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Social Change in Social Dominance Theory: Ideological Norms and Violence Prevention in Gender Relations

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Gender Relations

Andrew L. Stewart

University of Connecticut, 2015

The present dissertation examines ways to study social change using social dominance theory in the context of gender relations. The first paper outlines a theoretical reconceptualization of social change that focuses on the dynamics of intergroup behavior and power. The remaining papers in this dissertation demonstrate how to conduct social change research using social dominance theory by exploring the effects of ideological norms on support for violence against women, and by exploring violence prevention and collective action aimed at reducing intergroup inequality. I find that societal disagreement (rather than agreement) about sexism predicts normative justification of domestic violence, and that women are the primary targets of violence in agency-normative contexts. Further, I develop a social dominance theory approach to collective action that complements social identity approaches to collective action. This paper argues that the social dominance theory provides a better model for men's collective action motivations, and social identity approaches provide better models for women's collective action motivations. In the final paper, I present an evaluation of a sexual assault prevention program that targets college men, and find that the program reduces sexism rape myth acceptance in addition to increasing collective action willingness and feminist activism. The discussion focuses on the theoretical, methodological, and applied contributions of the present dissertation to the social psychology of intergroup relations.

Social Change in Social Dominance Theory: Ideological Norms and Violence Prevention in
Gender Relations

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A Dissertation

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APPROVAL PAGE

Doctor of Philosophy Dissertation

Social Change in Social Dominance Theory: Ideological Norms and Violence Prevention in
Gender Relations

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2015

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General Introduction

Social change and intergroup inequality are endemic to intergroup relations. For me, social change is the dynamic process of intergroup behavior aimed at changing intergroup status and power, and intergroup inequality are differences between social groups in terms of power, such as the ability to acquire and maintain resources (e.g., money), knowledge (e.g., education), or good health (e.g., chronic diseases). Whereas most social psychological theories argue that social change and intergroup inequality are at odds, my own research and theorizing views them as dynamically related and mutually constitutive. By this, I mean that social change is a dynamic process that occurs within social systems, and intergroup inequality emerges as a structural byproduct of these internal dynamics. In turn, the degree of intergroup inequality within social systems provides context for social change processes, viz., it can lead to the development and propagation of ideological beliefs, the passage and implementation of social policies, and the institutionalization of intergroup discrimination. All of these social change processes then contribute to the degree of intergroup inequality. The relationship between social change and intergroup inequality are complex. Social change processes alone are complex, and they have been a central focus of psychological and sociological analyses of intergroup relations. The present dissertation seeks to contribute our understanding of the ideological and behavioral dynamics that characterize social change in intergroup relations.

In particular, the papers in this dissertation focus on social change in gender relations using social dominance theory as a perspective. Social problems associated with gender relations have existed for centuries (Fox, 2002). Sexual violence, intimate partner violence, and non-violent gender discrimination characterize gender relations in virtually all known societies and are among the most pervasive social problems facing societies today (Kristof & WuDunn, 2009).

Accordingly, social scientists have generated research and theory on why these social problems exist and persist in human societies and have tried to understand the consequences of these problems for human health and well-being (Heise, 1998).

The major theoretical influences on the present dissertation are social dominance theory (Sidanius & Pratto, 1999), neo-Marxist analyses of cultural hegemony (Gramsci, 1930/1972), and velvet glove theory (Jackman, 1994). Social dominance theory is a general theory of intergroup relations that argues that a variety of cultural and historical ideologies, institutions, and events have created power differences and inequality between groups. Cultural hegemony refers the process of propagating dominant ideology in order to normalize dominant group power (Gramsci, 1930/1972). Velvet glove theory argues that dominants threaten violence and use it in ways that are perceived to be legitimate (e.g., the criminal justice system) in order to prevent subordinate groups from challenging their inferior social position relative to dominants (Jackman, 1994).

Social dominance theory (SDT) is a general theory of intergroup relations that considers multiple levels of analysis in understanding the stability of group-based social hierarchies (see Sidanius & Pratto, 1999). SDT proposes that individual differences in supporting or opposing intergroup inequality underlie a variety of ideological beliefs (Sidanius & Pratto, 1999, Ch. 3). When people support intergroup inequality in general, they are more likely to endorse *hierarchy-enhancing* ideologies that promote greater intergroup inequality, such as sexism. When people support intergroup equality, they are more likely to endorse *hierarchy-attenuating* ideologies that promote greater intergroup equality, such as feminism. These different ideologies motivate different types of intergroup behaviors. Hierarchy-enhancing ideologies prescribe discrimination against subordinate groups, and hierarchy-attenuating ideologies prescribe resisting against

oppression. SDT points to the importance of ideological beliefs for understanding violence and discrimination along with collective action.

When ideologies become normative, they can have a powerful influence on behavior and on people's expectations for others' behavior. Social psychology has long recognized the importance of social norms for human behavior, and for intergroup relations in particular, social norms are important for understanding both discrimination and collective action. Antonio Gramsci (1930/1992) was well aware of the power of ideological norms in maintaining dominant group power. He argued that dominant groups control the most normative ideologies and the discourse that propagates those ideologies in order to normalize dominant groups' social position. By normalizing dominant group power and making their social position appear natural, inevitable, and good, dominants could preempt any resistance from subordinate groups and keep them from destabilizing the unequal society. Gramsci's analysis of cultural hegemony argued that dominants are creative by co-opting new ideas and sentiments in order to fit the dominant narrative, and he reasoned that Marx's promise of a communist revolution was never realized because Marx failed to recognize the dominants' co-optation of subversive ideas to fit the dominant discourse. Thus, ideological control and the propagation of dominant ideology throughout a society stabilized intergroup inequality.

Dominant groups maintain their social position by controlling and normalizing ideologies or by using violence and its threat to neutralize any opposition from subordinate groups. However, violence can destabilize group-based social hierarchies because using dominant-perpetrated violence (e.g., men's violence against women) can indicate that dominant groups have failed to maintain ideological control (Jackman, 1994). Using violence as a means of social control indicates that the subordinate group disagrees with the dominant group (Bachrach &

Baratz, 1979), so when there is ideological disagreement, dominants use violence as a last ditch effort to maintain their social position. Velvet glove theory argues that explicit displays of violence and force can undermine the legitimacy of the dominant group, so control over ideology is used to normalize dominant group power and to hide the use of violence so that it does not undermine dominant power. Dominant ideologies are powerful because they can normalize dominant group power and can add legitimacy to the use of violence when they are normative.

Despite the power of cultural hegemony, people continue to resist and protest against intergroup inequality and discrimination. If intergroup ideologies and norms around them are important for understanding intergroup inequality and discrimination, then weakening the influence of ideologies at the individual and group levels is important for breaking the tight grip of cultural hegemony and encouraging hierarchy-attenuating intergroup behavior, such as collective action. Gramsci argued that people can overcome cultural hegemony either by being opportunistic (i.e., capitalizing on an event that makes the dominant group weak and vulnerable, such as when they use violence) or through coalition-building and grass-roots efforts that slowly build normative support for a new way to structure intergroup relations.

Overview

The present dissertation builds upon these theoretical ideas and presents empirical research testing their predictions in the context of gender relations. The dissertation is presented in three major sections. As may be apparent, the way I have been discussing social change deviates from the prevailing view of social change in social psychology. Instead of viewing social change as differences in intergroup inequality through time, I view social change as a dynamic process characterized by the dynamic interaction of ideologies and intergroup behaviors. My reasoning behind this is explored in detail in the first section of the dissertation

that focuses on theoretical approaches to social change. The first paper “What Constitutes Social Change? Conceptualizations, Critiques, and New Directions” describes how different theories of intergroup relations conceptualize social change and why this conceptualization is faulty. I then describe how social change should refer to the dynamics of intergroup behavior, which lays the groundwork for the remainder of the dissertation. In the second section of the dissertation, I present two empirical papers that explore how ideological norms around masculinity and sexism relate to violence against women. In the paper “Masculinity Norms and Violence against Women: A Small Groups Experiment using the Group Actor Partner Interdependence Model,” I test whether masculinity norms foment violence against women because they are perceived to be normative deviants. In the paper “Sexist Beliefs and Norms: Ideological Foundations of Violent and Nonviolent Discrimination against Women,” I conduct a cross-national study of sexist norms and how they relate to violent versus nonviolent forms of discrimination against women. In the third and final section, I present research exploring the ideological foundations of collective action and violence prevention interventions for college men. In the paper “Collective Action in Gender Relations: Comparing Theoretical Models of Protesting Gender Inequality,” I argue that ideologies such as anti-sexism and general egalitarianism are important predictors of collective action willingness in addition to social identity processes. In the paper “The Men’s Project: A Sexual Assault Prevention Program Targeting College Men,” I present an evaluation of a sexual assault prevention intervention targeting college men that changes their sexist beliefs and promotes feminist collective action and activism. To conclude this dissertation, I discuss the major theoretical, methodological, and applied contributions of the present research to the social psychological literature on intergroup relations.

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Gramsci, A. (1930/1992). *Selections from the Prison Notebooks*. New York: International Publishers.

Jackman, M. R. (1994). *The velvet glove: Paternalism and conflict in gender, class, and race relations*. Berkeley, CA: University of California Press.

Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. Cambridge, UK: Cambridge University Press.

Chapter 1: Theoretical Approaches to Social Change

Attempting to incorporate social change into social dominance theory was initially difficult because the theory explicitly eschewed any optimistic notion that social change was possible or desirable (e.g., Sidanius, 1993). Social dominance theory's primary focus has been on why intergroup inequality was such a historical and cross-cultural universal, and the theory thus focused on all of the psychological, ideological, and behavioral factors that recapitulate intergroup inequality. According to the theory, the outcome of an immense amount of ideological and cultural activity was a stable level of inequality in society. No matter what low power groups do to improve their status or to increase their power, they will inevitably fail because all humans are predisposed to form group-based social hierarchies. Social dominance theory and its theorists have made it very difficult to incorporate an analysis of social change.

Social dominance theory cannot incorporate an analysis of social change using the prevailing definition of social change in social psychology (Stewart, Leach, & Pratto, under review). Implicitly, most theories and research conceptualizes social change as temporal differences in objective conditions, such as intergroup inequality. However, using inequality as a standard by which to judge the presence or absence of social change is enormously problematic, and social dominance theory is not the only culprit of the theoretical, meta-theoretical, and practical problems with using changes in inequality as a conceptualization of social change. Other theories of intergroup relations similarly use temporal changes in inequality or other objective conditions as indicators of social change. Thus, to provide conceptual clarity to the construct of social change and to open the doors for a social dominance theory analysis of social change, I re-conceptualize social change as intergroup behavior aimed at affecting intergroup power and status. In this section, I outline the prevailing conceptualization of social change in

psychology, challenge it, and propose an alternative definition of social change that focuses on intergroup behavior in the present.

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Paper 1: What Constitutes Social Change? Conceptualizations, Critiques, and New Directions

Migration, revolution, recession, catastrophe: Social change is endemic to human societies (de la Sablonniere, Taylor, Perozzo, & Sadykova, 2009; Haslam & Reicher, 2012; Vaughn, 1978). However, as Kenneth Clark (1965, p.18) suggested some time ago, social psychologists must be clear about what constitutes social change if we are to understand the dynamics of power and status embedded in the construct of social change:

There are many areas where social psychologists might direct their energies profitably toward a study of power: a study of power conflict and resistance, the nature of victory and defeat, of acquiescence and accommodation; institutionalization, and the regulation of conflict, intensification of conflicts; and the pseudo-resolution of conflicts through deflection; through escape valves and through regulated emotional catharsis. Social psychologists might even ask more fundamental questions such as “What do we mean by social change?”

And yet, like many of our most central constructs (see Kruglanski, 2001 for a general discussion), the meaning of social change is assumed to be so obvious that it is rarely defined or conceptualized explicitly.

For this reason, the present work examines the construct of social change in three main ways. First, we review implicit definitions of social change in four prominent theories of intergroup relations, finding remarkable consensus on what social change is taken to be. Second, we offer three critiques of this implicit definition of social change, illustrating its shortcomings in meta-theory, theory, research, and practice. Third, we offer an alternative definition of social change as intergroup behavior aimed at affecting intergroup status and power (e.g., collective action, intergroup discrimination) as a direct response to the criticisms we describe. We argue

that this alternative definition of social change enables more productive conceptualization and study of a critically important construct in psychology, and in societies.

Conceptualizations of Social Change

As an initial step, we examined six recent reviews of social change in the social psychological literature for explicit definitions and conceptualizations (e.g., Haslam & Reicher, 2012; Subasic, Reynolds, Reicher, & Klandermans, 2012; Thomas, McGarty, & Mavor, 2009a, 2009b; van Zomeren, Postmes, & Spears, 2008). Surprisingly, only one of these reviews (Subasic, Reynolds, & Turner, 2008) defined social change explicitly (i.e., as group members wanting to improve their status; p. 330). The scarcity of explicit definitions in formal reviews led us to search PSYCInfo for peer-reviewed articles with “social change” in the title in the following journals: *American Psychologist*, *Asian Journal of Social Psychology*, *British Journal of Social Psychology*, *European Journal of Social Psychology*, *Group Processes and Intergroup Relations*, *Journal of Personality and Social Psychology*, *Journal of Social Issues*, *Personality and Social Psychology Bulletin*, *Personality and Social Psychology Review*, *Political Psychology*, *Psychology of Women Quarterly*, *Sex Roles*, *Social Influence*, *Social Justice Research*, *Social Psychology*, and *Social Science & Medicine*.

Our search yielded 63 papers (noted in the References section), which we individually examined for definitions of social change. Surprisingly, only 8 of these 63 papers (i.e., 13%) offered explicit definitions of social change. Thus, social change does indeed appear to be taken for granted as a construct, as social psychologists appear to feel little need to define it explicitly even in papers focused on it. Regarding the contents of these 8 formal definitions of social change, many refer to general changes in group or

societal structure and others to a change in the status quo (Table 1). In some definitions, the authors define social change as change in some aspect of society (e.g., individual character or social structure, Katz, 1974), but these definitions do not define what they mean by “change” and merely highlight the aspect of society that is changing. Thus, on those rare occasions when social change is defined in the literature, its meaning is both vague and ambiguous. Of course, these different meanings of social change are at best inconsistent, and at worst contradictory.

This examination leads us to conclude that, across the social psychological literature, social change is a circumlocution; our search of this literature revealed that social change is an indirect and ambiguous way of describing an unspecified change in unspecified objective conditions of a society (e.g., less economic inequality; expansion of political rights). Commonly, authors use phrases like “achieve social change” (e.g., Greenaway, Quinn, & Louis, 2011, p. 570) or “bring about social changes” (e.g., Bussey & Bandura, 1999, p. 676) without explaining what they actually mean by the words “social” or “change” (see Table 1). Thus, it is unclear if social change is a change in people’s access to particular occupational and familial roles, as social role theory states? Or, is social change an alteration of the status position of groups in society, as social identity theorists suggest? Or, is social change the achievement of equality in intergroup power and material resources, as social dominance theorists imply? Because social change is rarely defined, a reader must wonder which of its many possible meanings is intended by those employing it.

In addition to this troubling vagueness in the meaning of social change, present usage has left this important concept under-theorized. As in system justification theory,

other theoretical perspectives often contrast social change the status quo in lieu of an explicit definition and conceptualization (e.g., Diekmann & Goodfriend, 2007; Subasic, Reynolds, & Turner, 2008; see Table 1). Moreover, “status quo” is rarely used with the neutral tone of its formal definition—the present state of affairs. Indeed, most discussions of social change imply that the status quo is a present state of affairs that is grossly or unfairly unequal in objective conditions of some kind (e.g., Jost & Banaji, 1994; Kay & Friesen, 2011). By implication, social change represents a future move to a less gross or less unfair inequality. However, as the form or degree of this presumed improvement is never specified, the terms status quo and social change refer only to proxies for whatever unspecified objective conditions the authors imagine or assume to be an improvement on the present state of affairs. Even when explicit reference to change in inequality is made, it is unclear how much and what sort of change in current inequality constitutes social change. For example, according to Thomas, McGarty, and Mavor (2009b, p. 315) “[...] genuine social change is about redressing social inequality at a group level.” This kind of description is typical, but it does not specify what sort of inequality is to be redressed (e.g., economic opportunities, frequency of experience of prejudice, discrimination through the legal system, contents of consensual stereotypes of one’s group). It is unclear what counts as redress. Would a cash payment of \$1,000 per poor family be seen as the redress (economic) inequality in Australia, or would jailing discriminatory loan managers redress inequality in home ownership in France? At least a conceptual definition would be necessary to make a consistent judgment about particular cases.

The circumlocution of social change refers to an unspecified ideal future in the abstract. By failing to describe this ideal future in specific theoretical terms, researchers

cannot discover whether they even mean the same thing when they refer to social change. This theoretical vagueness also gives researchers little guidance to specify what metrics should be used to substantiate whether or how much social change has occurred, or whether the kinds of change other researchers observe empirically are the form they would expect to matter for their outcome variables. And, when researchers use the term “social change” in this purely abstract and ambiguous manner, they fail to specify which objective conditions they view as “social change” or why these objective conditions are positive or preferred to a previous set of conditions to which this ideal future is implicitly compared. As such, the common failure to formally define and conceptualize social change makes it impossible to know what constitutes evidence of social change or evidence of maintenance of the status quo. In other words, current usage of social change makes the formal empirical assessment of social change difficult, if not impossible. As a circumlocution, social change is invoked as a vague and abstract symbol rather than being rigorously defined, conceptualized, and examined as a concrete process of change in specific aspects of society.

Given the paucity of explicit definitions of social change in the social psychological literature, in a second step we examined its (implicit or explicit) definition and conceptualization in four prominent theoretical approaches to intergroup relations—social role theory, social identity theory, social dominance theory, and system justification theory. These approaches appear to share a common (implicit) definition of social change, despite dramatic disagreement over whether social change is possible and how it operates.

Social Role Theory

Social role theory (SRT; Eagly, 1987) and its sociological twin, expectations states theory (e.g., Ridgeway & Erickson, 2000; Berger, Zelditch, Fisek, & Ridgeway, 1998), concern how group members' predominance in particular social roles and the stereotypes of those groups pertain to those groups' status. This approach's understanding of status includes social approval or disapproval (prejudice), social structural positions such as occupational roles, and material aspects of status, such as wealth and wages. One implication of this approach is that most gender differences in psychological traits or behavioral patterns are due to conformity to role norms (e.g., Eagly, 1987; Wood & Eagly, 2002). When gender (or other) social categories are associated with social roles, people develop stereotypes of those categories to explain why certain categories of people tend to fill certain roles (e.g., Eagly & Steffen, 1984; Hoffman & Hurst, 1990). Research in this approach has emphasized how socialization processes and social pressure lead people to adapt their behavior, self-conceptions, and self-expression to conform to societal expectations and normative roles (e.g., Bussey & Bandura, 1999; Diekmann, Johnston, & Loescher, 2013). Another line of research in this tradition has shown that people who violate role-expectations or stereotypes about their groups are met with disapproval (e.g., Prentice & Caranza, 2002; Glick & Fiske, 1996; Rudman & Fairchild, 2004). These processes show how expectations, norms, stereotypes, and roles tend to mutually perpetuate each other.

However, SRT also presumes that because people form stereotypes or expectations about what social categories of people (e.g., men, women) perform different social roles (e.g., wage-earner, care-giver), that if there are changes in the distribution of people into roles, then the contents of group stereotypes (e.g., "women are intuitive," and

people's mental associations of categories with roles (e.g., "most professors are men") will change. Conversely, SRT also postulates that if people are led to change their expectations or role norms (e.g., Diekmann & Goodfriend, 2007), or imagine group stereotypes to change (e.g., Diekmann, Eagly, Mladinic, Ferriera, 2005), then they will express different desires, aspirations, and role preferences for themselves. Because of its history identifying how gender roles produce drastic pay inequities (e.g., Reskin, 1988), and its emphasis on the socially-constructed basis of gender differences (e.g., Eagly, 1987), this perspective assumes that social change is both desirable and possible. The implicit definition of social change in this tradition is change over time in the contents of consensual stereotypes, norms and role aspirations, in the bias of prejudice, in the status associated with particular roles, or in the distribution of social categories into roles.

Social Identity Theory

Social identity theory (SIT) has explicitly defined and theorized social change because it is an important concept for the theory (see Ellemers, 1993; Reicher, 2004; Spears, Jetten, & Doosje, 2001; Turner & Reynolds, 2010). However, social change is used in at least two different senses in SIT, viz., as either psychological change (e.g., Stott, Adang, Livingstone, & Schreiber, 2008) or as change in objective conditions (e.g., reducing inequality; Tajfel & Turner, 1979). At the structural level, social identity theory uses social change to refer to an alteration of a group's objective status position *vis-à-vis* another group in a societal system. At the psychological level, social identity theory refers to "the belief system of 'social change'" (Tajfel & Turner, 1979, p. 35), whereby members of lower and higher status groups believe that their status position *can* be altered (Tajfel & Turner, 1979; for discussions, see Ellemers, 1993; Hogg, 2006).

Generally speaking, SIT presumes psychological social change to be a necessary step to bringing about structural social change in objective conditions in a society (for reviews, see Subasic et al., 2008; Tajfel & Turner, 1979; Thomas, McGarty, & Mavor, 2009). In that regard, it contrasts with SRT, which assumes that psychological and behavioral change can *result from* structural change (as well as vice versa). What is more, making the position of lower status groups more equal to that of higher status groups is assumed to be both possible and desirable in social identity theory (see Reicher, 2004; Spears et al., 2001; Turner & Reynolds, 2010). However, SIT's view of intergroup equality as the ideal form of future social change is rarely acknowledged explicitly. In sum, a movement toward greater intergroup equality brought about by psychological change in group members is the conceptualization of social change implicit to most work in the social identity tradition. And, social change is implicitly defined as the difference between two (psychological or objective) states over time (e.g., present inequality in status to future equality).

Social Dominance Theory

In its first ten years, social dominance theory did not define social change because “to date SDT [social dominance theory] has focused on explaining why group dominance societies exhibit stability, rather than on explaining social change” (Sidanius & Pratto, 2003, p. 210). Although SDT allows that social systems may vary from each other and change in *how* hierarchical they are, it insists that true equality between groups is impossible in societies with economic surplus (Sidanius & Pratto, 1999, p. 38). By inference, SDT conceptualizes social change as temporary societal instability until hierarchy is reestablished, or as equality between groups. Therefore, SDT need not

conceptualize a kind of social change that the theory views as impossible. Thus, unlike social identity theory, social dominance theory does not suggest that equality is a possible form of social organization, though it does recognize how undesirable inequality is for low-power groups. This is why there is substantially more research inspired by SDT showing how dominance is perpetuated rather than how it is disrupted.

