

Authoritarian Dynamics and Unethical Decision Making: High Social Dominance Orientation Leaders and High Right-Wing Authoritarianism Followers

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When dilemmas require trade-offs between profits and ethics, do leaders high in social dominance orientation (SDO) and followers high in right-wing authoritarianism (RWA) make decisions that are more unethical than those made by others? This issue was explored in 4 studies with female participants performing managerial role-playing tasks. First, dyads comprising a person who was either low or high in SDO and a person who was either low or high in RWA negotiated for a leadership position. People high in SDO were more likely to obtain leader positions than to obtain follower positions. No other effects were significant. Second, leaders high in SDO partnered with an agreeable (confederate) follower made decisions that were more unethical than those of leaders low in SDO. Third, followers high in RWA were more acquiescent to and supportive of an unethical (confederate) leader than were followers low in RWA. Fourth, high SDO leader–high RWA follower dyads made decisions that were more unethical than those made in role-reversed dyads because leaders had more influence. Implications of these results for conceptualizing SDO, RWA, and authoritarian dynamics are discussed.

Keywords: social dominance orientation, right-wing authoritarianism, unethical decision making, leadership

Evidence of unethical behavior within organizations frequently appears in newspaper headlines (e.g., insider trading, abuse of

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In-basket materials are available from Leanne S. Son Hing.

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political prisoners). What factors contribute to the proliferation of unethical activities in organizational settings? There is evidence that both individual differences (e.g., Machiavellianism, cognitive moral development) and situational variables (e.g., organizational policy, reinforcement) predict unethical behavior (Hegarty & Sims, 1978; Laczniak & Inderrieden, 1987; Trevino & Youngblood, 1990). Unfortunately, researchers have ignored how structural and interpersonal dynamics affect unethical behavior. In organizations, ethical decisions are made within a social context marked by hierarchy (Darley, 2001). If a superior expresses a desire to make an unethical decision to a subordinate, their relationship will influence the outcome (Milgram, 1974). According to Milgram, obedience to authority occurs when a subordinate feels that a superior has the right to prescribe behavior because of his or her perceived legitimacy. Thus, it is important to consider whether superiors will use their power to enact unethical decisions and whether subordinates feel that they should acquiesce.

When a dominant leader is paired with at least one submissive follower, their relationship is authoritarian. Altemeyer (1998) proposed that people high in social dominance orientation (SDO) exemplify those who are in the dominant leader role and that people high in right-wing authoritarianism (RWA) exemplify those who are in the submissive follower role. People high in SDO desire both intergroup hierarchy (Pratto, Sidanius, Stallworth, & Malle, 1994) and interpersonal dominance (Altemeyer, 1998), making them good candidates for dominant leaders. People high in RWA tend to accept the word of, and to bow down to, authority

figures (Altemeyer, 1988, 1996), making them good candidates for submissive followers. Altemeyer (1998) further posited that a leader high in SDO with a follower high in RWA could make a "lethal union" for committing unethical acts because people high in SDO might choose to maximize their power at the expense of ethical considerations, and people high in RWA might support their leader's decisions.

In the current research, we tested how the SDO level of a leader and the RWA level of a follower affect unethical decision making. We used an in-basket task, which is a managerial role-playing task. To determine whether people high in SDO are more likely than others to obtain a leadership position, we created two roles for the in-basket task. As compared with the follower (operations officer), the leader (general manager) had more authority, responsibility, and potential rewards. In Study 1, we tested whether people high in SDO are more likely than others (i.e., those low in SDO or those low or high in RWA) to obtain the leader role. In Study 2, participants solved ethical dilemmas requiring a trade-off between (a) the maximization of power and profit and (b) ethics. We investigated whether leaders high in SDO, as compared with leaders low in SDO, made decisions that were more unethical when both types of leaders were paired with an agreeable follower (a confederate). In Study 3, we tested whether, when paired with an unethical leader (a confederate), followers high in RWA are more likely than followers low in RWA to accept an unethical decision. Confederates were used in Studies 2 and 3 to maximize experimental control, which allowed us to disentangle the effects of the SDO level of a leader from those of the RWA level of the follower. In Study 4, we focused on the union of interest: people high in SDO with people high in RWA. We investigated whether the type of person who holds the leader role affects (a) social influence in the decision-making process and (b) ethicality of the decisions made.

SDO

SDO was originally conceptualized as a measure of the degree to which individuals desire hierarchy among social groups (Pratto et al., 1994). SDO is related to prejudice and a preference for group dominance on the basis of gender, ethnicity, class, and the like (Pratto et al., 1994; Sidanius & Pratto, 1999). People high in SDO endorse nationalism and political-economic conservatism more and value egalitarianism less than others do (Pratto et al., 1994; Sidanius & Pratto, 1999). Finally, as compared with groups that are lower in the social hierarchy, groups that are higher in the social hierarchy (e.g., men vs. women) tend to be higher in SDO (Sidanius & Pratto, 1999). Early research regarding the link between SDO and a desire for interpersonal dominance indicated that the two constructs were independent (Pratto et al., 1994),¹ leading to the conclusion that "SDO specifically concerns *group-based* dominance rather than *general* or *individual* equality" (Pratto, 1999, p. 209).

However, more recent findings have suggested that SDO is related to interpersonal dominance, empathy, and immorality. First, SDO is moderately related to the desire for and the use of power (Altemeyer, 1998). Observers indicate that people high in SDO feel superior to and are more dominant than others (Lippa & Arad, 1999). Further, as compared with people low in SDO, people high in SDO desire social status and economic status more (Pratto,

Stallworth, Sidanius, & Siers, 1997; Sidanius & Pratto, 1999). Second, people higher in SDO are more tough minded, less concerned with others, less warm, and less sympathetic, compared with people lower in SDO (Duckitt, 2001; Heaven & Bucci, 2001; Lippa & Arad, 1999; Pratto et al., 1994). Third, the higher that people score on SDO, the higher that they score on Machiavellianism ($r = .54$) and on psychoticism and the lower that they score on measures of morality (Altemeyer, 1998; Heaven & Bucci, 2001).

The above findings show that SDO indicates more than a desire for group-based hierarchy. Indeed, it has been proposed that SDO can be seen as reflecting and "expressing the opposing motivational goals of superiority, dominance, or power over others versus egalitarian and altruistic social concern for others" (Duckitt, 2001, p. 50). In support of this claim, researchers have found that SDO is positively related to Schwartz's (1992) self-enhancement (i.e., hierarchy or power) value types and negatively related to self-transcendence (i.e., egalitarianism or social concern) value types (Duriez & van Hiel, 2002). Also, SDO correlates with a set of sociopolitical attitudes (betaisms) that involves favoring what is immediately beneficial to the self, regardless of fairness or morality (Saucier, 2000). Finally, people high in SDO hold a world view that is more competitive and marked by a struggle for power, whereas people low in SDO hold a world view that involves cooperating with and valuing others (Duckitt, 2001).

RWA

According to Altemeyer (1988, 1996, 1998), right-wing authoritarians are high in (a) authoritarian submission, as they tend to defer to those whom they consider to be legitimate authority figures; (b) authoritarian aggression, as they tend to have punitive attitudes toward those labeled wrongdoers by authorities; and (c) conventionalism, as they tend to adhere to the conventions that they perceive as having been established by authority and society.

Research has supported the hypothesized links between RWA and conventionalism and authoritarian aggression (Altemeyer, 1996). For instance, people high in RWA deem conformity, traditionalism, social conservatism, security, and the approval of others more important than do people low in RWA (Altemeyer, 1998; Duckitt, 2001; Duriez & van Hiel, 2002; Saucier, 2000; Walter, Thorpe, & Kingery, 2001). And people high in RWA are more prejudiced than others toward perceived wrongdoers and threatening outgroups (Altemeyer, 1996, 1998; Duckitt, 2006; Duncan, Peterson, & Winter, 1997). Of more direct relevance for the current research is the link between RWA and authoritarian submission. People high in RWA tend to value self-direction and personal freedom less than others do (Duckitt, 2001; Duriez & van Hiel, 2002). Also, RWA is positively correlated with self-reported levels of dutifulness and support for government bodies and the police, even if they engage in illegal acts (Altemeyer, 1996; Feather, 1998; Heaven & Bucci, 2001). After viewing Milgram's (1974) obedience experiment, people high in RWA assigned less blame to the teacher for shocking the learner (Blass, 1995), per-

¹ The California Psychological Inventory Dominance Scale (Gough, 1987) and the Jackson Personality Research Form Dominance Scale (Jackson, 1965) were used.

haps because people high in RWA saw teachers as dutifully obeying the experimenter's orders. Finally, with a role-playing task, it was found that when directed to do so by a superior, people high in RWA discriminated more in hiring decisions than did their counterparts in the control (no direction) condition. In contrast, people low in RWA were equally nondiscriminatory, regardless of condition (Petersen & Dietz, 2000).

