moral terms thus "raises the stakes." Hence, morality framing should induce arousal in advantaged group members who already have a heightened concern with being perceived as moral and unprejudiced in intergroup contexts (Bergsieker et al., 2010; Vorauer, 2006). Although we expect that both moral frames will increase Whites' arousal (indicative of goal relevance), we hypothesize that the type of arousal, in terms of constituting threat or challenge, will differ across conditions. We base this prediction on literature describing how motivational states can be categorized along a bipolar continuum ranging from challenge to threat (Blascovich & Tomaka, 1996). It is argued that it is not the objective situation per se, but rather people's subjective appraisals of the situational demands and available resources which eventually determine physiological responses in line with threat (i.e., vigilant approach) or challenge (i.e., eager approach).

Furthermore, general framing effects have been observed in threat/challenge responses during potentially stressful situations (Seery, Weisbuch, & Blascovich, 2009; Tomaka, Blascovich, Kibler, & Ernst, 1997). For example, when a task is framed as holding potential gains (vs. losses) and is something one can take on (vs. must do), this leads to challenge (vs. threat)-related appraisals (Seery et al., 2009; Tomaka et al., 1997). Based on the above, we hypothesize that presenting equality as a moral ideal (vs. obligation) will elicit experiences of challenge (vs. threat) among Whites. Namely, we argue that the obligations frame will constitute a threat to the self, because of this frame's emphasis on duties and thus potential negative outcomes (e.g., being perceived as prejudiced or biased). In contrast, we expect that the ideals frame will constitute a positive challenge, because of this

frame's emphasis on ideals and thus potential positive outcomes (e.g., being perceived as fair).

To examine these motivational responses to morality framing, we assess indicators specified by the biopsychosocial (BPS) model of arousal regulation (Blascovich & Tomaka, 1996). This model identifies specific patterns of CV responses associated with psychological challenge and threat. According to the BPS model, both threat and challenge are marked by activation of the sympathetic adrenal medullary (SAM) axis, enhancing cardiac performance and decreasing systemic vascular resistance. However, in the case of threat, there is an increased activation not only of the SAM axis, but also of the hypothalamic–pituitary–adrenal (HPA) axis, which inhibits decreases in systemic vascular resistance. Thus, while challenge is marked by enhanced cardiac performance and decreased systemic vascular resistance, threat is marked by enhanced cardiac performance and *increased* systemic vascular resistance. The use of these CV measures allows for an innovative examination of morality framing's effect on how Whites experience equality goals—as either challenging or threatening.

Current Study

To determine whether morality framing shapes Whites' motivational responses, participants are asked to give an oral presentation addressing equality in terms of moral ideals or obligations. Videotapes of participants' presentations are coded for behavioral cues of eagerness versus vigilance. Throughout, we examine changes in cardiac output (CO: the amount of blood pumped by the heart per minute) and total peripheral resistance (TPR: the amount of overall vasoconstriction or vasodilation occurring in the periphery). Because CV measures are less sensitive to deliberate distortion than self-report data (Mendes, Blascovich, Lickel, & Hunter, 2002), these measures provide a valuable addition to earlier work that focused on the (self-reported) attitudinal consequences of morality framing (Does et al., 2011).

Method

Participants and Design

After excluding three participants,[1] the sample consisted of 37 native Dutch students (11 males, $M_{age} = 21.24$, $SD_{age} = 2.20$) who were randomly assigned to the moral ideals or moral obligations condition.

Procedure

Upon arrival in the University's psychophysiological laboratory, participants were asked to read and sign a consent form, which stated that physiological as well as video data would be gathered and that participation could be terminated at any time during the experiment. After granting their informed consent, participants were seated behind a computer in a closed off cubicle. To measure the impedance cardiographic signals (ICG) and electrocardiographic signals (EKG), six electrodes

were placed on participants' torsos by the experimenter. Two sensors were placed on the chest (approximately at the level of the heart) and ribs, two at the back of the neck, and two on participants' upper backs. The blood pressure wristband was attached to participants' nonpreferred hand. After reading a short overview of the experiment, participants were instructed to sit very still for six minutes in order to assess baseline CV levels. A clock appeared on the screen, which counted down the six minutes. However, in order to prevent the inclusion of participants' anticipation of the final minute (e.g., physiological arousal) in the baseline measurements, the baseline assessment stopped after five minutes.

