Published in final edited form as:
Psychol Bull. 2011 November ; 137(6): 1029–1064. doi:10.1037/a0025410.

Intergroup Consensus/Disagreement in Support of Group Based Hierarchy: An Examination of Socio-Structural and Psycho-Cultural Factors

I-Ching Lee,
National Cheng-chi University

Felicia Pratto, and
University of Connecticut

Blair T. Johnson
University of Connecticut

Abstract

A meta-analysis examined the extent to which socio-structural and psycho-cultural characteristics of societies correspond with how much gender and ethnic/racial groups differ on their support of group-based hierarchy. Robustly, women opposed group-based hierarchy more than men did and members of lower-power ethnic/racial groups opposed group-based hierarchy more than members of higher-power ethnic/racial groups. As predicted by social dominance theory, gender differences were larger, more stable, and less variable from sample to sample than differences between ethnic/racial groups. Subordinate gender and ethnic/racial group members disagreed more with dominants in their views of group-based hierarchy in societies that can be considered more liberal and modern (e.g., emphasizing individualism and change from traditions), as well as in societies that enjoyed greater gender equality. The relations between gender and ethnic/racial groups are discussed and implications are developed for social dominance theory, social role theory and biosocial theory, social identity theory, system justification theory, realistic group conflict theory and relative deprivation theory.

Keywords

Social dominance; gender and arbitrary groups; cross-cultural; meta-analysis

The biggest political struggles of the last several centuries have hinged on the question of whether social inequality occurs with the consent of the governed or in the face of their dissent. On one hand, group-based hierarchies are the most common form of stable society (Sidanius & Pratto, 1999). For example, certain nationalities, races, ethnicities, religious groups, tribes, or political parties have more prestige, more material resources, and more political influence—in a word, more power, across diverse societies (Flanagan, 1989). On the other hand, every movement led by oppressed groups against dominant groups, from the

Contact information: I-Ching Lee, Department of Psychology, National Chengchi University, 64 Zhi-nan Rd. Sec. 2, Taipei, Taiwan, 116; iclee@nccu.edu.tw.

women's suffrage movement worldwide, to the Russian revolution, to South Africa's anti-apartheid movement to the Salvadoran Civil War, took place in societies in which the superiority of certain social groups was institutionalized and legitimized by potent cultural ideologies. This broad historical record leaves it unclear whether people generally accept group-based hierarchy or what social conditions lead them to reject it. Despite considerable social theory and empirical research, the social sciences have no general answer as to whether or when people in less powerful groups concur or disagree with people in powerful groups in their approval of group-based hierarchy. The answers to these questions are pertinent to the psychology and dynamics of intergroup relations, social justice, and equality, among other topics.

Across societies, members of more powerful groups (i.e., *dominants*), clearly have more interest in group-based hierarchy and in people's psychological acceptance of such hierarchy than those in less powerful groups (i.e., *subordinates*). Thus, based on group interest alone, one might expect dominants to endorse group-based hierarchy more than subordinates. In contrast, a good number of psychological, social, and political theories argue that dominants use their power to convince subordinates of their views of group-based hierarchy, so it is possible that dominants and subordinates would share similar attitudes towards group-based hierarchy. In addition to these theoretical disagreements over whether subordinates should be expected to differ reliably from dominants in their attitudes about group-based hierarchy, another body of theories makes *conditional* predictions about the social, cultural, or political factors that should contribute to greater intergroup consensus or intergroup disagreement. The present study not only examined the extent to which dominants and subordinates concur or disagree in their endorsement or rejection of group-based hierarchy, but also examined what socio-structural and psycho-cultural conditions were associated with more intergroup consensus or disagreement. To that end, we conducted a meta-analysis of studies on a well-validated and culturally-general scale that assesses endorsement of group-based hierarchy. The social dominance orientation scale (Pratto, Sidanius, Stallworth, & Malle, 1994) is particularly useful because it does not refer to specific groups by name, is cross-culturally valid (e.g., Pratto et al., 2000), and is used in many nations and in varied languages (e.g., Roccato & Ricolfi, 2005; Sibley, Robertson, & Wilson, 2006).

We begin by summarizing cultural, political, and social psychological theories concerning processes that contribute to consensus between dominants and subordinates. Overall, these processes make group-based hierarchy seem culturally and psychologically normative. We then summarize theories of processes that predict that subordinates should reject group-based hierarchy more than dominants do and consider what particular forms of intergroup relations, such as gender and race, should exhibit these patterns. These reviews lead us to postulate that, when comparing different societies and types of groups, particular social-structural and psycho-cultural variables should moderate the size of group differences in support of group-based hierarchy. Although the archival data in our meta-analysis cannot show direct evidence of causal processes, they can test whether the data are consistent with several causal theories concerning when subordinates will differ from dominants. Our findings test alternative hypotheses garnered from several theoretical frameworks about the conditions that lead people to support group-based hierarchy, and point to new directions for research on intergroup relations.

Consensus or Disagreement between Dominants and Subordinates?

Theories in psychology, political science, and sociology concerning intergroup relations offer reasons for both why dominants and subordinates may concur in their level of support for group-based hierarchy, and why they may differ. We organize our review of such theories by summarizing three general processes that could lead either to intergroup

consensus or to intergroup disagreement regarding the rightness of group-based hierarchy: (a) social and psychological adjustment to conditions of structural intergroup inequality, including social learning, (b) ways that people reason about and derive meaning about the social world, including their expectations and evaluation standards, and (c) how culture influences people's conception of self in relation to others and adherence to history and tradition. As our theoretical review will show, several different theories can be subsumed under each process. In addition, this close comparison of theories shows that some theories predict both intergroup consensus and intergroup disagreement, under different conditions.

Dominants and Subordinates May Converge in Supporting Group-Based Hierarchy

The first process we examine concerns the idea that people generally must adjust to the social conditions of their cultures and societies. Learning the cultural worldviews and shared social beliefs of one's local society is the primary aspect of psychological adjustment to social reality. The idea that dominants' worldview becomes predominant in cultures such that even subordinates understand and are influenced by dominants' worldviews is quite widespread across theories, but originated in Marxism. Marx and Engels's (1846) treatise on ideology argued that dominants rule in part by bringing subordinates to share their own ideological worldviews. Addressing what would later be understood as the field of psychology, Marxist theory argues that such worldviews make hierarchical social arrangements such as class systems, sexism, racism, and colonization seem reasonable and necessary. The more general idea that dominants create ideological consensus in support of group-based hierarchy through cultural socialization is now widely held in the social sciences, including in sociological analyses of ideology and intergroup relations (e.g., Jackman, 1994), the concept of legitimizing myths in anthropology (e.g., W. R. Johnson, 1994; Sanday, 1981) and social psychology (e.g., Jost & Major, 2001; Sidanius & Pratto, 1999), the concept of elite beliefs influencing mass beliefs in political science (e.g., Converse, 1964; Gramsci, 1971; Jenkins-Smith, Mitchell, & Herron, 2004), and communication studies' recognition of discourse and the media in creating dominant ideologies (e.g., Blackledge, 2002; Lewig & Dollard, 2001).

The second process we examine concerns people's reasoning about the social world and how they derive meaning from it. Processes by which people understand and explain their social world may contribute to intergroup consensus on the rightness of group dominance. For example, social role theory argues that people generate gender stereotypes to explain why men and women obtain different roles (Eagly & Steffen, 1984). A number of other attribution approaches make the same argument more generally as one basis for stereotypes (e.g., Crandall, Silvia, N'Gbala, Tsang & Dawson, 2007; Pettigrew, 1979). Stereotypes, then, make sense of observed social patterns (e.g., Hilton & von Hippel, 1996; Lee, Jussim, & McCauley, 2001). Another process that can rely on stereotypes and prejudice to make sense of the social world is system-justification. To maintain the illusion that the social system is just (Lerner & Miller 1978), system-justification theory predicts that subordinates accept stereotypes (Jost & Banaji, 1994) that derogate their own groups (Jost, Pelham, & Carvallo, 2002) and also denigrate other subordinate groups (Jost & Burgess, 2000). The system-justification motivation may lead subordinates to endorse group-based hierarchy at least as much as dominants do.

The third general process that may produce intergroup consensus on group-based hierarchy concerns how culture influences people's conceptions of self in relation to others. In "traditional" societies with small-scale agriculture and little industry and education, people acquiesce to authorities and feel bound to uphold traditions and prescribed roles than in more industrialized, "modern" societies (Schofer & Fourgade-Gourinchas, 2001). In particular, people in traditional societies tend to define themselves as extensions of other people, and view their interests as tied to those of others (Markus & Kitayama, 1991;

Triandis, 1990). Thus, in traditional societies, people are expected to conform more to dominant norms than in societies with more education and more economic and social mobility. In fact, people in collectivist societies tend to uphold hierarchy (Smith, Peterson, & Schwartz, 2002) and to be higher on authoritarianism than people in individualistic societies (Kemmelmeier et al., 2003). Thus, dominants and subordinates may have more consensus on group-based hierarchy in more collectivistic societies.

Dominants' and Subordinates' Views May Diverge regarding Group-Based Hierarchy

The same three kinds of general processes, (a) learning about and adjusting to conditions of group-based hierarchy, (b) reasoning and making meaning about the social world, and (c) cultural influences on people's conception of self in relation to others, can also be used to make predictions about when dominants and subordinates will differ in support of group-based hierarchy. We now delineate the relevant processes and how they contrast with those reviewed above.

In contrast to the idea that everyone in society learns and adopts the viewpoints of dominants, a number of theories focus on the idea that dominants and subordinates adopt different viewpoints regarding group-based hierarchy due to their own group position. The idea that people learn about their societies from the perspective of their own group's position is highlighted by image theory (e.g., Herrmann, 1985), realistic group conflict theory (e.g., Campbell, 1965), and social dominance theory (e.g., Pratto et al., 1994; Sidanius & Pratto, 1999). Unlike models that hold that dominant groups' stereotypes are normative (e.g., Cuddy et al., 2007; Devine, 1989), image theory assumes that groups each have their own perspective depending on their relative cultural standing, relative power, and goal compatibility. Indeed, Alexander, Brewer, and Livingston (2005) found that urban White Americans view Black Americans as barbarians or enemies, whereas Black Americans view other Black Americans as allies—a group with compatible goals and equal power and status. Like image theory, realistic group conflict theory presumes that people recognize their own group's interests, and when those interests diverge from those of other groups, their social beliefs and attitudes will follow (e.g., Campbell, 1965). Indeed, when groups are in competition for desired scarce resources, they are more prejudiced against their competitors (e.g., Bobo, 1983; Brewer & Campbell, 1976; Sherif & Sherif, 1953). Incorporating this strain of realistic group conflict theory, social dominance theory posits that individuals' psychological orientations toward group-based hierarchy develop from living in group-dominance societies (Pratto, 1999). The group interest and psychological agendas of dominants makes it relatively easy for dominants to endorse group-based hierarchy, whereas the conflict among group interest, psychological agendas, and social reality makes endorsing group-based hierarchy more difficult for subordinates (Pratto, Sidanius, & Levin, 2006). That is, in general, social dominance theory expects subordinates to be lower on social dominance orientation (more opposed to group–based hierarchy) than dominants. The group-interested assumption of image theory, realistic group conflict theory, and social dominance theory implies that dominants would tend to endorse group-based hierarchy and subordinates would oppose it.

The second process concerns how people make sense of their social world. Social identity theory (Tajfel & Turner, 1979, 1986) recognized that the motivations and psychological stances concerning the individual self, the collective self or ingroup, and one's broader social reality (e.g., an unequal society) could create conflicts concerning its central motive, the desire for positive self-regard. For dominants, social identity theory posits that the stereotypes of their societies and identifying with those groups should provide them with positive self-regard (e.g., Houston & Andreopoulou, 2003; Verkuyten, 2007). In contrast, because accepting group inferiority does not fulfill the desire for positive identity for subordinates, social identity theory argues that the subordinates will be "socially creative,"

for example, by changing the dimensions of social judgment, rejecting stereotypes and other dominant ideologies in favor of new ways of thinking. In fact, research has shown that subordinates reject their inferior status and concomitant stereotypes (Lalonde, 1992), particularly those subordinates with high self-esteem (Seta & Seta, 1996). Thus, social identity theory implies that subordinates oppose group-based hierarchy more than dominants do, particularly if group-based hierarchy seems unstable or illegitimate (e.g., Bettencourt, Dorr, Charlton, & Hume, 2001; Sidanius, Levin, Federico, & Pratto, 2001; Wright, Taylor, & Moghaddam, 1990).

Another way that cognition and reasoning about one's social environment might be expected to produce intergroup disagreement is when dominants and subordinates have expectations or comparison standards that lead them to different comfort levels with group-based hierarchy (e.g., Leach, Snider & Iyer, 2002). In societies in which equality is strongly normed or a stated ideal, equality may serve as a comparison standard for subordinates. Using both surveys and experiments, Eibach and colleagues (Eibach & Ehrlinger, 2006; Eibach & Keegan, 2006) showed that U.S. dominants oppose subordinates gaining power because they compare their group's position to a less-egalitarian past, but that subordinates are dissatisfied with the present level of inequality because they compare the present to an egalitarian ideal. Hence, the norms and ideals that dominants and subordinates hold may generally differ, leading to intergroup disagreement in approval for group-based hierarchy.

More broadly, societies vary in the degree of *liberalism*, which is used here in the historical sense to refer specifically to one's freedom in relation to one's society. Such freedom can occur in interpersonal relationships, in one's adherence to tradition, and in one's thoughts and feelings. We argue that more liberal societies should help people critically reflect on their traditions and practices, which should induce several cognitive processes (e.g., rejecting false consciousness or dominants' worldviews) that will produce larger intergroup disagreement on support of group-based hierarchy. Across nations, Inglehart and Norris (2003) showed that gender differences on beliefs about gender roles are substantially larger in industrial or post-industrial societies than in agricultural societies. In addition, in "liberal" societies that are individualistic and in which equality is valued, research on social comparison has shown that there are often larger psychological differences between groups because in such societies, people compare themselves to *other* groups (Guimond et al., 2006; Guimond, 2008; Major, 1994). In individualistic societies that emphasize equality, subordinates compare themselves against dominants and feel relatively deprived; as a consequence, they may reject group-based hierarchy, producing large group differences on support for group-based hierarchy. Thus, we expect that in more liberal and individualistic societies, in which the autonomy and personal well-being of the individual are emphasized, subordinates would be more likely to realize that their own interests differ from those of dominants, and they should differ more from dominants regarding group-based hierarchy.

One important social condition that may enable psychological individualism and liberalism is increased societal wealth, especially as economies grow beyond subsistence levels with industrial development. In a survey around the world, Inglehart and Baker (2000) observed that increasing national wealth was associated with increasing endorsement of self-expressive values. In addition, societal wealth may allow for more individual mobility and the spread of information about other groups, which increases intergroup comparison (Guimond et al., 2006), thus increasing intergroup disagreement. The opposite prediction is made by realistic group conflict theory, which suggests that intergroup disagreement should be more pronounced in societies with fewer resources. If greater societal wealth promotes self-expression, and this encourages subordinates to recognize their position as separate from that of dominants, then group differences on support of group-based hierarchy should be larger in wealthier societies. Conversely, if fewer resources promote intergroup

disagreement, then group differences on support of group-based hierarchy should be smaller in wealthier societies.

Alternatively, surplus societal wealth may enable the signs and power differentials that people use to create social stratification, and it may result in structural inequality. Structural inequality can influence people's expectations and invokes certain self-other relations. Several theories make predictions about group differences that depend on the level of structural inequality. As relative deprivation theory originally predicted, greater *structural equality* and more integrated conditions make the contrast between subordinates and dominants more apparent. Thus, in more structurally equal societies, relative deprivation theory predicts that group differences in endorsement of group-based hierarchy should be more pronounced. The prediction is consistent with previous research evidence showing that subordinates are more likely to use dominants as the reference group or are more likely to reject prescriptive norms that disadvantage their groups in societies with greater structural equality (Guimond et al., 2006; Sequino, 2007). By treating attitudes toward equality differently from other psychological variables, social role theory recently also predicted that men and women would differ more in societies with greater equality. Eagly, Diekman, Johannesen-Schmidt, and Koenig (2004) suggested that women's political empowerment, combined with their subordinate status to men, should allow women to endorse a more egalitarian view than men. Thus, we propose that greater structural equality will be associated with larger group differences on support of group-based hierarchy.

Special Forms of Intergroup Relations

Next we consider whether the social basis of group distinctions influences how much groups concur in support of group-based hierarchy. Some theories are designed to pertain to specific kinds of groups (e.g., for gender groups, ambivalent sexism theory, Glick & Fiske, 1996, and social role theory, Eagly, 1987; for ethnic/racial groups, ambivalent racism theory, Katz & Hass, 1988, and symbolic racism theory, Kinder & Sears, 1981). Other theories pertaining to a variety of types of social groups include realistic group conflict theory, system justification theory, and relative deprivation theory. In contrast both to theories about one type of group distinction (e.g., sexism) and to theories that pertain regardless of the social basis of groups (e.g., relative deprivation theory), social dominance theory focuses on the similarities and differences among three kinds of social groupings that are not functionally reducible to one another. Drawing on van den Berghe's (1978) account of societal organization, social dominance theory recognizes that all complex societies contain (a) a gender system, in which men are observed to hold more power than women cross-culturally; (b) an age system, in which adults have more power than children; and (c) an arbitrary-set structure in which at least one socially constructed category such as a particular caste, class, ethnicity, race, religious group, nationality, wields more power than at least one other group (e.g., Sidanius & Pratto, 1999).

A particular point made by contrasting different groupings is that the relative status and power of men are consistently superior to women across cultures with economic surplus, whereas the relative status and power of a given arbitrary-set groups (e.g., Jews) may vary across cultures. As a consequence, gender differences in social dominance orientation should be particularly robust, a phenomenon Sidanius, Pratto, and Bobo (1994) called the *invariance hypothesis*, which states that, "higher average level of male [versus female] social dominance orientation should be found after cultural, situational, and environmental factors are considered" (p. 1000). The examination of the invariance hypothesis is important because it has implications for (a) the unique nature of gender relations from other group relations and (b) how intergroup consensus or disagreement is sustained. To provide evidence against the invariance hypothesis, researchers need to show a significant interaction between gender and another factor that influences social dominance orientation

after controlling for both main effects (see Figure 1 of Sidanius, Pratto, & Bobo, 1994); the other factor should *moderate* the size of the gender differences and should reduce or reverse the direction of the gender difference. The strong version of the invariance hypothesis states that gender differences will not change in the face of potential moderators, whereas the weak version holds that the gender difference will not be eliminated by them. Rigorous empirical research to date supports the strong version, although some studies show evidence for the weak version. Based on a large random sample of Los Angeles county residents, Sidanius, Pratto and Bobo (1994) tested for but found no such moderation. Similar patterns appeared in Sidanius and Pratto's (1999) 20 samples across 10 nations, and Sidanius and his colleagues' (2000) samples from four nations.

Although some researchers (e.g., Caricati, 2007; Dambrun, Duarte, & Guimond, 2004; Foels & Pappas, 2004) have argued that their results refute the invariance hypothesis, their models differed in important respects from Sidanius, Pratto, and Bobo's (1994) formulation. Specifically, rather than testing for moderation, these researchers examined whether the gender difference is completely *mediated* by socialization-cultural factors (e.g., Caricati, 2007; Dambrun et al., 2004; Foels & Pappas, 2004), which is not at issue in the invariance hypothesis. Nonetheless, two conditions have been identified to moderate gender difference on social dominance orientation, namely, gender identification and intra-group comparison. Wilson and Liu (2003) showed that by covarying out own-gender identification, gender differences on social dominance orientation disappeared in New Zealand samples. Yet, this result was not replicated by other researchers who tested both moderation and mediation effects using the same measures in samples from other countries (Snellman, Ekehammar, & Akrami, 2009). Snellman and his colleagues found significant mediation but no moderation of gender identification on social dominance orientation. Additionally, Guimond and his colleagues (2006) found a nonsignificant gender difference on social dominance orientation when asking participants to do intragender comparison. A similar finding was reported by Huang and Liu (2005) when participants responded in an ethnicity-salient condition. Interestingly, none of the above studies found a reversed gender difference with women higher on social dominance orientation than men, and such results support the weak version of the invariance hypothesis.

Hypotheses—Our review identifies several contradictory hypotheses concerning whether groups should differ on support of group-based hierarchy, the conditions under which they might differ more, and whether groups of different types, such as gender or arbitrary-set groups, should differ. Part of the utility of this paper is that, by considering a variety of theoretical implications broadly, and comparing data from a variety of societies, it can show where theoretical predictions depend on social conditions.

Hypothesis 1 concerns whether dominants and subordinates differ from one another in support of group-based hierarchy. As we showed, socialization and psychological adjustment can lead people to learn and sometimes adopt the prejudices, stereotypes, ideologies that promote group-based hierarchy, which could produce similarity between groups within the same societies. Yet, people in subordinate groups may experience a social reality that conflicts with such hierarchy-enhancing legitimizing myths, which should generally reduce their support of group-based hierarchy. Thus, there is strong theoretical reason both to predict group differences on social dominance orientation (Hypothesis 1) and to predict similarity between groups (no group difference). For this reason, Hypothesis 1 tests whether dominants are reliably higher on social dominance orientation than subordinates.

Another point on which different theoretical traditions diverge is whether gender is functionally different from other kinds of group distinctions, and what the comparison

between gender and arbitrary group distinctions means theoretically. We address this question empirically in two ways. First, following from the invariance hypothesis, we tested whether gender differences are larger, more stable, and less likely to be moderated by other factors than arbitrary-set differences (Hypothesis 2). Second, for all the hypothesis tests concerning factors that could moderate the size of gender and arbitrary-set group differences, we examine whether the same pattern of results would obtain for gender and arbitrary-set groups. Our data and discussion will then inform questions about the particularism of theories regarding gender and arbitrary-set groups.

A number of researchers have hypothesized that group differences will be smaller in more collectivistic and hierarchical societies, whereas liberal societies, which emphasize individualism, independence, and rejection of obligations and traditions, will exhibit larger group differences (e.g., Guimond et al., 2007). Yet, some researchers found evidence that group differences of values and political views may be smaller in liberal societies (Caprara et al., 2006; Schwartz & Rubel, 2005, p. 1022). Here again, then, the literature makes competing predictions concerning whether group differences should be larger or smaller in more liberal societies. Hypothesis 3 states that the size of group differences would be increased by cultural factors that emphasize independence and individualism. We tested this hypothesis by examining the association between the group effect sizes on social dominance orientation with norms for cultural values for each nation gathered by Hofstede (2007) and Schwartz (personal communication).

The literature also offers competing hypotheses concerning the psychological effects of societal wealth. Some researchers postulate that increasing wealth is associated with greater self-expression and therefore, with larger gender differences in support for gender role differentiation (Inglehart & Norris, 2003). Realistic group conflict theory, in contrast, postulates that people should be especially group-biased when resources are scarce. That is, because low societal wealth (poverty) will make people feel threatened and blame other groups, group differences in support of group-based hierarchy should be greater in poorer societies. As such, Hypothesis 4 tests these competing ideas in stating that increasing societal wealth should be associated with larger group differences on social dominance orientation.

Several recent empirical comparisons of social and political attitudes across countries have shown that gender differences are larger in more structurally egalitarian societies (see Sequino, 2007 for a review). In addition, recent relative deprivation theory research suggests that in more egalitarian societies, people compare themselves with members of other groups and, if they are in subordinate groups, should reject group-based hierarchy more (Guimond et al., 2006). Hence, Hypothesis 5 states that greater gender equality, as evidenced by objective indices of women's conditions, and greater social equality, as indicated by the Gini index, will be associated with larger group differences on social dominance orientation.

Finally, there is an issue concerning whether social dominance orientation is one construct or two. According to Pratto and her colleagues (1994; Sidanius & Pratto, 1999), social dominance orientation is a general orientation in support of group-based dominance and inequality. Initial factor analyses confirmed that its items measure one factor (Pratto et al. 1994), although the reverse-coded items sometimes form a strongly correlated second factor. Such illusory two-factor solutions are common for balanced scales and can be eliminated by correlating errors of items that are coded in the same direction (pro-trait or con-trait; Xin & Chi, 2010). Jost and Thompson (2000) argued that social dominance orientation contains two factors. They termed one factor with most of the con-trait items "opposition to equality" (OEQ), which they suggested operates at the societal level; they termed the remaining items group-based dominance (i.e., GBD), which they suggested operates at the group level. Jost

and Thompson showed that the associations between GBD, OEQ, self-esteem, and ethnocentrism differed for U.S. Whites and Blacks. In one other study evaluating this prediction, Guimond, Dambrun, Michinov, and Duarte (2003) tested but did not find any difference of the relations between GBD, OEQ, and attitudes of prejudice and intergroup relations in France. In the current investigation, to evaluate whether social dominance orientation contains two factors operating at two levels, we tested group differences on GBD and OEQ, respectively. If social dominance orientation represents one factor, we expected converging results in group differences of GBD and OEQ. Because of the question Jost and Thompson (2000) raised, we first tested whether social dominance orientation is a unified construct, before testing the hypotheses stated above.