Overview of the Current Program of Research

An in-basket task was used for all studies. This is a role-playing exercise in which participants imagine themselves to be the managers of a company and make various decisions. In-basket exercises are a useful methodology for examining responses to ethical dilemmas (Brief, Buttram, Elliot, Reizenstein, & McCline, 1995; Darley, 1999). We chose to focus on corporate misdeeds rather than on social atrocities because it might be easier for participants to assume the role of manager, given that many participants will likely enter a career in business.

Gender differences favoring men have consistently been found for leadership emergence (Eagly & Karau, 1991), evaluations of a leader (Eagly, Makhijani, & Klonsky, 1992), and influence (Carli, 1999). Because the gender of the participants would likely influence the processes of deciding roles and making decisions, and because women constituted the majority of the participant pool, we included only women in this research.

Typically, with North American samples, a weak positive correlation ($r \sim .20$) between SDO and RWA has been found (e.g., Altemeyer, 2003; Whitley, 1999). To test the unique effects of SDO and RWA and to avoid confounds, we required all participants who were either low in SDO or high in SDO to fall in the middle third of the distribution on RWA and all participants who were either low in RWA or high in RWA to fall in the middle third of the distribution in SDO. Participants were involved in only one study. For all studies, the experimenters, confederates, and judges were unaware of and unable to accurately guess the SDO or RWA level of each participant.

Study 1

Altemeyer (1998) theorized that, within an authoritarian relationship, people high in SDO best exemplify the dominant type and people high in RWA best exemplify the submissive type. The purpose of Study 1 was to investigate whether an authoritarian union (i.e., a leader high in SDO with follower high in RWA) is likely to be formed. Dyads comprised one participant who was either low in SDO or high in SDO with a partner who was either low in RWA or high in RWA. They were left alone to determine who would become the leader (general manager) and the follower (operations officer). In past research, SDO has been found to correlate with valuing interpersonal dominance (Altemeyer, 1998; Lippa & Arad, 1999), being competitive (Duckitt, 2001; Lippa & Arad, 1999), and valuing power, prestige, and status (Altemeyer, 1998; Pratto et al., 1997; Sidanius & Pratto, 1999). Therefore, we expected a Position \times SDO interaction, such that people high in SDO should be more likely to become the leader than to become the follower. In contrast, participants low in SDO should be equally likely to become the leader or to become the follower. Furthermore, we expected the Position \times SDO interaction to be

moderated by RWA such that the tendency for people high in SDO to become the leader (vs. follower) should be particularly strong when people high in SDO were paired with people high (vs. low) in RWA. Because people high in RWA respect authority, they might submit to a partner who wants to be leader. Thus, people high in SDO should find it easier to obtain the leader role when paired with people high (vs. low) in RWA.

Participants reported their use of influence tactics in the negotiations. Given that people higher in SDO are rated as more competitive and dominant (Lippa & Arad, 1999) and are self-reportedly more Machiavellian (Altemeyer, 1998) than are people low in SDO, we hypothesized that people high in SDO should report a greater use of influence tactics to obtain their preferred position, compared with people low in SDO.

Method

Participants and Procedure

There were 80 women aged 18–23 years ($M = 19.24$, $SD = 1.02$) who participated in the main study, which took place over four consecutive terms. The Social Dominance Orientation Scale (SDO Scale; Pratto et al., 1994) and the 1990 Version 1 of the Right-Wing Authoritarianism Scale (RWA Scale; B. Altemeyer, personal communication, June 6, 2005) were completed by 843 women in a mass testing. A sample item from the 16-item SDO Scale is, "To get ahead in life, it is sometimes necessary to step on other groups" (rated on a scale ranging from 1 = *very negative* to 7 = *very positive*). A sample item from the 30-item RWA Scale is, "Our country will be great if we honor the ways of our forefathers, do what the authorities tell us to do, and we get rid of the 'rotten apples' who are ruining everything" (rated on a scale ranging from 1 = *very strongly disagree* to 9 = *very strongly agree*).

There was high internal consistency for both scales: For SDO, Cronbach's alpha was .92 ($M = 2.15$, $SD = 0.87$); for RWA, Cronbach's alpha was .91 ($M = 4.37$, $SD = 1.05$). A weak positive correlation between SDO and RWA was found, $r(841) = .19$, $p < .001$. Tertile splits were used to identify participants. Ranges for SDO scores were as follows: 1.00–1.63, for low SDO; 1.64–2.43, for moderate SDO; and 2.44–6.69, for high SDO. Ranges for RWA scores were as follows: 1.13–4.10, for low RWA; 4.11–4.86, for moderate RWA; and 4.87–7.90, for high RWA. All participants low in SDO or high in SDO scored in the moderate range on RWA, and all participants low in RWA or high in RWA scored in the moderate range on SDO. In total, 415 participants met these selection criteria. Potential participants were recruited by phone.

Approximately 6 weeks later, 40 dyads were tested: There were 10 dyads consisting of a person low in SDO paired with a person low in RWA, 10 dyads consisting of a person low in SDO paired with a person high in RWA, 10 dyads consisting of a person high in SDO paired with a person low in RWA, and 10 dyads consisting of a person high in SDO paired with a person high in RWA. Participants were told that we were investigating the effect of the perceived importance of an issue on decision-making ability with an in-basket exercise that assesses managerial potential. The in-basket task required participants to prioritize eight issues, which were presented as organizational memos and letters (Task 1), and to then make decisions about four of the issues (Task 2).

Participants read about the organization and the two roles within the chemicals division. The general manager was clearly depicted as above the operations officer in the corporate hierarchy. The general manager was to analyze the information, make decisions that maximize outcomes, and plan and direct. Participants were told to make decisions in a collaborative manner, but they were also told that the general manager would be held accountable. The operations officer was responsible for making sure that the decisions were in the division's best interests and for carrying out the decisions. Ostensibly, the general manager was vying for a raise and the operations officer for a promotion, so both needed to impress their superiors. To motivate them, participants were told that a cash prize (\$25) would be given to the five top performing dyads. The general manager could decide how to split the money. To further differentiate the status of the two positions, the top ranking general manager and operations officer would receive an additional \$30 and \$15, respectively. Participants were told that short-term and long-term profits were important criteria for evaluating their decisions but that other issues involved with a business's lasting success (e.g., corporate image, employee satisfaction) would be considered.

To give participants a sense that the task might involve ethical dilemmas, we asked participants to read a sample memo before deciding on their roles. They also completed a questionnaire about the in-basket task (i.e., In-Basket Questionnaire) that was designed to make salient the difference in rewards and power for the leader and follower positions (e.g., "The winning General Manager will earn a base salary of ____").

Participants were told that their success depended on their ability to fulfill their positions. Then they were left alone for 5 min to discuss their skills and negotiate their roles. The discussion was videotaped without participants' knowledge. Once participants made their decision, or after 5 min had passed, the experimenter returned and administered a questionnaire to tap their use of influence tactics. Participants were then informed that the study was complete, and they were debriefed. Rather than awarding performance-based cash prizes, five random draws for \$34 were made. This final procedure was followed in all studies.

Materials

In the In-Basket Questionnaire, participants were asked to indicate the proportion of authority and the proportion of power accorded to each position (1 = 100% operations officer, 4 = 50% operations officer and 50% general manager, 7 = 100% general manager). Participants indicated the extent to which they used six influence tactics to get their preferred position in their negotiation. Sample items are as follows: "I actively campaigned or jockeyed," and "I used forceful pressure on my partner" (1 = *very strongly disagree*, 7 = *very strongly agree*). Cronbach's alpha was .78 (.84 for participants who were either low or high in SDO, .66 for participants who were either low or high in RWA). Later, three female judges independently timed how long it took for the dyads to decide who would hold each position (average intraclass correlation was .86).

Results

Preliminary Analyses

Independent *t* tests revealed no significant differences in SDO or RWA levels among participants low in SDO, participants high in

SDO, participants low in RWA, or participants high in RWA ($t_s \leq 1.65$), regardless of their type of partner (e.g., participants low in SDO had equal SDO and RWA levels when partnered with participants low in RWA or participants high in RWA).

We tested whether participants perceived that greater authority and power were accorded to the general manager position (higher scores), as compared with the operations officer (lower scores) position, as intended. A one-sample *t* test revealed that participants scored significantly higher than the midpoint (i.e., 4) for both the authority item ($M = 5.63$, $SD = 0.89$), $t(75) = 15.95$, $p < .001$, and the power item ($M = 5.42$, $SD = 0.91$), $t(75) = 13.57$, $p < .001$. (Data were missing for 4 participants.) This effect was significant for all four types of participant ($t_s > 4.32$). Thus, all participants indicated that the general manager held more authority and power than the operations officer.