Following the baseline period, self-esteem was assessed using the 12 items of the core self-evaluations scale (CSES; Judge, Erez, Bono, & Thoresen, 2003), and each item scored from 1 (*absolutely disagree*) to 7 (*absolutely agree*; e.g. "I generally succeed when I try to do something"; Cronbach's α = .78). Inclusion of this measure enabled us to later control for these dispositional differences in the analyses of threat/challenge responses. Next, participants were asked to carefully read a (bogus) newspaper article about a study done by the Central Bureau for Statistics (CBS; see also Does et al., 2011), which they would later be requested to answer some questions on via webcam. The newspaper article stated that a recent study by CBS showed that native Dutch employees with a master's degree are systematically paid more and are promoted more often at their jobs than nonnative Dutch employees with the same educational background. The article included a graph showing the increasing differences in salary over a 10-year period between native and nonnative Dutch employees with the same educational level. The article also contained a picture depicting a middle-aged, White male as the fictitious senior CBS researcher. The article included paraphrases from the CBS researcher who stated—in both conditions—that these intergroup disparities were unfair and unjust and stated that (depending on condition): "Working in a culturally diverse organization can help native Dutch employees to attain (vs. meet) their ideals (vs. obligations) in terms of fairness and equality."

Speech task. To create a motivated performance situation as specified by the BPS model (Blascovich & Tomaka, 1996), participants were asked to give an oral presentation via webcam about equality in terms of ideals (vs. obligations), and how they could personally contribute to attaining the ideal (vs. meeting the obligation) of social equality. Participants were able to end the recording of their presentation by clicking the "next button" which was made available two minutes into the presentation. The speech time was automatically ended after three minutes. After completion, all physiological recording devices were removed by the experimenter. Finally, participants were debriefed, thanked, and rewarded with course credits or money.

Measures

CV measures. CV measures were assessed continuously and noninvasively following accepted guidelines (Sherwood et al.,

1990) utilizing a BIOPAC MP150 system (BIOPAC Systems Inc, CA). EKG and ICG recordings provide continuous measures of cardiac performance. ICG was assessed utilizing the NICO100c module, together with four spot electrodes (two of which were placed at the back of the neck and two on the lower back) to record basal transthoracic impedance (Z_0) and the first derivative of basal impedance (dZ/dt). The EKG signals were detected using an ECG100 module and a Lead I electrode configuration. A NIBP100a module, equipped with a wrist sensor that was placed over the radial artery of the participant's nonpreferred hand, measured the pulse wave from the radial pulse to determine arterial pressure. All physiological data were recorded with Acq*Knowledge* software (BIOPAC Systems Inc). Scoring of the data was performed blind to condition, utilizing ambulatory monitoring system (AMS) software (Free University, Amsterdam, the Netherlands). Taken together, ICG and EKG recordings allowed for computation of heart rate (HR), ventricular contractility (VC), and CO. The addition of blood pressure recordings allowed for computation of TPR (TPR = mean arterial pressure × 80/CO; Sherwood et al., 1990). For analyses of each CV marker, we calculated the reactivity scores by subtracting the last minute of baseline from the first minute of the speech task, as is common practice in CV analyses (e.g., Mendes et al., 2002).