Overview of the Present Study

In this research synthesis, we investigated whether dominants and subordinates concur or disagree in their support of group-based hierarchy, and what factors are associated with more or less disagreement between groups. We did so by examining empirical studies on social dominance orientation conducted since the construct was first measured, 1979, through September, 2009. In particular, we investigated whether dominants tend to support group-based hierarchy, as measured by social dominance orientation, more strongly than subordinates in both gender and arbitrary-set groups (Hypothesis 1). We derived several predictions from the invariance hypothesis: We expected that the magnitude of gender effect sizes (i.e., *d*) on social dominance orientation would be larger compared to that of arbitrary group effect sizes, that the *variation* of gender effect sizes would be smaller than the *variation* of arbitrary group effect sizes, and that more stability over time in gender effect sizes would be observed than in arbitrary effect sizes (Hypothesis 2). Further, we examined whether psycho–cultural variables reflecting individualism and liberalism (Hypothesis 3), societal wealth (Hypothesis 4) and socio-economic equality (Hypothesis 5) would be associated with larger group differences.

Method

Sample of Studies

Computer-based information searches were conducted using keywords of “social dominance orientation” or “social dominance theory” or “SDO” or “SDT” in PsycINFO, Dissertation Abstracts, Web of Science, and Google Scholar.[1] Citations to Pratto et al. (1994), who first evaluated the psychometric properties of social dominance orientation scales, and Sidanius and Pratto (1999) were also searched and unpublished works that were referenced in other sources were sought from authors. We also made announcements and left fliers at several relevant conferences. The last searches were in September, 2009, and reports available as of that date were eligible for the meta-analysis. Studies were excluded if they (a) manipulated social dominance orientation (without first measuring it); (b) sampled clinical populations; (c) did not provide comparison results of gender or arbitrary-set groups; (d) only provided cross-national comparisons; and (e) reported insufficient information to calculate either the effect sizes or the direction of effect sizes. Authors of the reports were contacted for the missing information.

Variables Coded from Each Study

We coded not only variables of conceptual importance to our hypotheses (e.g., type of group comparison, time) but also a number of other study and sample features that may be

[1]Following a reviewer’s suggestion, we also searched a number of less-known data bases that were specific to different nations. As a practical note, meta-analysts may be interested to learn that major psychological databases (e.g., PsycINFO, Dissertation Abstracts, Web of Science) and Scholar Google in fact produced no reports that other databases did not already produce.

alternative explanations to our theoretical predictions. For each study we recorded the following information: (a) year of publication and year of data collection, when year of data collection was not reported, published studies were estimated by the year difference between publication and data collection years in the reported studies (e.g., *M* Year Difference = 3.87 for the U.S. studies on gender comparisons, see the second row under study characteristics in Table 1); unpublished studies were estimated as being collected two years prior to the date of the manuscript; (b) publication form (journal article, other published document, dissertation or master's thesis, unpublished data); (c) authors' discipline (e.g., psychology, sociology, political science, etc.); (d) whether researchers were collaborators with the originators of the social dominance orientation scale, Pratto or Sidanius; (e) location of data collection (country); (f) types of group compared (gender or arbitrary group); (g) types of arbitrary-set groups in comparison (e.g., ethnic/racial, religion, school major, etc.); (h) sampling method (convenience, probability, or other); (i) the reliability, scaling, and number of items for the social dominance orientation scale; (j) the language of the social dominance orientation scale; (k) number of participants in each sample; (l) proportion of males in each sample; (m) participants' mean age (estimated when not provided); (n) participant characteristics (children, adolescents, college students, adults, or general public); (o) percentage of samples with college education; and (p) racial or ethnic percentage for each sample (for Whites, Blacks, Asians, Latinos, and other, estimated by national racial proportions when not provided). Studies written in English and Chinese were coded twice by two of the six coders (three undergraduate students, two graduate students, and the first author) and inter-coder reliabilities were high, ranging from .64 to 1.00, *M* κ = .87. Disagreements were resolved by discussion between the coders. Studies written in other languages (Italian, Hebrew, Spanish, German, Dutch, and French) were coded by single coders who were social psychologists and fluent in those languages.

To account for national differences, psycho-cultural and socioeconomic factors about each nation in the sample were collected and coded. As measures of psycho-cultural factors that could indicate the general liberalism of the socio-political climate, in which people think for themselves and have self-concern, we used Schwarz's (personal communication) cultural values and Hofstede's (1998, 2007; Hofstede & Hofstede, 2005) national norms from IBM employees because both sets of measures are diverse in scope, pertain to alternative forms of societal organization, include a large set of countries, and have been rigorously examined by other researchers. There were seven Schwarz' cultural orientations at the national level: Intellectual autonomy, affective autonomy, embeddedness, egalitarianism, hierarchy, harmony, and mastery. Schwarz classifies the seven orientations with respect to three aspects of human society: (a) with the relations and boundaries between the person and the group (intellectual or affective autonomy vs. embeddedness), (b) emphasis of different types of social structure (egalitarian vs. hierarchical), and (c) the relation between humans and natural resources (harmony vs. mastery). There were five dimensions in Hofstede's national norms. (a) *Individualism-collectivism* assesses emphasis on the separate self (individualism) versus on groups (collectivism). (b) The *power distance index* indicates individuals' acceptance of unequal power distribution in organizations. (c) *Societal masculinity-femininity* describes salient values for men in societies. In "masculine" societies men emphasize values such as competitiveness and assertiveness, whereas in "feminine" societies, men value caring or modesty. (d) The *uncertainty avoidance index* indicates a society's intolerance of uncertainty and ambiguity, traits often associated with prejudice. (e) *Long-term orientation* measures work ethics and how one views relationships. Societies with longer-term orientation emphasize persistence (e.g., not expecting immediate benefits) and having relationships as one's role dictates (e.g., daughter, parents). Societies with shorter-term orientation emphasize immediate benefits and personal merit. To measure the general construct of liberalism, freedom for individuals and to consider themselves as separate from others and their culture's traditions, we used Schwartz's embeddedness,

intellectual autonomy, affect autonomy, harmony, and mastery norms and Hofstede's individualism-collectivism, uncertainty avoidance, and long-term orientation norms for each society in the study. Both these sources provide continuous indices on these several cultural parameters for each society. Schwarz and Hofstede only reported nations' psycho-cultural scores when they remained stable over time.

The socioeconomic factors coded for each nation were of two types: Wealth of the society and particular indicators of gender equality and income equality. Societal wealth was measured by the gross domestic national product (GDP) per capita (Central Intelligence Agency, 2006). Regarding gender equality, we recorded a general gender empowerment measure (GEM), which measures gender equality in economic and political opportunities (United Nations Development Programme, 2002), and specific indicators of gender equality including the percentages of women in parliament and in professions, the proportion of women's income compared to men's, men's and women's average age at their first marriage, and fertility rate (Central Intelligence Agency, 2006; Jao, Lai, Tsai, & Wang, 2003; United Nations Development Programme, 2002; World Health Organization, 2005). Regarding income equality, we included the Gini coefficient, as well as the proportions of households in the nation that earned the highest and lowest 10% of income (Central Intelligence Agency, 2006). Socioeconomic factors were recorded in the year in which data for most nations were reported. Thus, the year in which socioeconomic factors were collected and the year in which a study was conducted may not match. We could locate no systematic data source that indexes arbitrary-set inequality systematically for nations (i.e., outcome differences for races or ethnicities or tribes or religious sects).

Computation and Analysis of Effect Sizes

Two kinds of effect sizes were computed from the available information in the studies. First, to examine convergent and divergent validity of the social dominance orientation scale, correlations between social dominance orientation and other scales were recorded and converted to Fisher's Z_r. After computing the averaged Z_rs, they were converted back to correlations (*r*s) for ease of interpretation (Lipsey & Wilson, 2001). Analyses of *r* values were restricted to these overall results because exploring moderators of *r* values was outside the purview of the current study. Second, to provide direct comparisons of dominants to subordinates, the difference of *M* social dominance orientation scores between a dominant group and a subordinate group was divided by the pooled standard deviation, producing *g*s. These *g*s were converted to *d*s by correcting for sample size bias (i.e., *g*s overestimation of the population effect size, which occurs especially for small samples; Hedges & Olkin, 1985). Positive *d*s indicated that dominants (e.g., men, Whites) endorse social dominance orientation more strongly than subordinates (e.g., women, Blacks). When *M*s and *SD*s were unavailable to calculate effect sizes, other information (e.g., *t*-tests, *F*-values) was used (e.g., B. T. Johnson, 1993; Lipsey & Wilson, 2001).

The homogeneity of each set of *d*s was examined to determine whether the studies in each set plausibly shared the same effect size following fixed-effects assumptions. Meta-analyses conventionally use Cochran's (1954) *Q*, which has an approximate χ^2 distribution, but because the values that *Q* takes are typically highly correlated with the numbers of available studies, it is difficult to use it to compare homogeneity between different sets of studies. Therefore, we instead calculated I^2, which can range from 0 to 100, with the 0 value indicating no more variability than expected by sampling error, and higher values indicating greater variation than sampling error alone would predict. Confidence intervals for I^2 that do not include zero indicate rejection of the hypothesis of homogeneity and an inference of heterogeneity (Higgins & Thompson, 2002; Huedo-Medina, Sánchez-Meca, Botella, & Marín-Martínez, 2006), implying that the model evaluated by the mean is too simple to describe the effect sizes correctly. Because they lacked homogeneity, calculation of *M* d_+s

followed conventional random-effects assumptions using the full-information, maximum-likelihood procedure (Lipsey & Wilson, 2001).

Because the *d*s did vary (lacked homogeneity), moderator analyses on categorical variables (similar to the analysis of variance) and continuous variables (similar to regression models) were conducted in order to account for variability in group difference effect sizes (d_+s), with fixed-effects slopes and random-effects intercepts, using macros for SPSS and Stata (Lipsey & Wilson, 2001). For continuous variables, to account for the varying magnitudes of effect sizes, we first examined each moderator in terms of how it modified effect sizes. Then, we fit models with the predictors entered simultaneously. The only exceptions were when moderators were highly correlated (rs ≥ |0.80|); when resulting in moderators having coefficients larger than 1 (an indication of multicollinearity); or when sensitivity analyses revealed unstable coefficients. In graphical depictions of national-level moderation patterns, we used the random-effects mean for nations with $k > 1$ and the observed effect size when $k = 1$.

Results

To provide an interpretative context for the hypothesis tests, we first describe the characteristics of the studies in the sample. Then we report the construct validity of the social dominance orientation scale, compare the degree of difference on social dominance orientation between dominants and subordinates, and finally examine the associations between the group effect sizes with hypothesized moderators.

Characteristics of the Studies

The final data set included 206 samples in 118 independent reports (see Appendix I). Characteristics of the studies are summarized in Table 1. Of the 118 independent reports, 25 reports (21.2%) were unpublished manuscripts; published studies appeared between 1992 and 2009. The majority of the samples were conducted in the discipline of psychology, recruiting convenience samples, and using paper-and-pencil measures. About half of the samples responded in groups. Among the samples, 169 (from 101 independent reports) provided gender comparisons and 80 (from 39 independent reports) provided arbitrary-set groups comparisons (see details regarding specific group comparisons in Table 1). Roughly half of the samples (22 out of 39 reports and 43 out of 80 samples) for the arbitrary-set groups were also included in samples of gender comparisons. Due to the overlapping samples and different classifications for the two major types of group comparisons, we examined them separately. There were 25,081 male and 27,745 female participants across 22 countries or geographic areas (e.g., Palestine) for the gender comparison studies, and 23,450 male and 27,985 female participants across 13 countries or areas for arbitrary-set group comparison studies, including 8 countries or areas for ethnic/racial comparison studies shown in Table 1. In addition to countries or areas shown in Table 1, gender comparisons were conducted in Australia (4.1% of samples), Germany (3.6%), Belgium (3.0%), New Zealand (2.4%), the Netherlands (1.8%), UK (1.2%), China (0.6%), Colombia (0.6%), Lebanon (0.6%), Palestine (0.6%), Russia (0.6%), Malaysia (0.6%), Albania (0.6%), and Tunisian Republic (0.6%), and arbitrary-set comparisons were conducted in Germany (2.5%), Poland (1.3%), UK (1.3%), Pakistan (1.3%), and India (1.3%). The majority of the participants were Whites, college students, and young adults. Our analyses focus on standardized group differences, which control for the pooled variance and *N* per sample. This information informs the reader about some of the variability due to group membership (for gender, male or female, and for arbitrary-set groups, dominant or subordinate groups) and due to different nations.

About a half of studies used the 16-item social dominance orientation scale (Pratto et al., 1994), about a quarter of studies administered the 14-item social dominance orientation scale (Pratto et al., 1994), and the remaining studies used other versions of the social dominance orientation scale. Using Rodriguez and Maeda's (2006) equations to calculate means, the social dominance orientation scale was found to enjoy very good reliability, mean α = .85 (95% *CI* = .84 to .86, *k* = 173), which was true for all versions of the social dominance orientation scale (mean α = .84 for 14-item version, mean α = .86 for 16-item version, and mean α = .83 for other versions).

Social Dominance Orientation as a Unified Factor

To evaluate whether social dominance orientation contains two separate factors, we tested for gender differences on the two factors identified by Jost and Thompson (2000). In studies that reported social dominance orientation as two factors (*k* = 15), the weighted mean gender effect sizes of GBD (mostly pro-trait items) was d_+ = 0.32 (CI 95% = 0.24, 0.41), whereas the averaged gender effect sizes of OEQ (mostly con-trait items) was d_+ = 0.31 (0.21, 0.42), with the confidence intervals indicating they are not reliably different. Two factors were correlated positively (*r* = 0.47). In arbitrary non-ethnic/racial groups, the averaged effect sizes of GBD and OEQ did not significantly differ from 0 (*p*s > .32, *k* = 4); the correlation between the two subscales was high (*r* = .93). In ethnic/racial groups, the averaged effect sizes of GBD and OEQ were −0.08 (CI 95% = −0.28, 0.12, *k* = 17) and 0.27 (CI 95% = 0.14, 0.40); the correlation between the two subscales was high (*r* = .83). According to the results of the three sets of comparisons (gender, arbitrary non-ethnic/racial groups, and ethnic/racial groups), the averaged effect sizes of GBD and OEQ differed only in comparison to ethnic/racial groups. Dominant ethnic/racial groups were more opposed to equality than subordinate ethnic/racial groups (the factor reflecting system justification according to Jost and Thompson, 2000), but they did not differ on group-based dominance (the factor reflecting group justification according to Jost &Thompson, 2000).

Clearly, these results indicate that subordinate ethnic/racial groups did not show signs of resolving dissonance between group justification and system justification by supporting the system to a larger degree than dominant ethnic/racial groups. The above findings, along with social dominance orientation's high internal consistency, suggested that social dominance orientation should be considered a unified factor because (a) the results of gender differences and arbitrary non-ethnic/racial group differences on social dominance orientation were identical for GBD and OEQ, (b) the correlations between GBD and OEQ were high for arbitrary-set groups, and (c) the findings of group difference on GBD and OEQ were consistent with the semantic difference explanation offered by social dominance theorists (e.g., Pratto, Sidanius & Levin, 2006). That is, respondents may be more aware of equality norms when responding to the mostly pro-trait items, GBD, thus reducing intergroup disagreement. Finally, as a practical matter, relatively few studies in the literature presented results in a fashion that separated the GBD and OEQ subscales.

Construct Validity of the Social Dominance Orientation Scale

We examined the social dominance orientation scale's predictive validity by testing whether social dominance orientation was correlated with constructs that social dominance theory hypothesizes should relate (Pratto et al., 1994). That is, we examined whether it correlated positively with endorsement of hierarchy-enhancing ideologies and negatively with endorsement of hierarchy-attenuating ideologies. For this analysis, we grouped correlations of measures conceptually. For example, multiple kinds of racism scales, usually tailored to the society in which they were administered, were grouped as racism measures. As Table 2 shows, although the number of studies reporting relevant measures was limited (*k* ranging from 12 to 63, depending on the type of ideology measure), social dominance orientation

correlated positively as expected with nationalism, racism, heterosexism, sexism, and other types of hierarchy-enhancing ideologies (e.g., use of force, conservatism). Conversely and as expected, social dominance orientation correlated negatively with support for various types of progressive social policies (such as government social programs and civil rights). All of the I^2 values for the validation correlations suggested heterogeneity; some of the variation in these correlations may be due to the variety of ways the other constructs were measured. As social dominance theory predicts, regardless of how they were measured specifically, support for a variety of legitimizing ideologies corresponds with social dominance orientation. Finally, social dominance orientation was moderately correlated with right-wing authoritarianism. In addition, we should note that ingroup identification was unrelated to social dominance orientation ($r = -0.01$, $k = 7$). These results further demonstrate the robust construct validity of social dominance orientation scales.

Group Comparisons on Social Dominance Orientation

Hypothesis 1 predicts that dominants have reliably higher social dominance orientation scores than subordinates, which would be shown if the mean effect sizes (d_+s) for gender and arbitrary-set groups were reliably greater than zero. Results confirmed this hypothesis. The top panel of Table 3 shows that men had reliably higher social dominance orientation scores than women both within and outside the U.S. and the bottom panel of Table 3 shows that arbitrary-set dominants had reliably higher social dominance orientation scores than subordinates.

Hypothesis 2 concerned the invariance hypothesis and whether gender groups differ from arbitrary-set groups. Consistent with Hypothesis 2, the gender difference was reliably larger than that for the arbitrary-set groups. The weighted mean effect size, $d_+ = 0.43$, for the gender difference was more than twice as large as that observed for arbitrary-set groups, $d_+ = 0.15$. The frequency distributions of the two effect size groups appear in Figure 1. There were almost as many samples in which subordinate arbitrary-set groups (lower graphic in Figure 1) were higher on social dominance orientation (negative *d*) as samples in which subordinate arbitrary-set groups were lower on social dominance orientation (positive *d*), but the distribution centered near zero with a slight positive central tendency. In contrast, in nearly all of the samples, men were higher on social dominance orientation than women (upper graphic in Figure 1) with the mean substantially above zero. In only five out of 169 samples were the gender effect sizes negative. These results substantiate part of Hypothesis 2.

Another part of Hypothesis 2 concerns the variability in effect sizes between samples for gender and arbitrary-set groups, which is not examined above. The invariance hypothesis implies that the variation in gender differences should be smaller than that for arbitrary-set group differences. Indeed, the confidence intervals show that the I^2 for the gender comparisons (upper panel of Table 3) was significantly smaller than that for arbitrary-set comparison among samples (lower panel of Table 3), and this difference remained whether the arbitrary-set group comparisons were ethnic/racial or not. These results support Hypothesis 2.

Gender Comparisons

In evaluating moderators of gender differences in social dominance orientation, we first entered each predictor alone and subsequently entered all significant predictors simultaneously in regression models. Moderators were considered significant when they were associated significantly with effect sizes alone and with methodological variables included as predictors (e.g., whether studies were conducted in the U.S.). We first evaluated the invariance hypothesis in gender *d*s with respect to stability over time considering U.S.

studies only, a procedure that holds cultural variables relatively constant. Supporting Hypothesis 2, data collection year was not significantly related to *d*s in the U.S. studies (β = −0.13, $p = .40$ from the studies that reported data collection year and β = −0.16, $p = .13$ from all U.S. studies). Inspection of time plots also revealed no other systematic (i.e., non-linear) changes.

The magnitude of the mean gender effect sizes differed across the 22 nations, $Q_B(21) = 54.75$, $p < .001$, ranging from 0.68 in Russia to 0.16 in the Netherlands; thus, an examination of substantive variables that may underlie such differences can be informative. As described above, we used the continuous cultural indicators such as each nation's cultural values and income inequality indices, to predict the effect size measures. Table 4 shows statistically reliable results, including the available numbers of studies and nations for each variable, which were sometimes small because of missing predictor values (e.g., Hofstede's long-term orientation index was not available for 12 of the nations and was highly correlated with individualism-collectivism, $r = −.81$). Nations characterized by higher individualism, autonomy, and mastery were expected to have larger effect sizes (Hypothesis 3). Consistent with this hypothesis, gender differences were larger in studies from countries that were higher on individualism and affect autonomy and lower on long-term orientation and uncertainty avoidance (see regression weights and test statistics in Table 4). Figure 2, panel a, illustrates how the gender difference effect sizes increase with societal individualism. Matching the values of scores on the Individualism-Collectivism predictor scale with the effect size d_+ can help the reader interpret the column labeled *Levels* in Table 4, which shows estimated effect sizes at different levels of moderators. For example, a nation with a score of 13 on the collectivistic side of Hofstede's Individualism-Collectivism scale is estimated to have a gender d_+ of 0.17, and a nation with a score of 91 at the individualistic side of the same scale, has an estimated gender d_+ of 0.48. The confidence intervals for values at these extremes, shown under the *Weighted* M *effect size* column, indicate that even in very collectivistic nations, the gender difference is significantly larger than 0, the value indicating exactly no difference. Table 4 shows that average gender differences across the extremes of the moderator variables never significantly reversed such that females supported structure more than males. Thus, the results are consistent with the weak version of the invariance hypothesis and provide supporting evidence for our reasoning that the greater freedom a society offers individuals to feel for themselves and consider themselves as separate from traditions, the more subordinates and dominants disagree on group-based hierarchy.

Greater national wealth was hypothesized to be associated with larger group differences (Hypothesis 4). Consistent with this hypothesis, gender effect sizes (*d*s) were larger in nations with higher GDP per capita (Table 4). Thus, national wealth was somewhat associated with how much men and women differed in their views of group-based hierarchy: The wealthier the society, the larger was the observed gender difference.

Greater structural equality was predicted to be associated with larger group differences (Hypothesis 5). As expected, in countries that had greater gender equality, as indicated by the gender empowerment measure, a larger ratio of women's income to men's, and a larger proportion of women professionals, larger gender effect sizes in support of group-based hierarchy appeared (Table 4). As indicated by the gender empowerment measure, the more women's general political and economic opportunities were comparable to men's, the larger gender effect sizes were observed, β = 0.23, $p < .01$. Similarly, the more closely women's income matched men's, the larger gender effect sizes grew, β = 0.35, $p < .001$ (see Figure 3, panels a and b). Gender effect sizes were also larger to the extent that countries had higher proportions of women professionals, β = 0.33, $p < .001$. That is, the smaller the gender gap between men and women, especially in economic opportunities and performance, the larger

the gender difference on social dominance orientation. Women's fertility rate was also associated with gender effect sizes (β = 0.15, $p < .05$), such that smaller differences emerged in low-birth-rate nations. The unexpected finding may be due to the oversampling of the U.S. studies. Once controlling for whether studies were conducted in the U.S., birthrate became non-significant ($p = .49$). In a combined model (Table 4, rightmost column), two moderators, the ratio of women's income to men's and percentage of women professionals, remained significant. This result indicates that among the correlated indicators of women's empowerment, the ones most closely corresponding to women's economic empowerment had the strongest or most direct effects on gender differences.

Sample characteristics and study features—Gender effect sizes were smaller when samples included other measures of hierarchy-enhancing ideologies beliefs (β = −0.17, $p < .05$). Larger gender effect sizes were observed in the U.S. studies that included measures of in-group identification than in the U.S. studies that did not include such measures; this pattern did not materialize in non-U.S. studies (β = 0.23 for interaction, $p < .05$). When all predictors were entered simultaneously, these two patterns remained significant ($ps < .05$; see the right-most column of Table 4).

Overall, the results showed that men supported social dominance orientation more strongly than women and that the gender difference on social dominance orientation was larger than the arbitrary group difference (both for non-ethnic/racial groups and for ethnic/racial groups). Moderator analyses found larger gender differences on social dominance orientation in societies that emphasize personal freedom and individualism or have greater gender equality. Conversely, smaller gender differences on social dominance orientation were found in societies that have larger tolerance of uncertainty or thinking of relationships in longer terms (e.g., in terms of one's tradition and roles).

Arbitrary Group Differences: Ethnic/Racial Groups

We now present parallel tests of our hypotheses for arbitrary group differences. Recall that the weighted mean effect size for all such comparisons was $d_+ = 0.15$. Because there were significant differences among different types of arbitrary-set groups (e.g., ethnic/racial, school major) in terms of how much they supported group-based hierarchy, $Q_B(6) = 27.60$, $p < .0001$, we opted to focus on the most prevalent form of arbitrary-set comparisons, ethnic/racial groups ($k = 56$). As expected, when comparing ethnic/racial group differences to gender differences, the effect sizes for ethnic/racial groups changed over time. Among studies that reported data collection years, the differences between dominant and subordinate ethnic/racial groups decreased over time in the U.S. (β = −0.73, $p < .01$, $k = 8$; see Figure 4). Ethnic/racial group effect sizes also decreased over time among all U.S. studies (β = −0.45, $p < .01$, $k = 37$) and in all studies (β = −0.61, $p < .0001$, $k = 56$, see Table 5).These findings address Hypothesis 2.