Deciding the Roles

Among the 40 dyads, 6 did not negotiate their roles: 1 dyad asked the experimenter to assign roles (a dyad low in SDO and low in RWA) and 5 dyads flipped a coin (1 dyad low in SDO and low in RWA, 1 dyad low in SDO and high in RWA, 2 dyads high in SDO and low in RWA, and 1 dyad high in SDO and high in RWA). We conducted a three-way log-linear 2 (Position: leader vs. follower) \times 2 (SDO: low vs. high) \times 2 (RWA: low vs. high) analysis, to test whether, among the 34 dyads who did decide their roles, participants high in SDO were more likely than participants low in SDO to obtain the leader (general manager) position and whether this was particularly true when they were paired with a partner high (vs. low) in RWA. A log-linear analysis is similar to a chi-square test but is used for contingency tables with more than two dimensions (Howell, 1992). Likelihood ratio chi-square values are designated as G^2 .

No interaction was found between SDO and RWA, $G^2(1) = 0.00$, *ns*, or between position and RWA, $G^2(1) = 0.00$, *ns*. Thus, there was no tendency for participants who were either low or high in RWA to obtain a specific position. As predicted, a significant Position \times SDO interaction was found, $G^2(1) = 6.36$, $p = .01$. Table 1 reveals that participants high in SDO were more likely to become leaders than to become followers. In contrast, participants who were low in SDO were equally likely to become leaders or to become followers. The predicted three-way interaction (Position \times SDO \times RWA) did not reach conventional levels of significance $G^2(4) = 6.72$, $p = .15$. Thus, the tendency for participants high in SDO to become the leader was equally strong when their partners were low in RWA or high in RWA.

Length of Negotiation

Analyses were conducted to explore whether participants high in SDO were able to obtain the leader role more easily when they were paired with participants high (vs. low) in RWA. When participants high in SDO became leaders, reaching a decision tended to take longer when they were paired with partners low in RWA ($M = 87.14$ s, $SD = 56.48$) than when they were paired with partners high in RWA ($M = 39.29$ s, $SD = 27.92$), $t(8.77) = 2.01$, $p = .08$, $\eta^2 = .25$. It took, on average, 1.5 min for participants high in SDO to obtain the leader position when they were partnered

Table 1
Distribution of Participants Into Each Role in Study 1

Negotiation outcome	Low SDO participant		High SDO participant	
	Low RWA participant	High RWA participant	Low RWA participant	High RWA participant
SDO participant attained leader role	3	4	7	7
SDO participant attained follower role	5	5	1	2
Participant did not choose	2	1	2	1

Note. Numbers are dyad frequencies within 40 dyads. SDO = social dominance orientation; RWA = right-wing authoritarianism.

with people low in RWA versus only 39 s when they were partnered with people high in RWA.

Self-Reported Use of Influence Tactics

For the 34 dyads that determined who would hold each position through discussion, the degree to which participants low in SDO and participants high in SDO used influence tactics was unrelated to the degree to which their partners who were low in RWA and their partners who were high in RWA used influence tactics, $r(31) = .07$, *ns* (data were missing for one participant). Therefore, the use of influence tactics was analyzed separately for participants who were either low or high in SDO and participants who were either low or high in RWA.

First, a 2 (SDO: low vs. high) \times 2 (RWA: low vs. high) analysis of variance revealed that participants high in SDO reported using influence tactics significantly more in their discussions with their partners ($M = 2.47$, $SD = 0.99$) than did participants low in SDO ($M = 1.73$, $SD = 0.69$), $F(1, 29) = 5.79$, $p = .02$, $\eta^2 = .17$. The degree to which SDO participants used influence tactics was unaffected by their partners' level of RWA, $F(1, 29) = 0.44$, *ns*. In addition, there was no SDO \times RWA interaction, $F(1, 29) = 0.09$, *ns*. Second, a 2 (SDO) \times 2 (RWA) analysis of variance was conducted on the use of influence tactics by participants low versus high in RWA. No effects were statistically significant ($F_s \leq 1.05$). Thus, neither their own level of RWA nor their partners' level of SDO affected RWA participants' use of influence tactics.

Discussion

In Study 1, we successfully created a leader role that participants saw as holding more authority and power than was held by the follower role. When left alone with their partner to decide roles, participants high in SDO were more likely than participants low in SDO to negotiate the general manager role. Contrary to prediction, however, the trend for people high in SDO to become the leader occurred regardless of their partner's level of RWA (i.e., with partners holding tendencies, and partners not holding tendencies, to bow down to authority). To obtain their preferred position, participants high in SDO were more enthusiastic, were more willing to wheel and deal, and were even more coercive than were participants low in SDO. This was true regardless of the type of RWA partner they had. Thus, consistent with the conceptualization of SDO as a general motivational goal (Duckitt, 2001), these results provide the first empirical evidence that SDO predicts interpersonal dominance within social interactions.

Whereas many differences were found between participants low in SDO and participants high in SDO, participants low in RWA and participants high in RWA responded quite similarly (e.g., use of influence tactics). In other words, participants high in RWA did not defer to their partners more than did participants low in RWA. Although people high in RWA should submit to legitimate authorities (Altemeyer, 1988), perhaps RWA did not predict whether a participant obtained the follower role because participants had equal status going into the negotiations. Thus, participants high in RWA might not have construed their partner as having legitimate claims to authority. In addition, people high in RWA submit to legitimate authority (Petersen & Dietz, 2000), but this might not generalize to a preference for holding a subordinate position. The relation between RWA and a desire for submissive status could be investigated in future research. We did find that participants high in SDO tended to acquire the leader role more quickly with partners high (vs. low) in RWA. Possibly in this case, when a dominant partner clearly wants authority, people high in RWA see them as deserving; consequently people high in RWA submit more readily than do people low in RWA.

Study 2

The purpose of Study 2 was to test whether, when faced with three issues that pit behaving ethically against maximizing personal gains, leaders high in SDO make decisions that are more unethical than the decisions of leaders low in SDO. To test this proposition, we assigned participants low in SDO and participants high in SDO to the leader (general manager) role for the in-basket task. A female confederate played the role of agreeable subordinate (operations officer) to enable us to investigate the behavior of people who were either high or low in SDO, without the influence of a partner. If real dyads made decisions, it would be impossible to determine the sole contribution made by leaders low in SDO or leaders high in SDO.

Participants decided whether to (a) pollute the environment and exploit third-world labor to avoid increasing expenditures for the company, (b) stand up for a colleague being sexually harassed and risk alienating superiors, and (c) continue marketing a lucrative but potentially harmful product aimed at elderly consumers. The dilemmas pulled for unethical behavior because such decisions would maximize personal outcomes within both the role-play context (e.g., stock options) and the experimental paradigm (e.g., \$55 prize). The in-basket task lasted 2 hr.

Because the incentive systems could be seen as rewarding unethical decision making, given the competitiveness of people

high in SDO (Duckitt, 2001), their self-interest (Saucier, 2000), and their desire for social and economic status (Sidanius & Pratto, 1999), people high in SDO should be motivated to behave in whatever way maximizes their personal outcomes. Furthermore, people high in SDO are less concerned about others and about morality—and are more Machiavellian—than are people low in SDO (Altemeyer, 1998; Heaven & Bucci, 2001), so people high in SDO should have fewer qualms about violating ethical standards if they see the need. Finally, the ethical dilemmas involved the exploitation of less powerful groups (i.e., people from less-developed nations, female employees, and the elderly). Because people high in SDO favor group dominance (Pratto, 1999; Pratto et al., 1994), they should be less concerned about making ethical decisions to protect these groups than are people low in SDO. Thus, given the rewards for unethical decision making and the nature of the dilemmas, we predicted that participants high (vs. low) in SDO should make decisions that are more unethical, albeit at the cost of the environment, justice in the workplace, and consumer protection.

Method

Participants

Mass-testing questionnaires were administered to 637 women over two consecutive terms. Participants in the main study were 40 women aged 18–22 years ($M = 19.00$, $SD = 0.76$). Of the participants, 2 were excluded from the analyses (see details later).

Procedure and Materials

Participants completed the SDO Scale and RWA Scale in mass testing. Both scales had high internal consistencies (SDO: Cronbach's $\alpha = .91$, $M = 2.18$, $SD = 0.87$; RWA: Cronbach's $\alpha = .91$, $M = 4.32$, $SD = 1.05$) and were weakly correlated, $r(635) = .21$, $p < .001$. Tertile splits were used to identify participants low in SDO (1.00–1.63), participants high in SDO (2.44–5.56), and participants moderate in RWA (4.12–4.87). In total, 132 participants fulfilled these requirements.