Behavioral coding. We coded the videotapes of participants' presentations for behavior indicative of goal pursuit strategies in terms of vigilance versus eagerness (Higgins, 1997). We expected that White participants addressing equality in terms of obligations would be more vigilant (i.e., careful not to say anything prejudiced), engage in more self-monitoring, and thus be slower in their presentation (Monteith, 1993) compared to those addressing equality in terms of ideals. We reasoned that heightened speech monitoring should cause more *disfluencies* such as word lengthening, pauses, or fillers like "uh" (Arnold, Tanenhaus, Altmann, & Fagnano, 2004; Bell et al., 2003; Fox Tree & Clark, 1997), resulting in a decreased speech rate (Monteith, 1993). To test our hypothesis, we counted the number of words, excluding the disfluencies outlined above, in each participant's videotape ($M = 223.18$, $SD = 97.25$). We calculated the ratio variable speech rate ($M = 1.98$, $SD = 0.38$) by dividing the number of words by speech time (in seconds; $M = 112.32$, $SD = 42.37$). Calculation of this ratio variable allowed us to determine the effect of morality framing on speech monitoring, while controlling for individual differences in speech time (e.g., Firebaugh & Gibbs, 1985).

Results

Videotapes of three participants were not recorded and/or saved due to technical problems. Thus, there are variable degrees of freedom between the physiological and behavioral data.

CV Responses

Goal relevance. Separate univariate tests contrasting HR and VC reactivity scores to zero were conducted to determine goal relevance (Blascovich, 2008). We observed significant increases in HR and VC in both conditions ($ps < .001–.016$). As expected, there were no significant effects of morality framing on HR or VC reactivity (both $Fs < 1$), indicating equal levels of task engagement across conditions.

Threat and challenge during speech delivery[2]. As predicted, CV responses differed significantly between conditions. CO was higher among participants in the moral ideals condition ($M = 0.27$) than among participants in the moral obligations condition ($M = 0.12$), $F(1, 34) = 5.56$, $p = .02$, $\eta_p^2 = .14$. Moreover, participants in the moral ideals condition exhibited lower TPR ($M = -193.07$) compared to participants in the moral obligations condition ($M = 283.75$), $F(1, 34) = 4.81$, $p = .04$, $\eta_p^2 = .12$. Combined, these findings indicate that when giving a speech about equality, the moral ideals frame elicited greater relative challenge in Whites than the moral-obligations frame, which elicited greater relative threat.

Behavioral Responses

As predicted, there was a significant effect of morality framing on participants' speech rate, $F(1, 32) = 4.31$, $p < .05$, $\eta_p^2 = .12$. Participants in the moral–obligations condition spoke significantly slower ($M = 1.86$, $SD = 0.31$) than those in the moral ideals condition ($M = 2.12$, $SD = 0.42$), in line with the predicted increase in self-monitoring. Combined with the results on the CV reactivity responses outlined above, these results show that among Whites, addressing equality in terms of ideals (vs. obligations) leads to less vigilant behavior, and more appraisals related to relative challenge as indicated by its CV correlates.

General Discussion

Previous work has shown that presenting equality as a moral ideal versus obligation elicits positive intergroup attitudes among Whites (Does et al., 2011). The findings reported here provide support that the positive intergroup attitudes found in earlier work (Does et al., 2011) are not mere lip service, but instead, manifestations of a *genuine* shift caused by morality framing. By demonstrating that the moral ideals frame elicits more relative challenge (Blascovich & Tomaka, 1996) and less vigilant (Higgins, 1997) responses than the moral obligations-frame, the current research provides evidence that morality framing could be an effective way to not only impact positive intergroup attitudes (Does et al., 2011) but also significantly shape Whites' motivational strategies to goal attainment.