In contrast to SRT's and SIT's promise of progress toward equality, SDT is a homeostatic theory that views inequality between groups as a result of dynamic power struggles. Thus, in SDT, a stable status quo of intergroup inequality is achieved through active oppression by dominants and ineffective resistance by subordinates. As a result, SDT allows that social change can be regressive, as inequality can increase through greater oppression, more ineffective resistance, or both. This attention to regressive social change distinguishes SDT from most other approaches to social change. And, unlike SRT and SIT, SDT focuses on changes over time in power and in structural inequality rather than in group status. Similar to SRT, SDT also argues that the content and function of "legitimizing ideologies" can change over time (e.g., Henry & Pratto, 2010). However, SDT states that changes in ideological contents and functions generally serve to perpetuate or re-establish group-based dominance hierarchies in power. Like SRT and SIT, SDT ultimately limits the notion of social change (and stability) to a difference over time in the degree of intergroup inequality in a society.

System Justification Theory

Similar to SDT, system justification theory (SJT) does not define social change (for a review, see Jost, Kay, & Thoristtodor, 2009). Instead, SJT uses the term social change to connote some arrangement of human social groups other than the current

arrangement (Kay & Friesen, 2011). Thus, like SDT, SJT implies that social change is a difference in objective conditions between two points in time. According to SJT (Jost & Banaji, 1994), group members are motivated to justify the (social, economic, political) systems in which they live. This presumably serves to preserve “the status quo,” which is assumed to be gross and illegitimate inequality between groups. In contrast to social identity theory, system justification theory shares social dominance theory’s view that changing the (grossly unequal) status quo is difficult, if not impossible. Indeed, because those most disadvantaged *and* those most advantaged by existing systems of inequality are thought to justify these systems, SJT does not identify any likely psychological impetus for social change in the degree of inequality in society. However, under conditions of low system threat, low system dependence, high personal control, and feeling able to leave the system, people do not justify the system *as much* (Kay & Friesen, 2011). Even less than SIT and SRT, and especially less than SDT, SJT does not attend to the objective structural conditions of societies, nor to the self- or group-interested motivations and other psychological motivations that can lead people to reject the legitimacy of their social systems.

Critiques of Social Change Conceptualizations

Social psychological theories of intergroup relations appear to agree that social change is a (hypothetical) temporal difference in the objective conditions of a society. The objective condition most focused on is the (economic, political, power, status) equality between groups. Although this largely implicit understanding of social change is widely shared in social psychology, there are good reasons to question whether a temporal difference in equality between groups is an adequate conceptualization of social

change. Thus, we offer three critiques: (a) the prevailing conceptualization of social change treats it as an absolute difference from one time-point to another rather than as relative change within a particular frame of reference, (b) the prevailing focus on objective conditions such as inequality in earnings, role occupation, political power, human rights and the like diverts attention from the continual process of social change that may or may not translate to observable outcomes like inequality, and (c) the prevailing conceptualization of social change frames it as unrealized potential for an ideal future, rather than as actual behavior in the present that aims to alter the present circumstances of groups and of society.

“Social Change” as Absolute rather than as Relative

The implicit conceptualization of social change construes it as a difference in objective conditions between abstract and unspecified notions of past, present, and future (see Table 1). Thus, researchers can discuss a social change in the present (e.g., discrimination against women now) as compared to some presumed objective condition in the past (e.g., discrimination against women sometime before now). Or, researchers can discuss a social change in the future (e.g., discrimination against women sometime after now) as compared to some presumed objective condition in the present (e.g., discrimination against women now). However, such abstract references to past, present, or future leave the specific time-points in question unspecified and thus the degree and nature of the change is left ambiguous.

More profoundly, discussing social change as if it were an absolute difference from one time-point to another (i.e., outside any particular frame of reference) presumes that time is an obvious, linear continuum. The problem is that time is neither obvious nor

linear, and thus temporal differences are not absolute. In fact, time is relative. Thus, temporal change is relative. Indeed, all change—movement from one point to another—is relative (Einstein, 1934). This is why physics has long understood that to judge the motion of an object, one must compare at least two points *within a particular frame of reference*. For instance, to judge the change in a shooting star's position, its movement must be gauged with reference to some other celestial object, like a planet or another star, within the frame of reference given by the visible sky from a given location and time. As there are many possible frames of reference, judgments of change are always relative to the frame of reference.

The same is true for the interpretation of change in societies. Change from one time-point to another is relative to the particular frame of reference within which the movement is gauged, including the time scale (e.g., the last year, the last decade, the last century), cultural location, and normative practices and beliefs of that location in time and society. Frames of reference, which refer broadly to the full context of a comparison (e.g., temporal, spatial, or personal contexts) are necessary to specify in order to understand the meaning of a comparison (Allport, 1940). Thus, to properly gauge social change in the degree of discrimination against women, one must compare a specific observation of present discrimination (e.g., in executive hiring) to a specific observation of past discrimination (e.g., executive hiring ten years previous) within a particular frame of reference (e.g., the last decade) and in a particular location (e.g., Canada). Comparing present discrimination to some other time-point in the past (e.g., five years previous), or comparing within a different frame of reference (e.g., fifty years previous) is likely to alter the degree and nature of change that is observed. To put it more in social terms than

in physical terms, there are many metrics for inequality that are not meaningful, or which have an unclear meaning, outside of particular periods and locations. For example, by the metric of gender disparities in corporate executives, women have become substantially less equal than 300 years ago when there were no corporate executives, and therefore no gender disparity.

Although psychologists have long understood that judgments require a particular frame of reference because they are inherently relative (see Allport, 1940; Leach & Vliek, 2008), this fact is rarely acknowledged in discussions of even subjective social change. As the degree of social change observed necessarily depends on the frame of reference used for comparison, failing to specify a frame of reference implies that social change is absolute when it is inherently relative. This obscures the (relative) nature of social change. Conceptualizing social change as an absolute temporal difference rather than as relative to a particular frame of reference also creates practical problems for the conceptualization and study of social change. For instance, viewing social change as absolute is inconsistent with the well-established fact that different groups use different timescales and different ideals for the future in ascertaining how much social change has occurred in the present. Indeed, Eibach and colleagues (2006) have shown that Blacks in the U.S. interpret racial inequality in terms of how far society must go to reach equality, whereas Whites in the U.S. interpret racial inequality in terms of how far society has come from chattel slavery (see Eibach & Ehlinger, 2010 for similar results concerning gender equality). These studies demonstrate that judging social change (i.e., as changes in objective conditions, such as inequality) is always relative and depends on the frame of reference chosen.

The practical problems with interpreting observations of social change as absolute rather than as relative to a particular frame of reference are also apparent in longitudinal analyses of social change (for a detailed review, see Kukla, 1982). For example, in a general methodological critique of assessing societal change in longitudinal analyses, Krus and Blackman (1980) performed a set of time series analyses on large-scale social changes in hostilities between groups. They showed that the degree and pattern of change observed was dependent on the time-scale (i.e., frame of reference) that they examined. As shown in Figure 1a, when change between 1480 and 1945 was examined year-to-year, no discernible pattern of change was observed. From year to year, the number of wars did not appear to be greater or lesser. However, as shown in Figure 1b, examining 20-year intervals “showed” a cyclical pattern of change, whereby the number of wars increased on a regular basis and then declined until the next increase. Examination of 100-year and 300-year intervals (Figures 1c and 1d) “showed” a different pattern, whereby change occurred linearly.

Whether focused on war, economic equality, or political power, the observation of social change is always relative to the frame of reference used to establish a difference between a past and present time-point. Thus, social change cannot be absolute. “Equality” cannot be said to “increase” or “decrease” from one time point to another, without specifying the temporal frame of reference, baseline, or metric by which such change is observed and its location in space and time. Such general claims about social change imply that change can be observed in an absolute sense (i.e., outside any particular frame of reference). Examining social change without attention to its relative nature likely distorts the degree and pattern of social change observed in a system. As

illustrated in the longitudinal examples above, particular frames of reference will yield particular observations of social change that are misleading if their particularity is not acknowledged (Krus & Blackman, 1980). Indeed, using 20-, 100-, and 300-year intervals as a frame of reference for social change “showed” three different patterns of social change (Krus & Blackman, 1980). All of these patterns fit the data, but are particular to the frame of reference employed. Reliance on any one of these frames of reference would obscure the reality of social change. For all the reasons outlined, the inherently relative nature of social change requires a conceptualization of social change that is less dependent on interpreting differences across two or more time-points as if they are absolute differences free of a particular frame of reference.

“Social Change” as a Continual *Process*, Not Easily Observed in *Objective*

Conditions

Dynamic systems—whether atoms, individuals, societies, or the universe itself—are in continual motion. As Heraclitus stated in the 5th century BCE, “the only constant is change.” The continual process of change is a central feature of many sciences, including physics and astronomy:

Everything moves. From the molecules of air around us to distant islands of stars, nothing sits still. We hear of comets crashing into planets, black holes gulping streams of gas, and space itself expanding like some vast balloon. And yet the night sky cloaks these cosmic motions. Apart from the wandering Moon and planets and an occasional meteor, the heavens don't seem to change. Indeed, our eyes cannot see stars moving relative to each other from night to night, or even from one generation to the next. (DeGrasse Tyson, Liu, & Irion, 2000, p. 8)

Thus, just as we fail to observe the continual movement of the stars in the sky, we can fail to observe change in society because social change is perpetual, and thus difficult for us to notice.

This may be why more slowly moving, and thus more easily observable, objective conditions are used to infer the presence or absence of processes of social change (for a discussion, see Vanneman & Cannon, 1987). However, inferring the process of social change from more easily observable objective conditions is unwise because social change is continual, whether or not it produces absolute changes (in political inequality, for instance). For this reason, apparent stability in these objective conditions says little about the rate or pattern of processes of social change. Indeed, objective conditions, such as income inequality and political enfranchisement, may remain stable mainly because one form of social change is neutralized by another form of social change. For instance, income inequality in the United States has been remarkably stable since 1967, increasing slightly from a GINI coefficient of 0.40 in 1967 to 0.48 in 2011 (DeNavas-Walt, Proctor, & Smith, 2012). However, numerous U.S. policies and practices since 1967 have increased income inequality, such as inheritance laws, weakened labor unions, and the deregulation of private investment. Other policies and practices since 1967, such as unemployment insurance and wage growth have decreased income inequality. The net result of these countervailing forms of social change has been *apparent* stability in income inequality over this particular 40-year period, as measured by GINI. As in all systems, the production of income inequality at both time points was achieved through a great deal of economic and political activity and behavior (i.e., social change). Like a thermostat that adjusts heat and cold to maintain a particular temperature, active and

effortful processes may be required to maintain a particular objective condition like the level of inequality in a society (Pratto, 1999). As such, using objective conditions, such as changes in inequality, as a standard for judging whether social change has occurred can mask the rich societal, psychological, and cultural processes by which objective conditions are kept stable.

Focusing on social change in terms of objective conditions, rather than as continual psychological and behavioral processes, can encourage problematic interpretations of evidence for theoretical approaches to social change. For example, the recent 40-year trend in income inequality in the U.S. can be taken as evidence that the processes that distribute income, such as paid labor and wealth, are embedded means of social organization, resistant to social change. As such, stable income inequality could be taken as evidence that social dominance theory is right to assume that inequality is inevitable, and that SIT is wrong to propose that, given the right psychological conditions and motivation, disadvantaged groups can improve their status. Surely workers would have united by now to improve their position, if they had nothing to lose but their chains. However, the apparent stability of income distribution tells us nothing about the processes of continual social change that bring about this apparent stability or even changes in objective conditions. In fact, some apparent outcomes of social change lead to processes of social change that undermine these very outcomes. For example, in cases such as no-fault divorce and universal suffrage, the outcome of gender equality before the law actually led to processes that enabled the economic and political *disenfranchisement* of women (Brady & Kall, 2008). Greater gender equality in the legal system enabled greater gender inequality in economic and political institutions.

In addition, perhaps because so much of the social psychology of social change is focused on changes that may improve disadvantaged group's outcomes, there has been less attention to the many ways in which such change can prompt countervailing processes by the advantaged (for reviews, see Leach, Snider, & Iyer, 2002; Vanneman & Cannon, 1987). The implication of these points is that all approaches to social change need to distinguish process from outcomes, so that the process of social change is not confused with outcomes that often bear no simple relationship to complicated, sometimes countervailing, processes. Indeed, the processes of social change are not necessarily unidirectional, but may take numerous forms including opponent, homeostatic, cyclical, punctuated equilibrium, etc. For all of these reasons, approaches to social change that view social psychological change as a necessary cause of change in objective conditions presume too simple a relationship between social psychological process and objective outcomes.

“Social Change” as a Potential Future State, rather than Present Behavior

"When you're finished changing, you're finished" - Benjamin Franklin

Instead of using social change as a formal construct that represents actual behavior in the present, social change is largely used as an idealized reference to some potential future state of objective conditions. There are at least three logical problems with this conception of social change. One is that theorists often implicitly assume that social change in the present moves society toward a future end state that marks the termination of social change. For instance, present social change toward full economic equality represents movement toward a potential future time-point, after which economic equality will persist, marking the end of economic social change. As discussed above,

this is problematic because this sort of social change would require the end of social change. This conception therefore implies that social change is stasis, which is rejected as social change by most theoretical perspectives who view social change as an ideal of equality. However, as discussed above, social change is continual, and therefore it cannot end.

A second logical problem with the prevailing view of social change as an end-state in some idealized future is that it necessarily, but illogically, implies that social change in the present is *potential* but never actual. As a result, this idealist view eliminates the possibility of observing actual social change in the present. Imagine, for example, that inequality between rural and urban populations in physical health starts to undergo dramatic social change at this very moment. Under the prevailing view, observing this social change in the present requires knowledge of a future end-state to which the present can be compared. Obviously, no one can know the future. Thus, the “ideal future” conception of social change implies that it is impossible to observe actual social change in the present. Under the prevailing view of social change as a future set of objective conditions in society, only potential social change can be observed in the present, because present social change must be established in comparison to a potential future end-state that is ideal rather than actual. However, very few psychological constructs can be measured as *potentials* (unlike in physics where more uniform laws allow one to assess things such as potential energy or the potential orbits to which an electron can make a quantum leap). Hence, because (a) the future cannot be known, and (b) the future cannot be used as a standard to judge the potential present, which also

cannot be known, the “ideal future” conception of social change defies empirical scrutiny and the logic of social psychological constructs designed to aid empirical examinations.

A third logical problem follows from the assumption that the status quo is the present and social change represents some possible future point in time. Logically, social change cannot occur in the present under this view. If the status quo is what is occurring now, then social change cannot be occurring. Likely unwittingly, the prevailing view of social change as a potential future state implies that present efforts aimed at social change are ineffective in the present, as they can only achieve their aims in the future. This leads to an unnecessarily pessimistic view of efforts aimed at improving group power and status (such as collective action by the disadvantaged), because anything less than the achievement of the potential future state presumed to be ideal is a failure to bring about social change (see also Vanneman & Cannon, 1987). Indeed, where intergroup equality is the potential future state by which present social change is judged, even the most dramatic reduction in inequality does not constitute social change because the potential (ideal) future state is not achieved. In several ways, then, the prevailing view of both social change and the status quo establishes that observing social change in the present is impossible.

In this way, theories of social dominance and system justification become tautological when their claims that social change is impossible rely on a definition of social change that uses an impossible standard of what constitutes change. Viewing social change as a potential future end-state also makes it impossible for theories like social identity theory to verify the existence of social change as an actual state in the present. By assuming that social change is an idealized state of social equality, seemingly opposed

theories of social change—SDT, SIT, SJT—share underlying assumptions that prevent them from being able to assess actual social change in the present.

An Alternative Definition of Social Change

To avoid the problems associated with the prevailing social psychological view of social change, we offer an alternative definition that focuses on intergroup behavior. For us, *social change is the dynamic process of intergroup behavior aimed at affecting intergroup status and power*. Based in the above critique, we view social change as inherent to the systems that are human societies. Thus, social change is a continuous process; it is always occurring. Social change is also a dynamic process because it is a process of give and take between groups in a society. In other words, change results from the interactions of groups and their members as part of a dynamic system. Defining social change as a dynamic process of intergroup behavior should refocus social psychological research and theory on present behavior and its social implications, leaving the study of temporal contrasts in objective conditions to those who are better positioned to examine it (e.g., historians, sociologists, anthropologists, economists). By focusing on the process of behavior rather than the actual or ideal objective conditions of a society, our definition of social change aims to undo the conflation of motivation with social structure, of intention with consequence, and of stability with acquiescence. Thus, unlike SDT, our definition of social change does not assume that the existence of intergroup inequality suggests that people are motivated to have inequality exist. And, unlike SJT and SIT, our definition of social change does not assume that if perfect equality is not realized, people have no desire or intention to bring about greater equality. Also, in contrast to SJT, our

definition does not assume that if a group has not rid itself of its subordination, then it has acquiesced to it because of psychological justification.

By focusing on intergroup behavior, our definition of social change aims to reorient the social psychological study of social change to the more clearly social and psychological processes of social change apparent in actual behavior in the present. Toward this end, our definition of social change is inclusive of intergroup behaviors important to social identity theory (e.g., collective action), to system justification theory (e.g., failing to protest unfairness) and to social dominance theory (e.g., institutional discrimination). As such, our definition is theoretically integrative. Thus, as we explain below, our alternative definition can be used to guide how social change is conceptualized in prominent theories of intergroup relations, viz., social role theory, social identity theory, social dominance theory, and system justification theory. Our definition is purposely general so that different theories can adapt and add specificity to the definition based in their own perspectives. The definition thus becomes more concrete when discussed within the context of each theory, which we do below. First, however, we expand upon our alternative definition's key terms and describe how our definition is an improvement over the prevailing (implicit and explicit) definitions of social change in social psychology.

Our alternative definition highlights the dynamics of intergroup behavior, suggesting a complex understanding of the causes and consequences of intergroup behavior. Intergroup behavior has traditionally been defined as behavioral interaction between social groups (Tajfel, 1982). Examples of intergroup behavior include collective action (van Zomeren, Leach, & Spears, 2012), institutional discrimination (Sidanius, Liu,

Shaw, & Pratto, 1994), or intergroup helping (Nadler & Halabi, 2006). All of these forms of intergroup behavior have multiple causes and effects, particularly when considered from a dynamical perspective. Regarding collective action, for example, the perception that status relations between groups is illegitimate or unjust motivates low status groups to engage in collective action to challenge their collective disadvantage (Tajfel & Turner, 1979; van Zomeren, Leach, & Spears, 2012). If successful, low status group members may reduce or eliminate this illegitimacy, and they and others may take lessons of what tactics are successful. Both of these have consequences for future engagement in collective action, future strategizing toward similar goals, or how other groups strategize about opposing goals. Thus, intergroup behavior, such as collective action, is a dynamical process within a social system that is changing over time.

The second major component of our definition concerns intergroup status and power. The reason to include both status and power is to allow for theoretical pluralism. Some theories of intergroup relations focus on intergroup status (e.g., social identity theory) while other theories focus on power relations between groups (e.g., social dominance theory). Intergroup status is typically defined as a social group's ranking in terms of prestige, respect, or legitimacy in relation to other groups. Intergroup power on the other hand is typically defined as social groups' ability to gain legitimacy, control resources, or influence others relative to other social groups (Lee, Pratto, & Johnson, 2011). The ways in which status and power relate to intergroup behavior are important questions derived from social role, social identity, social dominance, and system justification theories.

Although our alternative definition of social change is focused on intergroup status and power it states that a variety of intergroup behaviors are *aimed at* affecting intergroup status and power rather than stating that they actually *do* affect status and power. Thus, we argue that intergroup behaviors relevant to social change are motivated by a desire to alter status and power and may or may not actually make this happen, objectively speaking. Our definition therefore keeps our analysis of social change focused on the social psychological and behavioral level of analysis and does not presume that behavior or other social psychological processes necessarily produce measurable objective changes in status or power. Thus, we distinguish between the social psychological process of social change and the objective conditions that they may or may not produce. By doing this, we overcome many of the challenges inherent in the prevailing view of social change as a vague and unspecified change in unspecified or abstract objective conditions. Our definition of social change is not a circumlocution, eschews problematic temporal comparisons, focuses on *processes* of social change, and views social change in the present rather than as ideals for an unspecified and unrealized future. Thus, our definition can be used to guide how social change is conceptualized in prominent theories of intergroup relations.

Social Role Theory

Based in our alternative view, social change can be recast in social role theory as the dynamic process of changing the associations of social categories with social roles. For example, publicizing counter-stereotypic exemplars are a social change focused on changing the mental associations that people have for social groups (Gociłowska, Crisp, & Labuschagne, 2012). Media campaigns that present immigrants as educated, loyal, and

responsible are a change of the discourse on immigration. Affirmative action programs are another form of social change that changes the make-up of the workplace by diversifying who fills what roles in society. Having more disabled tellers in a bank is not only an effort at changing the position of the disabled in society, but it is also a change in the social representations of people with disabilities and of tellers in banks. So too is collective effort by stigmatized groups to redefine themselves as worthy of respect and admiration by the wider society a social change. Renaming one's group as "native people," "African Americans," or "queer" is not an attempt to bring about some unspecified and vague notion of status equality in the future; it is specific intergroup behavior in the present that itself constitutes a social change for one's group and for society.

Social Identity Theory

Social change in social identity theory can be redefined from our perspective as the dynamic process of intergroup behavior aimed at affecting intergroup status. Group categorization and identification form the bases for intergroup behavior within the social identity tradition (Tajfel, 1982), so understanding social change from a social identity theory perspective should focus on the dynamics of self-categorization and ingroup identification processes as they relate to intergroup behaviors aimed at affecting intergroup status. Building from the social identity tradition, theorists and researchers have developed several models of intergroup behavior, which focus on low-status people's motivation to affect intergroup status. These models include the political solidarity of social change (Subasic, Reynolds, & Turner, 2008), the dual pathway model of collective action (van Zomeren, Leach, & Spears, 2012), and the social identity model

of resistance dynamics (Haslam & Reicher, 2012). Each of these models posits dynamic categorization and identification processes and how they relate to intergroup behavior. Ultimately, these models predict that various intergroup behaviors *can affect* intergroup status. Thus, models in the social identity tradition argue that intergroup behavior may bring about social change (by increasing equality in status, for example). As such, these models endorse the prevailing definition of social change as a possible, ideal, future state of somehow improved objective conditions.