Similar to our gender findings, effect sizes that contrasted ethnic/racial groups were found to differ inside and outside the U.S., with U.S. studies having a larger mean effect size ($d_+ = 0.26$, 95% *CI*=0.14, 0.38, $k = 37$) than those in other parts of the world ($d_+ = −0.04$, 95% *CI*= −0.20, 0.12, $k = 19$) (according to a dummy-coded simple regression, β = 0.37, $p = .003$). To understand what accounts for differences among nations, one can examine each nation's weighted mean effect sizes in relation to other national characteristics and test whether individualism and liberalism (Hypothesis 3), greater wealth (Hypothesis 4), or greater structural equality (Hypothesis 5) in societies are associated with larger group differences. Consistent with Hypothesis 3, that group differences will be larger in more individualistic and liberal nations, nations higher on Hofstede's individualism-collectivism had larger group effect sizes (β = 0.34, $p < .01$, see Figure 2, panel b). Similarly, Schwartz's

cultural value of mastery (β = 0.25, p = .05) related positively to effect sizes and Hofstede's masculinity-femininity dimension related marginally (β = 0.23, p = .07). Also consistent with Hypothesis 3, nations lower on Hoftede's long-term orientation dimension (β = −0.30, p < .05) had larger group effect sizes and those lower on Hofstede's uncertainty avoidance dimension had marginally smaller group effect sizes (β = −0.23, p = .07) (see Table 5 for all moderation results). Moreover, after entering indicators simultaneously, three indicators of societies' liberalism were associated with larger ethnic/racial group differences, as predicted by Hypothesis 3. Greater individualism, higher mastery orientation and smaller long-term orientation were associated with larger differences between ethnic/racial groups.

Hypothesis 4 predicts larger group differences in wealthier societies. National wealth measured by GDP per capita related to the size of ethnic/racial group differences on social dominance orientation, β = 0.30, p < .05. As Figure 5 shows, racial dominants and subordinates disagreed about group-based hierarchy to a larger degree in wealthier than poorer societies. In addition, larger group differences were expected in societies with more structural equality (Hypothesis 5). We tested Hypothesis 5 by regressing group effect sizes on several indicators of structural equality. Except for the size of the population with lowest 10% income bracket, which approached significance (β = −0.22, p = .096), none of the other indicators of structural inequality was reliably associated, including the percentage of households in the highest 10% income bracket (p = .47) and Gini (p = .22). Yet, group effect sizes were related to gender equality as indicated by the gender empowerment measure, β = 0.27, p < .05 (see Table 5). These results show that structural gender equality was somewhat related to the size of ethnic/racial group differences.

Because there were so many U.S. studies, it was possible to examine whether the nature of the racial comparison related to arbitrary-set comparisons within that country. Indeed, within U.S. studies, comparisons between Whites and Asians yielded non-significant differences (d_+ = −0.12, 95% CI = −0.33, 0.09) whereas other ethnic/racial comparisons yielded significant differences favoring dominants (d_+ = 0.40, 95% CI = 0.28, 0.52). This difference remained significant when controlling for the year of data collection (β = −0.60, p < .001). We attempted to examine models with all of the variables in Table 5, but results were compromised by the relatively small numbers of studies available, coupled with the relatively small numbers of nations represented.

Overall, results of ethnic/racial group comparisons were both similar to and somewhat different from results of gender comparisons. The ethnic/racial group effect sizes were positive, indicating that dominants support group-based hierarchy more strongly than subordinates. Still, in most nations, there were no reliable differences between ethnic/racial groups. In general, as Figure 1 and Table 3 show, ethnic/racial group effect sizes were on average smaller but much more variable than gender effect sizes, and unlike gender effect sizes, they declined over time in the U.S. and elsewhere. One important consistency we found is that for both gender and ethnic/racial groups, effect sizes were larger in societies characterized more by structural gender equality and modern liberalism. That is, for both gender and ethnic/racial comparisons, nations higher on structural gender equality and Hofstede's individualism vs. collectivism measure, and low on uncertainty avoidance and short-term orientation, had larger group effect sizes. Further, conceptually, other psycho-cultural factors associated with higher personal autonomy, including affect autonomy for gender comparisons, and including masculinity and mastery for ethnic/racial comparisons, were associated with larger group differences on support of group-based hierarchy. Moreover, some supporting evidence was found for larger group effect sizes in wealthier societies.

Discussion

Theorists in psychology (e.g., Sidanius & Pratto, 1999), international relations (e.g., Lebow, 2006), political science (e.g., Gurr, 1970), sociology (e.g., Jackman, 1994; Mills, 1959), and philosophy (e.g., Arendt, 1969) have considered whether inequality persists primarily because of coercion, or in part because of approval for domination among subordinates. This paper informs this question by examining whether group-based hierarchy is approved of equally by dominants and subordinates. Moreover, this paper highlights the important role of psychological processes in how people respond to their social, economic, and cultural conditions and to societal ideals to inform how much dominants and subordinates concur or disagree in their orientation toward group-based hierarchy. Our examination of the psycho-cultural and socio-structural factors thus has implications for societal stability, social inequality, and the psychological processes that influence both.

The first important psychological process we considered is adjusting to one's social reality. Across societies, people learn that dominants have access to particular forms of power, privilege, jobs, and resources, whereas subordinates serve, do without, and are stereotyped as inappropriate to wield power or gain respect (e.g., Pratto, 1999). In many societies, people also learn from the major cultural worldviews and ideologies to which they are socialized that this kind of inequality is natural or at least justified (e.g., Pratto et al., 2000). Accordingly, people learn from the particular situation of their group. For subordinates, the contrast between their own life experiences and cultural apologies could plant the seed of skepticism about cultural ideologies that legitimize group-based hierarchy (Pratto, 1999).

The second main psychological process we described is that people not only learn, but also more actively think, reason, and make meaning about their social world, particularly regarding group inequality and favoritism. This process is partly influenced by the social conditions in which they live, for these conditions provide information and comparison points which can differ for different groups in the same society and between societies. In societies in which unequal groups are segregated into separate roles or living spaces, they may not compare their situations to those of other groups, and may be relatively satisfied. In such cases, we would expect dominants and subordinates to be more similar in their attitude towards group-based hierarchy. In contrast, in societies in which people purport to value equality, subordinates may come to expect and feel entitled to equality. The evidence and signs they observe of inequality would then mean that reality is falling short of their ideal standards. This condition may lead them to reassert their opposition to group-based hierarchy and to differentiate from dominants.

The third process concerns how people come to understand their own self in relation to others. In traditional societies, people differentiate themselves fairly little from others, as often their outcomes are interdependent with others. They assume that they should maintain long-term relationships with others, which often means subordinating their own personal desires. In such societies, subordinates may adopt similar orientations towards hierarchy as dominants. In contrast, in modern liberal societies, people are expected to differentiate themselves from others, although they may look to group memberships as one way of figuring out their identities (e.g., Markus & Kitayama, 1991). They also are expected to look out for themselves, which may make them especially attentive to how their conditions compare with those of others, and to when their conditions fall short of egalitarian ideals.

These psychological processes neither suggest that structural inequality determines whether people go along with inequality or do not, nor that social conditions are irrelevant to whether groups generally agree or whether groups disagree over how much social inequality is acceptable. That is, people actively respond to cultural norms and objective social

conditions, such that structural variables alone do not completely account for whether subordinates differentiate from dominants or vice versa (B. T. Johnson et al., 2010). For this reason, examining the psychology of intergroup agreement about group-based hierarchy is especially important.

Intergroup Dissent Regarding Approval of Social Inequality

Our results show conclusively that people in less powerful gender and ethnic/racial groups do not concur with people in dominant groups concerning group-based hierarchy. Robustly, members of subordinate groups reject group-based hierarchy more than do members of dominant groups, in keeping with each group's power position (see Figure 1). As Table 6 shows, this pattern confirms Hypothesis 1 and the predictions of social dominance theory. These results demonstrate that acquiescence to domination, or "false consciousness," cannot be considered a default or "normal" state. Hence, structural inequality is not consensual. Rather, people in low-power social groups find group-based hierarchy more objectionable than those in high-power groups.

The present results should be taken as informative precisely because they included samples from South America, North America, Southern Africa, the Middle East, Central Asia, East Asia, Eastern and Western Europe, and Britain. Our method of weighting nations using random-effects assumptions, coupled with sensitivity analyses, prevented over-represented societies such as the U.S. from having an undue influence on the results. Therefore, our results are far less culturally-particular than many other psychological studies. The fact that we found moderation by national variables helps to substantiate that the nations studied here did vary in important respects. Presumably, if we had been able to match the national moderating variables in time with when social dominance orientation was measured in the studies, the patterns would have been even more marked. Nonetheless, our samples include far more college-educated people, and more people from the Western nation-states, than can be said to represent the world. As is common in published psychological research, because the present study included no samples from central Africa and few from indigenous cultures, it is possible that other hypotheses would suggest themselves with samples of people living in different circumstances. In particular, the values and beliefs of people living in locations with high turmoil are rarely studied because of the difficulty and more important priorities that such conditions present.

Further, from its inception, social dominance theory has hypothesized that cultures invent and change legitimizing myths, or widely-known cultural ideologies, to maintain the particular kinds of group-based hierarchy in their local situation (e.g., Sidanius & Pratto, 1993), and that endorsement of such beliefs should correlate with social dominance orientation. For example, Pratto and her colleagues (2000) showed that locally-appropriate measures of sexism, ethnic prejudice, and other socio-political ideologies correlated with social dominance orientation in New Zealand, China, Israel, and Canada. Further, Sibley and Duckitt's (2008) meta-analytic review found that social dominance orientation moderated how Openness to Experience and Agreeableness relate to prejudice. Yet, nearly all the 71 studies they examined were from Europe or the U.S. The present results show even more broadly that social dominance orientation has high internal reliability in a variety of languages and nations and that people's levels of social dominance orientation robustly correspond to their endorsement of *local* social and political attitudes that legitimize group inequality. This strong evidence for construct validity increases confidence that the present results inform the study of intergroup relations and of support for group-based hierarchy, despite the fact that our meta-analysis only examined responses on the social dominance orientation scale.

Given that our study confirmed high construct validity for social dominance orientation across a variety of cultures and administered in a variety of languages, it would seem very important to use the present results to inform the study of intergroup relations. Contrary to Jost and Thompson's (2000) suggestion that social dominance orientation contains two factors, our results demonstrate that social dominance orientation is a unified construct, because the scale enjoys high reliability, group differences on the two factors were highly correlated, and group differences on the two factors were of similar magnitude for gender and non-ethnic/racial arbitrary-set groups. Indeed, as Xin and Chi (2010) showed, much of the apparent two-factor structure is semantic, as Pratto et al. (2006) argued. We speculate that the group difference was not significant on "group-based dominance" among ethnic/racial groups because of strong opposition against overt dominance among women of dominant race/ethnicity. If women of dominant race/ethnicity are sensitive to equality norms, they may not endorse the mostly pro-trait items, "group-based dominance," to the same degree as they may to the mostly anti-trait items, "opposition to equality." Finally, as we demonstrated, these indexes are highly intercorrelated.

Gender in Intergroup Relations: The Invariance Hypothesis Reconsidered

Although a good deal of research and theorizing on group dissension concerns ethnic or racial groups (e.g., Bobo & Hutchings, 1996; Brewer & Campbell, 1976; Gurr, 1970), we found that the rejection of group-based hierarchy was even more common across samples by women compared to men. As social dominance theorists have argued for some time, gender is an integral aspect of intergroup relations, not a separate domain. Further, just as the present results question the concept of false consciousness as normal, they also imply that whatever the causes of male dominance are, they do not include women's psychological acquiescence to group-based hierarchy.

Unlike many theories of gender or intergroup relations, social dominance theory argues that both gender inequality and arbitrary-set inequality (e.g., ethnic/racial inequality) make up group-based hierarchy, and that gender is not a special case of arbitrary-set relations or vice versa. Further, social dominance theory argues that societal hierarchy is partly maintained by different roles and differing psychological orientations toward hierarchy among men and women (e.g., Pratto, 1996; Pratto, Stallworth, Sidanius & Siers, 1997). One of the first documented clues to the idea that men and women play different parts in group-based hierarchy is the robust gender difference on social dominance orientation. In fact, because numerous studies in different nations have found no moderation or reversal of the gender difference, the prediction is described as the invariance hypothesis (Sidanius, Pratto, & Bobo, 1994; Sidanius & Pratto, 1999; Sidanius et al., 2000). Our results were consistent with the weak rather than strong version. As predicted by Hypothesis 2, ethnic/racial group differences varied more across time and across samples than gender differences did. In no cultures were women significantly higher on social dominance orientation than men. The finding that men score higher on social dominance orientation than women, then, is extremely robust. This psychological gender difference is consequential for group-based hierarchy because it accounts in part for why men and women select different occupational roles with respect to hierarchy (Pratto, Stallworth, Sidanius, & Siers, 1997), vote for different politicians, and prefer different social policies (e.g., Pratto, Stallworth, & Sidanius, 1997).

In addition, we were able to identify, for the first time, systematic socio-cultural moderators of the gender difference on social dominance orientation. By comparing at the sample level with different central tendencies, gender differences were larger in more individualistic societies (with high individualism and affect autonomy from others), and were smaller in societies higher in uncertainty avoidance and long-term orientation. Most importantly, and lending support to materialist arguments about feminism (e.g., Sequino, 2007), gender

differences were larger when women's income levels and professional standing had more parity with men's. That is, the social development that allows women to enjoy more equality with men also helps to promote an appetite for more egalitarianism (Inglehart & Norris, 2003). This finding is theoretically important for several reasons.

First, the present results suggest that social scientists should reconsider how gender role norms may pertain to psychological traits, values, and worldviews. One fruitful change may be to recognize more active psychological processes rather than viewing role socialization as the passive adoption of gender role norms. Prescriptive norms may influence how people interpret their roles and social experiences. Diekman and her colleagues have shown that men and women expect to be more similar (e.g., Diekman & Eagly, 2000) and to have more similar levels of power (Diekman, Eagly, Mladinic & Ferriera, 2005) in societies with more gender equality. We have demonstrated that in such societies, these expectations may lead women to reject group-based hierarchy more than men. Our finding that more income parity and more women professionals are associated with greater gender differences suggests that women who assume that they can be men's equals are more sensitized to social inequality. Further, it may be that when women enter domains such as professions that had been reserved to men, their experience confirms just how unequally they, and other groups, are treated. Women's experience of becoming professionals may not simply be one of gaining power and status compared to if they had not become professionals, and hence becoming psychologically like men, but rather one of experiencing discrimination, double-standards, and double burdens compared with men professionals (e.g., Glass, 1990;J. A. Johnson & Johnson, 2008; Roth, 2004; Terbourg, 1977). In fact, experiments demonstrate that given close social comparison information (e.g., salaries of men and women in the same departments rather than in different departments), people are more likely to realize that sex discrimination is occurring (Rutte, Diekmann, Polzer, Crosby, & Messick, 1994). Another reason for the association between gender equality in societies and gender differences on social dominance orientation may be that both were brought about by feminist activism--where women (presumably especially those low on social dominance orientation) have fought for equality, they have created opportunities for higher education, equal pay, and professional roles for women as well as spreading and living out an anti-dominant ideology in their society. Such political work may change both orientations towards social dominance and the degree of inequality in a society.

Another major theoretical implication of our gender results concerns the invariance hypothesis itself. Sidanius (1993) argued that this stable and previously unmoderated psychological gender difference derives from selection for greater male dominance in humans. Although we found that the gender difference is relatively more stable than the difference between ethnic/racial groups, considerable variation in the size of the gender difference exists across cultures. In fact, we identified several moderators of this difference, although the fact that it was unreversed still requires an explanation. Instead of invoking an unknown evolutionary social past to account for the gender difference, we would point out that gender inequality is established and maintained at different but intersecting levels, from the more proximate family level to more distal society level. The reason that gender effect sizes on social dominance orientation are more stable than effect sizes for ethnic/racial groups is that women, even when they are of dominant race or higher social class, are subordinates in the family level in the sense that they serve others and are often more constrained in their life choices than are men. Conversely, men of subordinate races are still dominants in the family level (e.g., wives shouldering more domestic responsibilities even when they earn equal or more than husbands). If awareness of one's subordinate group position allows one to reject group-based hierarchy, women should reject such hierarchy more consistently (i.e., across cultures and time) than ethnic/racial group subordinates. This reasoning is consistent with social dominance theory's explanation of why subordinate

arbitrary-set groups would often be less social dominance oriented than dominant arbitrary-set groups.

Our finding that there are larger variations among ethnic/racial group differences than on gender differences has implications for studying arbitrary-set group differences as well. To date, a relatively small number of nations have documented arbitrary-set differences on social dominance orientation, so one might expect to document more subtle patterns of moderation as greater numbers of studies accrue in the literature. To understand colonialism and post-colonialism as well as international relations, it is clear that research regarding arbitrary-set distinctions in societies that undergo societal changes is important. For example, comparing recently colonized people and their recent colonizers would be theoretically warranted. Comparison of mean scores across societies presents interpretational difficulties due in part to response styles and different norms regarding group-based hierarchy in different societies. For this reason, we recommend comparing effect size measures (e.g., mean effect sizes) of current and formerly dominant and subordinate groups within particular societies (e.g., Lee & Pratto, 2011). In addition to longitudinal studies, perhaps meta-analysis is most useful in revealing the interactions between arbitrary-set membership and other factors.

An important limitation of our study is that we could not evaluate whether gender differences are moderated by arbitrary-set differences (e.g., ethnic/racial differences) or vice versa, because very few sources reported statistical findings appropriate to a gender × arbitrary-set interaction. Examining gender and arbitrary-set differences conjointly would be more in keeping with social dominance theory and with the movements toward race/gender "intersectionalism" in sociology (e.g., Andersen, 2005; Brewer, 1993). Sidanius and colleagues (1991, 1994a, 1994b, 1995b, 1999b, 2000) did conduct arbitrary-set × gender comparisons on social dominance orientation *within* samples, and found no reliable interactions. Nonetheless, large numbers of samples appear necessary to find moderation of the gender difference on social dominance orientation. To enable future researchers to conduct a meta-analysis that would test whether arbitrary-set differences moderate gender differences, researchers are encouraged to report descriptive statistics for both participant genders within arbitrary-set status.

Although our documentation of the robust gender difference on social dominance orientation does not definitively identify the causes of this difference, it does help to emphasize that understanding gender is essential for theories of intergroup relations (e.g., Pratto, 1996; Sidanius, Cling, & Pratto, 1991; Sidanius et al., 1995; Sidanius & Pratto, 1999). The examination and discussion of similarities and differences between gender and arbitrary-set groups should be the subject of rigorous theory and research. For example, there are aspects of social life in which gender is organized differently than arbitrary-set groups (Pratto & Walker, 2004), most notably how families are formed. There is also variability in the structural nature of arbitrary-set groups – for example, there are quite different economic relations between dominants and subordinates under chattel slavery vs. apartheid vs. communism vs. feudalism vs. industrial capitalism, although economic (and other) power relations exist in all such economic systems. In some societies, subordinate arbitrary-set members are assigned to comparable work roles as are women. For example, in many societies, women (mostly) do laundry, but in different locations and periods within U.S. history, slaves, indentured servants, and Chinese immigrant men, have also done this work for others. In hiring experiments, both men and women from subordinate arbitrary-set groups are assigned to hierarchy-attenuating jobs over hierarchy-enhancing jobs in much the way that White women are (e.g., Pratto & Espinoza, 2001). This discussion points out that the functioning of gender and arbitrary-set groups can be described along several theoretical dimensions, such as psychological orientations towards group-based hierarchy, stereotypes,

work roles, and kinds of power to which these groups have. The next step for theoretical and empirical work concerning how gender and arbitrary-set groups compare and intersect must delineate these aspects in detail so that overgeneralizations are not made.

The finding that more egalitarian contexts give rise to larger group differences highlights that the objective reality of inequality, and people's subjective orientations toward inequality, are not the same thing. For example, one cannot assume that because African-Americans have higher self-esteem (reflecting subjective evaluation) than Euro-Americans, that Whites are subordinate to Blacks in the U.S. (reflecting objective reality). For theorizing about gender, this finding is important because it shows that more gender equality does not necessarily lead to gender sameness. Although we agree that there is no reason in principle to assume that gender differences should always be present (Constantinople, 1973; Hyde, 2005), such that, for example, women are inherently superior to men, the predominant social-situationist assumption that equality should be associated with smaller or no gender differences, may have led scholars to overlook the causes and meaning of such differences. In particular, if contemporary psychologists have been operating under the assumption that egalitarian contexts *prevent* rather than *provoke* gender differences (e.g., Hyde, 2005; Wood & Eagly, 2002) and find gender differences nonetheless, this assumption might lead them to look for "non-social" causes of psychological gender differences, such as hormones (e.g., Angold & Worthman, 1993), evolution (e.g., Wilson, 1997), or brain structure (e.g., Overman, Bachevalier, Schuhmann, & Ryan, 1996). Our point is not that such research or theories are wrong, but that the exclusive focus on biological factors may lead to a false sense that psychological gender differences in egalitarian social contexts reflect fixed and fundamental gender differences. If important cultural factors moderate the expression of gender differences, then surely a simple equation between "equality" and "sameness" oversimplifies reality. Moreover, this entire intellectual history suggests that theorists are still assuming a kind of nature/nurture dichotomy, in which differences that cannot be shown to be associated with cultural or social context factors must somehow be due to biology. This represents an inadequate understanding both of the nature of "culture" and the essential plasticity of biology.

Finally, we argue that "difference" should not be presumed to be the same as "social inequality." Although some of the egregious ideological arguments equating difference with inferiority (e.g., eugenics, Nazi anti-Semitism; antebellum racism) may lead one to assume that difference must necessarily reinforce group-based hierarchy, it is important to recall that groups sometimes celebrate their "difference" as a way of rejecting social inequality and as an initial stage of achieving actual social equality. For example, a group of illiterate women in a marginalized region of ancient China invented Female Script and used the unique language to express their feelings, experiences, and hopes (Liu, 2005; Wang & Hu, 2005). Indigenization movements (e.g., Black is Beautiful) reject mainstream views of minority culture and in doing so, they assert honor and positive values of being a member of their race/ethnicity (Carmichael & Hamilton, 1967). Some people who were born with both male and female sexual organs assert their rights of not being forced surgically and socially to become male or female (e.g., Hegarty, 2000). Asserting and celebrating difference is sometimes an anti-dominance act. Given such examples, surely researchers can presume equal human rights and equal potentials across gender, race, nationality and other social categories without assuming that recognizing differences is necessarily regressive and essentialist.

The moderation effects we found allow us to reconsider theories concerning why subordinates reject group-based hierarchy more than dominants do. Next, we consider what the results imply with respect to social group identification, wealth, group inequality, and political liberalism in social dominance orientation.

Is Social Dominance Orientation Merely An Expression of Social Identity?

Our results can inform a controversy in the literature concerning whether group differences in social dominance orientation primarily reflect group differences in group identification. That is, the group differences in social dominance orientation may occur because dominants identify more with dominant ingroups than subordinates identify with subordinate ingroups (Sidanius, Pratto, & Rabinowitz, 1994; Wilson & Liu, 2003). Some have claimed that social dominance orientation is just a proxy for group identification (Schmitt, Branscombe, & Kappen, 2003; Reynolds & Turner, 2006). Our results provide two kinds of evidence against the idea that social dominance orientation represents dominant-group identification or in-group identification. First, Schmitt et al. (2003) observed that when responding to social dominance orientation scale items, American college students are more likely to think about race than about gender. If social dominance orientation levels are due to group identification with the most salient kind of group distinction, then Schmitt et al.'s findings imply that group differences on social dominance orientation should be larger between ethnic/racial groups than between gender groups, at least in the U.S. In contrast, we found larger gender differences on social dominance orientation than race differences both in the U.S. and worldwide. Second, group identification is increased by the motivation to avoid uncertainty (e.g., Hogg, 2000). For example, Mullin and Hogg (1999) showed that people who were experimentally induced to feel uncertain became more identified with minimal groups to which they were subsequently assigned and valued them more. Using this reasoning to understand group differences in social dominance orientation, and again assuming that social dominance orientation is a proxy for group identification, in nations with higher uncertainty avoidance, group identification and group differences in social dominance orientation should be larger. Yet our results showed just the opposite patterns: Nations with lower uncertainty avoidance had larger gender differences on social dominance orientation, and marginally larger ethnic/racial differences. In total, we have two kinds of evidence against the idea that social dominance orientation is a proxy for group identification or that the size of group differences on social dominance orientation is driven by identification with dominant groups.