Potential Underlying Mechanism

Although the current examination does not provide direct evidence of this, it seems plausible to assume that the morality frames induce different regulatory foci (Higgins, 1997), which in turn affect appraisals of relative challenge versus threat. Namely, it is likely that the focus on moral ideals may cause participants to become focused on attaining potential gains

associated with equality, and a focus on moral obligations likely causes participants to become concerned with avoiding losses associated with equality. Consequently, these distinct goal orientations and their associated goal pursuit strategies of eagerness versus vigilance result in CV responses consistent with relative challenge versus threat, respectively. This rationale is supported by the work of Seery and colleagues (2009) which shows similar CV patterns in examining outcome framing (i.e., potential for gain vs. loss). Furthermore, these authors argue that from a functional perspective, the CV pattern of challenge (i.e., increased blood flow) is aimed at potential psychical activity that might be necessary for eager goal pursuit, and the CV pattern of threat (i.e., decreased blood flow) is aimed at inhibition of action or even potential withdrawal (Seery et al., 2009).

Directions for Future Research

In addition to providing more direct evidence of the theorized underlying mechanism outlined above, future research might illuminate the effects of morality framing on intergroup interactions. Certainly, the current findings brought us closer to understanding how morality framing impacts Whites' motivational states when asked to consider egalitarian beliefs. Yet, the next important step is to examine how morality framing affects Whites' responses during an inter-racial interaction, requiring them to act in accordance with those beliefs. If, in line with the current findings, the ideals (vs. obligations) frame also leads to less vigilant responses in intergroup interaction, then, based on the literature, these responses will likely be associated with less (vs. more) anxiety, avoidant behavior (Plant & Devine, 2003), and a greater (vs. lesser) quality of the interaction (Plant & Butz, 2006).

Conclusion

In recent years, there has been a ''major paradigm shift'' in research on intergroup relations (Gaertner & Dovidio, 2011, p. 242). Whereas the traditional focus has been on intergroup antipathy and prejudice (e.g., Allport, 1954), novel approaches in intergroup research have established the importance of understanding and finding meaningful ways to establish *positive* intergroup relations (e.g., Mallett & Wilson, 2010; Page-Gould, Mendoza-Denton, Alegre, & Siy, 2010). The current study suggests means for the latter as it demonstrates that Whites can be encouraged to approach and view equality as more of a challenge than a threat by presenting equality as a moral ideal rather than an obligation.

Notes

1. One participant was excluded due to failure to deliver a speech, one due to suspicion, and one due to misreading the manipulation as indicated by comments she made during her speech.
2. Self-esteem—a variable known to influence threat/challenge responses (e.g., Blascovich, 2008)—was entered as a covariate in the CV analyses; cardiac output (CO): $F(1,34) = 6.11$, $p < .05$, $\eta_p^2 = .15$; total peripheral resistance (TPR): $F(1,34) = 23.37$, $p < .001$, $\eta_p^2 = .41$. Self-esteem was assessed with the CSE scale (Judge et al., 2003) prior to the manipulation, and there was no effect of condition on CSES, $F(1,35) < 1$, confirming a successful randomization of participant assignment to conditions.

References

Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley Publishing Company, Inc.

Arnold, J. E., Tanenhaus, M. K., Altmann, R. J., & Fagnano, M. (2004). The old and thee, uh, new—Disfluency and reference resolution. *Psychological Science*, *15*, 578–582. doi:10.1111/j.0956-7976.2004.00723.x

Bell, A., Jurafsky, D., Fosler-Lussier, E., Girand, C., Gregory, M., & Gildea, D. (2003). Effects of disfluencies, predictability, and utterance position on word form variation in English conversation. *Journal of the Acoustical Society of America*, *113*, 1001–1024. doi:10.1121/1.1534836

Bergsieker, H. B., Shelton, J. N., & Richeson, J. A. (2010). To be liked versus respected: Divergent goals in interracial interactions. *Journal of Personality and Social Psychology*, *99*, 248–264. doi:10.1037/a0018474

Blascovich, J. (2008). Challenge and threat. In A. J. Elliot, (Ed.), *Handbook of approach and avoidance motivation* (pp. 431–445). New York, NY: Psychology Press.

Blascovich, J., & Tomaka, J. (1996). The biopsychosocial model of arousal regulation. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 28, pp. 1–51). Academic Press. doi:10.1016/S0065-2601(08)60235-x.