Our proposed definition suggests that the language of social change used in the models of social change in the social identity tradition should be modified to avoid the problems associated with the prevailing view of social change. For example, the political solidarity model of social change (Subasic et al., 2008) argues that when the majority joins the minority to challenge the authority, then social change will occur. Social change in this model is an outcome of categorization dynamics among multiple stakeholders in a society and defines social change as a temporal difference in objective conditions (e.g., intergroup status). To amend this model, we suggest that the dynamics of solidarity categorization and the behavioral challenges to authority (e.g., protesting, propagating discourse) identified in the model should be considered social change itself. As such, the possible implications that these social changes have for the objective conditions of intergroup status should be seen as a separate question of material change. Presently, the political solidarity model describes social change as abstract, unspecified improvements in the minority group's status.

The influential models of collective action based in the social identity tradition also treat social change as an outcome of collective action rather than viewing collective

action as itself an example of social change. For instance, in van Zomeren et al.'s (2012) dual pathway model of collective action, social change refers to improvements in disadvantaged group's status. This fits the prevailing definition of social change. In contrast, our alternative definition suggests that collective action and its dynamics *are* a type of social change, independent of whether this collective action ultimately results in discernible changes in intergroup status. From our point of view then, the development of a group identity that views the in-group as unfairly disadvantaged leads to collective action, viz., a type of social change. Collective action based in identity as disadvantaged is an identity-based social change. So too is the dynamic process by which group members come to share feelings of anger about what they perceive as unfair disadvantage a basis for social change if it leads to the collective action of protest. We see the protest itself as a social change because it is intergroup behavior aimed at improving the disadvantaged group's status. Whether or not the protest leads to actual change in the objective conditions of the group is a different question, determined by numerous other forces in a dynamic process including the advantaged group's reaction to the protest. Thus, rather than challenging the value of the social identity approach to collective action, our alternative view can reorient the study of collective action by clarifying that collective action itself is the social change that the social identity approach should aim to explain.

Social Dominance Theory

Social dominance theory posits a central role to the dynamic relationship between intergroup ideologies and behaviors, as well as to how these ideological dynamics affect and are affected by intergroup power structures that exist in social systems (Pratto, 1999).

Because of the importance of ideologies to the analysis of intergroup behaviors and power, social change within social dominance theory may be defined as the dynamic process through which ideology and intergroup behavior interact to disproportionately allocate power to social groups. In addition to the well-documented hierarchy-enhancing intergroup behaviors, such as institutional discrimination, individual discrimination, and behavioral asymmetry (see Sidanius & Pratto, 1999 for a review), social dominance theory proposes a variety of hierarchy-attenuating intergroup behaviors, such as collective action (Cameron & Nickerson, 2009), civil rights activism (Sidanius & Pratto, 1999, p. 39), and institutions that work to reduce intergroup inequality (Sidanius, Liu, Shaw, & Pratto, 1994). All of this research in social dominance theory is currently examining social change according to our alternative definition, but it is not recognized as such because the prevailing view of social change conceptualizes social change in terms of abstract and vague temporal change in material conditions. Social change in social dominance theory should instead focus on the dynamics of ideology and intergroup behavior and how they may or may not affect intergroup power differences.

Very little research examines the ideological and behavioral components of social dominance theory beyond social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994), which dominates social psychological research on SDT. To truly develop a social dominance theory approach to social change, greater theoretical and empirical attention should be paid to the ways in which ideologies and intergroup behaviors influence each other and attempt to affect intergroup power differences, viz., inequality. How do ideologies, which represent behavioral imperatives for people and institutions, affect people's emotional responses to intergroup power structures? Under what

circumstances would intergroup behavior produce changes in people's ideological beliefs? How exactly do ideological dynamics relate to intergroup power inequalities at a structural level, as social dominance theory predicts? These questions, and many more, become apparent if the social dominance theory approach utilizes our revised definition of social change.

System Justification Theory

System justification theory's central focus is on how people, especially disadvantaged group members, justify—provide legitimacy or support for—the social systems in which they live (see Brandt, 2013). Thus, for system justification theory, social change can be redefined from our point of view as the dynamic process of intergroup behavior aimed at justifying grossly and unfairly unequal intergroup status systems. Research has demonstrated that justification of (present grossly and unfairly unequal economic) systems deflate people's willingness to engage in collective action (Becker & Wright, 2011; Jost et al., 2012) and support for redistributive social policies (Wakslak, Jost, Tyler, & Chen, 2007). We see this as showing that system justification plays a role in (regressive) social change whereby ideological commitments work actively to maintain existing levels of inequality and to limit competing social change designed to reduce inequality.

Although research has demonstrated the various factors that influence system justification (Jost & Kay, 2005; Kay & Jost, 2003; Kay & Friesen, 2011), very little research has examined how system justification affects actual intergroup behaviors. Instead, research generally focuses on ideological beliefs (Napier, Thorisdottir, & Jost, 2010), self-esteem (Jost & Thompson, 2000), and motivation (Kay & Jost, 2003). An

important avenue for social change research within system justification theory is to explore how system justification motivation relates to the kinds of intergroup behaviors that constitute social change, such as discrimination, collective action, or institutional behavior in a dynamical social system.

New Directions for Social Change Research

Importantly, we also believe that our conceptualization of social change suggests several new directions in the study of intergroup relations.

Intergroup Status and Power

There are some areas of research on intergroup relations that are consistent with our definition of social change because they examine intergroup behavior aimed at affecting intergroup status and power. For example, recent theory on the psychology of resistance (Haslam & Reicher, 2012), the dynamics of collective action (Van Zomeren, Leach, & Spears, 2012), the dynamics of political solidarity (Subasic, Reynolds, & Turner, 2008), politicized collective identity (Simon & Klandermans, 2001), and aligning identities (Thomas, McGarty, & Mavor, 2009a) all explore how intergroup behavior affects and is affected by intergroup status and power differences. Thus, these researchers already are examining social change as we have defined it. However, instead of viewing these behaviors as possible sources of social change (in objective conditions in a society), our definition posits that such intergroup behavior *is* social change itself. Collective action, resistance, and politicized identity *are* actual efforts to alter intergroup status and power in the present. This is what makes them social change. To require that such behavior leads to some ideal future state of equality is an impossible standard by which to judge present effort. Instead, our definition of social change treats the degree to which

behavior alters actual power or status relations, group boundaries, or other phenomena as a distinct empirical question. This empirical question is best asked with assessment of the most appropriate objective conditions in a particular frame of reference, with attention to possible countervailing social change that might complicate the link between social change and objective conditions.

Conceptualizing social change as behavior aimed at affecting intergroup power and status also offers a new way of thinking about the apparent absence of protest and collective action in a society. Under the prevailing view of social change, inaction is seen as the opposite of social change and thus taken to be a sign of acquiescence. However, in our view, silence in the face of insult and stillness under threat of violence can be understood as social change if the aim is to not be moved by another party's attempt to exert their power and status. Likewise, only with our definition of social change can efforts at maintaining the status quo so that things do not get worse, such as deference and masking, be properly understood as social change. Such brave acts of social change have for too long been missed and misrepresented in the prevailing view.

Of course, acquiescence to domination is also social change. And, it must be understood as such. To theorize acquiescence as the opposite of social change prevents the proper examination of the important ways in which groups can contribute to their own disempowerment and devaluation, as well as resist through clandestine means. If one fails to identify the goals of intergroup behavior (whether action or apparent inaction), one cannot distinguish among hidden resistance, public approval, acquiescence, cynicism or helplessness.

Our definition of social change also allows theories that have been traditionally criticized for not addressing social change to now address social change. For example, institutional and individual discrimination are important intergroup behaviors for social dominance theory (Pratto, 1999), so this theory's analysis of social change includes these intergroup behaviors. Our definition of social change does not specify whether these intergroup behaviors are expected to diminish or exacerbate intergroup status or power, so theories of intergroup relations, such as SDT, that include intergroup behaviors that enhance or maintain intergroup inequality can address a different form of social change than, say, social identity theory. In this manner, theories of intergroup relations that explain intergroup behavior can all address the dynamics of social change from their own perspectives.

Overall, the specificity of our definition invites theoretical pluralism in the psychological study of social change, and it allows for debates regarding the inevitability of inequality (e.g., Turner & Reynolds, 2003; Sidanius & Pratto, 2003) not to hinder a theory's contribution to understanding social change. Even though social dominance theory predicts that inequality is the inevitable outcome of intergroup power relations, the theory can still analyze social change when using our definition. Social dominance theory predicts that immense social and cultural activity (e.g., the counterbalancing of hierarchy-enhancing and –attenuating social forces) is necessary to sustain continuous inequality. This immense social and cultural activity *is* social change because it involves intergroup behavior (e.g., individual discrimination) aimed at affecting intergroup power and status. Because social dominance theory has traditionally paid greater attention to institutional

discrimination than to the collective action more typically studied by social identity theorists, SDT's analysis of social change can complement that of SIT.

Multilevel Analyses

By decoupling intergroup process of social change from objective conditions at the societal level, our definition of social change calls for multi-level analyses of intergroup relations (e.g., Green, 2009) that can, for example, examine how intergroup behavior at the individual level (e.g., intergroup contact; Dixon, Tropp, Durrheim, & Tredoux, 2010) affects intergroup status and power at the societal level. This is being done in recent research on intergroup contact that explicitly links interpersonal relationships between members of different social groups to societal inequality in power and status (e.g., Saguy, Tausch, Dovidio, & Pratto, 2009). By examining how intergroup contact can undermine the willingness for collective action among the disadvantaged, recent research is beginning to show how social change in one domain (or at one level of analysis) can have ironic effects in another domain (or at another level of analysis; e.g., Dixon, et al., 2010; Dovidio, Gaertner, & Saguy, 2009). By defining social change as a dynamic process of continual change with complex links to the objective conditions of society, our definition is better able to incorporate this latest work into an inclusive approach to social change. Because social change operates at multiple levels of analysis that affect each other in complex ways, future research and theory should embrace the theory and methods of multilevel analysis. In this way, our alternative definition of social change enables the integration and practice of multilevel theory and method.

Psychological Process and Objective Conditions

Our definition of social change seeks to differentiate more clearly actual psychological processes of social change in the present from the objective conditions that individuals and groups experience within societies. As emphasized in social identity theory, the goals, aspirations, and ideals that people harbor regarding intergroup power and status are important indicators of subjective experience and possible motivations for social and political action (Tajfel & Turner, 1979). Indeed, the *expectation* of change in the objective conditions of society can be motivating and empowering in their own right (for a review, see Van Zomeren, Leach, & Spears, 2012). Thus, understanding people's goals and aspirations are important for the psychological study of social change. However, the processes of social change that affect intergroup status and power do not always correspond to observable changes in objective conditions. Decades, even centuries, of feminist activism ultimately granted women *de jure* equality in education and in the workplace in some societies. Yet women are becoming increasingly overrepresented among those living in poverty in Western societies (Brady & Kall, 2008). This is one poignant example of the complex ways in which social change and objective material conditions are related to one another. Our purpose is not to ignore objective conditions, nor to reduce them to the level of psychological processes, but to point out that the relationship between social psychological social change and change in objective conditions is an *empirical* question, not something that we can assume or take for granted. Our approach allows that this relationship is not necessarily correspondent or in kind, and may be complex or even non-existent at times. Thus, we wish to reorient the psychological study of social change to focus on intergroup behavior in the present while

not always assuming that social change will lead to observable changes in objective conditions, such as policy, law, or income inequality.

This separation of the process of social change and from objective conditions allows theorists and researchers the ability to provide adequate attention to both. Theorists and researchers can talk about the state of objective conditions and use degrees of inequality (within a specific frame of reference) to provide context for, or to justify the importance of, their particular research questions. In addition, theorists and researchers can recognize and appreciate actions that have not achieved their goals for measurable changes in inequality (e.g., second wave feminist activism) but may have inspired future generations to act (e.g., third wave feminism). By not always expecting social change to lead to changes in objective conditions, we can more clearly focus on psychological resistance, silence, sabotage, failed protests, collaboration, and other processes of social change that produce important effects besides altering objective conditions (like economic inequality, electoral success, occupational prestige, or homicide).

Conclusion

In this paper, we interrogated the implicit conceptualization of social change that prevails at present in social psychology. In response to our three critiques of this approach, we proposed a new definition of social change that focuses on behavior in the present, aimed at affecting intergroup power and status. This new definition invites theoretical pluralism while at the same time highlighting an important distinction between the continuous process of social change and the objective conditions that may or may not follow from social change (e.g., equality). In this way, our new definition of social change aims to improve the scientific language used to discuss important issues of

intergroup power and status, as well as (in)equality, roles, group boundaries, and other objective conditions within societies. Precision in language and conceptualization is necessary to precision in theory, research, and application. For instance, our new definition disposes of theoretically ambiguous terms, such as status quo. Because the status quo is time dependent, and a proxy for gross and unfair inequality, its meaning and operationalization are unstable and inconsistent. Terms such as status quo should be defined explicitly in scientific terms if they are to serve as useful constructs in social science.

Defining social change as intergroup behavior has numerous benefits for theory, research, and practice. It suggests at least three new ways to approach the examination of power and status in intergroup relations. First, our definition suggests that theoretical and empirical attention should focus on intergroup behavior – on people’s actions and motivations – rather than on unresolvable epistemological arguments about what is or is not possible. that is, on important action in the present. This definition allows current behavior and motivation to be examined without the burden of knowing or the folly of presuming what consequences the actions may or may not have in the future. Second, the definition and this paper make clear that the possible consequences for objective conditions, such as intergroup inequality, be measured separately but in ways that specify the time scale, relevant frame of reference and metric. Likewise, we invite researchers interested in intergroup inequality and other forms of social organization to consider more deeply the particular metrics used to “indicate” objective conditions, such as GINI, and to consider that these objective conditions have complicated relationships to social psychology. Third, our definition of social change invites integration of theories of

intergroup relations that are often viewed as competing rather than complementary. When integrated or their complementarity is understood, all of these theories can contribute something unique to the study of social change. At present, social identity theory, social dominance theory, and system justification theory address different types of social change in ways that make it difficult to see avenues for integration. By focusing on intergroup behavior in the present, our definition of social change also invites integration of social psychological approaches with other approaches to change within and outside of psychology. By viewing change as a continual process, social psychology should be better able to take advantage of approaches to change in developmental, personality, and organizational psychology as well as approaches to change in the science of living systems and dynamical systems. Social change is an important construct in social psychology; thus, greater precision in its definition and conceptualization is essential to a better understanding of the dynamics of intergroup status and power in society.

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Table 1

Peer reviewed journal articles with “social change” in the title that explicitly define “social change.” The articles that do not explicitly define social change are noted in the References.

Article	Definition
De La Sablonniere, Taylor, Perozzo, & Sadykova (2009)	“Social change refers, by definition, to profound societal transformations that produce a complete rupture in the equilibrium of social structures because their adaptive capacities are surpassed” (p. 325).
Ellemers, van Knippenberg, & Wilke (1990)	“Upgrading the status position of one’s group as a whole” (p. 234).
Hagen (1963)	“a transition from a traditional state to continuing economic development” (p. 31).
Katz (1974)	“The first is change of an individual character which has little reference to groups and social settings...A second type of change is at the opposite end of the picture—namely, a radical change in social structure...A third type of change is also structural but of a reform character...A fourth type of change is cultural. It comprises the behavioral, cognitive, and affective life style of people” (pp. 161-162).
Prislin & Filson (2009)	“Social change or alteration of social structure within a group almost invariably comes from minority influence” (p. 811).
Sanford (1953)	“Changes in social structure” (p. 25).
Subasic, Reynolds, & Turner (2008)	“Traditionally, therefore, within social psychology, social change has been understood to involve a disadvantaged group defining itself as such and seeking to collectively challenge the status quo” (p. 330).
Thomas, McGarty, & Mavor (2009b)	“From our perspective, genuine social change is about redressing social inequality at a group level” (p. 315).

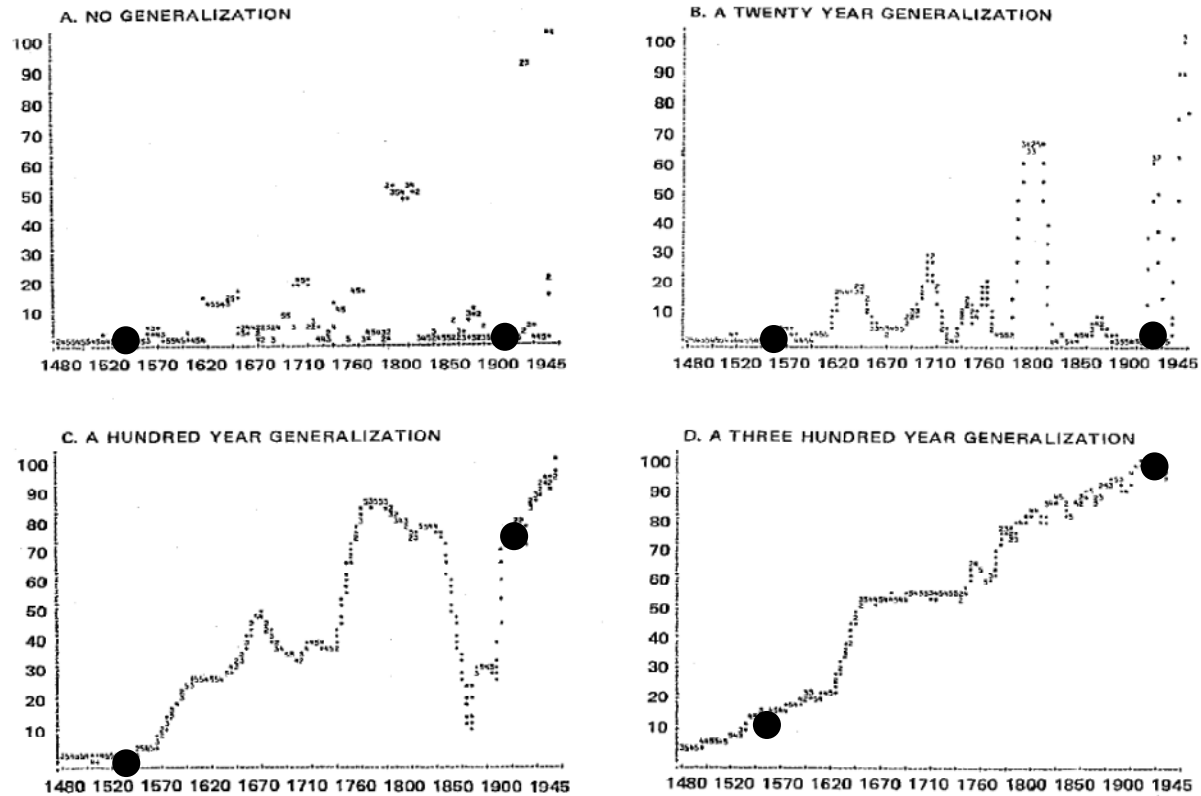


Figure 1. Time series graphs using four different time lags (a) one year, (b) 20 years, (c) 100 years, and (d) 300 years, from Krus and Blackman (1980). The y-axis represents the number of hostilities, and the x-axis represents the year of the hostilities. Black dots represent two time-points: 1530 and 1920.

Chapter 2: Ideological Norms and Intergroup Violence

In this section, I apply the theoretical arguments in the first section to understanding how ideological norms are related to intergroup discrimination and violence. One way I am exploring social change as conceptualized in the previous section is by exploring the dynamics of ideology and intergroup behavior. Norms are important for guiding behavior, and ideological norms are important components of many theories of intergroup relations (e.g., social dominance theory, social identity theory). With few exceptions, very little research on intergroup relations in social psychology have adopted a multilevel approach to examining how ideological norms at a societal or group level affect individual-level ideological beliefs and discriminatory behavior (for an exception, see Sibley & Liu, 2013). Many feminist theories argue that patriarchy, sexist norms, and rape-supportive environments contribute to violence against women, but very little research has tested these predictions (for an exception, see Smith, 1990). Instead most research has focused solely on the individual level demonstrating that sexist men are more likely to perpetrate sexual violence (e.g., Abrams, Viki, Masser, & Bohner, 2003). A multilevel approach is necessary to examine hypotheses concerning the role of ideological norms on violence and discrimination.

Norms have an important place in the history of social psychology. Many of the early studies in social psychology focused on how norms can guide attitudes and behavior (e.g., the autokinetic effect, Sherif, 1937; conformity to group norms, Asch, 1956). Over time, social norms became incorporated into theoretical models of human behavior (e.g., the theory of reasoned action, Ajzen & Fishbein, 1972), and norms research continued to prosper with the introduction of several theories, such as the focus theory of normative conduct (Cialdini, Reno, & Kallgren, 1990), norm theory (Kahneman & Miller, 1986), and the social identity theory of

crowd behavior (Reicher, 1984). Presently, some scholars argue that prejudice and stereotypes are social norms (Stangor & Leary, 2006) or that prejudice and stereotypes are expressed when social norms sanction them (Crandall, Eshleman, & O'Brien, 2002). Many scholars have called for more research on how social norms contribute to intergroup violence and discrimination (Paluck & Shepherd, 2012).

The papers in this section present research examining the consequences of ideological norms for violence, policy attitudes, and discrimination. These studies demonstrate the importance of ideological norms for intergroup behavior and policy attitudes. True to the previous paper, the question of whether these actually bring about greater equality or disintegration of intergroup boundaries is assumed to be a separate empirical question. The first paper presents a small groups experiment examining the effects of agency norms on violence against women. Consistent with research on backlash and discrimination against women in agentic contexts, the experiment demonstrates that women are the primary targets of violence when agentic traits are normative compared to men in the same normative context and women in a feminine context. The second paper presents a multilevel, cross-national study examining when sexist norms predict violent and nonviolent forms of discrimination. Consistent with velvet glove theory (Jackman, 1994), this paper demonstrates that violent discrimination (e.g., domestic violence) occurs more often when sexism is contentious whereas nonviolent discrimination (e.g., opposition to abortion) occurs more often when sexism is normative.

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Paper 2: Violence against Women in Agentic Contexts: A Small Groups Experiment using the
Group Actor Partner Interdependence Model

Women (versus men) in masculine contexts often face immense gender discrimination, including reduced hireability, greater sexual harassment, reduced likeability, restricted organizational advancement, and sexual assault (Berdahl, 2007; Heilman, 2001; Rudman, 1998; Rudman & Glick, 1999). For example, masculine workplace settings (i.e., where there are more men than women present) are often associated with greater sexual harassment against women than feminine workplace settings (Fitzgerald, Drasgow, Hulin, Gelfand, & Magley, 1997). In addition, extreme forms of violence, such as rape, are common in societies where male dominance and control of women are normative and embedded in the cultural practices of those societies (Sanday, 1981). Heterosexual intimate relationships are often guided by gender stereotypes of men as agentic and women as communal, and men's greater power than women (Falbo & Peplau, 1980; Lennon, Stewart, & Lederman, 2012; Overall, Sibley, & Tan, 2011). Consequently, men are more likely to injure their female partners (than women are to injure men) with non-sexual aggression, and women (versus men) are more likely to be injured by their male (versus female) partners (Archer, 2000). Violence against women continues to be an international social problem and can take many forms, such as sexual harassment, stalking, rape, murder, and domestic abuse (Pratto & Walker, 2004). According to the World Health Organization (2013), women are more likely than men to experience intimate partner violence, which is associated with women's poor mental and maternal health.