Does Societal Wealth or Income Inequality Reduce or Increase Intergroup Dissent?

As societies become wealthier, some political actors and social scientists expect this wealth to increase structural equality such that societal wealth should *reduce* intergroup dissent (e.g., Campbell, 1965; Clinton, 1996). Similarly, Caprara et al. (2006) argued that increasing societal wealth will lead people to differentiate individually, effectively quelling group identity, group-interested politics, and group differences in political attitudes. These views suggest that group differences should be smaller in wealthier societies. Conversely, societal wealth may encourage individuals' mobility and self-expression, which increase intergroup comparisons and result in larger intergroup disagreement (Hypothesis 4). The results supported the latter. Greater societal wealth was associated with larger gender differences and larger ethnic/racial group differences on social dominance orientation. This finding lends support to our thesis that psychological interpretation of structural conditions, such as feeling of relative deprivation or choices of reference groups, rather than just objective conditions, such as poverty, are essential to the social-psychological consequences.

According to relative deprivation theory, which implies that increasing equality can lead people in different groups to compare their situations to one another and develop different attitudes towards equality, this process should differentiate groups more in societies with more structural equality (Hypothesis 5). Indeed, our results showed that even in the century of globalization, people's group positions matter to them because group membership is robustly related to social dominance orientation levels. Notwithstanding some political leaders' and learned scholars' views, our results showed support for greater intergroup

dissension about group-based hierarchy in societies with more equality. For both gender and ethnic/racial groups, we found that greater intergroup dissension was related to higher structural equality indices (e.g., gender empowerment measure). We should also note that there are no objective indicators of levels of arbitrary-set inequality that are available across nations. Further research will be necessary to determine whether this pattern is actually due to gender equality producing arbitrary group differences, or whether the gender equality indicators correspond with equality between arbitrary-set groups that are unmeasured.

Without considering the subtleties of psychological adaptation levels and social comparison, it may seem counter-intuitive that we found that people in more unequal societies concur with others more than those in more equal societies. In other words, greater structural equality between groups appears to have the ironic consequence of increasing psychological value differences between groups. Experimental research that controls for expectancies and then changes the level of inequality would provide more definitive evidence about the psychological processes, such as social comparison, that contribute to the effects we found here. Nonetheless, our results show that the objective level of inequality between groups cannot be read from how much they subjectively disagree about inequality. As material wealth and structural equality alone do not paint the full picture for the psychology of inequality, let us consider more subjective psycho-cultural factors.

Liberal Social Environments Increase Group Dissension regarding Social Dominance

Based on research regarding culture and political psychology, we hypothesized that aspects of political culture would moderate the size of group differences on social dominance orientation. Supporting Hypothesis 3 and as shown in Figure 2, we found that subordinates differentiate themselves from dominants more in individualistic cultures than in collectivist cultures (see Table 6). Individualistic cultures offer individuals more freedom to think and feel for themselves, subordinates may use dominants as the reference groups and become more aware of how unequal their groups are, and reject group-based hierarchy. Conversely, in societies that value certainty and tradition, subordinates are more similar to dominants in their approval of group-based hierarchy. Our results emphasize that theorizing about how the cultural and political contexts in which people live may have a dramatic influence on their psychological orientations to the world. We concur with many prior authors in the position that, without seeking varied samples (e.g., not just those from individualistic societies), scientists may miss very important variability in social and psychological life (cf. Henrich, Heine, & Norenzayan, 2010).

An alternative explanation to the finding of individualism and intergroup dissension concerns cultural variability in the legitimacy of inequality. That is, it may simply be the case that collectivist societies promote power distance between individuals, whereas power distances are eschewed in individualistic, egalitarian societies. Guimond (2008) has argued that the power distance index corresponds to the size of other psychological gender differences. Yet, we found no evidence for cultural dimensions of power differential and intergroup dissension (i.e., Hofstede's power distance index, Schwartz's hierarchy index) relating to group differences. One plausible explanation for the difference between our results and Guimond's (2008) concerns whether the legitimacy of inequality pertains to individual persons or to groups. In more collectivistic societies, power distance is legitimized both for dominants and subordinates in societies. In more individualistic societies, even small power differentials are scrutinized and objected to by subordinates. Thus, broader cultural values about the relation of self to others, such as individualism-collectivism and long-term orientation, were found to be associated with group difference on social dominance orientation, but not power distance or hierarchy. Nonetheless, our results and Guimond's (2008) both demonstrate that relatively liberal, individualistic social

environments have more intergroup dissension than more collectivistic societies or societies that value certainty and tradition.

A second alternative explanation for our finding of individualism and intergroup dissension is that subordinates in more collectivistic societies may fail to express their true feelings about group-based hierarchy in studies, perhaps due to their blind adoption of the society's norm. Several results lead us to be skeptical of this interpretation. First, the group differences for gender and for arbitrary-set distinctions were *reliable* in collectivistic cultural settings; they were simply smaller in some settings than in others. Second, social dominance orientation scales had the same degree of internal reliability and convergent validity in countries that are collectivist as they do in Western nations. In the subset of our samples from Albania, China, Colombia, India, Israel, Lebanon, Pakistan, Palestine, Taiwan, the Tunisian Republic, and Russia, which are all scored fairly collectivistic (individualism-collectivism scores lower than 55), social dominance orientation has acceptable internal reliability ($\alpha = .78$). Third, all the reported significant correlations between social dominance orientation and scales of hierarchy-enhancing ideology remained significant in these nations ($rs > .20$, $p < .0001$). The fact that social dominance orientation is not simply unreliable or predictively invalid in certain cultures suggests that the results are not due to an under-reporting bias associated with collectivist societies. Likewise, these results demonstrate that group differences in social dominance orientation are not an artifact of individualistic societies. Instead, our results show that social mobility and freedom are associated with greater intergroup dissent, whereas security concerns and stability lead to less intergroup differentiation.

In turn, these patterns suggest a new view of the major socio-political argument of the 20th century, and indeed, of understanding societal modernity versus hierarchical tradition, namely, whether there is a relation or necessary trade-off between political freedom and social equality (Burke, 1790/1955; Rokeach, 1973). We found that in societies that value stability, people agree more with those in other groups. This pattern suggests that de-valuing freedom helps maintain or create political consensus by preventing calls from subordinates for greater equality, which helps preserve hierarchical social order. In other words, our results imply that by limiting freedom, societies may prevent egalitarian sentiments in subordinate groups. Conversely, our finding that freer societies that enable individualist, mobility societies have greater group dissension suggests that greater freedom may give rise to greater demands for equality, which eventually lead to society with greater equality. In other words, freedom may promote egalitarian expectations and demands, especially among subordinate groups. This conclusion implies that freedom and the aspiration to equality are not traded-off, but may be synergistic.

Lastly, we argue that psychological responses to liberal cultures may influence further social change and the stability of social systems differently from what psychological responses to traditional cultures may influence. In traditional cultures, hierarchy and constraint mutually reinforce one another, so that inequality and social stability are maintained almost through social inertia. That is, the existing hierarchical arrangements appear relatively beneficial, fixed, and inevitable, and because this situation does not invite strong opposition, the stability and cohesion of the society can be maintained. In contrast, in liberal cultures, subordinates adopt distinctively more egalitarian views than dominants. Their greater freedom allows them to agitate for equality and engage in other mobility strategies, which coupled with their opposition to group-based hierarchy, may bring about more equality even while threatening social cohesion. Such activities will produce more social change, which, it should be observed, has included revolutions that separated societies or threatened to (e.g., Czechoslovakia, Belgium), revolutions that inverted the dominant group (e.g., USSR, Zimbabwe), and revolutions that greatly increased equality for many members of the society

(e.g., feminism). An important question for the future is to understand what cultural and psychological processes contribute to these different ways of effecting social change.

Acknowledgments

We thank Hsu-Po Cheng, Yi-Chi Huang, Cheng-Yu Chen, Chunning Chou, Matt Schmitt, Laura Koulet, Tamar Saguy, and Marcella H. Boynton for help in finding articles, coding studies, or preparing tables. The preparation of this article was facilitated by U.S. National Science Foundation grant BCS-0820657 to Felicia Pratto and U. S. Public Health Service Grant K18-AI094581 to Blair T. Johnson.

References

(Asterisked entries were included in the meta-analysis.)

*. Aiello A, Chirimbolo A, Leone L, Pratto F. “Uno Studio Di Adattamento E Validazione Della Scala Di Orientamento/Tendenza Alla Dominanza Sociale (Pratto Et Al., 1994)” (An adaptation-validation study of the social dominance scale for the Italian context). Rassegna di Psicologia. 2004; 22:81–91.

Alexander MG, Brewer MB, Livingston RW. Putting stereotype content in context: Image Theory and interethnic stereotypes. Personality and Social Psychology Bulletin. 2005; 31:781–794.10.1177/0146167204271550 [PubMed: 15833905]

Alexander MG, Levin S, Henry PJ. Image Theory, Social Identity, and Social Dominance: Structural characteristics and individual motives underlying international images. Political Psychology. 2005; 26:27–45.10.1111/j.1467–9221.2005.00408.x

Andersen ML. Thinking about women: A quarter century’s view. Gender & Society. 2005; 19:437–455.10.1177/0891243205276756

Angold A, Worthman CW. Puberty onset of gender differences in rates of depression: A developmental epidemiologic and neuroendocrine perspective. Journal of Affective Disorder. 1993; 29:145–158.10.1016/0165–0327(93)90029-J

*. Aquino K, Stewart MM, Reed A II. How social dominance orientation and job status influence perceptions of African-American affirmative action beneficiaries. Personnel Psychology. 2005; 58:703–744.

Arendt, H. On violence. Orlando, FL: Hartcourt, Brace & Compansy; 1969.

*. Bäckström M, Björklund F. Structural modeling of generalized prejudice: The role of social dominance, authoritarianism, and empathy. Journal of Individual Differences. 2007; 28:10–17.

*. Bates C, Heaven PCL. Attitudes to women in society: The role of social dominance orientation and social values. Journal of Community and Applied Social Psychology. 2001; 11:43–49.10.1002/casp.589

Bettencourt BA, Dorr N, Charlton K, Hume DL. Status differences and in-group bias: A meta-analytic examination of the effects of status stability, status legitimacy, and group permeability. Psychological Bulletin. 2001; 127:520–542.10.1037/0033–2909.127.4.520 [PubMed: 11439710]

*. Bern, D. Unpublished manuscript. Lund University; Sweden: n.d. Validating an instrument to measure dominance in a Swedish setting.

Blackledge A. The discursive construction of national identity in multilingual Britain. Journal of Language, Identity, and Education. 2002; 1:67–87.

*. Blalock, K. Unpublished doctoral dissertation. University of Wisconsin-Madison; 2005. The effect of ego development, empathy, and social dominance orientation on the multicultural competencies of rehabilitation trainees.

Bobo L. Whites’ opposition to busing: Symbolic racism or realistic group conflict? Journal of Personality and Social Psychology. 1983; 45:743–759.10.1037/0022–3514.45.6.1196

Bobo L, Hutchings VL. Perceptions of racial group competition: Extending Blumer’s theory of group position to a multiracial social context. American Sociological Review. 1996; 61:951–972.10.2307/2096302

Brewer, R. Theorizing race, class, and gender: The new scholarship of Black feminist intellectuals and Black women's labor. In: James, S.; Busia, A., editors. Theorizing Black feminisms: The visionary pragmatism of Black women. New York, NY: Routledge; 1993. p. 13-30.

Brewer, MB.; Campbell, DT. Ethnocentric and intergroup attitudes: East African evidence. Oxford, England: Sage; 1976.

*. Bruess J. "Zwoschen Gewaltbereitschaft und Systemvertrauen. Eine Analyse zu aggressivem antisozialem Verhalten zwischen Deutschen, Turkischen und Aussiedler-Judgendlichen" [Violence proneness and trust in the system: Interethnic aggressive acts among German, Turkish, and resettler adolescents]. Psychologie in Erziehung und Unterricht. 2004; 51:201–212.

Burke, E. Reflections on the revolution in France. Chicago. IL: Regnery; 1790/1955.

*. Caldwell AC. Attitudes of juvenile justice staff towards intellectual, psychiatric, and physical disabilities. Intellectual and Developmental Disabilities. 2007; 45:77–89.10.1352/1934–9556(2007)45[77:AOJJST]2.0.CO;2 [PubMed: 17428143]

*. Cameron JE, Nickerson SL. Predictors of protest among anti-globalization demonstrators. Journal of Applied Social Psychology. 2009; 39:734–761.10.1111/j.1559–1816.2009.00458.x

Campbell, DT. Ethnocentrism and other altruistic motives. In: Levine, D., editor. Nebraska Symposium on Motivation: Vol.13. Perspectives on motivation. Lincoln, NE: University of Nebraska Press; 1965. p. 283-311.

Caprara GV, Schwartz S, Capanna C, Vecchione M, Barbaranelli C. Personality and politics: Values, traits, and political choice. Political Psychology. 2006; 27:1–28.10.1111/j.1467–9221.2006.00447.x

*. Capps J. Explaining punitiveness: Right-wing authoritarianism and social dominance. North American Journal of Psychology. 2002; 4:263–278.

*. Caricati L. The relationship between social dominance orientation and gender: The mediating role of social values. Sex Roles. 2007; 57:159–171.10.1007/s11199–007–9231–3

Carmichael, S.; Hamilton, CV. Black power: The politics of liberation in America. New York, NY: Random House; 1967.

Central Intelligence Agency. World factbook. Washington, DC: CIA; 2006.

*. Chatard, A.; Lorenzi-Cioldi, F.; Guimond, S. Unpublished manuscript. 2005. Understanding the academic achievement of high school students: The role of group status and dominant ideology.

*. Chatard, A.; Faniko, K.; Quiamzade, A.; Mugny, G. Unpublished manuscript. 2006. Students' sociopolitical attitudes as a function of their field of study and their educational attainment: A group socialization perspective.

*. Chazal S, Guimond S. Le theorie de la dominance sociale et les choix d'orientation scolaire et de roles sociaux des filles et des garcons [Social dominance theory and the choices of academic orientations and social roles among girls and boys]. L'orientation scolaire et professionnelle. 2003; 32:595–616.

*. Choudhury, P.; Pratto, F. Unpublished manuscript. 1996. Differences between groups differing in status and power on group affiliation, group salience, and social dominance orientation.

*. Christopher AN, Mull MS. Conservative ideology and ambivalent sexism. Psychology of Women Quarterly. 2006; 30:223–230.10.1111/j.1471–6402.2006.00284.x

*. Christopher AN, Wojda MR. Social dominance orientation, right-wing authoritarianism, sexism, and prejudice toward women in the workforce. Psychology of Women Quarterly. 2008; 32:65–73.10.1111/j.1471–6402.2007.00407.x

*. Christopher AN, Zabel KL, Jones JR, Marek P. Protestant ethic ideology: Its multifaceted relationships with just world beliefs, social dominance orientation, and right-wing authoritarianism. Personality and Individual Differences. 2008; 45:473–477.10.1016/j.paid.2008.05.023

Clinton, WJ. Between hope and history. New York, NY: Random House; 1996.

Cochran WG. The combination of estimates from different experiments. Biometrics. 1954; 10:101–129.10.2307/3001666

*. Cohrs JC, Kielmann S, Maes J. Effects of right-wing authoritarianism and threat from terrorism on restriction of civil liberties. Analyses of Social issues and Public Policy. 2005; 5:263–276.

*. Cohrs JC, Moschner B, Maes J, Kielmann S. The motivational bases of right-wing authoritarianism and social dominance orientation: Relations to values and attitudes in the aftermath of September 11, 2001. Personality and Social Psychology Bulletin. 2005; 31:1425–1434.10.1177/0146167205275614 [PubMed: 16143673]

Constantinople A. Masculinity-femininity: An exception to a famous dictum. Psychological Bulletin. 1973; 80:389–407. [PubMed: 4147970]

Converse, P. The nature of belief systems in mass publics. In: Apter, D., editor. Ideology and Discontent. New York, NY: Free Press; 1964. p. 206-261.

Cozzolino P, Snyder M. Good times, bad times: How personal disadvantage moderates the relationship between social dominance and efforts to win. Personality and Social Psychology Bulletin. 2008; 34:1420–1433.10.1177/0146167208321595 [PubMed: 18664601]

Crandall CS, Silvia PJ, N'Gbala AN, Tsang J, Dawson K. Balance theory, unit relations, and attribution: The underlying integrity of Heiderian theory. Review of General Psychology. 2007; 11:12–30.10.1037/1089–2680.11.1.12

Crosby, FJ. Relative deprivation and working women. New York, NY: Oxford University Press; 1982.

*. Crownover, CA. Dissertation Abstracts International. Vol. 68. 2007. Faith development, religious fundamentalism, right-wing Authoritarianism, social dominance orientation, Christian orthodoxy, and proscribed prejudice as predictors of prejudice (Doctoral dissertation, University of Oklahoma, 2007); p. 2711

*. Crowson HM, DeBacker TK, Thoma SJ. Does authoritarianism predict post-9/11 attitudes? Personality and Individual Differences. 2005; 39:1273–1283.

*. Crowson HM. Nationalism, internationalism, and perceived UN irrelevance: Mediators of relationships between authoritarianism and support for military aggression as part of the war on terror. Journal of Applied Social Psychology. 2009; 39:1137–1162.10.1111/j.1559–1816.2009.00475.x

Cuddy AJC, Fiske ST, Glick P. The BIAS map: Behaviors from intergroup affect and stereotypes. Journal of Personality and Social Psychology. 2007; 92:631–648.10.1037/0022–3514.92.4.631 [PubMed: 17469949]

*. Culhane SE, Hosch HM, Heck C. Interrogation technique endorsement by current law enforcement, future law enforcement, and laypersons. Police Quarterly. 2008; 11:366–386.10.1177/1098611107309116

*. Dambrun M, Duarte S, Guimond S. Why are men more likely to support group-based dominance than women? The mediating role of gender identification. British Journal of Social Psychology. 2004; 43:287–297.10.1348/0144666041501714 [PubMed: 15285835]

*. Dambrun M, Guimond S, Duarte S. The impact of hierarchy-enhancing vs. attenuating academic major or stereotyping: The mediating role of perceived social norm. Current Research in Social Psychology. 2002; 7:114–136.

*. Dambrun M, Kamiejski R, Haddadi N, Duarte S. Why does social dominance orientation decrease with university exposure to the social sciences? The impact of institutional socialization and the mediating role of "geneticism". European Journal of Social Psychology. 2009; 39:88–100.10.1002/ejsp.498

Devine PG. Stereotypes and prejudice: Their automatic and controlled components. Journal of Personality and Social Psychology. 1989; 56:5–18.10.1037/0022–3514.56.1.5

*. Di Meo, A. Dissertation Abstracts International. Vol. 67. 2007. Ethnocultural empathy in relation to social dominance orientation, right-wing authoritarianism, hypersensitive narcissism and overt narcissism (Doctoral dissertation, Alliant International University, 2007); p. 6050

*. Dickins TE, Sergeant MJT. Social dominance and sexual orientation. Journal of Evolutionary Psychology. 2008; 6:57–71.10.1556/JEP.2008.1003

Diekman AB, Eagly AH. Stereotypes as dynamic constructs: Women and men of the past, present, and future. Personality and Social Psychology Bulletin. 2000; 26:1171–1188.10.1177/0146167200262001

Diekman AB, Eagly AH, Mladnici A, Ferriera MC. Dynamic stereotypes about men and women in Latin America and the United States. Journal of Cross-Cultural Psychology. 2005; 36:209–236.10.1177/0022022104272902

*. Duriez B, Soenens B, Vansteenkiste M. In search of the antecedents of adolescent authoritarianism: The relative contribution of parental goal promotion and parenting style dimensions. European Journal of Personality. 2007; 21:507–527.10.1002/per.623

*. Duriez B, Soenens B, Vansteenkiste M. The intergenerational transmission of authoritarianism: The mediating role of parental goal promotion. Journal of Research in Personality. 2008; 42:622–642.10.1016/j.jrp.2007.08.007

Eagly, AH. Sex differences in social behavior: A social-role interpretation. Hillsdale, NJ: Lawrence Erlbaum Associates; 1987.

Eagly AH, Diekman AB, Johannesen-Schmidt MC, Koenig AM. Gender gaps in sociopolitical attitudes: A social psychological analysis. Journal of Personality and Social Psychology. 2004; 87:796–816.10.1037/0022–3514.87.6.796 [PubMed: 15598107]

Eagly A, Steffen VJ. Gender stereotypes stem from the distribution of men and women into roles. Journal of Personality and Social Psychology. 1984; 46:735–754.10.1037/0022–3514.46.4.735

*. Edwards, A. Dissertation Abstracts International. Vol. 69. 2008. Social dominance orientation and reactions to affirmative action policies and beneficiaries: A test of the mediating effects of perceptions of race-based inequities and attitudes toward diversity (Doctoral dissertation, Clemson University, 2008); p. 1993

Eibach RP, Ehrlinger J. “Keep your eyes on the prize:” Reference points and racial differences in assessing progress toward equality. Personality and Social Psychology Bulletin. 2006; 32:66–77.10.1177/0146167205279585 [PubMed: 16317189]

Eibach RP, Keegan T. Free at last? Social dominance, loss aversion, and White and Black Americans’ differing assessments of racial progress. Journal of Personality and Social Psychology. 2006; 90:453–467.10.1037/0022–3514.90.3.453 [PubMed: 16594831]

Engels, F. The origin of the family, private property, and the state. Undermann, E., editor. Chicago, IL: E. H. Kerr; 1902. Original work published 1884

Eyerman. False consciousness and ideology in Marxist theory. Atlantic Highlands, NJ: Humanities Press; 1981.

*. Fang CY, Sidanius J, Pratto F. Romance across the social status continuum: Interracial marriage and the ideological asymmetry effect. Journal of Cross-Cultural Psychology. 1998; 29:290–305.10.1177/0022022198292002

*. Feather NT, McKee IR. Values and prejudice: Predictors of attitudes towards Australian Aborigines. Australian Journal of Psychology. 2008; 60:80–90.10.1080/00049530701449513

*. Federico CM. The interactive effects of social dominance orientation, group status, and perceived stability on favoritism for high-status groups. Group Processes & Intergroup Relations. 1999; 2:119–143.10.1177/1368430299022002

Federico CM, Levin S. Intergroup bias as a function of reflected status appraisals and support for legitimizing ideologies: Evidence from the USA and Israel. Social Justice Research. 2004; 17:47–73.10.1023/B:SORE.0000018092.85878.f6

Fischer AR. Women’s benevolent sexism as reaction to hostility. Psychology of Women Quarterly. 2006; 30:410–416.10.1111/j.1471–6402.2006.00316.x

Flanagan JG. Hierarchy in simple “egalitarian” societies. Annual Review of Anthropology. 1989; 18:245–266.10.1146/annurev.an.18.100189.001333

*. Foels R, Pappas CJ. Learning and unlearning the myths we are taught: Gender and social dominance orientation. Sex Roles. 2004; 50:743–757.10.1023/B:SERS.0000029094.25107.d6

*. Freeman D, Aquino K, McFerran B. Overcoming beneficiary race as an impediment to charitable donations: Social dominance orientation, the experience of moral elevation, and donation behavior. Personality and Social Psychology Bulletin. 2009; 35:72–84.10.1177/0146167208325415 [PubMed: 19017786]

Gilligan, C. In a Different Voice: Psychological theory and women’s development. Cambridge, MA: Harvard University Press; 1982.

Glass J. The impact of occupational segregation on working conditions. Social Forces. 1990; 68:779–796.10.2307/2579353

Glick P, Fiske ST. The ambivalent sexism inventory: Differentiating hostile from benevolent sexism. Journal of Personality and Social Psychology. 1996; 70:491–512.10.1037/0022–3514.70.3.491

Glick P, Fiske ST, Mladinic A, Saiz JL, Abrams D, Masser B, et al. Beyond prejudice as simple antipathy: Hostile and benevolent sexism across cultures. Journal of Personality and Social Psychology. 2000; 79:763–775.10.1037/0022–3514.79.5.763 [PubMed: 11079240]

*. Golec A, Federico CM. Understanding responses to political conflict: Interactive effects of the need for closure and salient conflict schemas. Journal of Personality and Social Psychology. 2004; 87:750–762.10.1037/0022–3514.87.6.750 [PubMed: 15598104]

Gramsci, A. The modern prince. In: Hoare, Q.; Smith, GN., editors. Selections from the Prison Notebooks of Antonio Gramsci. New York, NY: International Publishers; 1971. p. 123-202.