Approximately 6 weeks later, 40 randomly selected participants (i.e., 20 participants low in SDO and 20 participants high in SDO) met our female confederate who posed as another study participant.² As in Study 1, participants were introduced to the in-basket exercise, the general manager and operations officer positions, and the performance criteria; they then completed the In-Basket Questionnaire. Ostensibly, on the basis of their responses to work-related scales in mass testing, participants were assigned to the general manager position (the confederate was assigned to the operations officer position) and told to “make the decisions you would make if these really were your jobs.”

To familiarize participants with the three ethical dilemmas and to help them get into role, for Task 1, participants were given 15 min to review and prioritize eight memos (filler memos referred to topics such as absenteeism). After Task 1, all participants had 45 min to solve four issues (in any order) for Task 2. To reduce potential suspicion, we included a filler issue involving a settlement for a minor lawsuit over damaged personal property.

One ethical dilemma was an environmental issue. A process the company uses to manufacture a household-cleaning product cre-

ates a toxic by-product. The waste is stored illegally in containers that degrade too quickly, resulting in ground water contamination. The team was asked whether the storage containers should be upgraded, which would be expensive, or whether production should be moved to Argentina, where the current containers are legal and where cheap, exploitable laborers and tax breaks are available. A different dilemma involved sexual harassment. Another manager, Felicity, asked the general manager whether she would write a letter of support for Felicity's sexual harassment complaint against her subordinate, Ken. Upset about a minor oversight by Felicity, he wrote in a memo, “Women just don't have what it takes to properly manage.” Supporting Felicity could make the general manager unpopular because the CEO and the Head of Personnel have sided with Ken. The third dilemma involved consumer protection. Clinical trials revealed that the company's standard arthritic pain reliever, Alieva, and a new product, Ginseng Alieva, are equally effective; however, a higher rate of serious side effects as well as higher profits are associated with the new product. Nonetheless, the Ginseng Alieva is FDA approved and can be legally marketed as new and improved. The team is asked whether to continue selling Ginseng Alieva.

For each issue, the dyads completed an open-ended decision-making form requiring them to list their options, indicate relevant criteria, state their decision, explain their rationale, and outline a plan of action. To ensure attention to all critical information, the confederate listed the decision criteria so that participants could indicate which criteria were most important. The confederate was trained to use stock phrases, such as “I don't know,” “What do you think?” and “You should decide: You're the General Manager,” to agree with participants and never to sway them toward any outcome, and to ensure that participants clearly articulated their decision and rationale.

Following the study, each participant was asked whether her decisions reflected what she would have done if she really were the general manager. Only 2 participants (both people low in SDO) indicated that they would not have made such decisions in the real world, and we excluded their data from all analyses. Finally, participants were fully debriefed.

Content analyses of participants' decisions and reasoning. The decision, reasoning, and implementation sections of the decision-making forms were content analyzed (Frankfort-Nachmias & Nachmias, 2000). One issue at a time, two female judges, who were unaware of participants' SDO level, independently sorted participants' responses into groups on the basis of common themes (e.g., move to Argentina vs. upgrade containers). The judges then compared the groups that they each had created to determine how the themes corresponded and to determine the number of cases that were identically coded. The coefficient of reliability, that is, the ratio of actual matches between judges to possible matches (i.e., of 38 participants) was calculated. Then, the judges consensually categorized each group of decisions as more ethical, less ethical, or ethically neutral.

² Two female confederates were used in Study 2. There was neither a main effect associated with the confederate nor an interaction effect associated with the participants' level of SDO, for the ethicality of participants' decisions. Therefore, all analyses were collapsed across confederate.

There was high interrater reliability between the judges (coefficient of reliability was .82) for the environmental issue. Two themes were categorized as more ethical (e.g., upgrade containers immediately). For instance, one participant said, "Switch container to nonporous stainless steel to meet industry standards. . . . We want to be environmentally conscious. . . . We don't want people getting sick from water contamination." One theme was categorized as ethically neutral: move to Argentina but do something beneficial for Argentinians. Two themes were categorized as more unethical (e.g., move production to Argentina using old containers).

For the sexual harassment issue, there was good interrater reliability between the judges (coefficient of reliability was .76). One theme was categorized as more ethical: write a letter supporting Felicity because the dyad opposed sexual harassment. Two themes were categorized as ethically neutral (e.g., get more information to deal with both sides of the issue). For instance, one participant said, "Write letter to Neil (the CEO) and Karl (the Head of Personnel) and tell them about Ken's manner toward the situation . . . addressing the faults on both sides." Three themes were categorized as more unethical (e.g., do not support Felicity).

There was good interrater reliability between the judges (coefficient of reliability was .76) for the consumer protection issue. Two themes were categorized as more ethical (e.g., market only the standard Alieva because of health concerns). Two themes were categorized as ethically neutral (e.g., sell Ginseng Alieva as new and improved but with warning labels for side effects). Three themes were categorized as more unethical (e.g., market both to maximize profits). For instance, one person said, "Market both products. If we take Ginseng off market customers may choose another company's Ginseng product. If we take standard off, if people realize side effects of Ginseng, may go to another company's product. Keep 'new and improved' to attract customers."

Judges' ratings of unethical decisions. Three judges (two men and one woman) not involved in the content analyses rated participants' decisions, rationale, and implementation for one issue at a time on, "Overall, this General Manager displayed unethical behavior" (1 = *strongly disagree* to 7 = *strongly agree*). Interrater reliability was high for all three issues (intraclass correlations: .97, for environment; .88, for sexual harassment; .95, for consumer protection).

Results

Preliminary and Content Analyses

Participants low in SDO ($M = 4.46, SD = 0.19$) and participants high in SDO ($M = 4.51, SD = 0.20$) had levels of RWA that were equivalent, $t(36) = 0.47, ns$. The decision categories were coded as more ethical = -1, ethically neutral = 0, and more unethical = 1. The type of decision made for one issue was weakly to moderately related to those made for other issues (correlations ranged from .16 to .51).

As a test of our main hypothesis that participants high in SDO should make more unethical decisions and fewer ethical decisions than should participants low in SDO, a 2 (SDO: low vs. high) \times 3 (Type of Decision: more ethical vs. neutral vs. more unethical) chi-square test was conducted for each ethical dilemma (see Table 2). For the environmental issue, participants low in SDO were

Table 2
Categorization of Participants' Decisions and Reasoning on the Basis of Content Analyses in Study 2

Type of decision	Participant type	
	Low SDO	High SDO
Environmental issue		
More ethical	10	5
Neutral	3	1
More unethical	5	14
Sexual harassment issue		
More ethical	9	3
Neutral	7	9
More unethical	2	8
Consumer protection issue		
More ethical	7	1
Neutral	5	8
More unethical	6	11

Note. Numbers are frequencies within 38 dyads. SDO = social dominance orientation.

overrepresented in the more ethical decision category and participants high in SDO were overrepresented in the more unethical category, $\chi^2(2, N = 38) = 6.84, p = .03$. For the sexual harassment issue, participants low in SDO were underrepresented in the more unethical category and participants high in SDO were underrepresented in the more ethical category, $\chi^2(2, N = 38) = 6.76, p = .03$. For the consumer protection issue, participants low in SDO were equally represented in the three decision categories; however, participants high in SDO were underrepresented in the more ethical category and overrepresented in the more unethical category, $\chi^2(2, N = 38) = 6.58, p = .04$.

Judges' Ratings of Unethical Decisions

Judges tended to rate participants who made decisions that were more unethical for one issue as making decisions that were more unethical for other issues (correlations ranged from .24 to .59). Independent *t* tests were used to test the main hypothesis that the decisions made by participants high in SDO should be more unethical than those made by participants low in SDO. For the environmental issue, the judges rated the decisions and rationale of participants high in SDO as significantly more unethical ($M = 5.20, SD = 2.40$) than the rationale and decisions of participants low in SDO ($M = 3.44, SD = 2.59$), $t(36) = 2.17, p = .04, \eta^2 = .12$. Also, for the sexual harassment issue, the judges rated the decisions and rationale of participants high in SDO as significantly more unethical ($M = 3.05, SD = 1.69$) than those of participants low in SDO ($M = 2.02, SD = 1.43$), $t(36) = 2.02, p = .05, \eta^2 = .10$. For the consumer protection issue, for participants low in SDO ($M = 5.09, SD = 2.07$) and participants high in SDO ($M = 5.05, SD = 2.34$), decisions and rationale were judged as equally unethical, $t(36) = 0.06, ns$. According to the judges, participants' decisions for the environmental issue ($M = 4.37, SD = 2.61$) and the consumer protection issue ($M = 5.07, SD = 2.19$) were equally

unethical, $t(37) = 1.56$, *ns*, and decisions for both issues were significantly more unethical than were responses for the sexual harassment issue ($M = 2.56$, $SD = 1.64$; $ps < .001$).