Decades of research point to the importance of examining agentic norms as a source of violence against women (Heise, 1998; Pratto & Walker, 2004; Schrock & Schwalbe, 2009; Schwendinger & Schwendinger, 1983; Smith, 1990; Stewart, in press; Thompson, Swartout, &

Koss, 2013). Threats to agentic norms, including movement of women into agentic roles, have been linked to violence and aggression (Ahmad, Riaz, Barata, & Stewart, 2004; Cohen, Nisbett, Bowdle, & Schwarz, 1996; Heilman, 2001; Maass, Cadinu, Guarnieri, & Grasselli, 2003; Rudman & Fairchild, 2004). Women may seem to be appropriate targets of violence because of stereotypes that women are socially inferior to men and morally corruptible (Fox, 2002).

Violence against women seems likely to be an effective strategy to lead women to tolerate being dominated because of stereotypes that women are weak, concerned about relationships with others and are therefore coercible and passive (Pratto & Pitpitan, 2008). Further, stereotypes of men suggest that they should be dominant because the stereotypes portray men as strong, as appropriate enforcers of right and wrong, as having the authority to make and the ability to enact decisions, and as efficacious (Bem, 1986; Eagly, 1987; Eagly & Steffen, 1984). In other words, sex stereotypes prescribe that it is appropriate for men, at least in some circumstances, to use violence against women, and that this will be effective towards social goals of enforcing moral norms and the gender hierarchy (Fox, 2002; MacKinnon, 1983).

Although there are studies that may establish the link between gender stereotypic norms and violence against women, they are limited in establishing causality by their correlational nature and by their use of self-report measures. In particular, most measures of violence such as the sexual experiences survey (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2007) or the conflict tactics scale (Archer, 2000; Straus, 1979) are self-report. Measures of violence that are behavioral rather than self-reported often do not involve perpetrating violence against people in person (e.g., the computer harassment paradigm, Maas et al., 2003), because of the obvious ethical concerns. Yet naturalistically, men's violence against women is face-to-face and often against women the perpetrator knows. The present study extends prior

research testing the relationship between agentic norms and violence against women with behavioral measures by using an experiment in which real participants interacted with each other in person, and in which we collected behavioral measures of violence against other players of the game in the game paradigm. We examine violence against other players, both men and women, in the context of a small groups experimental game where participants use different tokens that represent different behaviors or forms of power, including but not limited to violence (Pratto, Pearson, Lee, & Saguy, 2008). Thus, although all participants knew the consequences that use of simulated violence would have on other players, there was no actual physical or verbal violence between participants. Nonetheless, as we will show, the experimental setting was psychologically engaging.

To test whether the presence of agentic norms would increase violence against women players and men players, we did a subtle manipulation of whether agentic or communal traits were normative for each session of the experiment. This condition was randomly assigned, so the experiment can demonstrate causality. We then measured participants' violence against other players in their session as an aspect of their game play. We hypothesized that women will be the primary targets of violence in agency-normative contexts more than in communion-normative contexts, interaction effect between partner gender and experimental condition. The findings of the present research contribute to understanding the etiology of violence against women by using novel methods and measures.

Method

Participants

Participants were 204 undergraduate students, including 129 women and 75 men, who completed the study for partial fulfillment of a course requirement. Participants came to the

laboratory in groups of 4 and there were 51 total sessions. Nine sessions were composed of all women, and one session was composed of all men. Participants played a game in which the goal was to stay in the game or “to survive.” Players could simulate violence and other behaviors directed toward other players in their small groups (Pratto et al., 2008).

Procedure

Game Procedure. Participants were provided with initial game tokens and instructed in the rules of what one could do with each kind of game token. One player picking up a card and responding to the instructions or options on the card stimulated gameplay. Some cards required a particular action or outcome (e.g., giving a particular kind and quantity of token back to the experimenter’s pool), but players also chose their own actions and often could choose how to fulfill a requirement of the card. For example, they could use persuasion, trades, negotiation, or simulated violence to obtain a token from another player. When a player had finished responding to the card and had performed her or his chosen behaviors, the next player drew another card to start her or his turn. Play proceeded in rounds, and extra cards made it impossible for participants to determine which was the last round.

Participants were explicitly told that the object of the game was to stay in the game. In order to stay in the game, players must possess a minimum number of resource tokens. As an enticement not to simply go out of the game to get out of the experiment early, they were instructed that if they did go out of the game, they would still have to remain and watch the other players play without them.

Throughout the game, players used tokens that represent different types of power and interact with the other players or with the experimenter’s pool of tokens, using these tokens according to the rules instantiated each type of power (see Table 1). Four different colors of

tokens (i.e., green, red, blue, and yellow) each represented different types of power (i.e., resources, violence, legitimacy, and obligations, respectively). The tokens allowed us to record actions and accumulated potential power (e.g., the number of green tokens was a measure of resource accumulation, and players could give or take or exchange green tokens in certain circumstances). Most important for the present research, the game allows players to use simulated violence against other players (see Pratto et al., 2008 for validation of the game method), but this is neither required to “survive” (remain in) the game, nor is it the only kind of influence a player could have against others.

Participants were never told what the colored tokens represented theoretically or in terms of the type of power they represented because they were referred to by color and using neutral verbs (see Pratto et al. 2008). For our readers, we summarize how each type of power was instantiated in the game. Green tokens represented resources (e.g., money), and players could trade resource tokens for other types of tokens (e.g., buying other tokens). If players drew a card labeled with a “???” any player who had fewer than three resource tokens went out of the game. Blue tokens represented social standing or respect among the other players, and the only way that players could receive (or lose) legitimacy tokens was if the majority of players voted for the player to receive (or lose) a legitimacy token. Yellow tokens represented committed social relationships with others that required ongoing obligations to be fulfilled. These tokens were individualized with a player’s letter written on each yellow token. If Player H had another Player I’s obligation token, then Player I had to give Player H a resource token after her or his turn. Obligation tokens represent an ongoing commitment of resources to another particular player.

Most importantly for the present study, red tokens represented violence, and their use depended on relative “strength.” For example, if Player H had at least three more violence tokens

than Player I, then Player H could take all but one of Player I's tokens except for Player I's blue tokens. This use of violence dramatically disempowered the victim player. Using violence against another player simulated the consequences violence and abuse has on victims. Victims of simulated violence (a) lost virtually all of their resources, which put them at risk of going out of the game (i.e., not surviving) and (b) lost virtually all of their social connections to other players. Our operationalization of violence therefore simulated some of the actual consequences of violence for its victims in the real world. In a previous validation of the game method (Pratto, Pearson, Lee, & Saguy, 2008), participants gave examples from real life that corresponded to the colored tokens they used in the game. For using red tokens, participants equated this behavior with violent actions. For example, participants stated that a real-life analogy to using red tokens was "war—whoever has power takes away things" (Pratto et al., 2008, p. 390). Thus, for participants, using red tokens was analogous to using violence in real life, such as war. Consequences of using violence in the game were economic and social disempowerment.

To more clearly illustrate how the game was played, we describe an example turn. Player H begins his turn by drawing a card from the center of the table. The card instructs Player H to obtain a green (resource) token from another player. Player H may then ask any other player for a green token, and that player is free to comply or refuse. Or Player H may offer something to another player, such as a promise of future aid or more formally, a yellow (obligation) token, in exchange for being given a green token. Again, in this circumstance, the other players are free to decide whether to accept Player H's offer or to negotiate or discuss this with Player H. However, if Player H has 3 more red tokens than Player J, Player H can decide to use his red (violence) tokens against Player J, taking any of Player J's green (resource), red (violence), and yellow (obligation) tokens, save one. When Player H chooses to use violence, Player H is exercising

near absolute control such that Player J has no choice, harms Player J greatly by disempowering Player J, and exhibits little respect for Player J's wellbeing or autonomy. Any of these choices Player H could make follow the rules of the game and the card's instructions, but the choices have vastly different consequences for the relative power among the players and potentially for what future possibilities they anticipate as they continue to try to "survive" in this ecology.

Experimental Procedure. When participants arrived at a game session, they were asked to take a seat around a table (see Figure 1 for a depiction of the setup). Players were randomly assigned player identification letters (i.e., H, I, J, or K), which determined the order of turns they took during the game. Before the game started, the experiment explained that they would first take a personality test to give everyone an idea of the other players' personalities. Participants were escorted to individual computer cubicles to complete a bogus "personality test." After completing the test, participants were escorted back to the table and waited approximately 10 minutes while the computer was ostensibly computing the results. Participants then received a feedback sheet with their personalized results. All participants privately read the exact same false feedback about their own personality, which indicated that they had a balanced mixture of some communal and some agentic traits.

The feedback sheet also summarized a (bogus) research study, by which we manipulated agentic or communal norms. Participants read the following:

In 2008, the Pew Research Center in Washington, D.C. (a think-tank that provides information on the issues, attitudes and trends shaping the United States and the world) randomly sampled over 2,300 people and asked them to rate the following personality attributes on the extent to which they viewed each characteristic as

something to be liked and respected in a person. Their main finding was that most people like and respect individuals who are [insert agentic or communal traits].

In 26 sessions (104 participants), participants were told that agentic traits (i.e., “independent, achievement-oriented, and leaders”) were liked and respected by most people (i.e., the agency-norm condition), and in 25 sessions (100 participants), participants were told that communal traits (i.e., “caring, considerate of others, and relationship-oriented”) were liked and respected by most people (i.e., the communion-norm condition).

For each session, two experimenters were present. One experimenter explained the rules of the experimental game, managed the game play, enforced the rules, answered questions, and oversaw the general management of the game. Sheets summarizing rules were provided to each participant, which they could reference throughout the game. The second experimenter, called the recorder, recorded the game actions participants took that occurred throughout the game (e.g., movement of tokens to players, actions taken, end of game token total, when players went out of game).

Participants then played the game. Player H began and players took turns in rounds alphabetically. The median game lasted for 44 turns, viz., 11 rounds with 4 players taking one turn each round. On each turn, the player drew a card, which offered an option or requirement to the player concerning particular game tokens or other player(s). Players had high choice over how to accomplish the requirements of the event cards so long as they followed the game rules. The game ended after 44 turns (11 rounds) or after 1.5 hrs. elapsed, whichever came first. Players were then given a packet of questionnaires of how their session felt to them, and their impressions of the other players, debriefed, and thanked for their time and participation.

Measures

Manipulation Check. Participants rated how normative agency or communion was for their particular session of the game by rating the following items: “The session was very competitive,” “It was like sports,” “You had to earn what you got,” and “This session was welcoming,” on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). They also rated their particular session on how worried they were about surviving. Participants rated the statement “I worried I would go out” on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Gender Stereotypes. In a round robin design (Kenny & La Voie, 1984), participants rated each participant in their session, including themselves, on three agentic and three communal traits. Agentic traits were *competitive*, *independent*, and *strategic* ($\alpha = .80$), communal traits were *helpful*, *concerned for others*, and *understanding* ($\alpha = .85$). Participants rated how much they agreed that the traits described each player from 1 (*strongly agree*) to 7 (*strongly disagree*).

Simulated Violence. During the game, the recording experimenter recorded how many times a player used simulated violence, as described previously, against any other player, which we summed.

Results

Manipulation Check

As a manipulation check of the gendered norms, we analyzed how participants felt about their particular sessions by conducting multilevel models (because participants at level 1 were nested within groups at level 2) with participants’ ratings of their sessions at level 1 and the experimental condition (i.e., agency or communion norm) at level 2. Participants in the agency-norm condition (vs. the communion-norm condition) were more likely to rate their particular session as being like sports, $t(46) = -2.43$, $p < .05$, $d = 0.72$, and marginally more competitive,

$t(46) = -1.72, p < .10, d = 0.50$. Players also reported that they had to earn what they got (i.e., meritocratic ideology) marginally more in the agency-norm condition than in the communion-norm condition, $t(46) = -1.76, p < .10, d = 0.50$. Finally, players reported that the session was marginally less welcoming in the agency-norm condition than in the communion-norm condition, $t(46) = -1.97, p < .10, d = -0.58$. Participants in the agency-norm condition also reported that they were more likely to be worried about going out of the game (i.e., not surviving), $t(46) = -2.12, p < .05, d = 0.63$. These results demonstrate that the groups in the agency-norm condition were experienced as contexts in which winning, losing, and not surviving were more a concern than in communion-norm condition. Moreover, these effect sizes are moderate to large. These results suggest that our manipulation successfully varied how agentic or communal each session was experienced.

It is important to note that the researchers were mindful of potential experimental demand. To mitigate experimental demand, the researchers never used words such as “competition” or “aggression” to characterize the game in any experimental condition. Instead, fairly positive agentic traits were used to manipulate masculinity norms, viz., leaders, independent, and achievement-oriented. Further, the researchers never mentioned gender to the participants, except at the end of the study when we collected demographic information. Finally, the researchers conducted a verbal debriefing with all participants, and no participants reported suspicion of the experimental manipulation or knowledge of the hypotheses of the experiment. Thus, we are confident that the findings of the present study are not due to experimental demand, but to a collective awareness of what traits were normative in the group.

Primary Analysis Strategy and Results

Because participants are nested within game sessions in our design, we use the group actor partner interdependence model for dyadic outcomes (GAPIM-D; Kenny & Garcia, 2012) in order to estimate the effects of our experimental manipulation on simulated violence and to control for dependence among participants in the same session. Our primary outcome variable (i.e., simulated violence) was dyadic by nature because the behavior involved one actor using simulated violence against one partner. It is important to control for dyadic similarity (i.e., whether the actor was the same gender as the partner) because we have a dyadic outcome variable. Thus, in our analyses, we included an effect-coded categorical variable that indexed whether the actor and partner were the same gender (indicated by a '1') or different gender (indicated by a '-1').

We conducted our analyses using PROC GLIMMIX in SAS version 9.3 because it affords the appropriate analyses of our outcome measure. Our outcome variable of interest is the use of red tokens (i.e., simulated violence), which is a discrete variable that follows a negative binomial distribution. We used a negative binomial distribution with a log link function instead of a Poisson distribution because the data were vastly overdispersed ($M = .13$, $SD = .42$), and the negative binomial distribution contains an additional parameter that allows for the variance to be assessed independent of the mean, whereas the Poisson distribution assumes that the mean and variance are equal. In terms of parameter estimation, we used a pseudo-maximum likelihood estimation technique that uses Taylor series expansions to identify the parameter approximation. The expansion locus for the Taylor series expansion was the mean of the random effects. We estimated a generalized linear mixed model using the aforementioned estimation properties in SAS; degrees of freedom were calculated with the Satterthwaite method.

Our analyses estimated a variety of random (Table 2) and fixed effects (Table 3) that are typical of statistical analyses of small groups (Kenny, Mannetti, Pierro, Livi, & Kashy, 2002). We estimated a random effect for actor, that is, differences among actors in their simulated violence, and a random effect for partner, that is, differences among partners who were targeted for simulated violence. We also estimate a random effect for dyad, that is, differences among particular pairs of actors and partners in how much simulated violence is used. Finally, the GAPIM can estimate a random effect for the sessions, that is, differences among game sessions in how much violence is used; however, in our data, the group or session random effect was virtually non-existent and was removed from the analyses. In addition to these random effects to control for dependence in the outcome variable, we estimated fixed effects, which were all effect-coded, including actor gender (men = 1, women = -1), partner gender (men = 1, women = -1), experimental condition (agency-norm = 1, communion-norm = -1), and dyadic similarity (same gender dyad = 1, different gender dyad = -1). Finally, we included three interaction effects: the interaction between actor sex and experimental condition, the interaction between partner sex and experimental condition, and the interaction between actor sex, partner sex, and experimental condition. The interaction between actor sex and experimental condition was not statistically significant, $b = .15$, $SE(b) = .15$, $t(31.6) = 1.03$, $p = .31$, and the three-way interaction between actor sex, partner sex, and experimental condition was also not statistically significant $b = .05$, $SE(b) = .14$, $t(17.9) = .37$, $p = .72$. For parsimony and estimation simplicity, these two nonsignificant interaction terms were removed from the final model. However, we retained the interaction between partner sex and experimental condition, which allow for us to test whether the rates women were targets of simulated violence differed by experimental condition, as well as the main effects.

Random effects are presented in Table 2. We observed statistically significant actor variance, which indicates that some people were more likely to use violence than other people, but we did not observe statistically significant partner variance, which means that particular individuals in a session were not singled out for violence over other players within each session. It is important to note that these random effects were calculated simultaneously with the fixed effects, so they must be interpreted in this context. The lack of partner variance may exist because the fixed effects accounted for partner variance.

Fixed effects are displayed in Table 3. Dyadic similarity in terms of player gender was not a statistically significant predictor of violence use. We observed marginally statistically significant main effects of actor sex and condition. Men were marginally more likely to use simulated violence than women, and simulated violence was marginally more likely to be used in the agency-norm condition than the communion-norm condition. There was no statistically significant main effect of partner sex. The main effect of experimental condition, however, was qualified by the expected statistically significant interaction between partner sex and condition (see Figure 2).

Through re-centering the predictor variables, we conducted simple effects analyses. Female participants in the agency-norm condition ($M = .19$) were targeted for simulated violence more than female participants in the communion-norm condition ($M = .07$), $b = .52$, $SE(b) = .17$, $t(408.2) = 3.14$, $p < .01$. Female participants in the masculinity-norm condition ($M = .19$) were also targeted for simulated violence marginally more than male participants in the masculinity-norm condition ($M = .12$), $b = -.28$, $SE(b) = .16$, $t(261.2) = -1.76$, $p = .08$. In sum, when agentic traits were normative in the game context, women were the primary targets of simulated violence, compared to men in the same condition and women in the communion-norm condition.

Gender Stereotype Ratings

To analyze the gender stereotype ratings, we conducted a social relations analysis (Kenny & La Voie, 1984) using Proc Mixed in SAS version 9.3. We conducted separate analyses for agentic and communal trait scales, where we specified actor, partner, and group as random effects along with dyadic similarity, actor sex, partner sex, experimental condition, and the interaction between partner sex and experimental condition as fixed effects.

For the random effects of communal traits, we found statistically significant actor variance, $s^2 = .23$, $SE(s^2) = .08$, $z = 3.00$, $p < .01$ (i.e., some participants were more likely to rate others as communal than other participants), partner variance, $s^2 = .50$, $SE(s^2) = .010$, $z = 4.81$, $p < .001$ (i.e., some participants were more likely to be rated as communal than other participants), session variance, $s^2 = .16$, $SE(s^2) = .10$, $z = 1.70$, $p < .05$ (i.e., some sessions had higher communal trait ratings than others), and dyadic/error variance, $s^2 = .84$, $SE(s^2) = .10$, $z = 8.60$, $p < .001$. We did not find statistically significant generalized reciprocity, $s^2 = .10$, $SE(s^2) = .08$, $z = 1.22$, $p = .22$ (i.e., covariance between actor and partner ratings or whether communal actors were more likely to rate partners as communal). For the random effects of agentic traits, we found statistically significant actor variance, $s^2 = .27$, $SE(s^2) = .06$, $z = 4.51$, $p < .001$, partner variance, $s^2 = .63$, $SE(s^2) = .09$, $z = 6.66$, $p < .001$, and dyadic/error variance, $s^2 = .70$, $SE(s^2) = .08$, $z = 8.66$, $p < .001$. We did not find statistically significant generalized reciprocity, $s^2 = -.08$, $SE(s^2) = .05$, $z = -1.62$, $p = .11$, and group variance was nonexistent, $s^2 = 0$.

For the fixed effects of communal traits, the only statistically significant effect was partner sex, $b = -.33$, $SE(b) = .07$, $t(186) = -4.46$, $p < .001$. The effects of dyadic similarity, $b = .03$, $SE(b) = .05$, $t(202) = .63$, $p = .53$, actor sex, $b = -.01$, $SE(b) = .06$, $t(178) = -.10$, $p = .92$, experimental condition, $b = -.03$, $SE(b) = .10$, $t(48.5) = -.35$, $p = .73$, and the interaction between

experimental condition and partner sex, $b = -.08$, $SE(b) = .07$, $t(173) = -1.05$, $p = .30$, were not statistically significant. For the fixed effects of agentic traits, again, the only statistically significant effect was partner sex, $b = .35$, $SE(b) = .07$, $t(192) = 4.86$, $p < .001$, indicating that men were perceived to be more agentic than women. The effects of dyadic similarity, $b = -.01$, $SE(b) = .04$, $t(169) = -.35$, $p = .72$, actor sex, $b = -.09$, $SE(b) = .05$, $t(180) = -1.64$, $p = .10$, experimental condition, $b = .08$, $SE(b) = .08$, $t(206) = 1.08$, $p = .28$, and the interaction between experimental condition and partner sex, $b = .09$, $SE(b) = .07$, $t(188) = 1.25$, $p = .21$, were not statistically significant. These results indicate that the experimental manipulation did not affect gender stereotype ratings of male and female participants, and the gender stereotype ratings of male and female participants did not differ by condition. Male and female participants were stereotyped similarly across experimental conditions.

Discussion

Violence against women is prevalent in many societies, and is mainly theorized to be linked to gender stereotypes and cultural norms that privilege the stereotypic ideals for men of agency. But examining norms as causes of anything is quite challenging. Archival studies of violence against women (e.g., Sanday, 1981; Locke & Mahalik, 2005) have difficulty establishing causality, and experimental studies on violence against women are constrained by ethical considerations of refraining against allowing actual violence against actual people in order to measure it. To maintain ethical standards, behavioral experimental studies on the causes of violence against women do not allow participants to interact with actual people and to use violence against actual interacting partners (e.g., Maas et al., 2003). To tackle the important question of violence against women from a different empirical angle, the current study relied on experimental methods using a behavioral measure of violence against actual other people in

person. Past research has demonstrated that our measure of violence is recognized as violence, lending to its construct validity (Pratto et al., 2008). Further, the measure of violence we used had consequences that are similar to real-world violence, including risk of mortality and loss of social connections to other people. Our study therefore extends and complements prior research by measuring real and public behavior that served as violence in the game context, in which participants had high choice over how to behave, and when their goal had nothing to do with violence nor even achievement. In the In Game, after all, one cannot “win” by beating others, but one can lose by resource deficits (what prior participants likened to “starvation” and “bankruptcy,” Pratto et al., 2008). Moreover, the possibilities for violence took place within a busy context where many other kinds of power were operational. Importantly, participants had to enact violence and other kinds of power in an interpersonal setting, and could therefore anticipate violence being used against them and others. We believe that the present study has implications for theory and future research, including why agency norms lead to violence against women and new methods for studying violence.