Guimond S, Branscombe NR, Brunot S, Buunk AP, Chatard A, Desert M, Garcia DM, et al. Culture, gender, and the self: Variations and impact of social comparison processes. Journal of Personality and Social Psychology. 2007; 92:1118–1134.10.1037/0022–3514.92.6.1118 [PubMed: 17547492]

*. Guimond S, Chatard A, Martinot D, Crisp RJ, Redersdorff S. Social comparison, self-stereotyping, and gender differences in self-construals. Journal of Personality and Social Psychology. 2006; 90:221–242.10.1037/0022–3514.90.2.221 [PubMed: 16536648]

*. Guimond S, Dambrun M, Michinov N, Duarte S. Does social dominance generate prejudice? Integrating individual and contextual determinants of intergroup cognitions. Journal of Personality and Social Psychology. 2003; 84:697–721.10.1037/0022–3514.84.4.697 [PubMed: 12703644]

Guimond S, Dubé-Simard L. Relative deprivation theory and the Quebec Nationalist Movement: The cognition-emotion distinction and the personal-group deprivation issue. Journal of Personality and Social Psychology. 1983; 44:526–535.10.1037/0022–3514.44.3.526

Guimond S. Psychological similarities and differences between men and women across cultures. Social and Personality Psychology Compass. 2008; 2:495–510.10.1111/j.1751–9004.2007.00036.x

Gurr, TR. Why men rebel. Princeton, NJ: Princeton University Press; 1970.

*. Hailey, H. Unpublished doctoral dissertation. University of California; 2005. Self-enhancement and ingroup bias: How and why they intertwine.

*. Hayward, C. Unpublished doctoral dissertation. University of California; Irvine: 2001. Perceiving Whites as gatekeepers of the American Dream: The interplay of hierarchy-enhancing beliefs, status, opportunity, and ideology.

*. Heaven PCL. Attitudes toward women's rights: Relationships with social dominance orientation and political group identities. Sex Roles. 1999; 41:605–614.10.1023/A:1018851606423

*. Heaven PCL, Bucci S. Right-wing authoritarianism, social dominance orientation and personality: An analysis using the IPIP measure. European Journal of Personality. 2001; 15:49–56.10.1002/per.389

*. Heaven PCL, St-Quintin D. Personality factors predict racial prejudice. Personality and Individual Differences. 2003; 34:625–634.10.1016/S0191–8869(02)00046–6

*. Heaven PCL, Greene RL, Stones CR, Caputi P. Levels of social dominance orientation in three societies. Journal of Social Psychology. 2000; 140:530–532.10.1080/00224540009600491 [PubMed: 10981381]

Hedges, LV.; Olkin, I. Statistical methods for meta-analysis. Orlando, FL: Academic Press; 1985.

Hegarty PH. Intersex activism, feminism, and psychology: Opening a dialogue on theory, research, and clinical practice. Feminism & Psychology. 2000; 10:117–132.10.1177/0959353500010001014

Henley NM. Body politics and beyond. Feminism and Psychology. 2002; 12:295–310.10.1177/0959353502123002

Henrich S, Heine SJ, Norenzayan A. The weirdest people in the world? Behavioral and Brain Sciences. 2010; 33:61–83.10.1017/S0140525X0999152X [PubMed: 20550733]

Herrmann, RK. Perceptions and behavior in Soviet foreign policy. University of Pittsburgh Press; 1985.

Higgins JPT, Thompson SG. Quantifying heterogeneity in a meta-analysis. Statistics in Medicine. 2002; 21:1539–1558.10.1002/sim.1186 [PubMed: 12111919]

Hilton J, von Hippel W. Stereotypes. Annual Review of Psychology. 1996; 47:237–271.10.1146/annurev.psych.47.1.237

Houston DM, Andreopoulou A. Tests of both corollaries of social identity theory's self-esteem hypothesis in real group settings. British Journal of Social Psychology. 2003; 42:357–370.10.1348/014466603322438206 [PubMed: 14567842]

Hofstede, G. Masculinity and femininity: The taboo dimension of national cultures. London, United Kingdom: Sage Publications; 1998.

Hofstede, G. Geert Hofstede™ cultural dimensions. 2007. Retrieved July 18, 2008, from http://www.geert-hofstede.com/hofstede_greece.shtml

Hofstede, G.; Hofstede, GJ. Cultures and organizations: Software of the mind. New York, NY: McGraw-Hill; 2005.

Hogg MA. Subjective uncertainty reduction through self-categorization: A motivational approach to social identity. European Review of Social Psychology. 2000; 11:223–255.10.1080/14792772043000040

*. Howard, KA. Unpublished doctoral dissertation. Alliant International University; 2003. Interracial attitudes and their relationship to social dominance orientation.

*. Huang L, Liu JH. Personality and social structural implications of the situational priming of social dominance orientation. Personality and Individual Differences. 2005; 38:267–276.10.1016/j.paid.2004.04.006

Huedo-Medina TB, Sánchez-Meca J, Botella J, Marin-Martínez F. Assessing heterogeneity in meta-analysis: *Q* statistic or I^2 index? Psychological Methods. 2006; 11:193–206.10.1037/1082–989X.11.2.193 [PubMed: 16784338]

Hyde JS. The gender similarities hypothesis. American Psychologist. 2005; 60:581–592.10.1037/0003–066X.60.6.581 [PubMed: 16173891]

Inglehart R, Baker WE. Modernization, cultural change, and the persistence of traditional values. American Sociological Review. 2000; 65:19–51.10.2307/2657288

Inglehart, R.; Norris, P. Rising tide: Gender equality and cultural change around the world. Cambridge, United Kingdom: Cambridge University Press; 2003.

*. Islam, G. Unpublished doctoral dissertation. Tulane University; 2005. Explaining organizational mistreatment: An integration of identity and dominance perspectives.

Jackman, JR. The velvet glove: Paternalism and conflict in gender, class, and race relations. Berkeley, CA: University of California Press; 1994.

Jackson JW. Realistic group conflict theory: A review and evaluation of the theoretical and empirical literature. Psychological Record. 1993; 43:395–413.

Jao, C.; Lai, H.; Tsai, W.; Wang, Y. Gender statistics and women's status in Taiwan: An international comparison approach. Taipei, Taiwan: Bureau of Statistics, DGBAS; 2003.

Jenkins-Smith HC, Mitchell NJ, Herron KG. Foreign and domestic policy belief structures in the U.S. and British publics. Journal of Conflict Resolution. 2004; 48:287–309.10.1177/0022002704264214

*. Johnson, BK. Dissertation Abstracts International. Vol. 68. 2007. Understanding racial inequality in the American workplace: The persistence of the principle-implementation gap and its relationship to social dominance orientation and modern racism (Doctoral dissertation, Columbia University, 2007); p. 4176

Johnson, BT. DSTAT 1.10: Software for the meta-analytic review of research literatures. Hillsdale, NJ: Erlbaum; 1993.

Johnson BT, Redding CA, DiClemente RJ, Dodge BM, Mustanski BS, Sheeran P, Warren MR, et al. A network-individual-resource model for HIV prevention. AIDS and Behavior. 2010; 14(Supplement 2):204–221.10.1007/s10461–010–9803-z [PubMed: 20862606]

Johnson, WR. Dismantling Apartheid: A South African town in transition. Ithaca, NJ: Cornell University Press; 1994.

Johnson JA, Johnson MS. New city domesticity and the tenacious second shift. Journal of Family Issues. 2008; 29:487–515.10.1177/0192513X07310313

Jost JT, Banaji MR. The role of stereotyping in system-justification and the production of false consciousness. British Journal of Political Psychology. 1994; 33:1–27.

Jost JT, Burgess D. Attitudinal ambivalence and the conflict between group and system-justification norms in low status groups. Personality and Social Psychology Bulletin. 2000; 26:293–305.10.1177/0146167200265003

Jost, JT.; Hunyday, O. The psychology of system-justification and the palliative function of ideology. In: Stroebe, W.; Hewstone, M., editors. European Review of Social Psychology. Vol. 13. 2002. p. 111-153.

Jost JT, Kay A. Exposure to benevolent sexism and complementary gender stereotypes: Consequences for specific and diffuse forms of system justification. Journal of Personality and Social Psychology. 2005; 88:498–509.10.1037/0022–3514.88.3.498 [PubMed: 15740442]

Jost JT, Kivetz Y, Rubini M, Guermandi G, Mosso C. System-justifying functions of complementary regional stereotypes: Cross-national evidence. Social Justice Research. 2005; 18:305–333.10.1007/s11211–005–6827-z

Jost, JT.; Major, B., editors. The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations. New York, NY: Cambridge University Press; 2001.

Jost JT, Pelham BW, Carvallo MC. Non-conscious forms of system justification: Implicit and behavioral preferences for high status groups. Journal of Experimental Social Psychology. 2002; 38:586–602.10.1016/S0022–1031(02)00505-X

*. Jost JT, Thompson EP. Group-based dominance and opposition to equality as independent predictors of self-esteem, ethnocentrism, and social policy attitudes among African Americans and European Americans. Journal of Experimental Social Psychology. 2000; 36:209–232.10.1006/jesp.1999.1403

Katz D, Braly K. Racial stereotypes of one hundred college students. Journal of Abnormal and Social Psychology. 1933; 28:280–290.10.1037/h0074049

Katz I, Hass RG. Racial ambivalence and American value conflict: Correlational and priming studies of dual cognitive structure. Journal of Personality and Social Psychology. 1988; 55:893–905.10.1037/0022–3514.55.6.893

*. Khan SS, Liu JH. Intergroup attributions and ethnocentrism in the Indian subcontinent: The ultimate attribution error revisited. Journal of Cross-Cultural Psychology. 2008; 39:16–36.10.1177/0022022107311843

Kemmelmeier M, Bernstein B, Krumov K, Genkova P, Kanagawa C, Hirshberg MS, Erb H, et al. Individualism, collectivism, and authoritarianism in seven societies. Journal of Cross-Cultural Psychology. 2003; 34:304–322.10.1177/0022022103034003005

Kilianski SE. Explaining heterosexual men's attitudes toward women and gay men: The theory of exclusively masculine identity. Psychology of Men and Masculinity. 2002; 4:37–56.10.1037/1524–9220.4.1.37

Kinder, DR.; Sanders, LM. Divided by Color: Racial politics and democratic ideals. Chicago, IL: University of Chicago Press; 1996.

Kinder DR, Sears DO. Prejudice and politics: Symbolic racism versus racial threats to the good life. Journal of Personality and Social Psychology. 1981; 40:414–431.10.1037/0022–3514.40.3.414

*. Labuhn AS, Wagner U, van Dick R, Christ O. Determinanten zivilcouragierten verhaltens: Ergebnisse einer fragebogenstudie [Determinants of civil courage: Results of a questionnaire study]. Zeitschrift fur Sozialpsychologie. 2004; 35:93–103.10.1024/0044–3514.35.2.93

Lalonde RN. The dynamics of group differentiation in the face of defeat. Personality and Social Psychology Bulletin. 1992; 18:336–342.10.1177/0146167292183010

*. Lalonde RG, Fontaine BM, Smith A. Social dominance orientation and ideological asymmetry in relation to interracial dating and transracial adoption in Canada. Journal of Cross-Cultural Psychology. 2007; 38:559–572.10.1177/0022022107305238

*. Lambert AJ, Raichle K. The role of political ideology in mediating judgments of blame in rape victims and their assailants: A test of the just world, personal responsibility, and legitimization hypotheses. Personality and Social Psychology Bulletin. 2000; 26:853–863.10.1177/0146167200269010

*. Larsen, LFC. Unpublished doctoral dissertation. Saint Louis University; MO: 1997. Parental beliefs concerning racism and sexism.

Leach, CW.; Snider, N.; Iyer, A. "Poisoning the consciences of the fortunate": The experience of relative advantage and support for social equality. In: Walker, I., editor. Relative deprivation: Specification, development and integration. New York, NY: Cambridge University Press; 2002. p. 136-163.

Lee, Y.; Jussim, LJ.; McCauley, CR. Stereotype accuracy: Toward appreciating group differences. Washington, DC: American Psychological Association; 1995.

Lebow, RN. Coercion, cooperation, and ethics in international relations. New York, NY: Routledge; 2006.

*. Lee, I. Unpublished raw data. 2006. Social dominance orientation in Taiwan.

*. Lee, I. Unpublished raw data. 2006. Social dominance orientation in the U.S.

Lee I, Pratto F. Changing boundaries of ethnic identity and feelings toward ingroup/outgroup: Examining Taiwan residents from a psycho-historical perspective. Journal of Cross-Cultural Psychology. 2011; 42:3–24.10.1177/0022022110361776

*. Lee I, Pratto F, Li M. Social relations and sexism in the U.S. and Taiwan. Journal of Cross-Cultural Psychology. 2007; 38:595–612.10.1177/0022022107305241

*. Lehmiller JJ, Schmitt MT. Intergroup attitudes and values in response to the U.S. invasion of Iraq. Peace and Conflict: Journal of Peace Psychology. 2008; 14:259–274.10.1080/10781910802229231

Lerner MJ, Miller DT. Just world research and the attribution process: Looking back and ahead. Psychological Bulletin. 1978; 85:1030–1051.10.1037/0033–2909.85.5.1030

*. Levene R, Dickins TE. Sex-related invariance across cultures in an online role-playing game. Journal of Evolutionary Psychology. 2008; 6:141–148.10.1556/JEP.2008.1010

*. Levin S, Sidanius J. Social dominance and social identity in the United States and Israel: Ingroup favoritism or outgroup derogation? Political Psychology. 1999; 20:99–126.10.1111/0162–895X.00138

Lewig KA, Dollard MF. Social construction of work stress: Australian newsprint media portrayal of stress at work, 1997–1998. Work & Stress. 2001; 15:179–190.10.1080/02678370110066986

*. Lippa R. Gender-related individual differences and psychological adjustment in terms of the Big Five and circumplex models. Journal of Personality and Social Psychology. 1995; 69:1184–1202.10.1037/0022–3514.69.6.1184

*. Lippa R, Arad S. Gender, personality, and prejudice: The display of authoritarianism and social dominance in interviews with college men and women. Journal of Research in Personality. 1999; 33:463–493.10.1006/jrpe.1999.2266

Lipsey, MW.; Wilson, DB. Practical meta-analysis. London: Sage; 2001.

Liu FW. Text, context, and women's voices in Nushu wedding literature (Sznzhaoshu). Taiwan Journal of Anthropology. 2005; 3:87–142.

*. Liu JH, Huang LL, McFedries C. Cross-sectional and longitudinal differences in social dominance orientation and right wing authoritarianism as a function of political power and societal change. Asian Journal of Social Psychology. 2008; 11:116–126.

Locke, J. Two treatises of government. London, United Kingdom: Awnsham Churchill; 1689.

Lopez-Claros, A.; Zahidi, S. Women's empowerment: Measuring the global gender gap. Geneva, Switzerland: World Economic Forum; 2005.

*. Lyall HC, Thorsteinsson EB. Attitudes to the Iraq war and mandatory detention of asylum seekers: Associations with authoritarianism, social dominance, and mortality salience. Australian. Journal of Psychology. 2007; 59:70–77.

Macchiavelli, N. The Prince. West Valley City, UT: The Emporium; 1532/2006.

MacKinnon CA. Feminism, Marxism, method, and the state: An agenda for theory. Signs. 1982; 7:515–544.10.1086/493898

Major, B. Advances in experimental social psychology. Vol. 26. New York, NY: Academic Press; 1994. From social inequality to personal entitlement: The role of social comparisons, legitimacy appraisals, and group membership; p. 293-355.

Markus HR, Kitayama S. Culture and the self: Implications for cognition, emotions, and motivation. Psychological Review. 1991; 81:224–253.10.1037/0033–295X.98.2.224

Marx, K.; Engels, F. The German Ideology. Arthur, CJ., editor. New York, NY: International Publishers; 1846.

*. McDermott R, Cowden JA. The effects of uncertainty and sex in a crisis simulation game. International Interactions. 2001; 27:353–380.10.1080/03050620108434990

*. McGuigan WM, Scholl C. The effect of contact on attitudes toward Old Order Amish. Journal of Applied Social Psychology. 2007; 37:2642–2659.10.1111/j.1559–1816.2007.00274.x

*. McIntyre MH, Barrett ES, McDermott R, Johnson DDP, Cowden J, Rosen SP. Finger length ratio (2D: 4D) and sex differences in aggression during a simulated war game. Personality and Individual Differences. 2007; 42:755–764.10.1016/j.paid.2006.08.009

Meyer, I. Unpublished doctoral dissertation. University of Cape Town; South Africa: 2004. Discrimination: Because I want to or because I have to? A comparison between the explanations of social identity theory and social dominance theory for intergroup prejudice in South Africa.

*. Memmi, A. The colonizer and the colonized. New York, NY: Orion Books; 1965.

Miller, DT.; Prentice, DA. The construction of norms and standards. In: Higgins, ET.; Kruglanski, AW., editors. Social Psychology: Handbook of basic principles. New York, NY: Guilford; 1996. p. 799-829.

Mills, CW. The power elite. New York, NY: Oxford University Press; 1959.

Mullin B, Hogg M. Motivations for group membership: The role of subjective importance and uncertainty reduction. Basic and Applied Social Psychology. 1999; 21:91–201.

*. Nagoshi JL, Terrell HK, Nagoshi CT. Changes in authoritarianism and coping in college students immediately after the terrorist attacks of September 11, 2001. Personality and Individual Differences. 2007; 43:1722–1732.10.1016/j.paid.2007.05.010

*. Nelson L, Milburn T. Relationships between problem solving competencies and militaristic attitudes: Implications for peace education. Peace and Conflict: Journal of Peace Psychology. 1999; 5:149–168.10.1207/s15327949pac0502_4

*. Nicol AAM, Charbonneau D, Boies K. Right-wing authoritarianism and social dominance orientation in a Canadian military sample. Military Psychology. 2007; 19:239–257.10.1080/08995600701548072

*. O'keefe, DFW. Unpublished doctoral dissertation. University of Geulph; Canada: 2006. Assessing the moderating effects of ethical climate on the relation between social dominance orientation/ right-wing authoritarianism and self-reported unethical behaviour.

Oldmeadow J, Fiske ST. System-justifying ideologies moderate status=competence stereotypes: Roles for belief in a just world and social dominance orientation. European Journal of Social Psychology. 2007; 37:1135–1148.10.1002/ejsp.428

Oswald DL, Lindstedt K. The content and function of gender self-stereotypes: An exploratory investigation. Sex Roles. 2006; 54:447–458.10.1007/s11199–006–9026-y

Overman WH, Bachevalier J, Schumann E, Ryan P. Cognitive gender differences in very young children parallel biologically-based cognitive gender differences in monkeys. Behavioral Neuroscience. 1996; 110:673–684.10.1037/0735–7044.110.4.673 [PubMed: 8864260]

Pettigrew TF. The ultimate attribution error: Extending Allport's cognitive analysis of prejudice. Personality and Social Psychology Bulletin. 1979; 5:461–476.10.1177/014616727900500407

*. Phelan JE, Basow SA. College students' attitudes toward mental illness: An examination of the stigma process. Journal of Applied Social Psychology. 2007; 37:2877–2902.10.1111/j.1559–1816.2007.00286.x

*. Poteat VP, Espelage DL, Green HD. The socialization of dominance: Peer group contextual effects on homophobic and dominance attitudes. Journal of Personality and Social Psychology. 2007; 92:1040–1050.10.1037/0022–3514.92.6.1040 [PubMed: 17547487]

Pratto, F. Unpublished raw data. 1994. [Stability of social dominance orientation].

*. Pratto, F. Unpublished raw data. 1995. Social dominance orientation and social values.

Pratto, F. Sexual politics: The gender gap in the bedroom, the cupboard, and the cabinet. In: Buss, DM.; Malamuth, N., editors. Sex, power, and conflict: Evolutionary and feminist perspectives. New York, NY: Oxford University Press; 1996. p. 179-230.

Pratto, F. Advances in Experimental Social Psychology. Vol. 31. San Diego, CA: Academic Press; 1999. The puzzle of continuing group inequality: Piecing together psychological, social, and cultural forces in social dominance theory; p. 191-263.

Pratto F, Espinoza P. Gender, ethnicity, and power. Journal of Social Issues. 2001; 57:763–780.10.1111/0022–4537.00240

*. Pratto F, Hegarty P. The political psychology of reproductive strategies. Psychological Science. 2000; 11:57–62.10.1111/1467–9280.00215 [PubMed: 11228844]

*. Pratto F, Lemieux AF, Glasford DE, Henry PJ. American and Lebanese college students' responses to the events of September 11, 2001. Psicologia Politic. 2003; 27:13–35.

*. Pratto F, Liu J, Levin S, Sidanius J, Shih M, Bachrach H, Hegarty P. Social dominance orientation and the legitimization of inequality across cultures. Journal of Cross-Cultural Psychology. 2000; 31:369–409.10.1177/0022022100031003005

*. Pratto F, Sidanius J, Stallworth LM, Malle BF. Social dominance orientation: A personality variable predicting social and political attitudes. Journal of Personality and Social Psychology. 1994; 67:741–763.10.1037/0022–3514.67.4.741

Pratto F, Sidanius J, Levin S. Social dominance theory and the dynamics of intergroup relations: Taking stock and looking forward. European Review of Social Psychology. 2006; 17:271–320.10.1080/10463280601055772

Pratto F, Stallworth LM, Sidanius J, Siers B. The gender gap in occupational role attainment: A social dominance approach. Journal of Personality and Social Psychology. 1997; 72:37–53.10.1037/0022–3514.72.1.37 [PubMed: 9008373]

*. Pratto F, Stallworth LM, Sidanius J. The gender gap: Differences in political attitudes and social dominance orientation. British Journal of Social Psychology. 1997; 36:49–68.10.1111/j.2044–8309.1997.tb01118.x [PubMed: 9114484]

Pratto, F.; Walker, A. The bases of gendered power. In: Eagly, AH.; Beall, A.; Sternberg, R., editors. The Psychology of gender. 2. New York, NY: Guilford Publications; 2004. p. 242-268.

Reskin B. Bringing the men back in: Sex differentiation and the devaluation of women's work. Gender & Society. 1988; 2:58–81.10.1177/089124388002001005

Reynolds KJ, Turner JC. Individuality and the prejudiced personality. European Review of Social Psychology. 2006; 17:233–270.10.1080/10463280601050880

*. Riley, BD. Dissertation Abstracts International. Vol. 68. 2007. Symbolic racism, legal authoritarianism, and social dominance orientation: An investigation of correlates and predictors of attitudes regarding police use of force (Doctoral dissertation, Sam Houston State University); p. 1319

*. Roccato M. Right-wing authoritarianism, social dominance orientation, and attachment: An Italian study. Swiss Journal of Psychology. 2008; 67:219–229.10.1024/1421–0185.67.4.219

Roccato M, Ricolfi L. On the correlation between right-wing authoritarianism and social dominance orientation. Basic and Applied Social Psychology. 2005; 27:187–200.10.1207/s15324834basp2703_1

Rodriguez MC, Maeda Y. Meta-analysis of coefficient alpha. Psychological Methods. 2006; 11:306–322.10.1037/1082–989X.11.3.306 [PubMed: 16953707]

Rokeach, M. The nature of human values. New York, NY: Free Press; 1973.

Roth ML. Engendering inequality: Processes of sex-segregation on Wall Street. Sociological Forum. 2004; 19:203–228.10.1023/B:SOFO.0000031980.82004.d7

*. Rowatt WC, Franklin LM, Cotton M. Patterns and personality correlates of implicit and explicit attitudes toward Christians and Muslims. Journal for the Scientific Study of Religion. 2005; 44:29–43.10.1111/j.1468–5906.2005.00263.x

*. Russell BL, Trigg KY. Tolerance of sexual harassment: An examination of gender differences, ambivalent sexism, social dominance, and gender roles. Sex Roles. 2004; 50:565–573.10.1023/B:SERS.0000023075.32252.fd

Rutte CG, Diekmann KA, Polzer JT, Crosby FJ, Messick DM. Organization of information and the detection of gender discrimination. Psychological Science. 1994; 5:226–231.10.1111/j.1467–9280.1994.tb00505.x

*. Sabir, WS. Dissertation Abstracts International. Vol. 67. 2007. An examination of social characteristics and attitudes in a sample of police officers in a Southwestern city (Doctoral dissertation, Capella University, 2006); p. 3177

Sanday, PR. Female power and male dominance. Cambridge, United Kingdom: Cambridge University Press; 1981.

*. Schleien, SM. Dissertation Abstracts International. Vol. 69. 2009. Confronting the intractable: An evaluation of the seeds of peace experience (Doctoral dissertation, University of Waterloo, 2007); p. 7192

Schofer E, Fourcade-Gourinchas M. The structural context of civic engagement: Voluntary membership association in comparative perspective. American Sociological Review. 2001; 66:806–828.10.2307/3088874

*. Schmitt MT, Branscombe NR, Kappen DM. Attitudes toward group-based inequality: Social dominance or social identity? British Journal of Social Psychology. 2003; 42:161–186.10.1348/014466603322127166 [PubMed: 12869240]

Schwartz SH, Rubel T. Sex differences in value priorities: Cross-cultural and multimethod studies. Journal of Personality and Social Psychology. 2005; 89:1010–1028.10.1037/0022–3514.89.6.1010 [PubMed: 16393031]

Seguino S. Plus èa change? Evidence on global trends in gender norms and stereotypes. Feminist Economics. 2007; 13:1–28.10.1080/13545700601184880

Seta JJ, Seta CE. Big fish in small ponds: A social hierarchy analysis of intergroup bias. Journal of Personality and Social Psychology. 1996; 71:1210–1221.10.1037/0022–3514.71.6.1210 [PubMed: 8979387]

Sherif, M.; Sherif, CW. Groups in harmony and tension. New York, NY: Harper; 1953.