Does, S., Derks, B., & Ellemers, N. (2011). Thou shalt not discriminate: How emphasizing moral ideals rather than obligations increases Whites' support for social equality. *Journal of Experimental Social Psychology*, *47*, 562–571. doi:10.1016/j.jesp.2010.12.024

Doosje, B., Branscombe, N. R., Spears, R., & Manstead, A. S. R. (1998). Guilty by association: When one's group has a negative history. *Journal of Personality and Social Psychology*, *75*, 872–886. doi:10.1037/0022-3514.75.4.872

Eibach, R. P., & Erhlinger, J. (2006). "Keep your eyes on the prize": Reference points and racial differences in assessing progress toward equality. *Personality and Social Psychology Bulletin*, *32*, 66–77. doi:10.1177/0146167205279585

Ellemers, N., Pagliaro, S., Barreto, M., & Leach, C. W. (2008). Is it better to be moral than smart? The effects of morality and competence norms on the decision to work at group status improvement. *Journal of Personality and Social Psychology*, *95*, 1397–1410. doi:10.1037/a0012628

Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, *53*, 161–186. doi:10.1146/annurev.psych.53.100901.135228

Firebaugh, G., & Gibbs, J. P. (1985). Users guide to ratio variables. *American Sociological Review*, *50*, 713–722. doi:10.2307/2095384

Fox Tree, J. E., & Clark, H. H. (1997). Pronouncing "the" as "thee" to signal problems in speaking. *Cognition*, *62*, 151–167. doi:10.1016/s0010-0277(96)00781-0

Gaertner, S. L., & Dovidio, J. F. (2011). Positive thoughts about positive approaches to intergroup relations. In L. R. Tropp & R. K. Mallet (Eds.), *Moving beyond prejudice reduction: Pathways to positive intergroup relations* (pp. 241–261). Washington, DC: American Psychological Association.

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, *52*, 1280–1300. doi:1037/0003-066X.52.12.1280

Iyer, A., Leach, C. W., & Crosby, F. J. (2003). White guilt and racial compensation: The benefits and limits of self-focus. *Personality and Social Psychology Bulletin*, *29*, 117–129. doi:10.1177/0146167202238377

Jonas, K. J., Sassenberg, K., & Scheepers, D. (2010). Self-regulation within and between groups. *Group Processes & Intergroup Relations*, *13*, 131–136. doi:10.1177/1368430209359982

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The core self evaluations scale: Development of a measure. *Personnel Psychology*, *56*, 303–331. doi:10.1111/j.1744-6570.2003.tb00152.x

Leach, C. W., Ellemers, N., & Barreto, M. (2007). Group virtue: The importance of morality (vs. competence and sociability) in the positive evaluation of in-groups. *Journal of Personality and Social Psychology*, *93*, 234–249. doi:10.1037/0022-3514.93.2.234

Lowery, B. S., Knowles, E. D., & Unzueta, M. M. (2007). Framing inequity safely: Whites' motivated perceptions of racial privilege. *Personality and Social Psychology Bulletin*, *33*, 1237–1250. doi:10.1177/0146167207303016

Mallett, R. K., & Wilson, T. D. (2010). Increasing positive intergroup contact. *Journal of Experimental Social Psychology*, *46*, 382–387. doi:10.1016/j.jesp.2009.11.006

Mendes, W. B., Blascovich, J., Lickel, B., & Hunter, S. (2002). Challenge and threat during social interactions with White and Black men. *Personality and Social Psychology Bulletin*, *28*, 939–952. doi:10.1177/014616720202800707

Monteith, M. J. (1993). Self-regulation of prejudiced responses – Implications for progress in prejudice-reduction efforts. *Journal of Personality and Social Psychology*, *65*, 469–485. doi:10.1037/0022-3514.65.3.469

Oyamot, C. M., Borgida, E., & Fisher, E. L. (2006). Can values moderate the attitudes of right-wing authoritarians? *Personality and Social Psychology Bulletin*, *32*, 486–500. doi:10.1177/0146167205278308