The present experiment examined the effect of agency norms (versus communion norms) on people’s choices of whether to use violence with equal numbers of men and women present in a small groups experiment using a behavioral measure of simulated violence. Although the violence done in the game did not cause bodily harm, it did curtail the victims’ agency and ability to thrive in the context of the game. Using the group actor partner interdependence model (Kenny & Garcia, 2012), we found that women were the primary targets of violence when agency was normative, compared to female targets when communion was normative and marginally for men targets when agency was normative. We also found that gender stereotyping was similar across experimental conditions where men were stereotyped as agentic and women

were stereotyped as communal, so the violence results were not due increased gender stereotyping in the masculinity versus femininity norm conditions, which has been proposed to lead to discrimination (Cuddy, Fiske, & Glick, 2007). This finding suggests that the agentic normative context caused women to be the targets of violence and was not confounded with gender stereotyping.

Why Agency Norms Lead to Violence against Women

There may be several processes by which agency norms may lead to violence against women. First, in masculine contexts, people who are perceived to be non-normative (i.e., feminine) are more likely to be punished for their normative deviance (Festinger, 1950; Heilman, 2001). In gender relations, backlash theory (Rudman, 1998; Rudman, Moss-Racusin, Glick, & Phelan, 2012) argues that counter-stereotypical behavior often produces backlash in others (i.e., penalties for violating people's expectations), with the effect of reinforcing cultural stereotypes. In our study, female participants were stereotyped to be communal, so when agency was normative, they may have been targeted for discrimination for violating the normative expectations in their groups. This explanation is consonant with past research on prescriptive and descriptive gender stereotypes that foment violence and discrimination against women in masculine contexts (Berdahl, 2007; Fitzgerald et al., 1997; Heilman, 2001).

Taking this explanation one step further, it is possible that women in the agency norm condition may have been attempting to conform to the masculine norms that suggested that displaying agentic traits would help them be successful in the game. If this were true, then women who were attempting to be agentic in the agency norm condition may have been penalized for acting in counterstereotypical ways. Thus, women who were stereotyped as communal were violating descriptive and prescriptive stereotypes associated with their group

membership merely by existing in an agentic normative context (Heilman, 2001). The findings from the present study are consistent backlash theory and work on prescriptive and descriptive gender stereotypes. Further, in line with the masculinity norms that prescribe cut-throat and competitive behavior, we found that there was more violence in the agentic norm condition than the communal norm condition, which was due to increased violence against women in the agentic norm condition.

This explanation, however, may also have predicted that communal men would be targeted for violence in the agency-norm condition (i.e., backlash against communal men; Rudman & Mescher, 2013). We, however, did not find evidence of backlash against communal men, but this may have been due to the amount of stereotyping that occurred in experiment. Men were viewed as more agentic than women, so in this sample, very few men were seen as communal, limiting our ability to test backlash against communal men. Because our participants were interacting with each other for the first time, gender stereotypes may have dominated their perceptions of each other (Kenny, 2004), and therefore, few men were perceived to be communal by their fellow group members. We also did not find backlash against men in the communal condition. As indicated by participants' ratings of their sessions, participants in the communal condition felt the sessions were more welcoming, less competitive and cut-throat, and they were less worried about their survival in the game. Thus, communal sessions were subjectively more positive, so discrimination against norm violators may not have been considered an option. Future research can continue to explore how backlash against communal men occurs (for a review, see Rudman, Moss-Racusin, Glick, & Phelan, 2012).

Second, men may target women for violence because gender stereotypes of women or men's relationships to women and men may reinforce the view that women are subordinate and

should be subordinated (Berdahl, Magley, & Waldo, 1996). Berdahl et al. (1996) found that sexual harassment against women occurs in order to reinforce women's subordinate status in the workplace. Thus, in agentic contexts, such as the workplace (Heilman, 2001), men target women for violence in order to reify their lower perceived status and subordination relative to (agentic) men. The present experiment did not measure these more specific traits that comprise other gender stereotypes (e.g., weak), so future research can examine gender stereotypes in a more nuanced way than the present study. These explanations of the present experiment's findings can be explored in future research.

New Methods for Studying Violence

The present study also used a novel method of examining violence in the laboratory. Past research has validated the use of this method for studying violence, providing construct validity for the use of red tokens as a form of violence (Pratto et al., 2008), and the present study demonstrated that the game method could be used to study discrimination in intergroup relations with actual groups of interacting people. In our study, we were able to replicate provocation effects in human aggression research (Anderson & Bushman, 2002; Berkowitz, 1993), demonstrated by statistically significant actor/partner covariance in simulated violence use. This finding provides evidence that our measure of violence was an adequate operationalization of violence.

Further, many researchers have called for using more behavioral measures in social psychological research rather than using self-report measures or computer tasks (Baumeister, Vohs, & Funder, 2007). Most research on violence against women use computer tasks (e.g., Maas et al., 2003) and/or self-report questionnaires (e.g., Archer, 2000; Koss et al., 2007). The present study used a behavioral measure that complements the existing literature on violence

against women. Future experimental research should continue to use behavioral measures of violence (aside from actual violence) with actual dyadic partners in order to improve the external validity of those studies and to sidestep many of the shortcomings of questionnaire measures (e.g., social desirability; White, Smith, Koss, & Figueredo, 2000).

The present study also used the newly developed group actor partner interdependence model (Kenny & Garcia, 2012) to study violence in intergroup relations. Very few studies in the intergroup relations literature have used group data to test theories and hypotheses (see Boldry & Kashy, 1999), so the study presented has applied this method in a novel way. Because our participants interacted with each other in groups of four, we were able to assess use of violence in a social way. When participants were deciding to use violence, they were targeting an actual person with whom they had interacted and could potentially retaliate. Thus, there were real social costs with using violence in our experiment, so participants may have used violence sparingly, closely matching situations outside of the laboratory.

Limitations and Future Directions

The present experiment has several limitations that could be addressed in future research. First, the experiment did not have a control condition where no norms were introduced, so we do not know have a non-normative baseline to compare our experimental conditions to. We could make the argument that the U.S. is an individualistic country, so participants are used to agentic norms in their everyday lives. They may enter the experiment with these norms in mind, which would compare similarly to the agency-norm condition in our experiment. However, this idea is conjecture, and future research could replicate our experiment with a non-normative control condition. Second, although we measured violence using red tokens, we are not sure toward what form of violence against women this measure generalizes. There are many forms of violence

against women (e.g., rape, battery, intimate partner violence, sexual harassment). However, feminist theories (e.g., MacKinnon, 1983) argue that patriarchy and androcentrism underlie all forms of violence against women, so their causes under this theoretical framework may be similar. Violence against women may differ depending on the social context. We may observe sexual harassment at work and domestic violence at home. We did not define the social context of the experiment for participants, so our measure of violence was general, which does not necessarily follow from feminist theories of violence against women. Future research could add conceptual clarity to our measure of violence against women. A third limitation and future direction relates to the gender composition of the small groups. We sometimes argued that male-dominated contexts lead to violence against women (e.g., Fitzgerald, Drasgow, Hulin, Gelfand, & Magley, 1997), but our groups' gender composition was not directly manipulated. The gender composition was merely the result of who signed up for which sessions. Future research can further clarify the influence of gender composition on violence against women.

Conclusion

Violence against women continues to affect the lives and well-being of countless people around the world, and understanding its causes has been a priority among social psychological investigations of gender relations. The present study contributes to this literature by examining the effect of agency norms on violence against women in a small groups experiment. Future research can investigate the mechanisms that facilitate the influence of masculinity norms on violence against women, perhaps using backlash theory or gender stereotyping theories as their guiding framework.

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Table 1

List of token types and associated meanings and behaviors

Token	Meaning	Behavior
Violence	Use of violence against another player	Use three violence tokens to remove all of target player's tokens except for one of each
Resource	Amount of resources player possesses	Use resource tokens to purchase other tokens or to trade to other players
Obligation	Dyadic interdependence	Use obligation tokens to become dependent upon another player for resources
Social Status	Prestige and respect gained from other players	Players nominate other players to receive social status tokens or to remove social status tokens, which increases the number of actions the player can take

Table 2

Variance components from social relations analysis for use of simulated violence as the dependent measure

Parameter	Variance	Standard Error
Actor	1.13*	.19
Partner	.05	.18
Dyad & Error	.52	

Note. * $p < .05$.

Table 3

Fixed effects estimates from social relations analysis for use of violence as the dependent measure

Effect	<i>b</i>	SE(<i>b</i>)	<i>t</i> (<i>df</i>)	<i>p</i>	<i>e^b</i>
Intercept	-2.15	.14	-17.91 (287.4)	<.01	.12
Dyadic Similarity	.00	.13	.00 (384.4)	1.00	1.00
Actor Sex	.25	.14	1.84 (412.5)	.07	1.28
Partner Sex	.00	.12	.02 (277.8)	.98	1.00
Condition	.25	.14	1.71 (298.2)	.09	1.28
Partner Sex*Condition	-.25	.12	-2.15 (288.7)	.03	.78

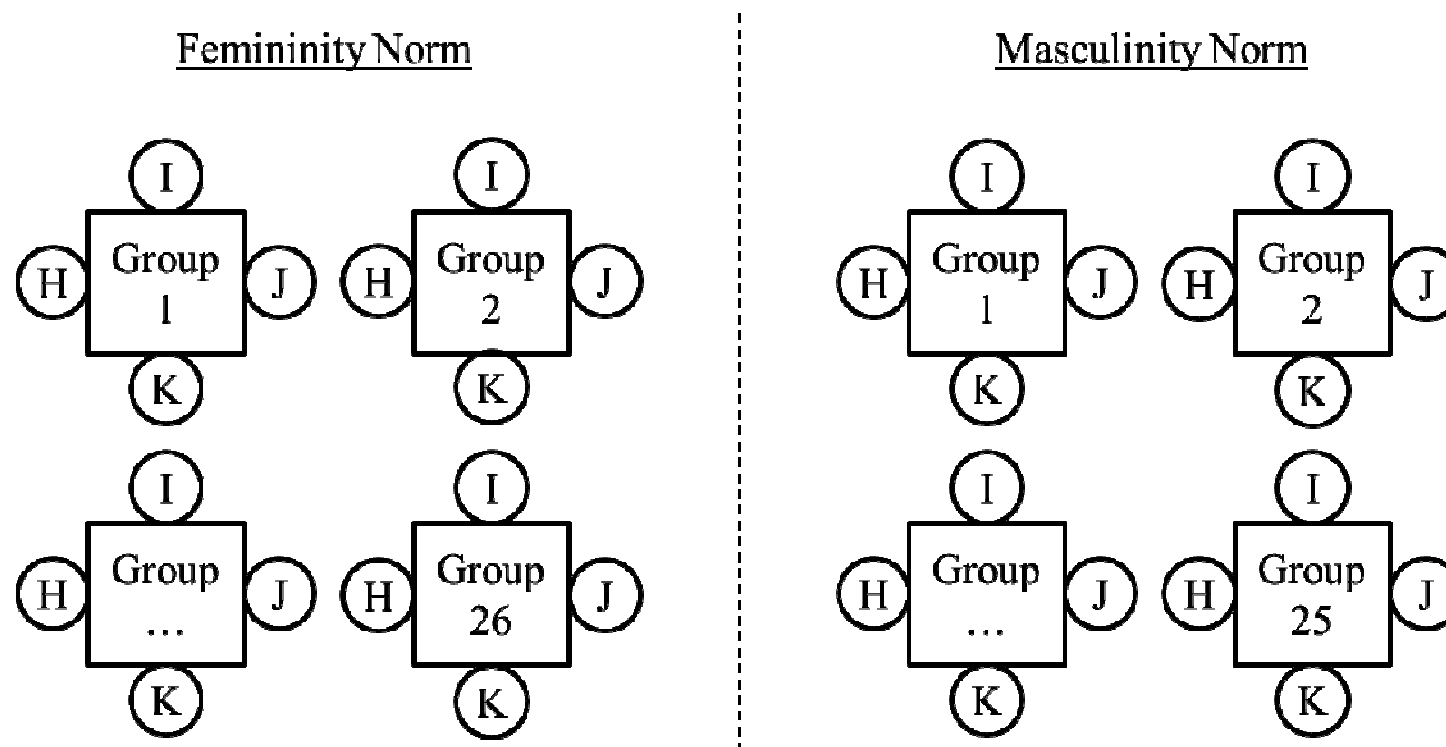


Figure 1. Experimental design.

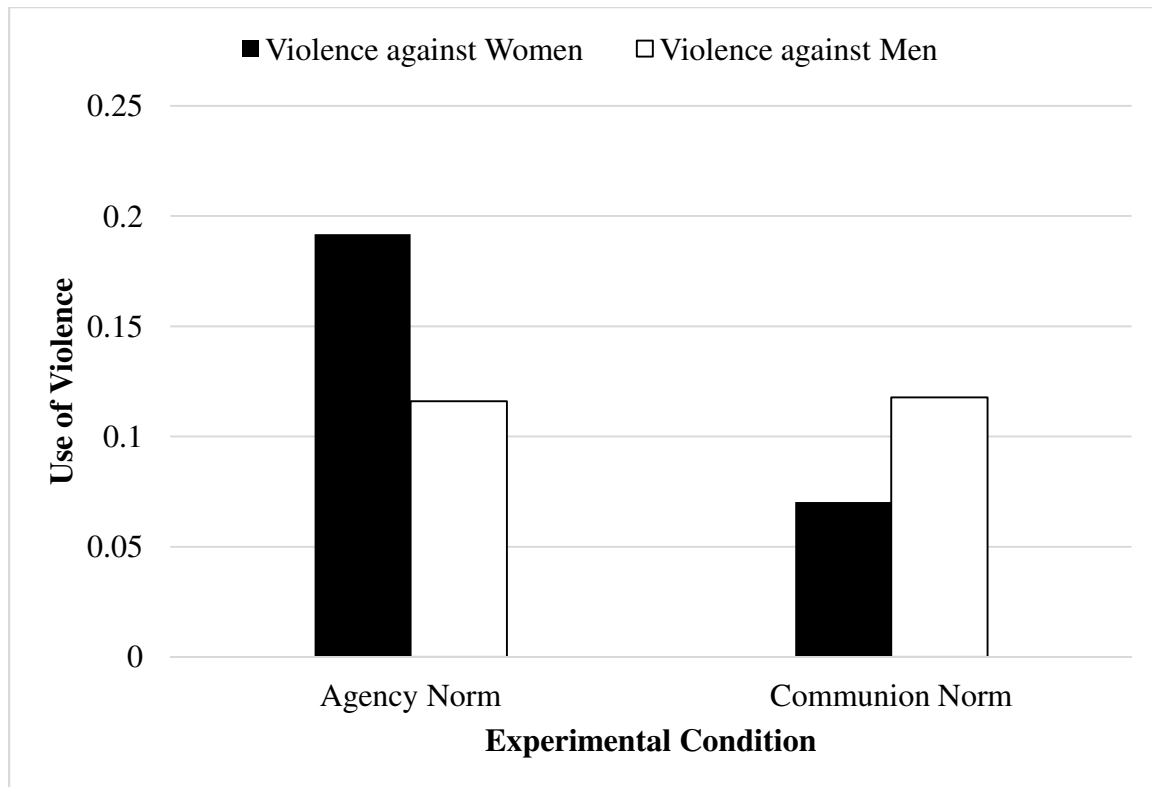


Figure 2. Predicted average number of times women and men are targets of violence by experimental condition.

Paper 3: Sexist Beliefs and Norms: Ideological Foundations of Violent and Nonviolent
Discrimination against Women

According to social dominance theory (Sidanius & Pratto, 1999, p. 103), there are two primary ways that dominant groups maintain their hegemonic position over subordinate groups in unequal societies: (a) controlling ideologies that legitimize the dominant group's social position and the social discourse that propagates those ideologies and (b) threatening and/or using violence against subordinate groups (Gramsci, 1930/1992; Jackman, 1994, p. 59; Sidanius & Pratto, 1999, p. 103). For a variety of reasons, from the perspective of dominant groups, controlling the content of specific ideological beliefs and normalizing those ideologies across people in a society is preferable to using violence in order to maintain group-based social hierarchies (Sidanius & Pratto, 1999, p. 103). First, when dominants use violence, they may provoke backlash from subordinates and risk harm to themselves (Sidanius & Pratto, 1999). Second, the usefulness of subordinates to dominants is greatly diminished when subordinates are severely harmed or incapacitated by violence (Jackman, 1994; Sidanius & Pratto, 1999). Third, when dominants use violence, their dominant social position loses legitimacy if such violence is morally condemned (Bachrach & Baratz, 1970; Jackman, 1994). As such, the two dominant strategies (i.e., using violence and normalizing dominant ideology) are inversely related, viz., when dominant ideologies are normalized, violence is not needed to maintain dominance. Normalizing ideologies is a more effective strategy to stabilizing intergroup inequality than using violence because using violence is a high risk strategy (Bachrach & Baratz, 1970; Jackman, 1994; Sidanius & Pratto, 1999). We call this the *ideology/violence tradeoff*. The present paper will contrast the ideology/violence tradeoff, which predicts a negative relationship between

sexist norms and violence against women, to feminist theories, which predict a positive relationship between sexist norms and violence against women.

Applying the ideology/violence tradeoff to gender relations, sexist beliefs and norms permeate social systems that contain gender discrimination and inequality (Glick, Fiske, Mladinic, Saiz, Abrams, Masser, et al., 2000; Sidanius & Pratto, 1999). Sexist beliefs, at a general level, refer to the belief that women are (economically, politically) inferior to men (Glick & Fiske, 1996), and sexist norms refer to agreement among people in a society about sexist beliefs (Sidanius & Pratto, 1999). Nonviolent forms of gender discrimination are extensive (Sidanius & Pratto, 1999). Denying women's reproductive freedom is one key site of nonviolent discrimination and the social control of women (Dodoo & Frost, 2008). Denying reproductive freedom violates the 1968 United Nations Proclamation of Teheran, which stated that "couples have a basic human right to decide freely and responsibly the number and spacing of their children and a right to adequate education and information in this respect" (p. 15). In one study of college students in the U.S., men were more likely to believe that men should have the right to prevent their female partners' abortions, whereas women believe that they should have the sole right to make a decision to have an abortion (Patel & Johns, 2009). Research has demonstrated that sexist beliefs underlie people's opposition to abortion (Dodoo & Frost, 2008; Osborne & Davies, 2012). In Sub-Saharan Africa, men often control fertility decisions for women, and men's authority over women in intimate relationships provides the backdrop to fertility decisions such as abortion (Dodoo & Frost, 2008). Further, endorsing hostile and benevolent sexist beliefs predict individuals' opposition to abortion (Osborne & Davies, 2012). Because denying reproductive freedom is a nonviolent form of gender discrimination, sexist beliefs and norms promote this form of discrimination is a form of social control to subordinate women.

Violent discrimination against subordinate groups, including women, is also common around the world (Jackman, 2002). Gender relations are rife with men's violence against women (Pratto & Walker, 2004). According to the World Health Organization (2013), "35% of women worldwide have experienced either physical and/or sexual intimate partner violence or non-partner sexual violence" (p. 2). Most violence against women globally occurs in the context of intimate relationships with 30% of women experiencing violence by their intimate partners (World Health Organization, 2013). In Jordan, virtually all women in one sample reported experiencing violence in the past 12 months (Al-Badayneh, 2012). In South Africa, it has been estimated that a rape occurs every 23 seconds, and a third of young girls in Johannesburg have experienced sexual violence at school (Peacock & Levack, 2004). Lifetime experience of intimate partner violence is high in nations around the world ranging from 15% to 71%, depending on the nation (VanderEnde, Yount, Dynes, & Sibley, 2012).

The present paper explores when sexist beliefs lead to violent or nonviolent forms of discrimination, depending on the normative context within a nation (i.e., whether sexist beliefs are tight or loose; Gelfand et al., 2011). To examine this, we test contradictory predictions from two theoretical traditions on the relationship between ideology and violence, namely the ideology/violence tradeoff position and feminist theories of men's violence against women. The ideology/violence tradeoff as described earlier argues that when dominant and oppressive ideologies such as sexism are normative, violence is not needed as a strategy to maintain dominance. Theoretically, if all people in a society agree that women are inferior to men, no one will question or challenge gender inequality. Violence against women occurs only when sexist beliefs are contentious in a society. Feminist theories argue that sexist norms foment violence against women; thus, there is no tradeoff between using violence and how normative sexism is.

Both theoretical approaches argue that sexist beliefs are functional (as opposed to arbitrary), viz., sexist beliefs and norms are created and propagated in order to dominate subordinated genders, such as women. Although sexist norms may be arbitrary and may not necessarily be used as tools of oppression, the theoretical traditions we explore in this manuscript does treat sexist beliefs and norms as functional for dominant group members maintaining their dominance. We now describe each theoretical tradition's approach to understanding the relationship between sexist norms and violent and nonviolent gender discrimination.

Feminist Theories and Discrimination against Women

Feminist theories argue that patriarchy and the normative devaluation of women relative to men underlie violence against women (Al-Badayneh, 2012; DeKeseredy, 2011; Dobash & Dobash, 1979; Heise, 1998; Smith, 1990; Yodanis, 2004). Patriarchy refers to (a) a social structure where men have more (economic, political) power than women and (b) an normative (or tight) ideological system where men are believed to be superior to women among many people in a society (i.e., where sexist beliefs are normative). Although there are many varieties of feminist theory (e.g., Marxist, radical, liberal; Smith, 1990), they all agree that patriarchy (including ideological patriarchy) underlies men's violence against women. For example, Marxist feminists argue that violence against women occurs at the highest levels in capitalist societies where gender inequality is largest (Schwendinger & Schwendinger, 1983). Complementing Marxist feminism, social role theory argues that the gendered division of labor creates socially shared gender stereotypes of men and women (Eagly & Steffen, 1984), and women's non-waged work is devalued in capitalist systems for being viewed as unable to contribute to capitalist institutions (Heilman, 2001). Some feminist scholars argue that male power and privilege forms the foundation for violence against women (MacKinnon, 1989). Thus,

while different feminist theories disagree about the origins, transmission, and prospective termination of patriarchy, they all agree that (ideological) patriarchy promotes violence against women (Smith, 1990). Sexist beliefs and norms that permeate social systems can provide the ideological foundation for violence against women, with men's presumed superiority over women (i.e., sexism), in particular, providing intellectual and moral justification for violence against women (Sidanius & Pratto, 1999, pp. 45-46).