Sherry A. Internalized homophobia and adult attachment: Implications for clinical practice. Psychotherapy: Theory, Research, Practice, and Training. 2007; 44:219–225.10.1037/0033–3204.44.2.219

*. Shorey HS, Cowan G, Sullivan MP. Predicting perceptions of discrimination among Hispanics and Anglos. Hispanic Journal of Behavioral Sciences. 2002; 24:3–22.10.1177/0739986302024001001

Sibley CG, Duckitt J. Personality and prejudice: A meta-analytic and theoretical review. Personality and Social Psychology Review. 2008; 12:248–279.10.1177/1088868308319226 [PubMed: 18641385]

Sibley CG, Robertson A, Wilson MS. Right-wing authoritarianism and social dominance orientation: Additive and interactive effects. Political Psychology. 2006; 27:755–768.10.1111/j.1467–9221.2006.00531.x

Sidanius, J. The psychology of group conflict and the dynamics of oppression: A social dominance perspective. In: Iyengar, S.; McGuire, W., editors. Explorations in political psychology. Durham, NC: Duke University Press; 1993. p. 183-224.

Sidanius J, Cling BJ, Pratto F. Ranking and linking behavior as a function of sex and gender: An exploration of alternative explanations. Journal of Social Issues. 1991; 47:131–149.10.1111/j.1540–4560.1991.tb01827.x

Sidanius, J.; Levin, S.; Federico, CM.; Pratto, F. Legitimizing ideologies: A social dominance approach. In: Jost, JT.; Major, B., editors. The psychology of legitimacy. New York, NY: Cambridge University Press; 2001. p. 307-331.

*. Sidanius J, Levin S, Liu J, Pratto F. Social dominance orientation, anti-egalitarianism and the political psychology of gender: An extension and cross-cultural replication. European Journal of Social Psychology. 2000; 30:41–67.10.1002/(SICI)1099–0992(200001/02)30:1<41::AID-EJSP976>3.0.CO;2-O

*. Sidanius J, Liu JH. The Gulf War and the Rodney King Beating: Implications of the general conservatism and social dominance perspectives. Journal of Social Psychology. 1992; 132:685–700.10.1080/00224545.1992.9712099

Sidanius, J.; Pratto, F. The inevitability of oppression and the dynamics of social dominance. In: Sniderman, P.; Tetlock, PE.; Carmines, EG., editors. Prejudice, politics, and the American dilemma. Stanford, CA: Stanford University Press; 1993. p. 87-103.

Sidanius, J.; Pratto, F. Social Dominance: An Intergroup Theory of Social Hierarchy and Oppression. New York, NY: Cambridge University Press; 1999.

Sidanius J, Pratto F, Bobo L. Social dominance orientation and the political psychology of gender: A case of invariance? Journal of Personality and Social Psychology. 1994; 67:998–1011.10.1037/0022–3514.67.6.998

*. Sidanius J, Pratto F, Brief D. Group dominance and the political psychology of gender: A cross-cultural comparison. Political Psychology. 1995; 16:381–396.10.2307/3791836

*. Sidanius J, Pratto F, Mitchell M. In-group identification, social dominance orientation, and differential intergroup social allocation. Journal of Social Psychology. 1994; 134:151–167.10.1080/00224545.1994.9711378

*. Sidanius J, Pratto F, Rabinowitz JL. Gender, ethic status, and ideological asymmetry: A social dominance interpretation. Journal of Cross-Cultural Psychology. 1994; 25:194–216.10.1177/0022022194252003

Sinclair S, Hardin CD, Lowery BS. Self-stereotyping in the context of multiple social identities. Journal of Personality and Social Psychology. 2004; 90:529–542.10.1037/0022–3514.90.4.529 [PubMed: 16649853]

Sinclair S, Huntsinger J, Skorink J, Hardin CD. Social tuning of the self: Consequences for the self-evaluations of stereotype targets. Journal of Personality and Social Psychology. 2005; 89:160–175.10.1037/0022–3514.89.2.160 [PubMed: 16162051]

*. Sinclair S, Sidanius J, Levin S. The interface between ethnic and social system attachment: The differential effects of hierarchy-enhancing and hierarchy-attenuating environments. Journal of Social Issues. 1998; 54:741–757.10.1111/j.1540–4560.1998.tb01246.x

Smith PB, Peterson MF, Schwartz SH. Cultural values, sources of guidance, and their relevance to managerial behavior: A 47-nation study. Journal of Cross-Cultural Psychology. 2002; 33:188–208.10.1177/0022022102033002005

*. Snellman A, Ekehammar B. Ethnic hierarchies, ethnic prejudice, and social dominance orientation. Journal of Community and Applied Social Psychology. 2005; 15:83–94.10.1002/casp.812

Snellman A, Ekehammar B, Akrami N. The role of gender identification in social dominance orientation: Mediating or moderating the effect of sex? Journal of Applied Social Psychology. 2009; 39:999–1012.10.1111/j.1559–1816.2009.00469.x

*. Stiglitz, J. Globalization and its discontents. New York, NY: W. W. Norton; 2003.

Stouffer, SA.; Schuman, EA.; Devinney, LC.; Star, SA.; Williams, RM, Jr. The American soldier: Adjustment during army life. Vol. 1. Princeton, NJ: Princeton University Press; 1949.

Tajfel, H.; Turner, JC. An integrative theory of intergroup conflict. In: Austin, WG.; Worchel, S., editors. The social psychology of intergroup relations. Monterrey, CA: Brooks-Cole; 1979. p. 33-47.

Tajfel, HC.; Turner, JC. The social identity theory of intergroup behavior. In: Worchel, S.; Austin, WG., editors. Psychology of intergroup relations. Chicago, IL: Nelson-Hall; 1986. p. 7-24.

Terbourg JR. Women in management: A research review. Journal of Applied Psychology. 1977; 62:647–664.10.1037/0021–9010.62.6.647

*. Thornhill R, Fincher CL. What is the relevance of attachment and life history to political values? Evolution and Human Behavior. 2007; 28:215–222.10.1016/j.evolhumbehav.2007.01.005

Triandis, H. Cross-cultural studies of individualism and collectivism. In: Berman, JJ., editor. Nebraska Symposium on motivation 1989. Lincoln, NE: University of Nebraska; 1990. p. 41-133.

Tuchman, BW. A distant mirror: The calamitous 14th century. New York, NY: Bantam Books; 1978.

*. Turner, E. Unpublished doctoral dissertation. Alliant International University; CA: 2003. A study of racial profiling through diverse cultural perspectives.

*. Umphress EE, Simmons AL, Boswell WR, Triana MD. Managing discrimination in selection: The influence of directives from an authority and social dominance orientation. Journal of Applied Psychology. 2008; 93:982–993.10.1037/0021–9010.93.5.982 [PubMed: 18808220]

*. Umphress EE, Smith-Crowe K, Brief AP, Dietz J, Watkins MB. When birds of a feather flock together and when they do not: Status composition, social dominance orientation, and organizational attractiveness. Journal of Applied Psychology. 2007; 92:396–409.10.1037/0021–9010.92.2.396 [PubMed: 17371087]

United Nations Development Programme (UNDP). Human development report 2002: Deepening democracy in a fragmented world. New York: Oxford University Press; 2002.

van den Berghe, PL. Man in society: A biosocial view. New York, NY: Elsevier; 1978.

*. van Hiel A, Duriez B. Meetinstrument voor indivduele verschillen in sociale-dominantieorientatie [An instrument for measuring individual differences in social dominance orientation]. Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden. 2002; 57:114–116.

*. van Hiel A, Mervielde I. Social identification among political party voters and members: An empirical test of optimal distinctiveness theory. Journal of Applied Social Psychology. 2002; 32:965–976.

Verkuyten M. Ethnic in-group favoritism among minority and majority groups: Testing the self-esteem hypothesis among pre-adolescents. Journal of Applied Social Psychology. 2007; 37:486–500.10.1111/j.1559–1816.2007.00170.x

*. Villano P, Zani B. Social dominance orientation and prejudice in an Italian sample. Psychological Reports. 2007; 101:614–616. [PubMed: 18175504]

*. Walter M, Thorpe G, Kingery L. The Common beliefs survey III, the situational self-statement, and affective state inventory and their relationship to authoritarianism and social dominance orientation. Journal of Rational and Emotive and Cognitive Behavior Therapy. 2001; 19:105–118.10.1023/A:1011131521933

*. Wang AY. Gender and nature: A psychological analysis of ecofeminist theory. Journal of Applied Social Psychology. 1999; 29:2410–2424.10.1111/j.1559–1816.1999.tb00118.x

Wang FH, Hu G. The anthropological value of women's script. Journal of China Women's University. 2005; 17:46–50.

*. Werhun, CD. Unpublished master's thesis. Wilfrid Laurier University; 2000. The relationship of social dominance orientation and political efficacy to political participation of women.

*. Whitley BE. Race of source effects in the Elaboration Likelihood Model. Journal of Personality and Social Psychology. 1999; 77:126–134.10.1037/0022–3514.77.1.126

*. Whitley BE, Lee SE. The relationship of authoritarianism and related constructs to attitudes toward homosexuality. Journal of Applied Social Psychology. 2000; 30:144–170.10.1111/j.1559–1816.2000.tb02309.x

*. Whitley BE JR, Aegisdottir S. The gender belief system, authoritarianism, social dominance orientation, and heterosexuals' attitudes toward lesbians and gay men. Sex Roles. 2000; 42:947–967.10.1023/A:1007026016001

Wilderson F. Gramsci's Black Marx: Whither the slave in civil society? Social Identities. 2003; 9:225–240.10.1080/1350463032000101579

Wilson GD. Gender differences in sexual fantasy: An evolutionary analysis. Personality and individual differences. 1997; 22:27–21.10.1016/S0191–8869(96)00180–8

*. Wilson MS. Social dominance and ethical ideology: The end justifies the means? Journal of Social Psychology. 2003; 143:549–558.10.1080/00224540309598462 [PubMed: 14609051]

Wong P, Lai CF, Nagasawa R, Lin T. Asian Americans as a model minority: Self-perceptions and perceptions by other racial groups. Sociological Perspectives. 1998; 41:95–118.

*. Wilson MS, Liu JH. Social dominance orientation and gender: The moderating role of gender identity. British Journal of Social Psychology. 2003; 42:187–198.10.1348/014466603322127175 [PubMed: 12869241]

Wood W, Eagly AH. A cross-cultural analysis of the behavior of men and women: Implications for the origins of sex differences. Psychological Bulletin. 2002; 128:695–727.10.1037/0033–2909.128.5.699

World Health Organization. Annexes by country (A–Z). 2005. Retrieved July 19, 2008, from http://www.who.int/whr/2005/annex/en/

*. Worthington RL, Navarro RL, Loewy M, Hart J. University Of M-C. Color-blind racial attitudes, social dominance orientation, racial-ethnic group membership and college students' perceptions of campus climate. Journal of Diversity in Higher Education. 2008; 1:8–19.10.1037/1938–8926.1.1.8

Wright SC, Taylor DM, Moghaddam FM. Responding to membership in a disadvantaged group: From acceptance to collective protest. Journal of Personality and Social Psychology. 1990; 58:994–1003.10.1037/0022–3514.58.6.994

*. Yeagley E, Morling B, Nelson M. Nonverbal zero-acquaintance accuracy of self-esteem, social dominance orientation, and satisfaction with life. Journal of Research in Personality. 2007; 41:1099–1106.10.1016/j.jrp.2006.12.002

*. Zakrisson I. Gender differences in social dominance orientation: Gender invariance may be situation invariance. Sex Roles. 2008; 59:254–263.10.1007/s11199–008–9445-z

Xin Z, Chi L. Wording effect leads to a controversy over the construct of the social dominance orientation scale. The Journal of Psychology. 2010; 144:473–488.10.1080/00223980.2010.496672 [PubMed: 20806851]

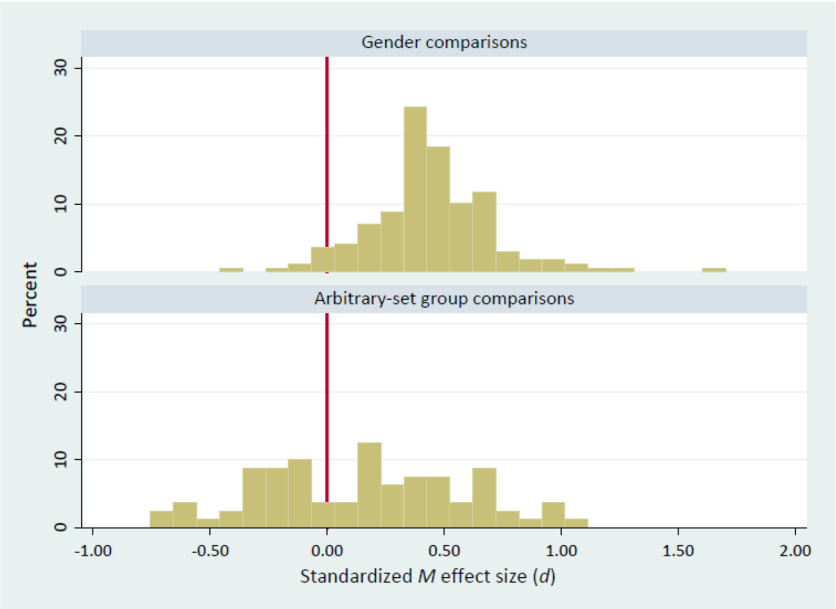
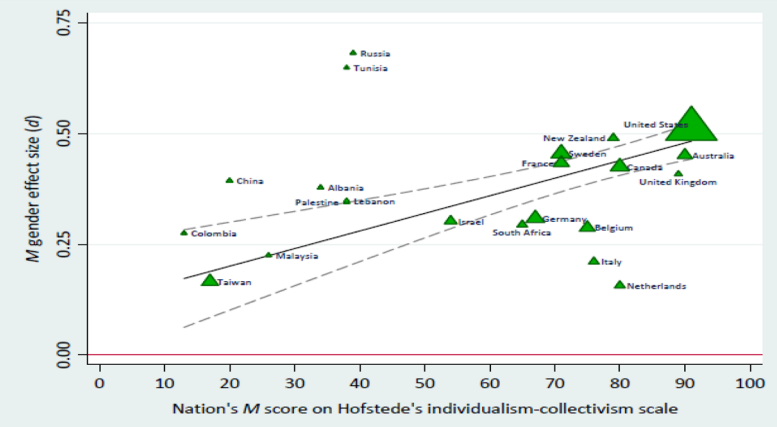


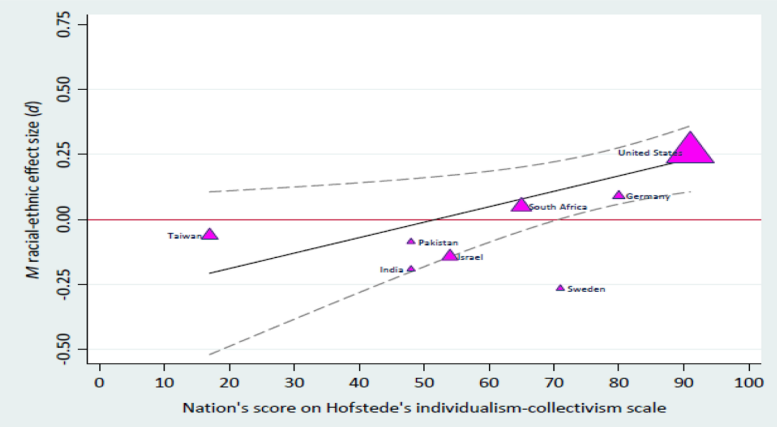
Figure 1.
Frequency distribution of group difference effect sizes (d_+) by whether group comparison was for gender or arbitrary set group.

Figure 2, panel a



Note. The size of each plotted value is proportional to its weight in analyses.

Figure 2, panel b.

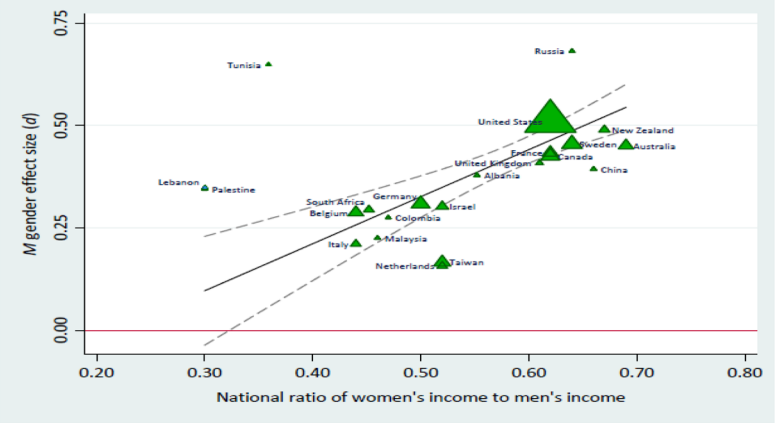


Note. The size of each plotted value is proportional to its weight in analyses.

Figure 2.

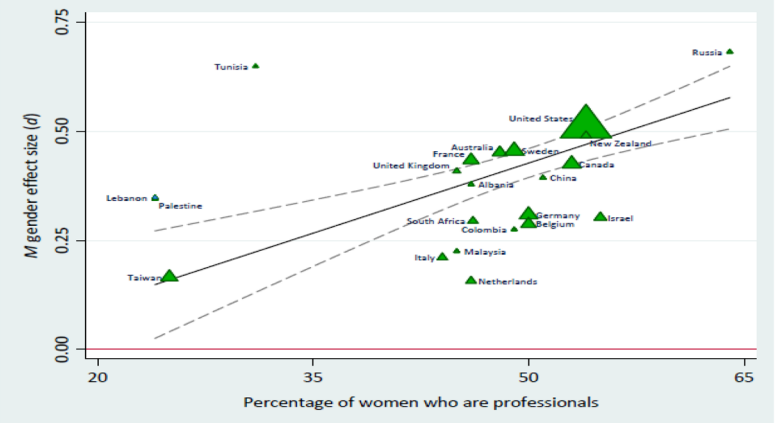
Scatterplot of gender d (top panel) and arbitrary set d (bottom panel) versus nation's score on Hofstede's individualism-collectivism scale, with regression line indicated. Both regressions depicted differ reliably from 0 (see Tables 4, 5 for test statistics).

Figure 3, panel a



Note. The size of each plotted value is proportional to its weight in analyses.

Figure 3, panel b



Note. The size of each plotted value is proportional to its weight in analyses.

Figure 3.

Gender difference effect size (d_+) as a function of ratio of women's income to men's income by nation (top panel) and proportion of professionals who are women (bottom panel).

Note. The size of each plotted value is proportional to its weight in analyses.

Figure 4.
Arbitrary set group difference effect size (d_+) by data collection year.

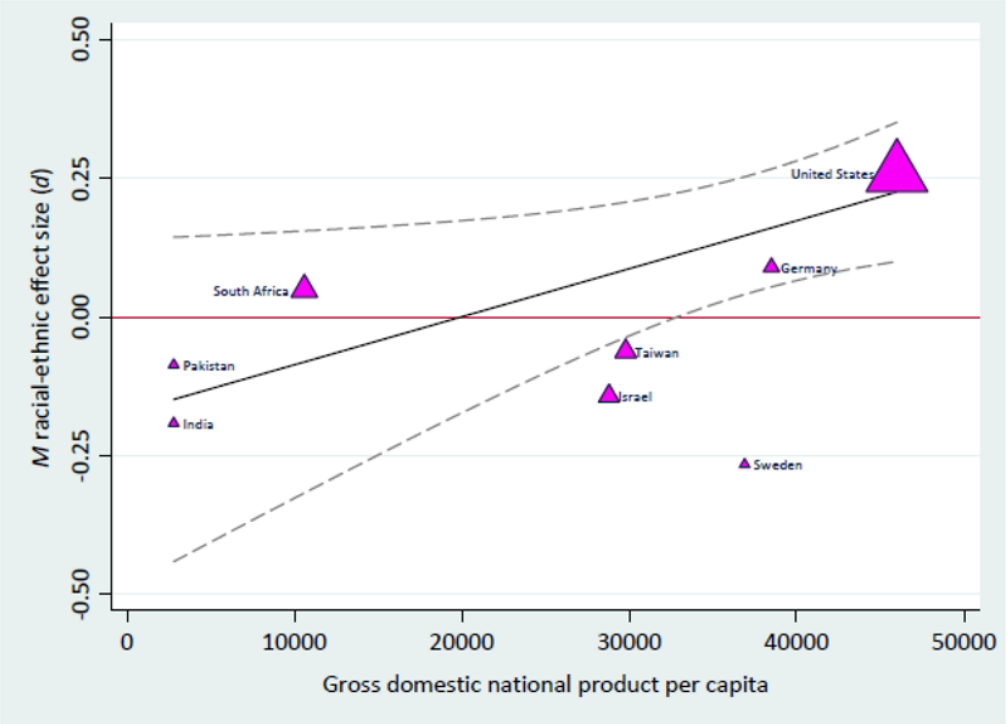


Figure 5.
Arbitrary set group difference effect size (d_+) for each nation by GDP per capita.

Table 1

Summary of Characteristics of Studies that Compared Either Gender or Arbitrary-Set Groups.

Variables	Gender groups *k* = 169	Arbitrary-set groups *k* = 80
Study characteristics		
Mdn data collection year	1992/2001[a]	1994/2002[a]
Years between dates of data collection and publication	3.87/5.73[b]	4.78/3.75[b]
Published samples	82.2%	72.5%
Authors' alliance with Sidanius or Pratto	29.0%	15.0%
All students samples	74.6%	77.5%
Number of studies in a report		
Single studies	67.3%	52.5%
Two studies	20.8%	27.5%
Three studies or more	11.9%	20.0%
Country where study was conducted[c]		
United States	49.7%	53.8%
Canada	7.1%	5.0%
France	5.9%	5.0%
Sweden	5.9%	1.3%
Taiwan	5.3%	6.3%
Israel	2.4%	5.0%
Italy	1.8%	5.0%
South Africa	1.2%	11.3%
Participants' characteristics		
M age	22.7	22.2
Total male participants	25,081	23,450[d]
Total female participants	27,745	27,985[d]
Race		
Whites	77.0%	69.1%
Asian	9.5%	16.4%
Latino	3.1%	4.1%
Blacks	3.6%	5.7%
Education-College level	53.2%	46.0%
Scale characteristics		
Length of social dominance orientation scale		
14-items	27.8%	12.7%
16-items	52.1%	63.5%
Language of social dominance orientation scale[e]		
English	66.3%	65.0%
French	7.1%	5.0%
Chinese	5.9%	6.3%

Variables	Gender groups *k* = 169	Arbitrary-set groups *k* = 80
Swedish	4.7%	0.0%
German	3.6%	2.5%
Italian	1.8%	5.0%
Afrikaans	1.2%	8.8%
Spanish	0.6%	3.8%

[a] The former number is median publication year for studies of Sidanius and Pratto and their collaborators; the latter one is median publication year for studies of non-collaborators.

[b] The former number is reported mean year difference among U.S. studies and the latter one is reported mean year difference among no U.S. countries.

[c] Country names are reported when at least 5% of the samples for one comparison or the other are from those countries.

[d] Estimated by a limited set of studies that reported exact numbers of male and female participants.

[e] Languages used for at least 3% of samples are shown in the table. In addition to those listed above, social dominance orientation scales were administered in Albanian, Arabic, Dutch, Flemish, Hebrew, Malaysian, Russian, and Polish.

Table 2

Weighted Mean Correlations of Social Dominance Orientation with Other Scales, Ordered from Largest Positive to Largest Negative.

Scales	Number of studies (*k*)	Weighted *M* correlation (r_+)	Homogeneity of *r*s: I^2 (95% CI)[a]
Racism	35	.47	91.91 (89.75, 93.62)
Heterosexism	15	.43	79.44 (66.80, 87.26)
Sexism	35	.40	83.23 (77.53, 87.49)
Nationalism	12	.40	88.55 (81.90, 92.76)
Right-wing authoritarianism	48	.30	91.16 (89.13, 92.81)
Other beliefs in support of hierarchy (such as use of force or conservatism)	63	.32	86.58 (83.55, 89.06)
Support for progressive social policies	19	−.39	84.34 (76.80, 89.43)

Note. Higher social dominance orientation scores imply greater support of hierarchy; mean *r*s are random-effects means; each correlation differs significantly from zero, *p*s < .001. I^2 values vary between zero and 100, where lower values imply homogeneity.