We examined whether the results of the content analyses corresponded with the judges' ratings of the decision ethicality. Judges' ratings were strongly correlated with the content analysis categories for the environmental issue, $r(36) = .98$, $p < .001$, and for the sexual harassment issue, $r(36) = .67$, $p < .001$. A moderate relation was found between the two indices for the consumer protection issue, $r(36) = .50$, $p = .001$. Overall, there is good evidence of convergent validity.

Discussion

When we used two very different methodologies (i.e., content analyses and judges' Likert ratings) to assess the ethicality of participants' decisions, a remarkable similarity in results was found: When a leadership position was held and when issues involved a trade-off between maximizing profits and making ethically sound decisions, high levels of SDO translated into exporting the production of an environmentally dangerous product to a less developed nation, failing to support a victim of sexual harassment, and in terms of the content analysis, marketing a drug with negative side effects. Under these circumstances, in which good performance is rewarded yet what constitutes good performance—other than making profits—is somewhat ambiguous, participants high in SDO made decisions that were more unethical than the decisions of participants low in SDO. However, it is possible that in organizational settings in which decent, just behavior is rewarded and granted status, people high in SDO might act particularly ethically.

Our results suggest that two factors should be taken into consideration when exploring unethical behavior. First, participants' reasoning for their decisions is critical because the same decision could be made for more or less ethical reasons. For instance, when participants chose to support the sexual harassment claim because sexism is wrong, that decision was judged more ethical than when the same decision was made to avoid a lawsuit. Second, participants' unethical behavior was determined, in part, by the degree to which contextual justifications existed. Participants made the most ethical decisions for the sexual harassment issue when evidence of wrongdoing was evident, which made inaction more difficult to defend; they made the most unethical decisions for the consumer protection issue in which participants could excuse peddling the Ginseng Alieva because it had FDA approval and could be legally marketed as new and improved. Thus, when examining unethical behavior, researchers should consider not only people's decisions but also people's rationales and the contextual justifications behind them.

A limitation of this research was that unethical decision making was operationalized with a role-playing task. We cannot be certain that our participants behaved within the in-basket task as they would have in real life. However, others have demonstrated the criterion validity of role-playing methodologies (Gallagher & Hargie, 1989; O'Connell, Hattrup, Doverspike, & Cober, 2002) and of in-basket tasks (Schippmann, Prien, & Katz, 1990). We carefully designed the in-basket task to increase its external validity. To engage participants, we clearly outlined the positions, responsibilities, and motivations of the general manager (Cherulnik, 1983), and we motivated participants to perform well through the use of a supposed diagnostic task, competition, accountability, and a cash prize. In addition, we pre-

sented a convincing cover story and created a highly involving task with sessions lasting 2 hr. Participants appeared to be deeply immersed in the simulation: 38 of 40 participants informed us that they were in role and had behaved authentically.

Critics might suggest that the SDO effects found in the current study reflect processes other than the prioritizing of personal gains over ethics. For instance, SDO effects might have been driven by a greater achievement motivation or by a more lax attitude toward the specific issues (e.g., consumer protection). We assessed the relation between SDO and Schwartz's (1992) Values Scale in an independent sample of women, and in the current study, we included specific attitude measures in mass testing (e.g., "It is always necessary to protect the rights of vulnerable consumers"). SDO was unrelated to valuing achievement, $r(191) = .05$, *ns*, but significantly predicted valuing power, $r(191) = .31$, $p < .001$. Participants' specific attitudes neither predicted the ethicality of their decisions nor moderated the SDO effects ($ps > .20$). Thus, high SDO behavior does not appear to be due to achievement motivation or more specific attitudes toward the environment, Third-World labor, sexual harassment, or consumer protection. Given the experimental context, it is not possible to disentangle whether the unethical decision making of people high in SDO results from their preference for individual dominance (i.e., desire to maximize their status and profits) or their preference for group dominance (i.e., willingness to exploit less powerful groups). We return to this issue in the General Discussion section.

Study 3

Theoretically, people high in RWA are more submissive and conventional than are people who are low in RWA (Altemeyer, 1996). People high in RWA describe themselves as dutiful (Heaven & Bucci, 2001) and conforming (Duckitt, 2001). Yet, to our knowledge, it has only been in one study that researchers have tested whether people high in RWA obey authority more than do people who are low in RWA (Petersen & Dietz, 2000), and none have tested how agreeable or compliant people high in RWA are. When paired with a leader who advocates an unethical decision, would followers high in RWA be more acquiescent than would people low in RWA?

To test compliant behavior, we assigned participants low in RWA and participants high in RWA to the follower (operations officer) role with a female confederate as the leader (general manager) who wants to make an unethical decision for the environmental issue. The confederate general manager acted similarly to the prototypical leader high in SDO from Study 2 (i.e., she chose to move production to Argentina, use the containers that leak toxins into the ground water, and take advantage of cheap labor).³ If participants disagreed with this outcome, the confederate followed a script to make progressively stronger arguments and, if necessary, to make a unilateral decision. We investigated how readily participants agreed with the confederate's decision, their satisfaction with it, and their evaluation of the leader. Also, the confederate rated how compliant each participant was.

³ In Study 2, the judges rated this decision (made by 4 participants low in SDO and 11 participants high in SDO) as very unethical ($M = 6.82$, $SD = 0.38$) on a 7-point scale.

We predicted that participants high in RWA, as compared with participants low in RWA, should agree with the leader's decision to move production to Argentina more readily. In addition, as compared with participants low in RWA, those high in RWA should be more satisfied with the decision and with their leader. Finally, the confederate should judge participants high (vs. low) in RWA as more compliant, that is, as expressing less dissent.

Method

Participants

Mass testing was administered to 1,423 women over two terms. On the basis of selection criteria, 46 women aged 18–27 ($M = 19.31$, $SD = 1.46$) participated in the main study. Of the participants, 3 were excluded from the analyses (see details later).

Procedure and Materials

As in Studies 1 and 2, introductory students completed the SDO Scale and RWA Scale in mass testing. Both scales had high internal consistencies (RWA: Cronbach's $\alpha = .91$, $M = 3.98$, $SD = 1.07$; SDO: Cronbach's $\alpha = .91$, $M = 2.12$, $SD = 0.86$). The two scales were correlated, $r(1421) = .33$, $p < .001$. Tertile splits were used to identify participants low (1.00–3.31) and high (4.20–7.83) on the RWA Scale and moderate (1.50–2.31) on the SDO Scale. In total, 110 women fulfilled these requirements.

Participants comprising 23 people low in RWA and 23 people high in RWA who were randomly selected met a female confederate posing as another participant. The same procedure as used in Study 2 was followed, except that participants were assigned to the operations officer role. Dyads were given 25 min to complete Task 2, which involved making decisions for the environmental issue. Once the dyad reached the criteria section of the decision-making forms, the confederate began to give clues as to her preferred solution. For example, she stated, "switching containers will increase our cost by 44% is relevant." She also circled criteria that participants suggested. The confederate then said, "I say we move to Argentina."

If participants expressed objections to moving to Argentina, the confederate justified her decision by reviewing their decision criteria. To a potential second disagreement, she reminded the participant of her legitimate power (Raven, 1993) and of performance pressures: "Being the General Manager, I just think that what we need to do is make the decision that's best for the company and that's making profit." If a participant disagreed a third time, the confederate made a unilateral decision, "... moving to Argentina is my final decision," ensuring that all participants evaluated the same outcome. For consistency, once the decision was made, the confederate completed the decision-making forms by stating the reasons for the decision and outlining a plan.

After completing the decision-making forms, participants rated their satisfaction with the decision with two items, "How strongly do you feel that this is the right decision?" (1 = *not at all strong* to 7 = *extremely strong*) and "How confident do you feel that your team made the right decision?" (1 = *not at all confident* to 7 = *extremely confident*). These were highly correlated, $r(41) = .85$, $p < .001$, and, therefore, aggregated. The participant and confederate were then separated so that they could privately and confi-

dentially evaluate each other. Ostensibly, ratings would be used to evaluate the general manager for a raise and the operations officer for a promotion. Participants evaluated the leader with four items such as, "I liked the General Manager" (Cronbach's $\alpha = .85$). The confederate rated the degree to which participants were compliant with three items such as, "My Operations Officer was agreeable" (Cronbach's $\alpha = .64$). To assess the extent to which participants low in RWA and participants high in RWA were psychologically involved with the decision-making task, the confederate rated the following item: "My Operations Officer was engaged in the task at hand." All anchors ranged from 1 = *strongly disagree* to 7 = *strongly agree*.