Most research testing feminist theories of men's violence against women focus on individual level beliefs and individual differences (e.g., traditional gender role beliefs and needs for power and dominance, Anderson, Cooper, & Okamura, 1997) with a few exceptions (e.g., Bohner, Siebler, & Schmelcher, 2006). Several studies have found that individual men's reports of hostile sexism (Masser, Viki, & Power, 2006), of hostility to women (Abbey & McAuslan, 2004), and adversarial sexual beliefs (Hines, 2007) predict rape proclivity or sexual assault perpetration. These studies focus on individuals' self reports of their own attitudes and behavioral intentions and do not include measures at a higher level of analysis. Because of this primary focus on the individual level, very little research directly tests feminist theories' prediction that social norms around sexist beliefs foment violence against women (Smith, 1990). Thus, ideological patriarchy (i.e., the normative belief that women are inferior to men) has not been empirically tested in the literature.

Numerous studies have demonstrated several problems with feminist theories of violence against women that suggest refinements to those theories (for a meta-analysis on this issue, see Archer, 2000). First, little empirical support that structural patriarchy predicts violence against women, at least not linearly as feminist theories suggest (Yllo & Straus, 1990). Yllo and Straus (1990) found a nonlinear relationship between women's objective status in society relative to

men's; violence against women occurred most frequently when women had very high and very low status. Hines (2007) found no relationship between women's objective status (i.e., women's representation in government, education, and the workforce) and women's self-reported physical and verbal sexual victimization in a multinational study of college students. Second, a majority of men do not perpetrate sexual violence against women (Koss, Gidycz, & Wisniewski, 1987). In one community sample, approximately 25% of men reported committing legal definitions of attempted or completed rape, and 60% of men who had reported committed attempted or completed rape reported doing so multiple times (Abbey, Parkhill, Clinton-Sherrod, & Zawacki, 2007). Thus, a minority of men perpetrate a majority of sexual assaults. If ideological patriarchy is in fact normative, then there should be more male sexual violence perpetrators than what is typically found in survey research.

Given the little to no relationship between structural patriarchy and violence against women and given the robust finding that a minority of men perpetrate sexual violence against women, feminist theories' (as described in Smith, 1990) prediction that ideological patriarchy (of varying degrees) foments violence against women has little empirical support. Feminist theories, at present, predict that there is not a tradeoff between violence and ideology, viz., there is no inverse relationship between using violence and normalizing ideology. Feminist theories argue that rape cultures, normative acceptance of violence, and normative beliefs in women's inferiority to men form the foundation for violence against women. In other words, violence and ideology go hand in hand to contribute to women's oppression. This view directly contradicts the theoretical analysis that violence is only used when ideological control fails (Bachrach & Baratz, 1970; Jackman, 1994, p. 61; Sidanius & Pratto, 1999, p. 103). Given the limited empirical

support for feminist theories of violence against women, an alternative theoretical account, such as the ideology/violence tradeoff, may be needed to refine feminist theories.

The Ideology/Violence Tradeoff

The ideology/violence tradeoff position argues that when dominant ideologies are normative, violent discrimination does not occur as often because nonviolent discrimination occurs instead. Because sexist beliefs prescribe inferior treatment of women relative to men, sexist beliefs and norms should prescribe a broad variety of ways to discriminate against women, just not violent discrimination against women. Instead, in ideologically normative social systems, other behavioral forms of social control are used to keep subordinate group members in their place (Sidanius & Pratto, 1999). At the theoretical limit when all people in a society believe that women are inferior to men, dominants should not need to use violence to maintain their dominant social position. The ideology/violence tradeoff is an old theoretical idea (e.g., Gramsci, 1932; Jackman, 1994), but very few tests of this theory exist in the social psychological literature.

The ideology/violence tradeoff may be more consistent with empirical research testing feminist theories. For example, the small to nonexistent relationship between structural patriarchy and violence against women can be understood using the ideology/violence tradeoff position. Recall that the ideology/violence tradeoff predicts that nonviolent discrimination occurs when sexist beliefs are normative and that violent discrimination occurs when sexist beliefs are contentious. Thus, in both normative and non-normative contexts, discrimination against women occurs, though there is a qualitative difference in the types of discrimination that occurs. Thus, in both normative and non-normative contexts, structural patriarchy would emerge because (nonviolent or violent) discrimination against women is occurring. The level of structural

patriarchy would remain constant across societies where violence against women is occurring and where violence against women is not occurring as often.

The ideology/violence tradeoff can also explain why a minority of men perpetrate the majority of sexual violence. In societies where sexist beliefs are contentious, men use violence against women as the last remaining strategy to maintain their dominant social position. Only men who are motivated to maintain male dominance would commit to sexual violence as a strategy. Thus, when sexist beliefs are not normative, only the most sexist people will engage in sexual violence in order to maintain their dominant position, which may be only a minority of men. The ideology/violence tradeoff can explain many of the empirical shortcomings of feminist theories while still retaining feminist theories' argument that sexual violence is about power and men's attempts to maintain their dominant social position.

A Multilevel Perspective on Sexist Beliefs and Norms

In the present study, we used a measure of actual sexist norms rather than perceived norms that are typical of norms research (e.g. Bohner, Siebler, & Schmelcher, 2006; Gelfand et al., 2011; Sechrist & Stangor, 2001). Because of our focus on actual norms, we must adopt a multilevel perspective on sexist beliefs and norms. For us, sexist beliefs are individual-level beliefs that women are (economically, politically) inferior to men, and sexist norms operate at the societal level and index how much people agree or disagree with sexist beliefs. Sexist norms are how much people in a society agree about sexist beliefs, we use the standard deviation in participants' individual responses to the sexist beliefs measure for each nation to index how tight or loose sexist norms are.

A long tradition in social psychology has used variance in individual responses as an index of how normative a belief is. For example, Sherif's (1937) classic study of the autokinetic

effect assessed the emergence of group norms. He found that when people given individual responses to how far a light moved, the estimates varied widely, but when in the presence of other people, participants gave more similar responses. Thus, in Sherif's (1937) study, the variance in participant responses was used to index social norms. In another classic study, Asch (1956) measured how much participants deviated from a group norm by whether participants gave responses that were divergent from the group's shared response. In his studies, confederates all gave the same incorrect response to a line-judging task, and the experimenter observed if the participant gave a response that differed from the confederates' incorrect response. Asch operationalized conformity to social norms as how much people's responses differed from the group.

By measuring actual norms rather than perceived norms, we can avoid problems associated with the false consensus effect inherent in self-report measures (Ross, Greene, & House, 1977). Further, people are often unaware of the influence of descriptive norms on their behavior even though these do have an effect on their behavior (Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2008).

Overview and Hypotheses

The present study compares nationally representative samples from 57 nations to test whether sexist norms are associated with viewing violence against women as justified or whether there is a tradeoff between normative sexism and acceptance of intimate partner violence targeting women. Feminist theories predict that sexist beliefs and norms should predict both violent and nonviolent discrimination, but proponents of the ideology/violence tradeoff, such as velvet glove theory (Jackman, 1994) or social dominance theory (Sidanius & Pratto, 1999), argue that violence is mainly used in societies where sexist norms are loose and nonviolent

discrimination occurs in societies where sexist beliefs are tight. To test these competing hypotheses, we conducted a cross-national study of violent and nonviolent discrimination using sexist beliefs, participant sex, and sexist norms as predictors.

Method

Participants

We used data from the fifth wave of the World Values Survey (WVS) collected from 2005 to 2007, which included 82,992 participants from 57 nations (World Values Survey Association, 2009). Table 1 displays national demographic information and descriptive statistics for the variables of interest in the study.

Measures

Sexist Beliefs. We operationalize sexist beliefs the same way as Napier, Thorisdottir, and Jost (2010) and Brandt (2011). Sexist beliefs are the average response to two items “Men make better political leaders than women do” and “University education is more important for boy than girl” rated on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). These two items were moderately correlated in the fifth wave ($r = .45, p < .001$). Brandt (2011) presented convergent evidence for construct validity, demonstrating that they correspond to hostile sexist beliefs (Glick & Fiske, 1996). Sexist beliefs is specified as an individual level variable.

Sexist Norms. Sexist norms were measured as a nation-level variable and assessed the actual agreement or disagreement about sexism across individuals within a nation. We measured how normative sexism was in a society by calculating the standard deviation of the sexism measure for each nation. In multilevel models, it is common to compute structural or configural variables from lower level variables that assess group properties, such as attitudinal heterogeneity (Hox, 2010, p. 2; Klein & Kozlowski, 2000). The standard deviation represents the

extent to which people agree (i.e., lower standard deviation) or disagree (i.e., higher standard deviation) with other people in the nation regarding sexist beliefs. Nations with lower standard deviations than other nations would indicate that beliefs are more normative because people are in greater agreement about their sexist beliefs.³

Support for Abortion and Domestic Violence. To measure whether participants believed abortion and domestic violence were justifiable, we used two items from the WVS. Participants were instructed to respond to the following statement: “Please tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between, using this card.” Participants were then shown several statements, including abortion and wife beating, and were asked to rate the justifiability of these practices on a scale from 1 (*always justifiable*) to 10 (*never justifiable*). We recoded the wife beating variable so that higher values indicated greater justifiability of wife beating.

Individual-Level Control Variables. At the individual level, important demographic variables were measured, including age, religious attendance, and household income that are often correlated with sexist beliefs in cross-national studies (in the same manner as Napier et al., 2011). Participants were asked how often they attended religious services on a scale with scale points 1 (*more than once a week*), 2 (*once a week*), 3 (*once a month*), 4 (*only on special holy days/Christmas*), 5 (*other specific holy days*), 6 (*once a year*), 7 (*less often*), and 8 (*never/practically never*). Participants reported their household income in their nation’s currency, which was converted into a standard income level and categorized on a scale from 1 (*lowest income*) to 10 (*highest income*). We decided to omit educational attainment from the control variables because it was redundant with household income and would introduce problems of multicollinearity.

Nation-Level Control Variables. At the nation-level, we augmented our dataset with data about the abortion laws in the nation and the gross domestic product (GDP) per capita of the nation. These nation-level variables control for objective factors that may influence people's belief in the justifiability of abortion (e.g., the legality of abortion may influence how justifiable abortions are). For the abortion laws, we obtained data about how restricted abortion is in each nation, compiled by the Center for Reproductive Rights in 2007 (Center for Reproductive Rights, 2007). Each nation was categorized into one of five categories of abortion restrictions: 5 (*to save the woman's life or prohibited altogether*), 4 (*to preserve physical health*), 3 (*to preserve mental health*), 2 (*socioeconomic grounds*), 1 (*without restriction as to reason*). The higher categories include greater restrictions on when an abortion is allowed compared to the previous category. For example, nations in category 3 allow abortions to preserve physical health, but not on socioeconomic grounds as allowed in category 2. Thus, as the categories get higher, the nations impose greater restrictions and stipulations on when abortions are considered legal. For the GDP per capita of each nation, we augmented the dataset from data obtained by the World Bank (World Bank, 2014). We obtained the GDP per capita (measured in U.S. dollars) for each nation for the year that the survey data were collected. The GDP per capita measures the gross net value of economic production for the entire nation adjusted for the nation's population size and is important to include because it can control for how developed a nation is.

Results

To test our hypotheses, we conducted a multivariate multilevel regression analysis (see Baldwin, Imel, Braithwaite, & Atkins, 2014). A multilevel analysis is needed because the outcome variables in the analysis have nontrivial intraclass correlations (i.e., $ICC_{\text{abortion}} = 0.26$ and $ICC_{\text{domestic violence}} = 0.17$), indicating that 26% and 17% of the variability in the justifiability

of abortion and domestic violence, respectively, is due to differences between nations. Thus, to control for the dependence among people within nations on their respective attitudes, we must control for the variability due to nations, and multilevel modeling does this. The data include nationally representative samples from 57 nations, so the data have a multilevel structure with people at level 1 and nations at level 2 (see Snijders & Bosker, 2012). Descriptive statistics are displayed in Table 2. A multilevel regression analysis is necessary in order to avoid violating the assumption of independence in regression analyses. The norms variable is a nation-level variable (i.e., the standard deviation is derived from all the people within a national sample and therefore varies only between nations) so multilevel analyses allow us to include national level predictors and to examine cross-level interactions. We used regression analyses in order to assess how well the predictors of interest predict the outcome variables while controlling for important individual and national demographic information.

We estimated the effects of the predictor variables on two outcome variables simultaneously, making this a multivariate multilevel regression analysis.¹ All predictor variables at level 1 (except for participant sex, coded 1 = male, 0 = female) were group mean centered because they were specified as within nation variables, which means they did not have between nation variance. The predictor variables at level 2 were grand mean centered because they were not nested within groups and therefore group mean centering was not possible. At level 1, we specified sexist beliefs, sex, and the interaction between sexism and sex to predict the justifiability of abortion and domestic violence. We then allowed the slopes of each of these three terms on each outcome variable to vary randomly at the national level, giving us six random slopes that vary at the national level. We also have two random intercepts, allowing the average justifiability of abortion and domestic violence to vary at the national level. In total,

there are six random slopes and two random intercepts in our model. We further allowed the norms variable to predict each random slope and intercept. Our model of interest is represented using the following equations that were estimated simultaneously:

$$\begin{aligned}
 y_{1ij} &= \beta_{10j} + \beta_{11j} \text{Sexist Beliefs}_{1ij} + \beta_{12} \text{Sex}_{1ij} + \beta_{13} \text{Sexist Beliefs}_{1ij} \text{Sex}_{1ij} + r_{1ij} \\
 y_{2ij} &= \beta_{20j} + \beta_{21j} \text{Sexist Beliefs}_{1ij} + \beta_{22} \text{Sex}_{1ij} + \beta_{23} \text{Sexist Beliefs}_{1ij} \text{Sex}_{1ij} + r_{2ij} \\
 \beta_{10j} &= \gamma_{100} + \gamma_{101} \text{Norms} + u_{10j} \\
 \beta_{11j} &= \gamma_{110} + \gamma_{111} \text{Norms} + u_{11j} \\
 \beta_{12j} &= \gamma_{120} + \gamma_{121} \text{Norms} + u_{12j} \\
 \beta_{13j} &= \gamma_{130} + \gamma_{131} \text{Norms} + u_{13j} \\
 \beta_{20j} &= \gamma_{200} + \gamma_{201} \text{Norms} + u_{20j} \\
 \beta_{21j} &= \gamma_{210} + \gamma_{211} \text{Norms} + u_{21j} \\
 \beta_{22j} &= \gamma_{220} + \gamma_{221} \text{Norms} + u_{22j} \\
 \beta_{23j} &= \gamma_{230} + \gamma_{231} \text{Norms} + u_{23j}
 \end{aligned}$$

The i subscripts indicate the individual, and the j subscripts indicate the nation. The initial subscript (h) indicates the corresponding outcome variable ($h = 1$ for abortion or 2 for domestic violence). The level 1 intercepts (β_{h0j} 's) indicate the average of outcome variable h for nation j . The level 1 slopes (β_{hj} 's) indicate the effect of the predictor on outcome h for nation j . The level 2 intercepts (γ_{h0} 's) indicate the average of variable h across nations. The level 2 slopes (γ_h 's) indicate the effect of the predictor on outcome h across nations. For example, γ_{100} is the average rating of the justifiability of abortion across all people and all nations, and γ_{110} is the average effect of sexism on the justifiability of abortion across all people and all nations. The r_{hij} 's and the u_{hj} 's are the level 1 and level 2 error terms, respectively. We also included the covariances between the errors of the outcome variables at level 1 and level 2 in order to control for shared variance between the outcome variables, along with the covariances between the intercepts and slopes at level 2 in order to control for the possibility that the slopes may differ depending on the average response to the variable. The parameters of interest in the aforementioned equations are

γ_{111} and γ_{211} , which assess the interaction between sexist norms and sexist beliefs on the justifiability of abortion and domestic violence, respectively.

We also estimated the model of interest described above with both individual-level and nation-level control variables. At the individual-level, we controlled for religious attendance, age, and household income. At the nation-level, we controlled for the abortion laws of the nation and the gross domestic product (GDP) per capita of the nation. The results of the model with these control variables are displayed in Table 4. At the individual level, religious attendance and household income were negatively related to the unjustifiability of abortion, although these effects were small, and age was positively related to the unjustifiability of abortion, which was also small. Also, religious attendance was positively related to the justifiability of domestic violence, and age was negatively related to the justifiability of domestic violence. Again, these effects were small. Household income was not related to the justifiability of abortion. At the national level for the justifiability of abortion, abortion laws were positively related but not statistically significant, and GDP per capita was negatively related. Richer nations were less likely to believe that abortions were unjustified. For domestic violence, neither abortion laws nor GDP per capita were related. Because this model controls for variables that predict the outcome variables, we decided to interpret the results from the model that controls for these important individual and national characteristics. It is important to note that the interaction effects of interest (i.e., the two-way interaction between sexist beliefs and norms on the outcome variables) are similar across the two models, so the statistical significance of the effects and our interpretation of the results do not change after controlling for the individual and national variables.

The analysis was conducted using MPlus v. 7.2 (see results for both models in Tables 3 and 4). Parameter estimates were estimated using full information maximum likelihood that use the implied values of the missing data. In the model including control variables, all fixed effects were statistically significant except for the two-way interaction between sexism and sex and the three-way cross level interaction between norm, sexism, and sex for both outcome variables. These non-statistically significant interaction effects were removed from the model for parsimony and estimation simplicity (i.e., the model did not converge on a solution for the simple effects when these higher order interaction effects were included). The predicted two-way interaction between national norm and individual sexist beliefs was statistically significant for both outcome variables, although in opposite directions as predicted by the ideology/violence tradeoff. The interaction effects are displayed in Figures 1 and 2.

To follow up these interaction effects, we conducted simple effects analyses by recentering the norm variable at one and two standard deviations above and below the mean. At two standard deviations above the mean of norms (i.e., very high disagreement about sexism), the effect of sexism on the unjustifiability of abortion was not statistically significant, $b = .06$, $SE(b) = .09$, $p = .52$, but the effect of sexism on the justifiability of domestic violence was positive and statistically significant, $b = 0.35$, $SE(b) = .08$, $p < .001$. At one standard deviation above the mean of norms (i.e., high disagreement about sexism), the effect of sexism on the unjustifiability of abortion was not statistically significant, $b = 0.16$, $SE(b) = .05$, $p < .01$, but the effect of sexism on the justifiability of domestic violence was positive and statistically significant, $b = .27$, $SE(b) = .04$, $p < .001$. At one standard deviation below the mean of norms (i.e., high agreement about sexism), the effect of sexism on the unjustifiability of abortion was positive and statistically significant, $b = .35$, $SE(b) = .06$, $p < .001$, and the effect of sexism on

the justifiability of domestic violence was positive and statistically significant though small, $b = .10$, $SE(b) = .05$, $p < .05$. At two standard deviations below the mean of norms (i.e., very high agreement about sexism), the effect of sexism on the unjustifiability of abortion was positive and statistically significant, $b = .45$, $SE(b) = .10$, $p < .001$, and the effect of sexism on the justifiability of domestic violence was not statistically significant, $b = .01$, $SE(b) = .08$, $p = .87$. The results are controlling for religious attendance, age, household income, abortion laws, and GDP of the nation. As sexism becomes more normative, people's sexist beliefs predict their opposition to abortion, but their sexist beliefs do not predict their support for domestic violence. As sexism becomes less normative, people's sexist beliefs predict their support for domestic violence, but their sexist beliefs do not predict their opposition to abortion.

Discussion

The present study explored how normative ideological contexts (i.e., how tight or loose sexist beliefs are) in different nations correspond to support for violent and nonviolent gender discrimination. We found that sexist beliefs statistically predicted tolerance of violent discrimination (i.e., domestic violence) in contentious ideological contexts. When people in a nation disagree about sexism, their sexist beliefs predicted their support for domestic violence. We also found that sexist norms had a main effect on the justifiability of domestic violence, viz., loose norms about sexist beliefs predicted higher belief in the justifiability of domestic violence. On the other hand, when nations had tight norms regarding sexist beliefs, individuals' sexist beliefs did not predict their support for domestic violence, and support for domestic violence was lower on average. Instead, in normative contexts, people with more sexist beliefs were more likely to believe that abortions were unjustified, a nonviolent form of gender discrimination (see also Pratto, et al., 2013). People's sexist beliefs did not predict the justifiability of abortion in

societies with looser sexism norms. These findings support the ideology/violence tradeoff position (e.g., velvet glove theory; Jackman, 1994). They also contradict theories that argue that sexist norms promote violence against women (e.g., Dobash & Dobash, 1979). Indeed, we found the opposite: loose norms about sexist beliefs promote the justifiability of violence against women.

Many feminist theories (Smith, 1990) recognize and argue that women do not want to be targeted for violence. For example, women in abusive relationships are less satisfied with their relationships than women who are not in abusive relationships (Rusbult & Martz, 1995). Further, women oppose sexism more than men (Lee, Pratto, & Johnson, 2011). Feminist theories do argue that sexist norms and patriarchal societies promote violence against women (Heise, 1998), but they fail to recognize that many women actually disagree with sexism and patriarchy, which hinders feminist theories' ability to define what they mean by sexist norms or sexist societies. If women strongly disagree with sexist beliefs, then sexism cannot be normative in a society. The present study documents that support for violence against women occurs when there is societal disagreement about sexism. Thus, the problem with the normative aspects of many feminist theories is that they are only referring to sexist men, sexist institutions, and their sexist practices. Sexism and patriarchy are only endorsed by a subset of the population and women's resistance to sexism and violence is not part of the normative system of which feminist theories speak. Thus, the results of the present study may be consistent with feminist theory, but they also suggest that there must be greater conceptual clarity when feminist theories speak of the sexist norms that promote violence against women.

The present results are also consistent with feminist theories' (see Smith, 1990) assertion that violence against women is an attempt by men to dominate women. As detailed in

ideology/violence tradeoff theories, violence and ideological control are two means to maintain men's dominance over women, but groups tend to use one or the other. Thus, feminist theories are correct to predict that using violence against women is a form of maintaining male dominance (Berdahl, Magley, & Waldo, 1996), but that this form of social control occurs when sexism fails as an ideological system to subordinate women relative to men. Prior research has demonstrated that women are discriminated against when they violate role expectations (Berdahl, 2007; Heilman, 2001), which suggests that disagreement about women's prescribed social roles contributes to violence against women. Further theorizing should explore what role sexist norms play in feminist theories and how to reconcile the present findings with those theoretical predictions.