[a]When confidence intervals do not include zero, the hypothesis of homogeneity is rejected.

Table 3

Weighted Means and Mean Effect Sizes on Social Dominance Orientation for Gender and Arbitrary-Set Groups.

	All arbitrary-set groups	Non-racial groups[a]	Gender or racial/ethnic groups		
			All	U.S. studies	Non-U.S. studies
Gender Comparison					
k of studies			169	84	85
Observed range (min, max)			−0.42, 1.70	0.00, 1.70	−0.42, 1.11
Mean d_+ (95% *CI*)			0.43 (0.39, 0.47)	0.51 (0.46, 0.57)	0.36 (0.30, 0.41)
Homogeneity I^2 (95% *CI*)			65.74 (59.74, 70.84)	58.01 (46.53, 67.03)	60.83 (50.40, 69.06)
Arbitrary Group Comparison					
k of studies	80	24	56	37	19
Observed range (min, max)	−0.76, 1.06	−0.76, 1.06	−0.71, 0.95	−0.57, 0.95	−0.71, 0.45
Mean d_+ (95% *CI*)	0.15 (0.06, 0.25)	0.15 (−0.02, 0.33)	0.15 (0.05, 0.26)	0.26 (0.13, 0.39)	−0.04 (−0.23, 0.15)
Homogeneity I^2 (95% *CI*)	91.77 (90.37, 92.96)	93.03 (90.82, 94.70)	91.22 (89.37, 92.75)	89.75 (86.88, 91.99)	86.32 (80.03, 90.63)

Note. Tabled are weighted mean effect sizes using random-effects assumptions to compare dominant and subordinate groups' social dominance orientation levels (d_+) and to generate weighted mean values on the social dominance orientation scale, which may range from 1 to 7. *CI* = Confidence interval. I^2 = Homogeneity statistic based on the fixed-effects model due to its unstable estimate in the random-effects model; the hypothesis of homogeneity is rejected when the 95% *CI* does not include zero.

[a]Non-racial groups included groups classified based in academic major, educational level, job type, language, and political party affiliation or identification.

Psychol Bull. Author manuscript; available in PMC 2012 November 1.

Table 4

Moderator Analyses of Gender Differences on Social Dominance Orientation.

Moderator	Levels[a]	Weighted *M* effect size, d_+ (95% CI)[b]	Studies	Countries	Standardized regression weight (β)	
					Bivariate	Combined[c]
Hofstede's nation-level cultural values[d]						
Individualism-Collectivism	13 (More collectivist)	0.17 (0.06, 0.28)	169	22	0.34^{***}	–
	91 (More individualist)	0.48 (0.44, 0.52)				
Uncertainty avoidance	29 (More accepting)	0.52 (0.46, 0.58)	169	22	-0.25^{***}	–
	95 (More avoidant)	0.28 (0.19, 0.37)				
Long-term orientation	23 (More short-term)	0.50 (0.45, 0.54)	138	10	-0.29^{***}	–
	118 (More long-term)	0.08 (−0.12, 0.28)				
Schwartz's cultural values						
Affect autonomy	2.98 (lower)	0.30 (0.18, 0.42)	169	22	0.16^{*}	–
	4.39 (higher)	0.50 (0.43, 0.58)				
Equality and economic indices						
GDP per capita	$1,100	0.19 (0.05, 0.32)	169	22	0.27^{***}	–
	$46,000	0.48 (0.44, 0.52)				
Gender Empowerment Measure[e]	.45	0.19 (0.03, 0.34)	169	22	0.23^{**}	–
	.85	0.52 (0.45, 0.59)				
Percentage women earn relative to men (relative income)	30%	0.10 (−0.04, 0.23)	169	22	0.35^{***}	0.27^{***}
	69%	0.54 (0.49, 0.60)				
Percentage of women professionals	24%	0.15 (0.03, 0.27)	169	22	0.33^{***}	0.25^{***f}
	64%	0.58 (0.51, 0.65)				
Fertility rate	1.1	0.38 (0.31, 0.44)	169	22	0.15^{*}	–
	8.5	0.86 (0.43, 1.29)				
Study features						
USA × Measure in-group identification[g]	U.S., 0 (No)	0.49 (0.43, 0.54)	74	1	0.50^{***h}	0.40^{***h}
	U.S., 1 (Yes)	0.69 (0.56, 0.82)	10	1	0.15^{*i}	0.09^{i}
	Non-U.S., 0 (No)	0.36 (0.31, 0.41)	67	19	0.23^{*j}	0.22^{*j}

Moderator	Levels[a]	Weighted *M* effect size, d_+ (95% CI)[b]	Studies	Countries	Standardized regression weight (β) Bivariate	Standardized regression weight (β) Combined[c]
Measure other hierarchy beliefs[k]	Non-U.S., 1 (Yes)	0.34 (0.24, 0.44)	18	10	−0.17 *	−0.17 *
	0 (No)	0.46 (0.42, 0.51)	107	15		
	1 (Yes)	0.38 (0.32, 0.44)	62	20		

Note. Effect size values (d^+) are larger to the extent that males support hierarchy to a greater extent than females. Models were estimated with the mixed-effects model.

[a] Entries are predicted values for the extremes of each moderator.

[b] Estimates are from the bivariate model, except where noted.

[c] The model excluding non-significant theoretical moderators: Y = −0.21 + 0.864 (*proportion relative income*) + 0.093 (*US studies or not*) −0.083 (*measure other hierarchy-enhancing ideologies or not*) + 0.028 (*measure in-group identification or not*) + 0.053 (*US study* × *measure ingroup identification*), where categorical variables are contrast coded (+1 vs. −1); none of the other moderators were significant when entered with the above moderators.

[d] Scores for Palestinians, Lebanon and Tunisia were estimated by scores for Arab World; scores for Albania were estimated by average scores for three countries in the Balkan region (Bulgaria, Greece, and Turkey).

[e] Missing scores were estimated from scores in other years.

[f] Significant when entered with all methodological variables or with relative income, respectively, but not significant when entered with all methodological variables and relative income.

[g] The main effect terms for nation (USA vs. other) and measurement of ingroup are simultaneously entered in the equation.

[h] The main effect term for nation.

[i] The main effect term for measurement of ingroup identification.

[j] The interaction of nation and measurement of ingroup identification.

[k] The interaction of U.S. × Measure other hierarchy beliefs term was not significant.

$^{+}p < .08$;

$^{*}p < .05$;

$^{**}p < .01$;

$^{***}p < .001$.

Table 5

Results of Moderator Analyses on Effect Sizes: Ethnic/Racial Group Comparison

Moderator	Levels	Weighted *M* effect size, d_+ (95% *CI*)[a]	Studies	Countries	Standardized regression weight (β)
Data collection year	1992	0.58 (0.42, 0.75)	56	8	−0.61***
	2006	−0.27 (−0.43, −0.11)			
Hofstede's cultural values					
Individualism-Collectivism	17 (More collectivist)	−0.21 (−0.49, 0.07)	56	8	0.34**
	91 (More individualist)	0.23 (0.12, 0.35)			
Uncertainty avoidance	29 (More accepting)	0.33 (0.11, 0.55)	56	8	−0.23+
	81 (More avoidant)	−0.10 (−0.40, 0.20)			
Masculinity-femininity	5 (More feminine)	−0.22 (−0.63, 0.20)	56	8	0.23+
	63 (More masculine)	0.20 (0.09, 0.31)			
Long-term orientation	29 (Shorter-term)	0.24 (0.13, 0.36)	46	6	−0.30*
	87 (Longer-term)	−0.12 (−0.43, 0.19)			
Schwartz's cultural values					
Mastery	3.81 (lower)	−0.16 (−0.49, 0.17)	56	8	0.25+
	4.12 (highest)	0.25 (0.11, 0.39)			
Equality and economic indices					
GDP per capita	$2,800 (lower)	−0.15 (−0.42, 0.12)	56	8	0.30*
	$46,000 (higher)	0.23 (0.11, 0.34)			
Gender empowerment measure	0.60 (lower)	−0.03 (−0.24, 0.18)	54	7	0.27*
	0.82 (higher)	0.32 (0.14, 0.50)			
Nature of racial comparison (U.S. studies only)	White vs. Asian	−0.12 (−0.33, 0.09)	9	1	−0.58***
	Other	0.40 (0.28, 0.52)	34	1	

Note. Effect size values (d^+) are larger to the extent that dominants support hierarchy to a greater extent than subordinates. Models follow mixed-effects assumptions.

[a]Entries are predicted values for the extremes of each moderator.

+ $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 6

Hypotheses, Disposition, and Pertinent Results.

Hypothesis	Gender results	Arbitrary-set results (racial/ethnic)
1. Dominants are higher on social dominance orientation than subordinates.	Confirmed: d_+ = 0.43 (Table 3)	Confirmed ; d_+ = 0.15 (Table 3)
2. Larger, more stable, and less variable gender differences than arbitrary-set difference.	Confirmed: CI (0.39, 0.47); *d*s were unrelated to year of data collection (p = .40). (Figure 1)	Confirmed: *CI* (0.05,0.26); *d*s were related to year of data collection (β = −0.61, p < .01). (Figures 1 and 4)
3. Larger group differences in more individualistic and liberal societies.	Confirmed: *d*srelatedto individualism (β = 0.34, p < .001), affect autonomy (β = 0.16, p < .05), uncertainty avoidance (β = −0.25, p < .001), and long-term orientation (β = −0.29, p < .001). (Figures 2 and 3)	Confirmed: *d*s related to individualism (β = 0.34, p < .01; Figure 2, panel b), long-term orientation (β = −0.30, p < .05); *d*s related marginally to mastery (β = 0.25, p = .07), masculinity (β = 0.23, p = .07), and uncertainty avoidance (β = −0.23, p = .07).
4. Larger group differences in wealthier societies.	Confirmed: *d*s related to GDP per capita (β = 0.27, p < .001), with larger effect sizes in wealthier societies.	Confirmed: *d*s related to GDP (β = 0.30, p < .05), with larger effect sizes in wealthier societies. (Figure 5)
5. Larger group differences in more equal societies.	Confirmed: *d*s related to gender empowerment measure (β = 0.23, p < .01), women's relative income (β = 0.35, p < .001), and percent women professionals (β = 0.33, p < .001).	Partially confirmed: *d*s related to gender empowerment measure (β = 0.27, p < .05), but not to proportions of households with very low or very high income and not to the Gini coefficient.

Appendix I

Gender comparison studies

Study	Method	Country	% of female	Samples (%)	d+	SDO α	SDO item
Aiello, Chirmbolo, Leone, & Pratto (2004)	CS; FFS	Italy	49.5	ColS; MA: 23	0.38	0.88	16
Akrami & Ekehammar (2006)		Sweden	54.2	HS; ColS; MA: 23.2	0.41	0.86	16
Aquino, Stewart, & Reed II (2005) sample 1	CS; MG	US	54.1	ColS; 89 Wh; 8.4 Bl; 3 As	0.47	0.90	16
sample 2	CS; FFS; MG	US	45.0	ColS; 91 Wh; 6.9 Bl; 2 As	0.47	0.90	16
Bäckström, & Björklund (2007) sample 1	CS; MG	Sweden	59.2	HSS; MA: 18	0.63	0.87	16
Bern (n.d.)	CS; FFS	Sweden	59.2	HSS	0.63	0.87	16
Bern, & Heaven (2001)	SRS; FFS; MI	AUS	52.5	GP	0.21	0.80	14
Bruess (2004) sample 1	RS	German	49.8	HSS; MA: 17	0.26		
Bruess (2004) sample 2	RS	German	50.0	HSS; MA: 17	0.39		
Bruess (2004) sample 3	RS	German	50.0	HSS; MA: 17	0.31		
Cameron, & Nickerson (2009)	CS; FFS; MI	Canada	42.6	GP; MA: 21	0.38	0.85	14
Capps (2002)	CS; FFS; MG	US	58.1	ColS; 78.3 Wh; 2.9 Bl; 5 As; 18.4 La; 2 OEG	0.39	0.89	14
Caricati (2007)	CS; FFS; MG	Italy	50.6	ColS; MA: 23	0.33	0.88	16
Chatard, Faniko, et al. (2006)	RS; FFS	Albania	60.6	ColS; MA: 20.8	0.38	0.57	44
Chatard, Lorenzi-Cioldi, et al. (2005) sample 1	CS; FFS	France	46.7	HSS; MA: 14.1	0.41	0.77	10
sample 2	CS; FFS	France	69.2	HSS; MA: 16.4	0.68	0.66	8
sample 3	CS; FFS	France	57.3	HSS; MA: 14.3	0.00	0.75	10
sample 4	CS; FFS	Tunisian	69.6	HSS	0.65	0.67	10
Chazal, & Guimond (2003)	CS; FFS; MG	France	49.6	HSS; MA: 15.5	0.71	0.80	10
Choudhury, & Pratto (1996)	RS; CS (p); MI	US	33.3	MA: 26.7; 64.8 Wh; 3.6 Bl; 19 As; 7 La; 5 OEG; 3 ColG; 95 GSG	0.52	0.80	8
Christopher, & Mull (2006)	RS; MS; MI	US	61.5	GP; MA: 54.8; 84.6 Wh; 6.1 Bl; 4 As	0.34	0.86	14
Christopher, & Wojda (2008)	CS; MS; MI	Canada	52.2	MA: 39.6	0.47	0.89	14
Christopher, Zabel, Jones, & Marek (2008)	CS; MS; MI	Canada	52.0	MA: 42.4	−0.02	0.76	16
Cohrs, Kielmann, & Maes (2005)	CS; MI	German	52.4	GP; MA: 30.7	0.39	0.90	16
Cohrs, Moschner, Maes, & Kielmann (2005)	CS; MI	German	46.9	MA: 30.5	0.28	0.89	13
Crownover (2007)	CS; CS (p); MS; MI	US	59.1	MA: 37.3; 66.9 Wh; 3.5 Bl; 4 As; 2.3 La; 12 OEG; 5 HSG; 69 ColG; 17 GSG; 7 OEdu	0.38	0.87	16
Crownson, DeBacker, & Thoma (2005)	CS; FFS; MG	US	80.2	ColS; MA: 25.6; 76 Wh; 6 Bl; 4 As; 4 La; 10 OEG	0.00	0.92	16

Study	Method	Country	% of female	Samples (%)	d+	SDO α	SDO item
Crowson (2009) sample 1	CS; MS; MI	US	51.1	ColS; GP; MA: 35.9; 72 Wh; Bl: 9 ; 13 OEG; 9 HSG; 52 ColG; 31 GSG; 7 OEdu	0.47	0.92	16
sample 2	CS; MS; MI	US	50.3	ColS; GP; MA: 37.1; 72 Wh; 13 Bl; 10 OEG; 6 HSG; 52 ColG; 34 GSG; 5 OEdu	0.45	0.89	12
Dambrun, Duarte, & Guimond (2004)	CS	France	49.7	ColS; MA: 20	0.41	0.86	16
Dambrun, Guimond et al. (2002) sample 1	CS (p); FFS; MI	France	75.6	ColS; MA: 22.6	−0.18	0.81	10
sample 2	CS (p); FFS; MI	France	48.3	ColS; MA: 22.6	0.95	0.81	10
Dambrun, Kamiejski,	CS (p); FFS;	France	19.0	ColS; MA: 20.7	0.45	0.88	6
Haddadi, & Duarte (2009)	MG						
Di Meo (2006)	CS; FFS; MI	US	63.8	56 Wh; 14 Bl; 7 As; 10 La; 12 OEG; 6 HSG; 45 ColG; 30 GSG; 14 OEdu	0.41	0.91	16
Dickins, & Sergeant (2008)	CS; MS; MI	UK	50.0	MA: 23.1	0.44	0.90	14
Duriez, Soenens, et al. (2008) sample 1	CS; FFS; MI	Belgium	53.2		0.12		14
sample 2	CS (p); MS; MI	Belgium	48.8	HSS; MA: 14.9	0.44	0.85	14
Duriez, Soenens, Vansteenkiste (2007)	CS; FFS	Belgium	58.7	HSS; MA: 17.6	0.49	0.86	14
Edwards (2008)	CS; MS; MI	US	41.0	ColS; 88.9 Wh; 8.3 Bl; 3 OEG	0.36	0.75	16
Feather, & McKee (2008)	CS; FFS; MI	AUS	71.4	ColS; MA: 22.1	0.73	0.85	14
Foels, & Pappas (2004) sample 1	CS; FFS; MG	US	50.0	ColS; 100 Wh	0.41	0.92	16
sample 2	CS; FFS; MG	US	39.8	ColS; 100 Wh	0.42	0.88	16
sample 3	CS; FFS; MG	US	34.6	ColS; 100 OEG	0.47	0.92	16
sample 4	CS; FFS; MG	US	51.1	ColS; 100 OEG	0.41	0.88	16
Freeman, Aquino, et al. (2008) sample 1	CS; FFS; MI	US	27.4	ColS; MA: 20.4; 100 Wh	0.45		16
sample 2	CS; MS; FFS MI;	US	55.8	ColS; MA: 20.2; 100 Wh	0.61		16
Guimond et al., in press sample 1	CS; FFS; MG; MI	UK	59.2	ColS; MA: 19.5	0.39	0.88	16
sample 2	CS; FFS; MG	France	60.1	HSS; MA: 15.8	0.35	0.75	10
Guimond, Branscombe, et al. (2007) sample 1	CS; FFS; MI	Belgium	58.1	ColS; MA: 20.5	0.00	0.74	10
sample 2	CS; FFS; MI	Dutch	61.4	ColS; MA: 20.5	0.16	0.85	10
sample 3	CS; FFS; MI	Malaysia	50.7	ColS; MA: 20.5	0.23	0.03	10
sample 4	CS; FFS; MI	France	49.4	ColS; MA: 20.5	0.55	0.88	10
sample 5	CS; FFS; MI	US	45.5	ColS; MA: 20.5	0.66	0.85	10
Heaven (1999)	CS; FFS; MG	AUS	70.2	ColS	0.63	0.83	14
Heaven, & Bucci (2001)	CS; FFS	AUS	67.4	ColS	0.39	0.90	14

Study	Method	Country	% of female	Samples (%)	d+	SDO α	SDO item
Heaven, St-Quintin (2003)	CS; FFS MI	AUS	78.7	ColS	0.46	0.86	14
Howard (2003)	CS; MI	US	50.0	MA: 34.8; 61 Wh; 16.5 Bl; 8 As; 5.5 La; 9 OEG	0.61	0.94	16
Huang, & Liu (2005) sample 1	CS; FFS	Taiwan	38.2	ColS; MA: 29; 100 As	0.85	0.81	14
sample 2	CS; FFS	Taiwan	53.2	ColS; MA: 29; 100 As	0.20	0.81	14
sample 3	CS; FFS	Taiwan	52.6	ColS; MA: 29; 100 As	0.29	0.81	14
sample 4	CS; FFS	Taiwan	49.2	ColS; MA: 29; 100 As	0.20	0.86	14
sample 5	CS; FFS	Taiwan	48.5	ColS; MA: 29; 100 As	−0.16	0.86	14
sample 6	CS; FFS	Taiwan	54.1	ColS; MA: 29; 100 As	0.04	0.86	14
Islam (2005)	CS (p); FFS; MG	Colombia	24.3	MA: 30.6; 20 Wh; 4 Bl	0.28	0.73	13
Johnson (2007)	CS; CS (p); MS; FFS; MI	US	59.1	MA: 37.3; 5 HSG; 69 ColG; 17 GSG; 7 OEdu	0.38	0.87	16
Labuhn, Wagner, van Dick, & Christ (2004)	CS	German	51.0	HSS; MA: 15	0.26	0.74	4
Lalonde, Fontaine, & Smith (2007): Bls	CS; FFS; MI	Canada	55.8	ColS MA: 23	0.58	0.80	14
Lalonde, Fontaine, & Smith (2007): Whs	CS; FFS; MI	Canada	69.0	ColS MA: 19	0.48	0.89	14
Lambert, & Raichle (2000)	CS; FFS	US	66.2	ColS	0.43	0.92	16
Larsen (1997)	CS (p); FFS; MI	US	55.6	GP; 100 Wh	0.18	0.83	14
Lee (2006)	CS; FFS; MG	US	57.6	ColS; MA: 19.7; 74.2 Wh; 6.4 Bl; 13 As; 3.2 La; 3 OEG	0.80	0.90	16
Lee (2006)	CS; FFS; MG	US	68.8	ColS; MA: 20; 79.7 Wh; 4.2 Bl;4 As; 4 La; 8 OEG	0.36	0.91	16
Lee, Pratto, & Li (2007) sample 1	CS; FFS; MG	Taiwan	61.9	ColS; MA: 20; 100 As	0.13	0.85	16
sample 2	CS; FFS; MG	Taiwan	63.6	ColS; MA: 19; 100 As	0.39	0.71	16
sample 3	CS; FFS; MG	US	60.6	ColS; MA: 19.8; 81 Wh; 3.2 Bl; 9 As	0.61	0.90	16
Lehmiller, & Schmitt (2008)	CS; CS (p); FFS; MG	US	54.8	ColS; MA: 19.5	0.29	0.91	16
Lippa (1995)	CS; MI	US	64.4	ColS; MA: 18; 40 Wh; 13 Bl:; 25 As; 22 La	0.65	0.67	8
Lippa, & Arad (1999)	CS; FFS; MI	US	62.3	ColS; MA: 18; 42 Wh; 13 Bl; 22 As; 24 La; 12 OEG	0.47	0.79	8
Lyall, & Thorsteinsson (2007)	CS; MS; MI	AUS	60.9	GP; MA: 39.6; 45 ColG	0.43	0.88	14
McDermott, & Cowden (2001)	CS; FFS; MI	US	40.0	ColS	0.41	0.90	17
McGuigan, & Scholl (2007)	CS; MS	US	71.9	GP; MA: 25.8; 96 Wh	0.97	0.88	10
McIntyre, Barrett, McDermott, Johnson, Cowden, & Rosen (2007)	CS; FFS; MG	US	43.2	ColS; MA: 22; 60 Christian; Bl: 11 ; As: 20 ; La: 3 ; OEG: 6	0.40		
Meyer (2004) sample 1	CS; FFS; MG	South Africa	60.2	HSS; GP; MA: 25.8; 32 Wh; 33 Bl; 35 OEG	0.30	0.83	16
Meyer (2004) sample 2	CS; FFS	South Africa	53.4	GP; MA: 24.6; 32.3 Wh; 35.1 Bl; 33 OEG	0.29	0.86	16