Finally, each participant was asked whether her decision reflected what she would have done in reality as the operations officer. Among the participants, 2 (1 person low in RWA and 1 person high in RWA) indicated a failure to get into role and 1 (a person low in RWA) knew the confederate, so their data were excluded.

Judges' Ratings

Raters viewed the videotapes and judged, "At what point did the participant agree with the confederate's decision?" (1 = *before she expressed her decision*, 2 = *after she expressed her decision*, 3 = *after she referred back to the decision criteria*, 4 = *after she stated that as GM she is looking out for company's interests, which is making money*, 5 = *after she stated that it is ultimately her decision*, or 6 = *never agreed with the decision*). There were three raters for 16 cases (average intraclass correlation was .99) and two raters for 20 cases ($\kappa = .88$, $p < .001$); for 3 cases without audio, the experimenter's records were used. Data were missing for 4 cases.

Results

Preliminary Analyses

Participants low in RWA ($M = 1.81$, $SD = 0.21$) and participants high in RWA ($M = 1.91$, $SD = 0.22$) had equivalent SDO levels, $t(41) = 1.62$, *ns*. In addition, they were equally engaged in the decision-making task ($M = 6.10$, $SD = 0.44$, for people low in RWA and $M = 5.86$, $SD = 0.64$, for people high in RWA), $t(41) = 1.38$, *ns*.

On viewing the 40 videotaped interactions that had audio, three judges (two women and one man) evaluated whether "the confederate successfully followed the sequence of her script" (1 = *strongly disagree* to 5 = *strongly agree*). Ratings were averaged across judges (average intraclass correlation was .65). Overall, the confederate was judged to have closely followed her script ($M = 4.78$, $SD = 0.34$, minimum = 3.67). Thus, all sessions were retained for analyses.

Main Analyses

First, as predicted, participants high in RWA were significantly more satisfied with the decision to move to Argentina and exploit its labor pool ($M = 4.98$, $SD = 1.58$), as compared with those low in RWA ($M = 3.67$, $SD = 1.81$), $t(41) = 2.53$, $p = .02$, $\eta^2 = .14$. Second, participants high in RWA ($M = 5.95$, $SD = 1.04$) evaluated their general manager, who decided to pollute Argentina and

Table 3
Judges' Ratings of When Participants Agreed With Confederate's Decision to Move to Argentina in Study 3

Stage	Anchor	Participant type	
		Low RWA	High RWA
1	<i>Before she expressed her decision</i>	1	0
2	<i>After she expressed her decision</i>	7	13
3	<i>After she referred back to the decision criteria</i>	1	2
4	<i>After she said that as general manager she is looking out for company's interests</i>	3	5
5	<i>After she made a unilateral decision</i>	3	0
6	<i>Never agreed</i>	4	0

Note. Participant type numbers are frequencies within 39 dyads. RWA = right-wing authoritarianism.

exploit its workers, as a better leader than did participants low in RWA ($M = 4.98$, $SD = 1.42$), $t(41) = 2.56$, $p = .01$, $\eta^2 = .14$. Third, when we investigated how the confederate evaluated her operations officers, as predicted, we found that the confederate rated followers high in RWA ($M = 4.42$, $SD = 1.46$) as more compliant (more amenable to the decision to move to Argentina), compared with followers low in RWA ($M = 3.32$, $SD = 1.62$), $t(41) = 2.51$, $p = .02$, $\eta^2 = .13$.

Finally, judges who viewed the videotaped interactions rated how far participants forced the confederate to go in her script before they agreed with her decision to move to Argentina. Given that the dependent variable is not an interval scale, we used a chi-square test. We found that judges tended to rate participants high in RWA as agreeing with the decision to move to Argentina at an earlier stage in the discussion than did participants low in RWA, $\chi^2(5, N = 39) = 10.62$, $p = .06$ (see Table 3). Furthermore, whereas 37% of participants low in RWA forced the confederate to make a unilateral decision, not one participant high in RWA did so, $\chi^2(1, N = 39) = 8.98$, $p = .003$.

Discussion

When holding a subordinate position, participants high in RWA, as compared with participants low in RWA, evaluate both their leader and the decision to put profits before the environment more positively. In addition, the confederate rated her subordinates who were high in RWA as more compliant and agreeable—but no less engaged in the task at hand—than her subordinates who were low in RWA. Furthermore, independent judges perceived the participants high in RWA as tending to agree with the leader's unethical decision more readily than did participants low in RWA. To our knowledge, this is the first direct evidence that participants' RWA influences their submissive behavior during interactions. The ratings from three different perspectives support the notion that followers high in RWA will more obediently follow a leader and support her unethical decisions than will followers low in RWA.

Although we believe that the results from the current study reflect greater obedience on the part of those high in RWA, alternate explanations exist. First, people high (vs. low) in RWA might have agreed with the confederate more enthusiastically because they believed that this would result in better performance, which they were more motivated to achieve. Yet, in an independent sample of women, we found only a weak relation between RWA and valuing achievement, $r(191) = .14$, $p = .05$; a stronger relation was found with valuing conformity, $r(191) = .46$, $p <$

.001. Second, people high in RWA might have independently decided to move production to Argentina because they are less concerned about the environment than are people low in RWA (Peterson, Doty, & Winter, 1993; Schultz & Stone, 1994). In other words, the behavior of participants high in RWA might reflect congruence and not reflect conformity (Nail, MacDonald, & Levy, 2000). In the current study, we assessed internalized environmental attitudes (Kortenkamp & Moore, 2001), which negatively correlated with RWA, $r(1419) = -.24$, $p < .001$. However, these attitudes neither predicted (correlations ranged from $-.26$ to $.22$) nor moderated the effects of RWA on participants' reactions ($ps > .19$). Thus, it does not appear that participants high in RWA agreed with the decision to move to Argentina because of prediscussion attitude congruence with the leader.⁴

Study 4

Given Altemeyer's (1998) "lethal union" hypothesis and our Study 1 findings, we investigated the decision-making behavior of leaders who were either low or high in SDO in Study 2 and followers who were either low or high in RWA in Study 3. We used confederates as partners to create a high level of experimental control, which was necessary to determine how, in any dyad, the leader and the subordinate each independently influence the outcome. However, the design of Studies 2 and 3 left unanswered some questions that we aimed to address with a fourth study. We investigated how dyads high in SDO and high in RWA make decisions about an ethical dilemma (i.e., the environmental issue). Note that although we did not cross SDO and RWA factorially, by studying the social interaction between people high in SDO and people high in RWA, we can capture how participants' reciprocal responses affect unethical decision making (Hebl & Dovidio, 2005). We tested whether the type of person who holds the leadership role makes a difference for decision making and for authoritarian dynamics. Also, we provided clear criteria, based on theories of business ethics (Nash, 1993; Wolfe, 1988), against which judges could assess the decisions made.

Participants were randomly assigned to one of two dyad types (leader high in SDO with follower high in RWA or leader high in

⁴ In the current study, we did not measure individual differences in attitudes toward exploiting labor from less developed nations. However, in an independent sample of female participants, only a weak correlation, $r(626) = .15$, $p < .001$, between RWA and such attitudes was found.

RWA with follower high in SDO) and made decisions for the environmental issue. To judge the ethicality of dyad's decisions, we assessed evidence of two pervasive corporate assumptions that have been theorized to lead to disintegrity (Wolfe, 1988).⁵ First, the bottom-line mentality entails reducing all aspects of decision making into a cost-benefit analysis in which nonfinancial issues (e.g., harm to people or the environment) are assigned a dollar value. Financial decision making becomes a game in which "winning and losing—not integrity—is what's at stake" (Wolfe, 1988, p. 149). Others also argue that a preoccupation with the bottom-line leads to moral obligations being abandoned (Nash, 1993). Second, the exploitative mentality involves exploiting nature and other people for selfish purposes, as well as dehumanizing out-group members as "things to be manipulated, used, and discarded" (Wolfe, 1988, p. 150). Nash (1993) similarly argues that the exploitation of others prevents "that other-orientation which is at the heart of achieving business integrity" (p. 190).