One of the major criticisms of feminist theories is that they fail to explain why only a small percentage of men are violent against women (Stets & Straus, 1989). The present study can address this criticism directly. When sexism is non-normative, individuals' sexist beliefs predict their belief in the justifiability of domestic violence. Thus, in loose ideological contexts, individuals' sexist beliefs differentiate among men such that those who are the most sexist justify violence. Thus, nonnormative sexist contexts motivate the most sexist of men to support violence against women, so only a few men will perpetrate sexual violence. The ideology/violence tradeoff explains why only a few men perpetrate violence against their partners, viz., men who are most motivated to maintain their ingroup's dominant social position are the ones who will use violence in contentious ideological environments. The ideology/violence tradeoff offers a refinement of feminist theories to both predict that violence against women is a way to maintain men's dominance and to predict that only a few men will perpetrate violence.

Limitations and Future Directions

Despite the comprehensiveness of the data, the present study has a number of limitations. First, for the measures of attitudes towards violent and nonviolent discrimination, only one item was used, which makes it impossible to assess measurement error, so future research should use better measures in order to improve the construct validity of the findings. Second, the domestic violence measure only refers to violence against women and does not assess violence against men, which has been an overlooked behavior in studies on intimate partner violence (Hines, 2007). Third, ratings of the domestic violence item were low, so the results for that variable may be due to floor effects. Because the means for domestic violence were low, it may have been difficult to detect significant slopes. However, we did not find evidence for heteroscedasticity in the outcome measure, so there was equivalent variance at all levels, giving the ability to detect a relationship the same across all levels of the predictor variables. Again, future research can improve the measurement of violence against women. Fourth, the item used to measure domestic violence refers to the justifiability of domestic violence and not to actual behavior; therefore, it is impossible to know from the current data whether these results would be the same for actual domestic violence. Accurately measuring actual domestic violence would be very difficult because the many ethical, political, and social costs and consequences (e.g., stigmatizing victims, confidentiality of victims), so the measure used in the present study may be the most unobtrusive way to assess people's support for domestic violence. Self-report measures are common ways of measuring behavior when actual behavior is difficult to observe, and the assumption of attitude/belief measurement is that they will lead to actual behavior (Ajzen, 1991).

Fifth, the present study uses cross-sectional and correlational data, making causality and temporal consistency difficult to assess. Future research could use experimental methods to assess causality. For example, experimenters can manipulate sexism's perceived normativity and

test its effect on violence against women, but experimental methods cannot manipulate the actual norms across societies. Sixth, the present study only examined sexism as the ideological foundation for violence against women, but other ideologies have been identified in past research as contributing to violence against women, such as rape myth acceptance (Burt, 1980). Future research can examine the normativity of other ideologies that are relevant to violence against women. Relatedly, sexist beliefs were measured in a general way (i.e., women's generalized inferiority relative to men), so future research can examine more specific sexist beliefs and how they relate to violence against women. Despite these shortcomings, the present study uses a diverse and internationally representative dataset that allows us to examine the influence of sexist norms on tolerance of violence against women around the world.

An interesting future direction would be to examine these data using an emic approach. At present, the multilevel models treat national differences as error variance and makes generalizations across nations, but there may be some utility to understanding ideological dynamics within specific nations. The goal of the present research was to use variability in sexist norms to predict gender discrimination, so the multilevel models are the best approach to achieve this goal. However, more nuanced and culturally specific analyses would offer some new insights into how ideological norms affect intergroup violence. For example, it would be interesting to study how societal norms affect individuals on an everyday basis; how are norms communicated and spread across individuals. Ideological norms, such as sexist norms, may propagate through interpersonal interaction and become salient talking points in political discussions among peers (see Lyons & Kashima, 2001). Future research can explore the ways in which ideological norms are spread and how they influence individual behavior in specific cultural contexts.

Notes

¹Some may argue that the mean of sexist beliefs for each nation should be included in the model in order to locate along the scale (i.e., low or high sexist beliefs) where the sexist beliefs are tight or loose. However, adding nation-level sexism in addition to the norm variable raises difficult statistical issues. Ideally, we would specify a random intercept for sexism that would then predict the outcome variables at level 2. However, because of the estimation method, this random intercept cannot be specified. Sexist beliefs are specified as a within level variable, which removes any between level variance. If sexist beliefs are specified as having variance at both the within and between levels, random slopes cannot be estimated because algorithmic integration in MPlus must have the within variables specified without level 2 variance. Less ideally, because it would produce inefficient estimates, nation sexism could be computed before the analyses and added as a variable to the dataset. Because multilevel models use empirical Bayes estimates, there is shrinkage in the random effects toward the grand mean effect. Thus, calculating nation sexism before the analyses would artificially inflate the between nation variance in the nation sexism estimates. For these reasons, we omitted national sexism from the analyses. My two choices were to (1) not run the analyses or (2) produce inefficient estimates of the model parameters.

Despite these statistical reasons for omitting nation sexism from the analyses, the authors computed nation sexism, added it to the dataset, and analyzed it as a nation-level predictor. The first analysis was run with nation sexism, sexist norms, and the interaction between the two to predict the justifiability of abortion and domestic violence. For both outcome variables, the interaction between sexism and sexist norms was not statistically significant. A possible reason for this was the high correlation between nation sexism and sexist norms ($r = .50$), so

multicollinearity may be inflating the standard errors. We then proceeded to remove the sexist norms variable from the analyses and only use nation sexism as a predictor. The main effects of nation sexism on both outcome variables were not statistically significant. There was a statistically significant cross level interaction between nation sexism and individual sexism on abortion. First, the relationship between individual sexism and abortion is positive and statistically significant ($b = .24$). The interaction effect is $b = -.36$. This indicates that as nation sexism gets higher, the relationship between sexism on abortion becomes weaker. This suggests that individual level sexist beliefs do not predict abortion attitudes in highly sexist nations. A reason for this might be that in sexist nations, institutions are discriminating against women, so individuals' sexism does not correspond to their attitudes (akin to Pettigrew, 1958). However, for domestic violence, there is no statistically significant cross-level interaction between nation sexism and individual sexism. Given that the focus of the paper is on violence against women and sexist norms, these results are inconsistent with feminist theories. Feminist theories would predict that in sexist nations (where the mean sexism is high), individual sexist beliefs should predict domestic violence attitudes. I did find a statistically significant cross-level interaction between nation sexism and participant sex on domestic violence. As nation sexism gets higher, men support domestic violence more than women. Although initially appealing, this result is inconsistent with the finding that a minority of men perpetrate the majority of violence against women. There was no three way interaction between individual sexism, participant sex, and nation sexism on domestic violence. Given that including nation sexism introduces numerous statistical problems that question the accuracy of the estimates and given that nation sexism (when included as a predictor) does not behave in the results as feminist theories would predict, nation sexism was removed from the analyses.

³The correlation between the Cronbach's alpha and the variance in sexist beliefs for each nation is $r = -.02, p > .10$.

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Table 1

Demographic information and descriptive statistics for 57 nations in Wave 5 of the WVS (2005-2007)

Nation	N	DV	Abortion	Norm	Sexism	Female	Age	Religious	Income	Law	GDP
Andorra	1003	1.15 (1.04)	3.97 (2.91)	0.50	1.75	49.9	40.7 (13.9)	6.6 (2.1)	5.6 (1.7)	5	3.13
Argentina	1002	1.17 (1.07)	7.64 (3.06)	0.67	1.98	53.4	42.5 (17.6)	5.2 (2.5)	--	4	0.68
Australia	1421	1.35 (1.47)	5.25 (3.04)	0.59	1.90	55.4	50.5 (16.9)	6.1 (2.4)	5.2 (3.0)	2	3.40
Brazil	1500	1.56 (1.65)	8.58 (2.37)	0.59	2.03	58.4	40.0 (15.7)	3.6 (2.5)	4.3 (2.1)	5	0.58
Bulgaria	1001	1.75 (1.82)	5.34 (3.14)	0.69	2.11	54.2	47.4 (16.5)	5.2 (2.0)	3.8 (1.7)	1	0.43
Burkina Faso	1534	3.62 (3.21)	8.56 (2.46)	0.76	2.56	48.9	34.3 (13.9)	2.5 (2.2)	3.8 (1.9)	4	0.05
Canada	2164	1.16 (0.88)	6.39 (2.88)	0.56	1.77	58.5	48.2 (17.8)	5.0 (2.6)	5.6 (2.9)	1	4.02
Chile	1000	1.35 (1.41)	8.21 (2.56)	0.84	2.26	55.1	42.9 (17.0)	5.0 (2.6)	4.2 (1.9)	5	0.76
China	2015	1.68 (1.66)	8.88 (2.14)	0.57	2.36	54.2	44.8 (13.3)	5.7 (2.3)	4.0 (1.9)	1	0.27
Colombia	3025	1.24 (0.98)	9.03 (2.03)	0.56	2.07	50.0	37.0 (14.0)	3.7 (2.3)	3.0 (2.3)	3	0.34
Cyprus	1050	1.70 (1.85)	6.89 (3.16)	0.68	2.00	51.2	41.6 (16.0)	4.8 (2.2)	5.7 (1.7)	2	2.39
Egypt	3051			0.73	2.95	61.7	41.0 (14.5)	4.1 (2.8)	3.9 (1.9)	5	0.22
Ethiopia	1500	1.57 (1.66)	8.71 (2.51)	0.72	1.82	48.5	29.9 (10.2)	2.3 (1.8)	5.2 (2.0)	4	0.02
Finland	1014	1.27 (0.76)	5.53 (2.78)	0.60	1.84	51.8	47.5 (17.5)	5.7 (2.0)	4.3 (2.6)	2	3.73
France	1001	1.27 (1.25)	4.57 (3.18)	0.61	1.57	52.0	47.1 (18.2)	6.5 (2.1)	3.6 (2.0)	1	3.55
Georgia	1500	1.16 (0.61)	8.43 (2.05)	0.76	2.42	52.9	45.4 (17.2)	4.3 (2.0)	3.5 (1.8)	1	0.29
Germany	2064	1.76 (1.57)	5.96 (2.88)	0.74	1.78	55.9	50.4 (17.5)	6.0 (2.2)	4.5 (1.8)	1	3.52
Ghana	1534	2.44 (2.43)	8.82 (2.16)	0.70	2.51	49.4	33.9 (14.1)	2.1 (1.7)	4.4 (2.3)	3	0.11
Great Britain	1041	1.33 (1.29)	6.05 (2.83)	0.56	1.92	50.8	45.7 (18.5)	5.9 (2.5)	6.3 (2.6)	2	4.08
Guatemala	1000		8.74 (2.28)	0.85	2.02	51.1	33.8 (12.5)	2.5 (1.9)	2.2 (1.3)	5	0.21
Hong Kong	1252		7.46 (2.54)	0.55	2.24	52.2	44.3 (15.8)	6.6 (2.0)	4.5 (2.1)	3	2.66
India	2001	3.15 (3.07)	7.75 (3.06)	0.80	2.62	43.1	41.4 (14.7)	3.3 (2.1)	3.7 (2.2)	2	0.08
Indonesia	2015	1.35 (1.30)	9.51 (1.48)	0.62	2.39	47.7	36.1 (13.9)	2.7 (1.9)	5.2 (2.0)	5	0.16
Iran	2667	1.79 (1.83)	8.69 (2.17)	0.69	2.76	49.9	32.7 (12.8)	4.1 (2.6)	4.9 (2.0)	5	0.40
Iraq	2701		9.59 (1.32)	0.73	3.02	51.6	37.1 (13.8)	5.1 (3.0)	4.2 (1.7)	5	0.23

Italy	1012	1.18 (0.78)	7.46 (2.50)	0.55	1.94	50.1	45.6 (15.6)	3.8 (2.1)	4.2 (2.7)	1	3.08
Japan	1096	1.63 (1.49)	6.41 (2.43)	0.64	2.30	55.9	48.1 (15.7)	5.2 (1.7)	4.7 (2.8)	2	3.58
Jordan	1200	1.53 (1.44)	9.76 (.97)	0.85	2.71	50.6	37.6 (14.4)	1.5 (1.8)	--	4	0.30
Malaysia	1201	3.07 (2.46)	8.02 (2.33)	0.69	2.69	50.1	31.8 (11.9)	--	5.9 (1.7)	3	0.62
Mali	1534	4.82 (3.61)	7.56 (3.35)	0.78	2.93	49.6	37.3 (14.8)	2.5 (2.2)	5.0 (2.3)	5	0.06
Mexico	1560	2.02 (2.36)	7.84 (2.94)	0.63	2.16	50.8	39.7 (15.7)	3.6 (2.3)	4.9 (2.9)	5	0.78
Moldova	1046	1.92 (1.98)	7.82 (2.60)	0.64	2.27	52.7	42.8 (16.9)	4.7 (2.0)	4.9 (2.1)	1	0.10
Morocco	1200	2.28 (2.29)	9.20 (1.72)	0.81	2.40	50.7	37.2 (13.4)	--	4.7 (1.6)	4	0.24
Netherlands	1050	1.24 (0.94)	5.53 (3.04)	0.61	1.73	50.6	44.6 (17.8)	6.2 (2.4)	3.3 (2.0)	1	4.15
New Zealand	954		5.73 (2.83)	0.57	1.84	55.0	49.3 (16.4)	6.2 (2.4)	6.5 (2.9)	3	2.52
Norway	1025	1.25 (1.02)	4.29 (2.50)	0.55	1.37	49.9	45.8 (16.1)	6.3 (1.9)	5.3 (2.8)	1	9.52
Peru	1500			0.49	2.04	50.9	37.6 (14.9)	3.6 (2.1)	2.8 (1.7)	4	0.42
Poland	1000	1.24 (0.91)	7.95 (2.61)	0.66	2.21	48.8	46.0 (17.8)	2.9 (1.7)	4.0 (1.9)	4	0.80
Romania	1776	1.64 (1.60)	7.71 (2.79)	0.81	2.14	54.4	48.7 (17.4)	3.9 (1.9)	5.5 (2.8)	1	0.47
Russian Federation	2033	1.56 (1.54)	6.82 (2.93)	0.75	2.50	53.5	41.2 (16.5)	6.0 (2.0)	6.0 (2.3)	1	0.69
Rwanda	1507	2.47 (2.07)	9.26 (1.54)	0.69	2.40	50.6	34.7 (14.1)	1.4 (1.1)	3.4 (2.0)	4	0.04
Serbia	1220	4.81 (3.98)	6.21 (3.05)	0.74	2.09	49.3	42.4 (15.1)	4.5 (1.9)	4.6 (1.9)	1	0.39
Slovenia	1037	1.51 (1.47)	4.83 (3.18)	0.67	1.97	53.5	46.2 (17.8)	5.1 (2.3)	4.9 (1.9)	1	1.79
South Africa	2988	2.38 (2.48)	8.20 (2.63)	0.76	2.14	50.0	38.8 (16.6)	3.4 (2.4)	4.8 (2.4)	1	0.59
South Korea	1200	1.69 (1.58)	7.42 (2.29)	0.74	2.30	50.2	41.4 (14.0)	4.6 (2.6)	4.9 (1.8)	4	1.87
Spain	1200	1.52 (1.64)	5.50 (2.95)	0.81	1.68	50.0	46.2 (18.5)	5.9 (2.4)	4.5 (1.7)	3	3.19
Sweden	1003	1.19 (1.00)	3.15 (2.39)	0.53	1.58	49.9	47.7 (17.0)	6.7 (1.7)	6.1 (2.9)	1	4.39
Switzerland	1241	1.38 (1.24)	5.44 (2.97)	0.63	1.68	55.1	52.5 (16.1)	5.4 (2.3)	5.4 (1.8)	1	5.97
Taiwan	1227	1.60 (1.39)	7.54 (2.35)	0.53	2.23	49.4	43.9 (16.0)	6.1 (2.1)	4.5 (1.8)	2	0.37
Thailand	1534	2.53 (1.79)	8.54 (1.63)	0.67	2.34	51.0	45.4 (15.7)	2.8 (1.6)	5.6 (2.0)	3	1.36
Trinidad and Tobago	1002	1.90 (2.06)	7.53 (2.94)	0.60	1.85	55.1	42.6 (17.3)	3.5 (2.3)	4.8 (2.0)	3	1.42
Turkey	1346	1.82 (2.08)	8.69 (2.08)	0.73	2.21	49.8	36.5 (13.9)	4.6 (2.7)	3.4 (2.4)	1	0.93
Ukraine	1000	1.48 (1.30)	8.66 (2.24)	0.77	2.40	65.7	42.4 (16.8)	5.1 (2.1)	4.4 (1.9)	1	0.23

United States	1249	1.94 (1.83)	7.02 (2.63)	0.60	1.95	50.0	48.0 (17.0)	4.6 (2.7)	5.0 (1.9)	1	4.64
Uruguay	1000	1.40 (1.30)	6.54 (2.85)	0.55	1.94	55.6	46.5 (18.7)	4.9 (2.6)	4.4 (1.7)	4	0.59
Viet Nam	1495	1.81 (1.97)	6.51 (3.18)	0.66	2.29	48.7	40.8 (15.8)	6.0 (2.2)	5.4 (1.5)	1	0.08
Zambia	1500	1.62 (1.41)	8.58 (1.90)	0.79	2.26	49.3	29.8 (11.9)	2.7 (2.1)	5.4 (2.4)	2	0.10

Note. Except for Female, means are presented with standard deviations in parentheses. Sexism = Sexist beliefs. Norm = Standard

deviation in the sexism measure within each nation. DV = domestic violence. Law = legal restrictions on abortion. GDP = gross

domestic product per capita per US\$10000. Religious = amount of religious services attended.

Table 2

Correlation matrices and intraclass correlations for variables in the multivariate multilevel model using full information maximum likelihood for missing data

Variable	ICC	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.Norm	--	1	--	--	--	--	--	--	--	--	--
2.Law	--	.14	1	--	--	--	--	--	--	--	--
3.GDP	--	-.47	-.40	1	--	--	--	--	--	--	--
4.Abortion	.22	.38	.43	-.71	1	-.25	.09	-.20	.08	-.12	-.00
5.DV	.17	.43	.14	-.39	.16	1	.09	.03	-.01	-.00	.07
6.Sexism	--	--	--	--	--	--	1	-.13	-.01	-.08	.15
7.Religious	--	--	--	--	--	--	--	1	.03	.05	.04
8.Age	--	--	--	--	--	--	--	--	1	-.08	.01
9.Income	--	--	--	--	--	--	--	--	--	1	.04
10.Sex	--	--	--	--	--	--	--	--	--	--	1

Note. The between nation correlation matrix is below the diagonal, and the within nation

correlation matrix is above the diagonal. Sexism, religious, age, income, and sex were specified as within nation variables, and norm, law, and GDP per capita were specified as between nation variables. Correlations among within and between nation variables are not computed. Norm = Standard deviation in the sexism measure within each nation. DV = domestic violence. Law = legal restrictions on abortion. GDP = gross domestic product per capita. Religious = amount of religious services attended.

Table 3

Unstandardized fixed and random effects estimates from multivariate multilevel model with no covariates

Variable	Parameter	Full Model		Reduced Model	
		Coefficient	SE	Coefficient	SE
Abortion					
Intercept	γ_{100}	7.50***	0.21	7.49***	0.21
Sexism	β_{11j}	0.41***	0.05	0.39***	0.05
Sex	β_{12j}	-0.12***	0.03	-0.12***	0.03
Sexism X Sex	β_{13j}	-0.05	0.03		
Norm	γ_{101}	5.43*	2.20	5.47*	2.24
Norm X Sexism	γ_{111}	-2.69***	0.57	-2.72***	0.55
Norm X Sex	γ_{121}	1.32***	0.34	1.21***	0.33
Norm X Sexism X Sex	γ_{131}	-0.06	0.33		
Domestic Violence					
Intercept	γ_{200}	1.79***	0.10	1.79***	0.10
Sexism	β_{21j}	0.16***	0.03	0.17***	0.03
Sex	β_{22j}	0.22***	0.03	0.22***	0.03
Sexism X Sex	β_{23j}	0.02	0.03		
Norm	γ_{201}	3.67***	1.09	3.65***	1.09
Norm X Sexism	γ_{211}	0.58*	0.30	0.65*	0.29
Norm X Sex	γ_{221}	1.01***	0.30	1.05***	0.31
Norm X Sexism X Sex	γ_{231}	0.17	0.33		
Abortion					
u_{10j}	σ^2_{u10j}	2.32***	0.54	2.42***	0.50
u_{11j}	σ^2_{u11j}	0.13***	0.03	0.13***	0.03
u_{12j}	σ^2_{u12j}	0.03***	0.01	0.03*	0.01
u_{13j}	σ^2_{u13j}	0.01	0.01		
Domestic Violence					
u_{20j}	σ^2_{u20j}	0.51***	0.10	0.52***	0.10
u_{21j}	σ^2_{u21j}	0.03***	0.01	0.03***	0.01
u_{22j}	σ^2_{u22j}	0.03***	0.01	0.03***	0.01
u_{23j}	σ^2_{u23j}	0.02***	0.01		
Covariances					
cov(u_{10j} , u_{20j})	$\sigma_{u10ju20j}$	-0.36*	0.12	-0.40*	0.12
cov(u_{10j} , u_{11j})	$\sigma_{u10ju11j}$	-0.42***	0.10	-0.43***	0.10
cov(u_{10j} , u_{12j})	$\sigma_{u10ju12j}$	-0.08*	0.04	-0.09*	0.03
cov(u_{10j} , u_{13j})	$\sigma_{u10ju13j}$	-0.01	0.03		
cov(u_{20j} , u_{21j})	$\sigma_{u20ju21j}$	0.02	0.02	0.01	0.02
cov(u_{20j} , u_{22j})	$\sigma_{u20ju22j}$	0.04*	0.02	0.04*	0.02
cov(u_{20j} , u_{23j})	$\sigma_{u20ju23j}$	-0.02	0.02		
Residuals					
r_{1ij}	r_{1ij}	6.27***	0.03	6.27***	0.03
r_{2ij}	r_{2ij}	3.40***	0.02	3.41***	0.02

$\frac{\text{cov}(r_{1ij}, r_{2ij})}{\sigma_{r1ij} \sigma_{r2ij}}$	-1.19***	0.02	-1.19***	0.02
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Note. *** $p < .001$. * $p < .05$. Sexism = Sexist beliefs. Norm = Standard deviation in the sexism

measure within each nation.