Page-Gould, E., Mendoza-Denton, R., Alegre, J. M., & Siy, J. O. (2010). Understanding the impact of cross-group friendship on interactions with novel outgroup members. *Journal of Personality and Social Psychology*, *98*, 775–793. doi:10.1037/a0017880

Plant, E. A., & Butz, D. A. (2006). The causes and consequences of an avoidance-focus for interracial interactions. *Personality and Social Psychology Bulletin*, *32*, 833–846. doi:10.1177/0146167206287182

Plant, E. A., & Devine, P. G. (2003). The antecedents and implications of interracial anxiety. *Personality and Social Psychology Bulletin*, *29*, 790–801. doi:10.1177/0146167203252880

Powell, A. A., Branscombe, N. R., & Schmitt, M. T. (2005). Inequality as ingroup privilege or outgroup disadvantage: The impact of group focus on collective guilt and interracial attitudes. *Personality and Social Psychology Bulletin*, *3*, 508–621. doi:10.1177/0146167204271713

Schwartz, S. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25 pp. 1–65). San Diego, CA: Academic Press, Inc.

Seery, M., Weisbuch, M., & Blascovich, J. (2009). Something to gain, something to lose: The cardiovascular consequences of outcome framing. *International Journal of Psychophysiology*, *73*, 308–321. doi:10.1016/j.ijpsycho.2009.05.006

Shah, J. Y., Brazy, P. C., & Higgins, E. T. (2004). Promoting us or preventing them: Regulatory focus and manifestations of intergroup bias. *Personality and Social Psychology Bulletin*, *30*, 433–446. doi:10.1177/0146167203261888

Shavell, S. (2002). Law versus morality as regulators of conduct. *American Law and Economics Review*, *4*, 227–257. doi:10.1093/aler/4.2.227

Sherwood, A., Allen, M., Fahrenberg, J., Kelsey, R. M., Lovallo, W. R., & van Doornen, L. J. (1990). Methodological guidelines for impedance cardiography. *Psychophysiology*, *27*, 1–23. doi:10.1111/j.1469-8986.1990.tb02171.x

Swim, J. K., & Miller, D. L. (1999). White guilt: Its antecedents and consequences for attitudes toward affirmative action. *Personality and Social Psychology Bulletin*, *25*, 500–514. doi:10.1177/0146167299025004008

Tomaka, J., Blascovich, J., Kibler, J., & Ernst, J. M. (1997). Cognitive and physiological antecedents of threat and challenge appraisal. *Journal of Personality and Social Psychology*, *73*, 63–72. doi:10.1037/0022-3514.73.1.63

Van Knippenberg, A. (1984). Intergroup differences in group perceptions. In H. Tajfel (Ed.), *The social dimension: European developments in social psychology* (pp. 560–578). Cambridge: UK, Cambridge University Press.

Vorauer, J. D. (2006). An information search model of evaluative concerns in intergroup interaction. *Psychological Review*, *113*, 862–886. doi: 10.1037/0033-295x.113.4.862

Vorauer, J. D., & Turpie, C. A. (2004). Disruptive effects of vigilance on dominant group members' treatment of outgroup members: Choking versus shining under pressure. *Journal of Personality and Social Psychology*, *87*, 384–399. doi: 10.1037/0022-3514.87.3.384

Bios

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Belle Derks is an assistant professor in Social and Organizational Psychology at Leiden University. Her research focuses on the psychological and physiological impact of stigma and group-based devaluation.

Naomi Ellemers received her PhD in 1991 from Groningen University. Since 1999 she has been full professor of the social psychology of organizations at Leiden University. Her work on group processes and intergroup relations includes experimental studies as well as applied research in organizations.

Daan Scheepers is on the faculty of the psychology department of Leiden University. His main research interests centre on the motivational aspects of group processes and inter-group relations.