Would the role occupied by people high in SDO and people high in RWA make a difference? On the one hand, we might have expected no difference because leaders high in RWA might act as unethically as people high in SDO. For instance, people high in RWA do not tend to be environmentalists (Schultz & Stone, 1994), so they might be just as likely as leaders high in SDO to pollute. On the other hand, there is more direct evidence to suggest that leaders high in SDO should make decisions that are more unethical than the decisions of leaders high in RWA. SDO is negatively related to morality (Heaven & Bucci, 2001) and positively related to Machiavellianism (Altemeyer, 1998), whereas RWA is related to self-righteousness (Altemeyer, 1996). In addition, people scoring in the top quartile on SDO, as compared with people scoring in the top quartile on RWA, are higher in personal dominance, ethnocentrism, and amorality (double highs were excluded; Altemeyer, 2004). Therefore, we predicted that dyads comprising leaders high in SDO and followers high in RWA should make decisions that are more unethical, as compared with decisions made by dyads comprising leaders high in RWA and followers high in SDO.

Given that the only difference between the dyads is the type of person assigned to the leader role, the above prediction rests on the assumption that hierarchy would affect dynamics in the dyad. Therefore, we hypothesized that participants should have greater influence when they hold the leader (vs. follower) role. It is possible that followers high in SDO might ignore their subordinate role and try to take over from their leader who is high in RWA, so we explored whether a coup d'état occurs. If so, the ethicality of the decisions made would not differ as a function of dyad type.

Method

Participants

Mass testing was completed by 1,942 undergraduate women over two consecutive terms. There were 38 participants, aged 17–32 ($M = 18.49$, $SD = 1.80$), who completed the main study. Participants were randomly assigned to dyad type. There were 9 dyads consisting of leaders high in SDO and followers high in RWA and 10 dyads consisting of leaders high in RWA and followers high in SDO.

Procedure

Participants completed the SDO and RWA Scales in mass testing. Cronbach's alpha was .92 ($M = 2.50$, $SD = 0.91$) for the SDO Scale and .92 for the RWA Scale ($M = 4.10$, $SD = 1.00$). The two scales were correlated, $r(1940) = .32$, $p < .001$. Tertile splits were used to identify participants high in SDO who were moderate in RWA and participants high in RWA who were moderate in SDO. Ranges for SDO scores were 2.07–2.87, for moderate scores, and 2.88–5.81, for high scores. Ranges for RWA scores were 3.81–4.59, for moderate scores, and 4.60–6.80, for high scores. In total, 229 women met the selection criteria for high SDO, and 167 women met the selection criteria for high RWA. Participants were recruited by phone and randomly assigned to dyad type.

Approximately 4 weeks later, on arrival at the lab, participants were introduced to each other and verified to be strangers. The same procedure as described earlier for the in-basket task was used. Participants were informed of who was assigned the general manager and the operations officer roles, ostensibly on the basis of their responses to work-related questionnaires in mass testing. For Task 2, they had 20 min to make a decision for the environmental issue. The follower recorded the team's responses on the open-ended decision making forms. After Task 2, participants independently completed a questionnaire that assessed their perceived level of influence or contribution to the decision-making process with three items, including the following: "I contributed more than my partner when making decisions" (1 = *strongly disagree*, 7 = *strongly agree*; Cronbach's $\alpha = .69$).

As in Studies 2 and 3, a role probe was administered. Among the participants, 1 who was assigned an operations officer role and who was high in RWA and 1 who was assigned a general manager role and who was high in RWA reported that they did not make the decisions they would have made if they were actually on the job. After we excluded these data, there were eight dyads of leaders who were high in SDO and nine dyads of leaders who were high in RWA. No one guessed the hypotheses in the suspicion probe.

Three independent judges (two women and one man) rated the ethicality of each dyad's responses (i.e., decision, rationale, and implementation). The bottom-line and exploitative mentalities (Wolfe, 1988) were defined for the judges, who made their ratings for all participants, one mentality at a time (randomly ordered), on the following item: "Overall this dyad displayed a Bottom-Line [Exploitative] Mentality." Thereafter, the judges rated whether "Overall, this dyad displayed unethical behavior" (1 = *strongly disagree*, 7 = *strongly agree*, for all items).

Results

Preliminary Analyses

First, we compared the SDO and RWA levels of the participants high in SDO who were randomly assigned to the two roles. Unexpectedly, a significant effect of role was found for partici-

⁵ A third orientation, Madison Avenue mentality, which involves prioritizing public image over authentic integrity, was also explored. Because it had poor interrater reliability and weak correlations with the other two mentalities, it was dropped from the analyses and will not be discussed.

participants' level of SDO, $t(15) = 2.57, p = .02, \eta^2 = .30$. Participants high in SDO assigned to the leader role were higher in SDO ($M = 3.80, SD = 0.67$) than were those assigned to the follower role ($M = 3.19, SD = 0.27$). Therefore, to control for this variance, exact SDO scores for all participants high in SDO were entered as a covariate for the main analyses.⁶ No effect of role was found for participants' level of RWA, $t(15) = 0.05, ns$. Second, we compared the SDO and RWA levels of the participants high in RWA who were randomly assigned to the leader versus follower roles. No significant differences in SDO, $t(15) = 0.26, ns$, or RWA levels were found, $t(15) = 1.69, ns$.

There was good interrater reliability for each measure. The average intraclass correlation coefficient for the judges' ratings of the bottom-line mentality, the exploitative mentality, and the overall lack of ethicality were .89, .96, and .89, respectively. The three measures had high internal consistency (Cronbach's $\alpha = .90$) and were aggregated.

Main Analyses

A one-way analysis of covariance was conducted to investigate the effect of the type of person who held the leader role (high SDO vs. high RWA) on the ethicality of participants' decisions. Dyads comprising leaders high in SDO and followers high in RWA made decisions that were more unethical ($M = 5.19, SE = 0.58$) than the decisions made by dyads comprising leaders high in RWA and followers high in SDO ($M = 2.75, SE = 0.54$), $F(1, 14) = 8.04, p = .01, \eta^2 = .37$.

A 2 (Person Type: high SDO vs. high RWA) \times 2 (Role: leader vs. follower) analysis of covariance was conducted to investigate participants' self-reported level of influence in the decision-making process. As predicted, a significant effect of role was found, $F(1, 29) = 4.58, p = .04, \eta^2 = .14$, such that general managers reported having greater influence ($M = 5.47, SE = 0.24$), as compared with operations officers ($M = 4.71, SE = 0.24$). No other effects were significant ($ps \geq .62$).

Discussion

Within a dyad comprising a person high in SDO and a person high in RWA, the ethicality of decisions made depends on who holds the leadership role. Dyads with a leader high in SDO and a follower high in RWA were more likely to make decisions that put profits before environmental and humanitarian concerns, as compared with dyads in which the roles were reversed. The strong intercorrelations for the dependent measures suggest that profiteering and exploitation are two important factors involved in unethical behavior. That high SDO (vs. RWA) predicts a bottom-line mentality is consistent with previous findings indicating a greater concern with status, prestige (Pratto et al., 1997), and competition (Duckitt, 2001) among those high in SDO. Similarly, given the demonstrated links between SDO and Machiavellianism, prejudice, and lack of empathy (e.g., Altemeyer, 1998), it is not surprising that high SDO (vs. RWA) predicts an exploitative mentality.

The results of the current study indicate that formal hierarchy has a considerable effect both on the decisions made and on influence dynamics. Participants assigned to the general manager role indicated that they made more contributions, had more lead-

ership, and had more of a voice as compared with those assigned to the operations officer role. Interestingly, overall, participants high in SDO did not report having greater influence than did participants high in RWA. Thus, people high in SDO did not make a power grab when assigned to the subordinate role, and people high in RWA did not defer to their potentially dominant partner. Rather, for the most part, participants gave legitimate authority to the leader even though role assignments were minimally justified. It is interesting to consider how much more weight formal hierarchy might have in the workplace.

The importance of hierarchy or role in decision making is apparent when one compares participants across studies. Participants high in SDO in the leader role made decisions for the environmental issue that were judged as equivalently unethical (with a common item) when paired with followers high in RWA (in the current study, $M = 5.63, SD = 1.39$) and when paired with an agreeable confederate (in Study 2, $M = 5.20$), $t(7) = 0.87, ns$. Yet, followers high in SDO in the current study agreed to the more ethical decisions made by their leaders high in RWA. Similarly, participants high in RWA in the follower role supported the decision to move production to Argentina whether they were paired with a confederate leader (in Study 3, no one forced the general manager to make a unilateral decision) or with a leader high in SDO (in Study 4, all but one dyad moved production to Argentina). Yet, when in a position of leadership, participants high in RWA did not choose this option (in the current study, only one dyad moved production to Argentina).

Because we did not investigate those low in SDO or RWA, the results provide support for only a weak (additive), not a strong (multiplicative), version of Altemeyer's (1998) "lethal union" hypothesis. That is, we found that dyads with leaders high in SDO and followers high in RWA made decisions that were more unethical than were the decisions made by dyads in which the roles were reversed. However, it is still unknown whether there is something particular to, or synergistic in dyads with a leader high in SDO and a follower high in RWA. For instance, it is possible that dyads comprised of a leader high in SDO and a follower low in RWA make equally unethical decisions. We suspect that something special is created when a leader driven by dominance over others and lacking empathy is paired with a follower driven by obedience to authority and lacking independence. However, future research is needed to address this issue.