Study	Method	Country	% of female	Samples (%)	d+	SDO α	SDO item
Nagoshi, Terrell, & Nagoshi (2007) sample 1	CS; CS (p); FFS; MG	US	62.6	ColS; MA: 19; 73 Wh; 3 Bl; 10 As; 8 La; 6 OEG	0.86	0.84	20
sample 2	CS; CS (p); FFS; MG	US	76.7	ColS; MA: 19; 73 Wh; 3 Bl; 10 As; 8 La; 6 OEG	1.24	0.84	20
Nelson, & Milburn (1999)	CS; FFS; MG	US	60.4	ColS; MA: 18.7; 84 Wh; 6 Bl; 10 As; 6 OEG	0.51	0.83	14
Nicol, Charbonneau, & Boies (2007) sample 1	CS (p); MS; FFS; MI or MG	Canada	29.0	Canadian Forces applicants & ColS; MA: 19.3	0.38	0.81	20
sample 2	CS(p); FFS; MI or MG	Canada	30.9	Officer cadets & ColS; MA: 20	0.57	0.88	20
O'Keefe (2006)	SRS (p); MS; MI	Canada	15.5	MA: 36.3; 53 HSG; 37 ColG	0.42		16
Pena, & Sidanius (2002)	SRS; PS; Int; MI	US	57.4	GP; 67.9 Wh; 32.1 La	0.16		6
Phelan, & Basow (2007)	CS; FFS; MI	US	57.1	ColS; MA: 18.8	0.24	0.91	16
Poteat, Espelage, & Green (2007)	CS; FFS; MG	US	50.7	HSS; MA: 14.4; 61 Wh; 1.9 Bl; 24 As; 1.9 La; 4 OEG	0.70	0.92	16
Pratto (1994)	CS; FFS; MG	US	58.1	ColS	0.67	0.89	16
Pratto (1995)	CS; FFS; MG	US	59.5	ColS	0.62	0.92	16
Pratto, & Hegarty (2000) sample 1	CS; FFS; MG	US	53.0	ColS; 38 Wh; 4 Bl; 40 As; 8 La; 1 OEG	0.36	0.83	14
sample 2	CS; FFS; MG	US	43.1	ColS; 17 Wh; 1 Bl; 62 As; 13 La; 7 OEG	0.52	0.82	14
sample 3	CS; FFS; MG	US	61.3	ColS; Wh: 56 ; Bl: 1 ; As: 10 ; La: 10 ; OEG: 23	0.51	0.92	16
sample 4	CS; FFS; MG	US	42.6	ColS; 17 Wh; 1 Bl; 62 As; 13 La; 7 OEG	0.00	0.78	14
Pratto, & Lemieux (2001)		US	48.3	GP; 85.2 Wh; 6 Bl; 9 As; 3.1 La; 2 OEG	0.48	0.72	6
Pratto, Lemieux, Glasford, & Henry (2003) sample 1	CS; FFS; MG	US	78.4	ColS; 83.4 Wh; 2.8 Bl; 5 As; 2.8 La:; 6 OEG	0.41	0.87	16
sample 2	RS; FFS	Lebanan	45.7	ColS; Wh: 4	0.35	0.83	16
Pratto, Liu, Levin, et al., (2000) sample 1	CS; FFS; MI	Canada	50.8	GP; 37.3 Wh; 1.5 Bl; 6 As; 1.5 La	0.47	0.85	14
sample 2	CS; FFS; MI	Canada	43.5	GP; 35.5 Wh; 1.1 Bl; 61 As; 2.2 La	0.47	0.91	16
sample 3	CS; FFS	Taiwan	58.7	GP; 100 As	−0.15	0.76	14
sample 4	CS; FFS	Israel	55.9	ColS; Other; 17 Wh	0.04	0.81	16
sample 5	CS; FFS; MG	Israel	59.1	ColS	0.41	0.86	16
sample 6	CS; FFS; MG	China	31.8	ColS; MA: 21; 100 As	0.39	0.66	16
Pratto, Sidanius, Stallworth, & Malle (1994) sample 1	CS; FFS	US	50.0	ColS; Wh: 48 ; 15 Bl; 23 As; La: 13 ; OEG: 1	0.60	0.85	14
sample 2	CS; FFS	US	45.9	ColS; 67 Wh; 4 Bl; 22 As; 4 La; 3 OEG	0.63	0.83	14
sample 3	CS; FFS; MG	US	40.7	ColS; 50 Wh; 4 Bl; 33 As; 1 La; 3 OEG	0.54	0.83	14
sample 4	CS; FFS	US	49.4	ColS; 38 Wh; 5 Bl; 40 As; 8 La; 9 OEG	0.67	0.83	14
sample 5	CS; FFS	US	53.2	ColS; 38 Wh; 5 Bl; 40 As; 8 La; 9 OEG	0.67	0.84	14

Study	Method	Country	% of female	Samples (%)	d+	SDO α	SDO item
sample 6	CS; FFS	US	50.7	ColS; 53 Wh; 8 Bl; 24 As; 10 La; 5 OEG	0.22	0.81	14
sample 7	CS; FFS	US	30.6	ColS; 59 Wh; 2 Bl; 24 As; 15 La	0.76	0.84	14
sample 8	CS; FFS	US	50.0	ColS; 49 Wh; 6 Bl; 25 As; 10 La; 10 OEG	0.58	0.89	14
sample 9	CS; FFS	US	60.0	ColS; 29 Wh; 2 Bl; 51 As; 14 La; 4 OEG	0.56	0.82	14
sample 10	CS; FFS	US	67.0	ColS; 19 Wh; 10 Bl; 45 As; 17 La; 9 OEG	0.06	0.80	14
Pratto, Stallworth, & Sidanius (1997) sample 1	CS; FFS	US	53.2	ColS	0.40	0.61	
sample 2	CS; FFS; MG	US	54.7	GP	0.19	0.72	8
Riley (2006)	CS; FFS; MI	US	76.8	ColS; 70.4 Wh; 20.4 Bl; 9.1 La	0.39	0.85	16
Rowatt, Franklin, & Cotton (2005)	CS; FFS; MI	US	84.2	ColS; MA: 19.6; 67 Wh; Bl: 12 ; 7 As; 10.5 La; 4 OEG	0.43	0.90	16
Russell, & Trigg (2004)	CS; FFS; MG	US	62.1	ColS; MA: 21; 77 Wh; 8 Bl; 6 As; 3.5 La; 5 OEG	0.84	0.90	16
Sabir (2006) sample 1	CS; CS (p); MS; MI	US	28.0	54.2 Wh; 21.5 Bl; 1 As; 21.5 La; 2 OEG	0.18	0.91	16
sample 2	CS; OM	Sweden	54.6	MA: 30.7; 27 HSG; 62 ColG	0.47	0.88	16
Schmitt, Banscombe, & Kappen (2003)	CS; FFS; MG	US	52.1	ColS; MA: 18.7; 90.1 Wh; 4 Bl; 5.9 La	0.52	0.87	10
Shorey, Cowan, & Sullivan (2002) sample 1	CS; FFS; MG	US	57.5	ColS; MA: 26; 100 Wh	0.27	0.91	16
sample 2	CS; FFS; MG	US	48.4	ColS; MA: 26; 100 La	0.56	0.91	8
Sidanius, & Jiu (1992)	CS; FFS; MI	US	39.7	GP; MA: 33	0.48	0.83	10
Sidanius, Levin, Liu, & Pratto (2000) sample 1	CS; FFS	Israel	61.7	ColS; MA: 23	0.35	0.86	16
sample 2	CS; FFS; MG	Israel	64.4	ColS; MA: 20	0.34	0.84	16
sample 3	CS; FFS	Palestine	46.5	ColS; MA: 21	0.35	0.66	8
sample 4	CS; FFS; MG	NZ	71.4	ColS	0.37	0.88	16
Sidanius, Pratto, & Mitchell (1994)	CS; FFS	US	70.8	ColS	0.60	0.84	20
Sidanius, Pratto, & Rabinowitz (1994) sample 1	CS; FFS	US	50.5	ColS; 100 Wh	1.70	0.79	8
sample 2	CS; FFS	US	50.8	ColS; 100 OEG	0.72	0.79	8
sample 3	CS; FFS	US	50.0	ColS; 100 Wh	1.09	0.89	29
sample 4	CS; FFS	US	50.5	ColS; 100 OEG	0.38	0.89	29
Sidanius, Pratto, Brief (1995), sample 1	CS; FFS; MG	AUS	61.4	HSS; MA: 16	0.39	0.80	5
sample 2	CS (p); FFS; MG	Sweden	54.7	HSS MA: 17	0.79	0.85	5
sample 3	CS; FFS; MG	US	44.7	ColS; MA: 19.5; 100 Wh	0.25	0.78	5
sample 4		Russia	58.7	MA: 19; 88 Wh; 34 HSG; 29 ColG; 37 GSG	0.68	0.83	5
Snellman, & Ekehammar (2005) sample 1	CS; FFS; MG	Sweden	48.9	Other	0.06	0.88	16

Study	Method	Country	% of female	Samples (%)	d+	SDO α	SDO item
sample 2	CS; FFS; MG	Sweden	44.6	Other	−0.42	0.88	16
Snellman, Ekehammar et al. (2009) sample 1	CS; FFS; MI	Sweden	55.0	ColS; MA: 25	0.24	0.84	16
sample 2	CS; FFS; MI	Sweden	53.9	ColS; MA: 23.3	0.67	0.84	16
Thornhill, & Fincher (2007)	CS; FFS; MI	US	69.1	ColS; MA: 20.1	0.52	0.88	14
Turner (2003)	CS; Int; FFS; MG	US	50.0	GP; MA: 37.3; 50 Wh; 50 Bl	1.09	0.89	16
Umphress, Simmons, et al. (2008) sample 1	CS; MS; FFS; MI	US	59.5	ColS; MA: 22; 79.7 Wh; 10.1 Bl; 1 Asain; 6.3 La; 3 OEG	0.16	0.92	16
sample 2	CS; MS FFS; MI	US	51.5	ColS; MA: 21; 83.8 Wh; 2.9 Bl; 3 Asain; 8.8 La	0.42	0.89	16
Umphress, Smith-Crowe, Brief, Dietz, & Watkins (2007) sample 1	CS; FFS	US	51.9	ColS; MA: 20.5; 100 Wh	0.77	0.90	16
sample 2	CS; MS; MI	US	50.0	ColS; MA: 23; 70 Wh; 3 Bl; 11 As; 14 La; 2 OEG	0.51	0.89	16
van Hiel, & Duriez (2002) sample 1	CS; FFS	Dutch	50.0	GP; MA: 43;	0.10	0.83	14
sample 2	CS; FFS	Dutch	26.5	MA: 39	0.36	0.88	14
van Hiel, & Mervielde (2002)	CS; FFS; MI	Belgium	40.4	GP; MA: 44; 54 HSG & 41 ColG	0.22	0.83	16
Villano, & Zani (2007)	CS; FFS; MI	Italy	62.8	MA: 31	0.00	0.87	16
Walter, Thorpe, & Kingery (2001)	CS; FFS; MG	US	67.0	ColS; MA: 19.7	0.60	0.89	14
Wang (1999)	CS; FFS; MG	US	61.8	ColS; MA: 26.5	0.68	0.70	16
Werhun (2000)	CS; FFS; MG	Canada	50.0	ColS MA: 19; 78 Wh; 1 Bl; 14 As	0.62	0.87	16
Whitley Jr., Aegisdottir (2000)	CS; FFS; MG	US	51.9	ColS; 91 Wh; 4 Bl; 1 As; 2 La; 2 OEG:	0.63	0.85	16
Whitley, Jr. (1999) sample 1	CS; FFS; MG	US	51.4	ColS; 100 Wh	0.95	0.88	16
sample 2	CS; FFS; MG	US	48.4	ColS; 100 Wh	0.34	0.88	16
Whitley, Lee (2000)	CS; FFS; MG	US	51.3	ColS	0.70	0.86	14
Wilson (2003)	CS; FFS; MG	NZ	49.2	ColS; MA: 19; 100 Wh	0.57	0.88	16
Wilson, & Liu (2003) sample 1	RS; MS; MI	NZ	53.8	GP; 62.8 Wh; 37 OEG	0.44	0.84	16
sample 2	CS; FFS; MG	NZ	59.5	ColS; MA: 22; 93 Wh; OEG: 7	0.59	0.88	16
Worthington, Navarro, Loewy, & Hart (2008)	MS; MI	US	63.2	ColS; 65.3 Wh; 18.1 Bl; 15 As; 4.9 La; 4 OEG; 77 ColG; 8 GSG; 15 OEdu	0.60	0.93	14
Yeageley, Morling, & Nelson (2007)	CS; FFS; MI	Canada	50.0	ColS	1.11		4
Zakrisson (2008)	RS; MS; MI	Sweden	50.9	MA: 47	0.32	0.79	14

RS=Random sample; SRS=Stratified random sample; CS=Convenience sample; (p)=purposive; MG=Measured in group; MI=Measured individually; FFS=Face to face survey; PS=Phone survey; Int=Interview; MS=Mail survey; OSM=Other survey method; OM=Online measure; ColS=College students; HSS=High school students; GP=General public; MA=Mean age; OEG=Other ethnic group; ColG=College graduates; HSG=High school graduates; GSG=Graduate School graduates; OEdu=Other education; Wh=White; Bl=Black; As=Asian; La=Latino

Appendix II

Arbitrary groups comparison studies

Study	Method	Comparison group	Country	% of female	Samples (%)	d+	SDO α	SDO item
Nicol et al. (2007) sample 1		military vs. civilian	Canada	29.0	ColS; MA: 19.3	−0.41	0.81	20
sample 2		military vs. civilian	Canada	30.7	ColS; MA: 20	−0.20	0.88	20
sample 3		military vs. civilian	Canada	30.9	ColS; MA: 20	0.15	0.88	20
sample 4		military vs. civilian	Canada	33.3	ColS; MA: 22.3	0.22	0.92	20
Dambrun, Guimond, & Duarte (2002)	CS; CS (p); FFS; MI	Major	France	64.9	ColS; MA: 22.6	1.06	0.81	10
Dambrun, Kamiejski, Haddadi, & Duarte (2009) sample 1		Major	France	81.1	ColS; MA: 20.7	0.11	0.88	6
sample 2		Major	France	81.0	ColS; MA: 20.7	0.70	0.88	6
Guimond, Dambrun, Michinov, & Duarte (2003)	CS; FFS; MG	Major	France	81.1	ColS; MA: 19.8	0.39	0.86	16
Bruess (2004) sample 1	RS	R/E: Germans vs. Turks	German	49.9	HSS; MA: 17	0.15		
sample 2	RS	R/E: Germans vs. Resettlers	German	49.9	HSS; MA: 17; 89 Wh; 11 As	0.03		
Khan, & Jiu (2008) sample 1		R/E: Hindu vs. Muslim	India	33.3	ColS; MA: 23.2	−0.19	0.82	16
Levin, & Sidanius (1999) sample 2	CS; FFS	R/E: Ashkenazic vs. Mizrachim	Israel	58.8	ColS	0.30	0.72	8
sample 3	CS; FFS; MG	R/E: Israel Jew vs. Arab	Israel	63.6	ColS	0.42	0.78	8
Schleien (2009) sample 1		R/E: Israeli vs. Palestinian	Israel		MA: 15.4	−0.71	0.85	8
sample 2		R/E: Israeli vs. Arab	Israel		MA: 15.4	−0.64	0.85	8
Roccato (2008) sample 1		Major	Italy	76.9	ColS; MA: 20.4	−0.29	0.82	14
sample 2		Major	Italy	76.9	ColS; MA: 20.4	−0.09	0.82	14
sample 3		Major	Italy	76.7	ColS; MA: 20.4	0.20	0.82	14
Villano, & Zani (2007)		Education Level	Italy	62.8	GP; MA: 31	1.77	0.87	16
Khan, & Jiu (2008) sample 2		R/E: Hindus vs. Muslims	Pakistan	61.4	GP; MA: 29.2	−0.09	0.83	16
Golec, & Federico (2004)	CS; FFS; MI	Party: LPR vs. UW	Poland	24.2	GP; MA: 22	1.01	0.88	14
Heaven, Greene, Stone, & Caputi (2000)	CS; FFS; MG	R/E: Wh vs. Bl	South Africa		ColS; 67.9 Wh; 32.1 Bl	0.45	0.76	14
Meyer (2004) sample 1	CS; FFS; MG	Language	South Africa	60.2	HSS; GP; MA: 25.8; 32 Wh; 33 Bl	−0.75	0.83	16
sample 2	CS; FFS; MG	Language	South Africa	60.2	HSS; GP; MA: 25.8; 32 Wh; 33 Bl	−0.54	0.83	16
sample 3	CS; FFS; MG	R/E: Wh vs. Bl	South Africa	60.2	HSS; GP; MA: 25.8; 50 Wh; 50 Bl	−0.30	0.83	16
sample 4	CS; FFS; MG	Education Level	South Africa	60.2	HSS; GP; MA: 25.8; 32 Wh; 33 Bl	−0.27	0.83	16

Study	Method	Comparison group	Country	% of female	Samples (%)	d+	SDO α	SDO item
sample 5	CS; FFS; MG	R/E: Wh vs. Colored	South Africa	60.2	HSS; GP; MA: 25.8; 49 Wh; 3 Bl	0.14	0.83	16
sample 6	CS; FFS	R/E: Wh vs. Bl	South Africa	63.0	ColS; MA: 19.5; 65.1 Wh	0.43	0.87	16
sample 7	CS; FFS; MG	R/E: Wh vs. Other	South Africa	53.4	GP; MA: 24.6; 48 Wh; 52 Bl	−0.24	0.86	16
sample 8	CS; FFS; MG	R/E: Wh vs. Colored	South Africa	53.4	GP; MA: 24.6; 50 Wh; 3 Bl	−0.12	0.86	16
Rowatt, Franklin, & Cotton (2005)	CS; FFS; MI	R/E: Swedish vs. Immigrants	Sweden	84.2	ColS; MA: 19.6; 63 Wh; 12 Bl; 7 As; 10.5 La	−0.27	0.90	16
Saucier, & Cawman (2004)	CS; FFS	Party Affiliation	Sweden	65.1	GP; MA: 25.8; 89.6 Wh		0.67	4
Huang, & Liu (2005) sample 1	CS; FFS	R/E: Mainlander vs. Hakka	Taiwan	51.4	ColS; MA: 29; 100 As	−0.07	0.81	14
sample 2	CS; FFS	R/E: Mainlander vs. Minnan	Taiwan	51.4	ColS; MA: 29; 100 As	−0.04	0.81	14
sample 3	CS; FFS	R/E: Mainlander vs. Minnan	Taiwan	51.5	ColS; MA: 29; 100 As	−0.28	0.86	14
sample 4	CS; FFS	R/E: Mainlander vs. Hakka	Taiwan	51.5	ColS; MA: 29; 100 As	0.15	0.86	14
Liu, Huang, & McFedries (2008)		Party ID (KMT vs DDP)	Taiwan	49.0	ColS; Other; MA: 33.3	0.15	0.87	12
Dickins, & Sergeant (2008)		Sexual Orientation	UK	25.8	MA: 22	0.99	0.90	14
Aquino, Stewart, &Reed II (2005) sample 1	CS; OSM; MG	R/E: Wh vs. Other	US	54.1	ColS; 89 Wh; 4 Bl; 7 La	0.16	0.90	16
sample 2	CS; FFS; MG	R/E: Wh vs. Other	US	45.0	ColS; 91 Wh; 4 Bl; 5 La	0.40	0.90	16
Caldwell (2007)		Education Level	US	64.6	MA: 39; 84.6 Wh; 9.2 Bl; 3.1 La	−0.22		16
Culhane, Hosch, & Heck (2008) sample 1		Law Enforcement: Current vs. Future	US	44.0	ColS; Other; MA: 26.6; 18.2 Wh; 4.5 Bl; 75.4 La	0.25		16
sample 2		Law Enforcement vs. Student	US	43.7	ColS; Other; MA: 26.6; 18.2 Wh; 4.5 Bl; 75.4 La	0.37		16
Fang, Sidanius, & Pratto (1998) sample 1	RS; PS; MI	R/E: Wh vs. Hispanic American	US	54.9	GP; MA: 41; 57 Wh; 43 La	0.95	0.65	4
sample 2	RS; PS; MI	R/E: Wh vs. As	US	54.9	GP; MA: 41; 69 Wh; 31 As	0.70	0.65	4
sample 3	RS; PS; MI	R/E: Wh vs. Bl American	US	54.9	GP; MA: 41; 57 Wh; 43 Bl	0.33	0.65	4
Federico (1999) sample 1	CS; FFS	R/E: Wh vs. Bl	US	59.8	ColS; MA: 21.5; 54.9 Wh; 45.1 Bl	0.77	0.87	16
sample 2	CS; FFS; MG	R/E: Wh vs. La	US	59.8	ColS; MA: 21.5; 54 Wh; 46 La	0.75	0.91	16
Hailey (2005) (unpublished)	CS; FFS; MI	R/E: Wh vs. Bl	US	33.0	GP; MA: 35.4; 58.4 Wh; 41.6 Bl	0.03	0.90	16
Hayward (2001) sample 1	CS; FFS; MG	R/E: Wh vs. Chinese American	US	63.5	ColS; MA: 20.2; 52 Wh; 48 As	−0.57	0.79	14
sample 2	CS; FFS; MG	R/E: Wh vs. Vietnamese American	US	65.5	ColS; MA: 20.5; 64 Wh; 36 As	−0.22	0.79	14
sample 3	CS; FFS; MG	R/E: Whs vs. Mexican American	US	68.0	ColS; MA: 20.6; 62 Wh; 38 La	0.35	0.79	14
sample 4	CS; FFS; MG	R/E: Wh vs. African American	US	73.6	ColS; MA: 21.9; 89 Wh; 11 Bl	0.72	0.81	11

Study	Method	Comparison group	Country	% of female	Samples (%)	d+	SDO α	SDO item
sample 5	CS; FFS; MG	R/E: Wh vs. Chinese Americans	US	70.2	ColS; MA: 20.8; 45 Wh; 55 As	−0.43	0.81	11
sample 6	CS; FFS; MG	R/E: Wh vs. Korean American	US	71.4	ColS; MA: 21.2; 61 Wh; 39 As	−0.17	0.81	11
sample 7	CS; FFS; MG	R/E: Wh vs. Mexican American	US	70.3	ColS; MA: 21.3; 56 Wh; 44 La	0.27	0.81	11
sample 8	CS; FFS; MG	R/E: Wh vs. Vietnamese American	US	70.6	ColS; MA: 21.5; 65 Wh; 35 As	−0.28	0.81	11
Jost, &Thompson (2000) sample 1	CS; FFS; MG	R/E: Wh vs. Bl	US		ColS; 78 Wh; 22 Bl	0.48		16
sample 2	CS; FFS; MG	R/E: Wh vs. Bl	US		ColS; 79 Wh; 21 Bl	0.58		16
sample 3	CS; FFS; MG	R/E: Wh vs. Bl	US		ColS; 79 Wh; 21 Bl	0.62		16
sample 4	CS; FFS; MG	R/E: Wh vs. Bl	US		ColS; 77 Wh; 23 Bl	0.44		16
Levin, & Sidanius (1999) sample 1	CS; FFS	R/E: Wh vs. La	US	55.9	ColS; 55 Wh; 45 La	0.70	0.90	16
Lippa, & Arad (1999) sample 1	CS; FFS; MI	R/E: Wh vs. La	US	62.3	ColS; MA: 18; 64 Wh; 36 La	0.54	0.79	8
sample 2	CS; FFS; MI	R/E: Wh vs. As	US	62.3	ColS; MA: 18; 66 Wh; 34 As	−0.14	0.79	8
McIntyre, et al. (2007) sample 1		R/E: Wh vs. As	US	43.3	ColS; MA: 22; 74.5 Wh; 26 As	−0.14		
sample 2		R/E: Wh vs. other	US	43.0	MA: 22; 87.5 Wh	0.24		
sample 3		R/E: Wh vs. Bl	US	42.7	MA: 22; 84.7 Wh; 15.3 Bl	0.68		
Nelson, & Milburn (1999)	CS; FFS; MG	Party Affiliation	US	60.4	ColS; MA: 18.7; 84 Wh; 10 As	0.50	0.83	14
Pena, & Sidanius (2002)	SRS; PS; Int; MI	R/E: Wh vs. La	US	57.4	GP; 67.9 Wh; 32.1 La			6
Pratto, & Lemieux (2001)		Party Affiliation	US	48.3	GP; 85.2 Wh; 6 Bl; 9 As; 3.1 La	1.32	0.72	6
Riley (2006)		R/E: Wh vs. Colored	US	76.4	ColS; 70.4 Wh; 20.4 Bl; 9.1 La	0.63	0.85	16
Sabir (2006) sample 1		R/E: Wh vs. Bl	US	28.4	54.2 Wh; 21.5 Bl; 1 As; 21.5 La	−0.33	0.91	16
Sabir (2006) sample 2		R/E: Wh vs. Hispanic	US	28.4	54.2 Wh; 21.5 Bl; 1 As; 21.5 La	−0.18	0.91	16
Schmitt, Banscombe, & Kappen (2003)	CS; FFS; MG	R/E: Wh vs. Other	US	52.1	ColS; MA: 18.7; 90.1 Wh; 4 Bl; 5.9 La	0.22	0.87	10
Shorey, Cowan, & Sullivan (2002)	CS; FFS; MG	R/E: Aanglo vs. Hispanic	US	53.4	ColS; MA: 26; 54.8 Wh; 45.2 La	0.17	0.91	16
Sinclair, Sidanius, & Levin (1998)	CS; FFS; MG	R/E: Wh vs. As	US	56.0	ColS; 43 Wh; 57 As	−0.09	0.77	4
Umphress et al. (2008) sample 1		R/E: Wh vs. Colored	US	51.5	ColS; MA: 21; 83.8 Wh; 2.9 Bl; 3 As; 8.8 La	0.12	0.89	16
sample 2		R/E: Wh vs. Colored	US	59.5	ColS; MA: 22; 79.7 Wh; 10.1 Bl; 1 As; 6.3 La	0.10	0.92	16
Umphress et al. (2007)		R/E: Wh vs. Colored	US		ColS; MA: 23; 70 Wh; 3 Bl; 11 As; 14 La	0.67	0.89	16
Worthington et al. (2008)		R/E: Wh vs. NonWh	US	63.2	ColS; Wh: 65.3; 18.1 Bl; 15 As; 4.9 La	0.33	0.93	14

RS=Random sample; SRS=Stratified random sample; CS=Convenience sample; (p)=purposive; MG=Measured in group; MI=Measured individually; FFS=Face to face survey; PS=Phone survey; Int=Interview; MS=Mail survey; OSM=Other survey method; OM=Online measure; ColS=College students; HSS=High school students; GP=General public; MA=Mean age; OEG=Other ethnic group; ColG=College graduates; HSG=High school graduates; GSG=Graduate School graduates; OEdu=Other education; Wh=White; Bl=Black; As=Asian; La=Latino