General Discussion

Past research clearly demonstrates that SDO reflects a preference for group-based dominance (Pratto, 1999). More recent findings reveal that people high (vs. low) in SDO are oriented more generally toward dominance and self-interest than toward a concern for others (e.g., Duckitt, 2001), leading to the hypothesis that people high in SDO exemplify dominant leaders, and in this role, they should make unethical decisions if doing so serves their self-interest (Altemeyer, 1998). In Study 1, we found evidence that SDO predicts participants' use of influence tactics to obtain a

⁶ An effect of the covariate (i.e., SDO level among participants high in SDO) that approached significance was found for decision ethicality, $F(1, 14) = 3.83, p = .07$.

position of power. Within the role-playing context, in Study 2, we found that leaders high in SDO were more likely than leaders low in SDO to pollute a less developed nation and exploit its workers to save money, make the politically popular decision to discount a sexual harassment charge, and continue to falsely market a profitable but harmful pharmaceutical. In Study 4, we found that dyads made decisions that were more unethical when the leader was high in SDO (vs. RWA) because, within most dyads, the leader contributed more to deciding the outcome. In summary, our findings reveal that SDO predicts interpersonal dominance, a desire and ability to obtain a position of leadership, and a willingness to exploit others for self-interested gain. Together, this supports the notion that SDO reflects a general motivational goal of dominance and self-interest versus self-transcendence (Duckitt, 2001).

Research on RWA has demonstrated links to self-reported dutifulness, obedience, and submission to authority (Altemeyer, 1996), and in one study, a behavioral tendency to follow orders (Petersen & Dietz, 2000). In our research, we found that the tendency for people high in RWA to acquiesce is very much context dependent. When paired with an equal status stranger, in Study 1, people high in RWA and people low in RWA demonstrated the same likelihood of using influence tactics and acquiring the follower position. Moreover, when assigned to the leader role in Study 4, people high in RWA, as compared with leaders high in SDO, self-reported that they had as much influence over their partner and made more ethical decisions. There was no evidence that leaders high in RWA capitulate to their partners. In contrast, when assigned to the subordinate role in Study 3, people high in RWA agreed with the leader's unethical decision more readily, evaluated it more positively, and were judged more compliant, as compared with people low in RWA. Thus, people high in RWA supported unethical decision making only when their leader pointed the way. These findings suggest that people high in RWA do not have a general tendency for obedience, rather, consistent with Altemeyer's (1988) theory, they submit only to legitimate authority figures.

In our research, issues of interpersonal and intergroup dominance were deliberately confounded because we believe that this is the nature of many real-world ethical dilemmas: When self-interest leads to the exploitation of others, low status group members are relatively easy targets. With this design, however, the degree to which people high in SDO were motivated by their desire for individual dominance rather than by their support for group hierarchy is unclear. Similarly, the extent to which they were motivated by Machiavellianism or lack of empathy is unknown. In the future, researchers could try to disentangle each of the contributing factors of SDO on unethical decision making. For example, with an independent sample of 350 employees, we assessed the effect of SDO on self-reported past unethical behavior (e.g., acting in one's self-interest and discrimination) when the effects of Machiavellianism were controlled for. Both predictors had significant unique effects. To explore interpersonal dominance motives versus intergroup dominance motives, one could use dilemmas that pit the maximization of personal power against the interests of dominant groups. Although such strategies are viable, it is possible that considering SDO as a broad motivational goal for superiority–power–dominance versus the motivation of altruistic social concern (Duckitt, 2001) has more explanatory or predictive power than the sum of each component.

On a related note, in the current research, unethical behavior was more consistent with a politically conservative agenda (e.g., putting business over the environment). Whether people high in SDO and people high in RWA would act in an unethical manner to further a politically liberal, or nontraditional agenda could be investigated in future research; yet, we believe this to be unlikely as people high in SDO and people high in RWA are more politically conservative (Altemeyer, 1998; Jost, Glaser, Kruglanski, & Sulloway, 2003; Pratto et al., 1994). One could also test whether people high in RWA might make decisions that are more unethical than the decisions of people low in RWA, regardless of their status or role, if the issues involved trigger the basic motivations of authoritarians—security and threat (Duckitt, 2001).

According to Altemeyer (1998), leaders high in SDO with followers high in RWA should form a lethal union and make decisions that are more unethical than the decisions made by other types of dyad. To test authoritarian dynamics and ethical decision making for people low in SDO, moderate in SDO, and high in SDO when they were partnered with people who were low in RWA, moderate in RWA, and high in RWA, with each type of person in each role, requires 18 dyad types. We took a more systematic approach: We focused on the type of dyad that Altemeyer (1998) proposed would make a lethal union for unethical decision making—that is, leaders high in SDO and followers high in RWA. We compared each member of the dyad (i.e., leader high in SDO, follower high in RWA) with her specific counterpart (i.e., leader low in SDO, follower low in RWA). In addition, we investigated the effect of role within dyads (i.e., leader high in SDO with follower high in RWA vs. leader high in RWA with follower high in SDO). Our findings are consistent with Altemeyer's lethal union hypothesis; however, given our design, we do not know whether leaders high in SDO paired with followers high in RWA make decisions that are more unethical than decisions made by many other types of dyad. More research is needed to address these issues systematically.

Given the known effects of gender on leadership and influence, we investigated the behavior of women only. For several reasons, we believe that this may have resulted in a relatively conservative test of the effects of SDO and RWA on unethical decision making. First, compared with men, women consistently score lower in SDO (Sidanius & Pratto, 1999; Sidanius, Pratto, & Bobo, 1994). Second, in the business ethics literature, although there are exceptions, there is consistent evidence from a variety of methodologies (e.g., experiments, self-reported past behavior, and behavioral intentions) that women behave more ethically than do men (Ambrose & Schminke, 1999; Bersoff, 1999; Wahn, 2003). Third, women might be expected to make more ethical decisions given that they have more proenvironmental attitudes (Wang, 1999; Zelezny, Chua, & Aldrich, 2000), lower tolerance of sexual harassment (Foulis & McCabe, 1997; Russell & Trigg, 2004), and more liberal sociopolitical attitudes (Eagly, Diekmann, Johannesen-Schmidt, & Koenig, 2004), as compared with men. Thus, within our in-basket task, women might make decisions that were more ethical than the decisions made by men. However, it is of greater importance to test whether the current findings generalize to men.

SDO and RWA are both continuous variables, thus, the criteria used to define someone as high or low are somewhat arbitrary (e.g., top 33% vs. top 25%). We chose to investigate people low or high on these constructs not because we think the constructs are

best conceived as typologies but because making such distinctions allowed us to test SDO and RWA effects within dyads in a straightforward manner. Because a weak positive correlation is typically found between SDO and RWA, we controlled for this potential confound methodologically by requiring that participants score in the middle third of the distribution of one construct when we were exploring the effects of the other construct. The cost of such an approach is that we only investigated approximately one third of each participant type (e.g., people high in SDO who are moderate in RWA). Whether the results generalize to all people high in SDO, all people high in RWA, and so on is an empirical question. In future research, the effect of an individual's (i.e., actor's) SDO level, RWA level, and SDO \times RWA interaction; a partner's SDO level, RWA level, and SDO \times RWA interaction; and the reciprocal influence between actor and partner could be tested. Techniques described by Iacobucci and Wasserman (1987) might be suitable for testing discrete outcome variables (e.g., role attainment) as would the actor-partner independence model for testing continuous outcome measures like decision ethicality (Kenny, Mannetti, Pierro, Livi, & Kashy, 2002).

Some important practical implications might be drawn from the current research for organizations concerned with unethical behavior. First, given that leaders have a great deal of influence, when selecting individuals for senior positions that involve high stakes decision making, candidates' levels of SDO might be considered an important criterion. Organizations should be cautious about selecting people high in SDO for leadership positions when contextual factors (e.g., reward systems) encourage unethical decision making. Second, when organizations implement formal mentorship programs, the SDO and RWA levels of the protégés and mentors should be considered. We believe that within hierarchical organizations, well-established, powerful individuals are likely to be high in SDO. To avoid the situation in which they influence protégés to behave in an unethical fashion, one might be wise to pair mentors high in SDO with protégés lower in RWA or SDO. Third, although more research is needed to test their potential mitigating effects, we recommend that organizations strive to create workplace cultures that emphasize not profiteering or exploitation but the importance of ethics and the judicious questioning of authority.

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