Table 4

Unstandardized fixed and random effects estimates from multivariate multilevel model with covariates

Variable	Parameter	Full Model		Reduced Model	
		Coefficient	SE	Coefficient	SE
Abortion					
Intercept	γ_{100}	8.32***	0.16	8.31***	0.17
Sexism	β_{11j}	0.27***	0.04	0.25***	0.04
Sex	β_{12j}	-0.01	0.04	-0.00	0.04
Sexism X Sex	β_{13j}	-0.03	0.03		
Norm	γ_{101}	-0.50	1.93	-.48	2.03
Norm X Sexism	γ_{111}	-1.16*	0.49	-1.03*	0.45
Norm X Sex	γ_{121}	0.67	0.51	0.63	0.50
Norm X Sexism X Sex	γ_{131}	0.24	0.41		
Religious	β_{14j}	-0.19***	0.01	-0.19***	0.01
Age	β_{15j}	0.01***	0.00	0.01***	0.00
Income	β_{16j}	-0.11***	0.01	-0.11***	0.01
Law	γ_{141}	0.18	0.10	0.18	0.11
GDP	γ_{151}	-0.38***	0.10	-.38***	0.10
Law X Sexism	γ_{161}	-0.03*	0.03	-0.02	0.02
Law X Sex	γ_{171}	-0.06*	0.03	-0.06*	0.03
Law X Sexism X Sex	γ_{181}	0.03	0.02		
GDP X Sexism	γ_{191}	0.12***	0.03	0.13***	0.02
GDP X Sex	γ_{1101}	-0.04	0.03	-0.04	0.03
GDP X Sexism X Sex	γ_{1111}	0.01	0.02		
Domestic Violence					
Intercept	γ_{200}	1.84***	0.12	1.84***	0.11
Sexism	β_{21j}	0.17***	0.03	0.18***	0.03
Sex	β_{22j}	0.19***	0.04	0.20***	0.03
Sexism X Sex	β_{23j}	0.03	0.03		
Norm	γ_{201}	3.54*	1.43	3.53**	1.35
Norm X Sexism	γ_{211}	0.79*	0.37	0.90***	0.49
Norm X Sex	γ_{221}	0.54	0.38	0.56	0.39
Norm X Sexism X Sex	γ_{231}	0.26	0.41		
Religious	β_{24j}	0.02***	0.00	0.02***	0.00
Age	β_{25j}	-0.002***	0.00	-0.002***	0.00
Income	β_{26j}	0.00	0.00	0.00	0.00
Law	γ_{241}	0.02	0.08	0.01	0.07
GDP	γ_{251}	-0.08	0.07	-0.08	0.06
Law X Sexism	γ_{261}	-0.03	0.03	-0.003	0.02
Law X Sex	γ_{271}	-0.06*	0.03	0.02	0.02
Law X Sexism X Sex	γ_{281}	0.03	0.02		
GDP X Sexism	γ_{291}	0.12***	0.03	0.01	0.02
GDP X Sex	γ_{2101}	-0.04	0.03	-0.02	0.02

GDP X Sexism X Sex	γ_{2111}	0.01	0.02		
Abortion					
u_{10j}	σ^2_{u10j}	1.11***	0.27	1.22***	0.27
u_{11j}	σ^2_{u11j}	0.05***	0.01	0.05***	0.01
u_{12j}	σ^2_{u12j}	0.05***	0.01	0.05***	0.01
u_{13j}	σ^2_{u13j}	0.00	0.01		
Domestic Violence					
u_{20j}	σ^2_{u20j}	0.54***	0.12	0.49***	0.10
u_{21j}	σ^2_{u21j}	0.02**	0.01	0.03***	0.01
u_{22j}	σ^2_{u22j}	0.02**	0.01	0.03**	0.01
u_{23j}	σ^2_{u23j}	0.02*	0.01		
Covariances					
$\text{cov}(u_{10j}, u_{20j})$	$\sigma_{u10ju20j}$	-0.26**	0.10	-0.35***	0.10
$\text{cov}(u_{10j}, u_{11j})$	$\sigma_{u10ju11j}$	-0.14*	0.04	-0.15***	0.04
$\text{cov}(u_{10j}, u_{12j})$	$\sigma_{u10ju12j}$	-0.10*	0.04	-0.10**	0.04
$\text{cov}(u_{10j}, u_{13j})$	$\sigma_{u10ju13j}$	0.00	0.03		
$\text{cov}(u_{20j}, u_{21j})$	$\sigma_{u20ju21j}$	0.02	0.02	-0.01	0.02
$\text{cov}(u_{20j}, u_{22j})$	$\sigma_{u20ju22j}$	0.06*	0.02	0.03	0.02
$\text{cov}(u_{20j}, u_{23j})$	$\sigma_{u20ju23j}$	-0.06*	0.03		
Residuals					
r_{1ij}	r_{1ij}	6.07***	0.04	6.07***	0.04
r_{2ij}	r_{2ij}	3.40***	0.02	3.40***	0.02
$\text{cov}(r_{1ij}, r_{2ij})$	$\sigma_{r1ijr2ij}$	-1.15***	0.02	-1.15***	0.02

Note. *** $p < .001$. ** $p < .01$. * $p < .05$. Sexism = Sexist beliefs. Norm = Standard deviation in the

sexism measure within each nation. DV = domestic violence. Law = legal restrictions on

abortion. GDP = gross domestic product per capita per US\$10000. Religious = amount of

religious services attended.

Figure 1

Cross level interaction between sexism (level 1) and norm (level 2) on whether abortion is unjustified

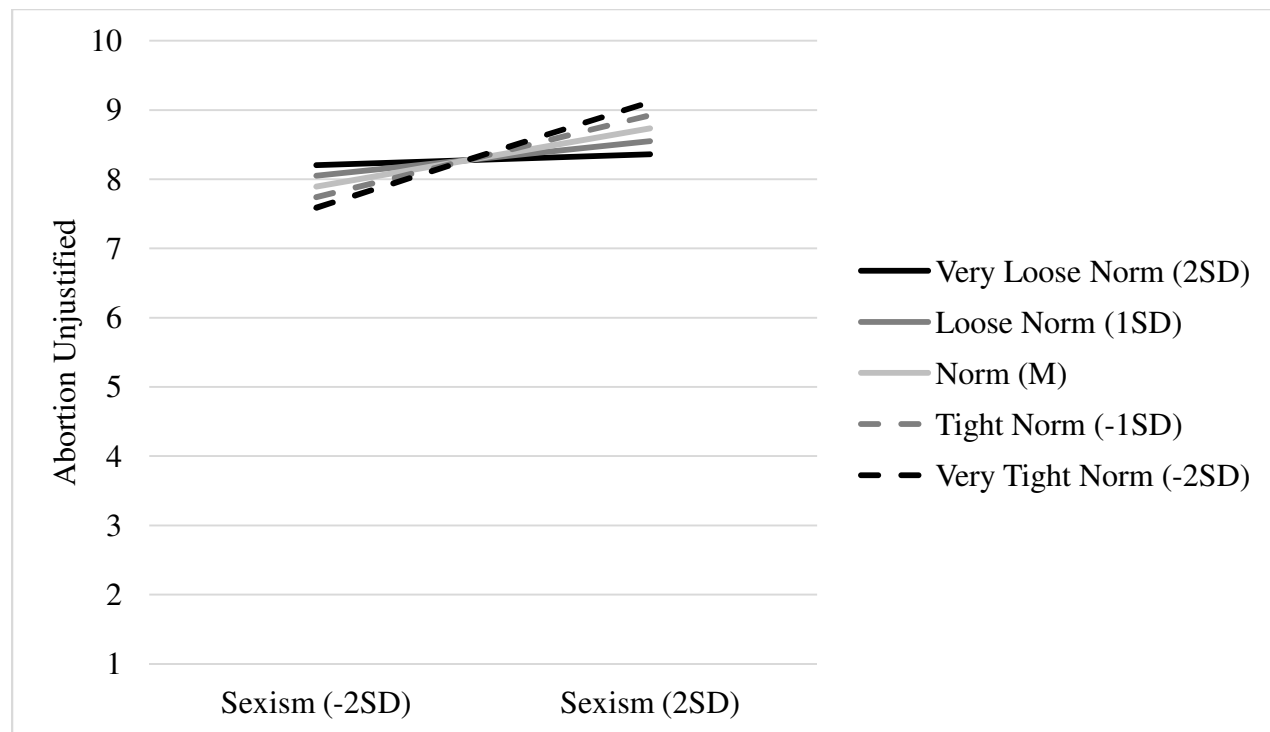
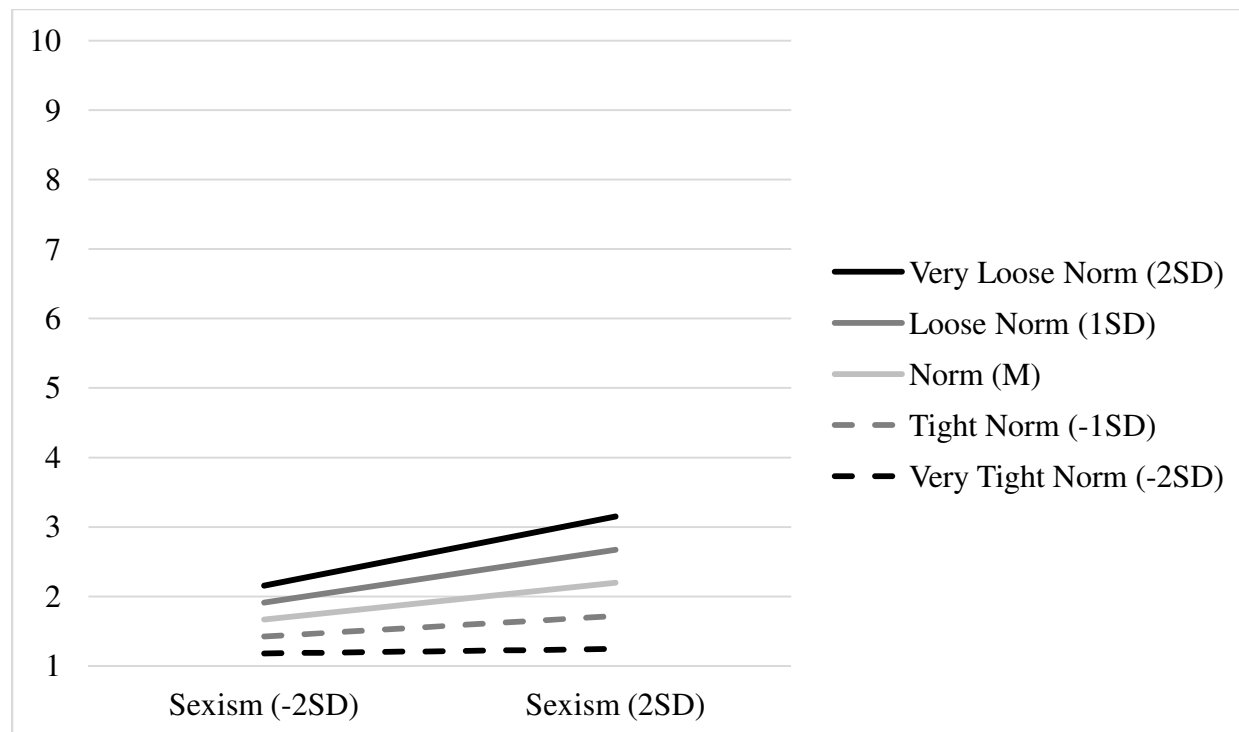


Figure 2

Cross level interaction between sexism (level 1) and norm (level 2) on whether domestic violence is justified



Chapter 3: The Formation and Maintenance of Hierarchy-Attenuating Intergroup Behavior

Even though sexism or gender stereotypes may be normative and encourage violence, inequality, and discrimination, many people work against these societal norms in order to improve intergroup relations. Gramsci (1930/1992) argued that subordinate groups could overcome cultural hegemony through two tactics: the war of maneuver and the war of position. In a war of maneuver, people challenge dominant groups' social position through protest and direct confrontation with the dominant group. In order for this form of counter-hegemony to be effective, it must highlight the illegitimacy of dominant group power and of the structure of intergroup relations. Thus, people often protest when they believe that the status hierarchy is illegitimate or when they perceive some injustice against the subordinate group. The reality of sexual violence or gender income inequality can form the foundation for collective action in order to eliminate violence or inequality. In a war of position, people work on building coalitions and encouraging grass-roots movements in order to slowly normalize a new ideological system that replaces the hegemonic system that oppresses subordinate groups.

Examining the war of maneuver, the first paper in this section examines people's motivations to engage in collective action. Most research on collective action highlights the importance of social identification (or the positive feelings people have about their group members) in stimulating feelings of group-based anger and group efficacy at challenging intergroup inequality. The contribution of this first paper is to integrate this theoretical perspective with a social dominance theory analysis of collective action, which argues that people's ideological beliefs, such as general egalitarianism and anti-sexism, motivate men and women to engage in collective action.

Examining the war of position, the second paper presents an evaluation of a sexual assault prevention program that targets college men. Participants in this intervention (called “The Men’s Project”) are slowly transformed into feminist activists who are motivated to work toward ending sexual violence. Men who participate in this intervention report lower sexism, rape myth acceptance, and gender-biased language along with greater feminist activism, bystander efficacy, and collective action willingness compared to baseline measures. These studies demonstrate the utility of social dominance theory in improving intergroup relations through collective action and sexual assault prevention and point to promising ways to motivate people to challenge oppressive intergroup relations.

References

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Paper 4: Collective Action in Gender Relations: Integrating Theoretical Models of Protesting
Gender Inequality

Despite the educational, economic, and political gains U.S. women have made since the 1848 feminist convention in Seneca Falls, gender inequality persists today (Dugas, 2012; Sidanius & Pratto, 1999). Women, for example, consistently earn lower wages than men (Dugas, 2012). However, even in the face of discrimination in the labor market, women and—to a lesser extent—men continue to protest and resist women's inferior treatment and social position relative to men's (Earnshaw, Pitpitan, & Chaudoir, 2011; Lee, Pratto, & Johnson, 2011). For example, after years of traversing the legal system, Lily Ledbetter was successful in changing current laws regarding wage inequality in the workplace (One Hundred Eleventh Congress of the United States of America, 2009; Stolberg, 2009). The Lily Ledbetter Fair Pay Act of 2009 grants women more flexibility in reporting violations to equal pay between men and women in the workplace (One Hundred Eleventh Congress of the United States of America, 2009). In addition to gender inequality and discrimination, protest and resistance against income inequality appear to be integral aspects of gender relations (for a general discussion, see Haslam & Reicher, 2012).

The present paper explores how different theories explain collective action and provides empirical tests of the theories' predictions. In particular, we explore what each theory offers in explaining why women and men may or may not engage in collective action. In the following sections, we review prominent models of collective action inspired by social identity theory (Tajfel & Turner, 1979) and by social dominance theory (Sidanius & Pratto, 1999). Following this review, we present a study that tests an integrated model of collective action drawing from both theoretical perspectives. The present study allows us to simultaneously test the predictions

that have historically been at odds with one another and instead evaluates their collective and respective contributions to understand why women and men protest against gender inequality.

The Dual Pathway Model

Since its inception, social identity theorists have argued that disadvantaged group members could successfully challenge their disadvantage, by adopting a social change strategy to improve their status (Tajfel & Turner, 1979; van Zomeren, Postmes, & Spears, 2008). Engaging in collective action is one way that low status group members can attempt to improve their status (van Zomeren, Leach, & Spears, 2012). As a social identity theory-inspired account of people's motivations to engage in collective action, the dual pathway model proposes that there are two primary routes to collective action among those for whom collective disadvantage is self-relevant (van Zomeren et al., 2012). The first route, through group efficacy, is a form of problem-focused approach coping, and the second route, through group-based anger, is a form of emotion-focused approach coping. Collective action, in this model, is conceptualized as a form of coping with collective disadvantage (e.g., coping with the reality that women make less money than their equally skilled male colleagues).

Before these coping processes begin, the collective disadvantage (e.g., gender-based income inequality) must be relevant to the self (van Zomeren et al., 2012). This self-relevance of the group can take many forms, including ingroup identification, self-categorization as an ingroup member, and domain relevance (Iyer & Leach, 2008). Ingroup identification is defined as "people's psychological connection to a group" (Iyer & Leach, 2008, p. 110). People who identify with a disadvantaged social group are more likely to be attuned to their group's shared grievances, which prompts them to engage in collective action to correct for the perceived injustice (van Zomeren, Postmes, & Spears, 2008). People's ingroup identification can facilitate

their awareness of perceived injustices that negatively affect the group (van Zomeren, Postmes, & Spears, 2008).

When people identify with a disadvantaged social group, they are more likely to perceive their disadvantage as illegitimate and unfair and experience group-based anger about the injustice (Haslam & Reicher, 2012; Tajfel & Turner, 1979; van Zomeren et al., 2008). In one study, highly identified women were more likely to experience anger at the glass cliff phenomenon, which was related to an increased willingness to engage in collective action (Iyer & Ryan, 2009). Experiencing group-based anger motivates political action to correct the perceived injustice, whether that is unfair collective disadvantage (van Zomeren et al., 2004) or illegitimate advantage (Leach, Iyer, & Pederson, 2006). For example, learning about a gender wage gap can make female workers angry and discontent, prompting them to demand equal pay (Major, 1994), and men who perceive sexist discrimination in the workplace to be illegitimate also experience anger at this injustice (Major & Herek, 1987). Experiencing anger about gender inequality is important for mobilizing people to engage in collective action.

Highly identified group members can also feel greater group efficacy or believing that their actions can make a difference, which can motivate them to engage in collective action (Bandura, 1995; Hornsey, Blackwood, Louis, Fielding, Mavor, Morton,...White, 2006; Saab, Tausch, Spears, & Cheung, in press; van Zomeren, Leach, & Spears, 2010). In a study examining why women engaged in collective action to improve women's rights and political participation, Kelly and Breinlinger (1995) found that when women felt that their activism behaviors could be successful at improving women's rights, they had greater intentions to engage in collective action. Women who were more politically active felt that they were more likely to be successful

at achieving their political goals (Kelly & Breinlinger, 1995). Efficacy is an important predictor of collective action.

The dual pathway model proposes that when the social group is relevant to the self (e.g., when people identify with the aggrieved group), they will engage in collective action because they are angry about a collective injustice and feel efficacy to make a difference (van Zomeren et al., 2012). When the disadvantaged group is not relevant to the self (e.g., when people cannot identify with the social group), the dual pathway model predicts (based in Klandermans, 1997) that people will engage in a cost-benefit analysis of engaging in collective action. If the benefits outweigh the costs, then people will engage in collective action. However, considerations other than costs and benefits to the self may motivate people to engage in collective action when they do not share the social identity of the disadvantaged group. Social identity theory, for example, also includes the importance of ideology (e.g., meritocracy) in (de)motivating intergroup behavior (Abrams & Hogg, 1988; Tajfel & Turner, 1979). Indeed, recent research using the dual pathway model has included other variables, such as support for equality and opposition to discrimination, as predictors of collective action beyond a cost/benefit analysis (e.g., van Zomeren, Postmes, Spears, & Bettache, 2011). Thus, alternative theoretical accounts are needed to complement the dual pathway model in order to understand why outgroup members would engage in collective action on behalf of disadvantaged groups. Social dominance theory can provide this theoretical analysis.

Social Dominance Theory

Social dominance theory (Sidanius & Pratto, 1999) proposes that people's rejection of intergroup inequality (e.g., low on social dominance orientation; Pratto, Sidanius, Stallworth, & Malle, 1994) leads them to adopt hierarchy-attenuating ideologies (e.g., anti-sexism) in support

of rejecting inequality, motivating them to act in ways that can reduce inequality between social groups (e.g., collective action on behalf of low power groups). According to social dominance theory (Pratto, 1999), people are generally motivated to support or oppose intergroup inequality, which is indexed by people's responses to the social dominance orientation scale (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994). People's SDO then leads them to either accept or reject hierarchy-enhancing or –attenuating legitimizing ideologies. Ideologies are socially shared, prescriptive beliefs that describe how people and institutions should behave (Pratto, Tatar, & Conway-Lanz, 1999). Hierarchy-enhancing ideologies such as sexism (Glick & Fiske, 1996) motivate people to discriminate against women, while hierarchy-attenuating ideologies such as feminism motivate people to engage in collective action to support women's rights and issues (Earnshaw, Pitpitan, & Chaudoir, 2011). The counterbalancing of these different types of ideologies and intergroup behaviors maintain a stable level of inequality (e.g., gender inequality; Brandt, 2011; Glick, Fiske, Mladinic, Saiz, Abrams, Masser et al., 2000). This social dominance theory model has been supported in cross-cultural surveys (e.g., Pratto, Liu, Levin, Sidanius, Shih, Bachrach, & Hegarty, 2000), experiments (e.g., Pratto, Tatar, & Conway-Lanz, 1999), and a meta-analysis (Lee, Pratto, & Johnson, 2011).

Recent research has explored hierarchy-attenuating ideologies, such as multiculturalism (Levin, Matthews, Guimond, Sidanius, Pratto, Kteily, Pitpitan, & Dover, 2012) and diversity (Deaux, Reid, Martin, & Bikmen, 2006). Other research has begun to explore the meaning of being low on social dominance orientation (Pratto, Cidam, Stewart, Bou Zeineddine, Aranda, Aiello,...Henkel, 2013), thus focusing on hierarchy-attenuating ideologies and egalitarian motivations. Thus, theory and research in the social dominance paradigm has consistently

demonstrated the utility of hierarchy-attenuating ideologies in promoting egalitarian group relations.

Some research has examined how people's preference for inequality or equality (i.e., social dominance orientation) and intergroup ideologies can motivate collective action willingness. For example, when considering the anti-globalization movement, people who reject dominance (i.e., lower on social dominance orientation) were more likely to engage in protest (Cameron & Nickerson, 2009). Other intergroup ideologies, such as support for diversity (Deaux et al., 2006), support for lesbian, gay, bisexual, and transgender rights rooted in fundamental principles of justice and patriotism (Russell, 2011), and anti-austerity beliefs (Jost, Chaikalish-Petrakis, Abrams, Sidanius, van der Toorn, & Bratt, 2012; van Stekelenburg, Klandermans, & van Dijk, 2009). These prior studies demonstrate how ideologies can motivate people to engage in collective action, which supports social dominance theory's proposition that intergroup ideologies are important for understanding intergroup behavior.

When examining gender relations in particular, researchers have demonstrated how ideological beliefs such as sexism and feminism can decrease or increase motivations to engage in collective action on behalf of women. Early research demonstrated that priming women with feminist beliefs increased their intention to engage in feminist protests (Branscombe & Deaux, 1991). Recent research also finds that pro-feminist beliefs motivate collective action to end gender discrimination, such as violence against women (Earnshaw, Pitpitan, & Chaudoir, 2011). Women, who believe in contemporary feminist goals, such as combining motherhood and career, equal access to education, and fighting against violence against women, are more likely to believe in collective action on behalf of women (Williams & Wittig, 1997). A recent series of experiments demonstrated that women who are exposed to hostile sexism are more likely to

engage in collective action because exposure increases gender-specific system justification and perceived advantages to being a woman (Becker & Wright, 2011). This research suggests that sexism and feminism are intergroup ideologies important for understanding what motivates people to engage in collective action on behalf of women. Social dominance theory proposes that anyone who supports intergroup equality will be opposed to sexism and would therefore engage in collective action to oppose gender inequality in income.

Overview

The present study tests two different theories of collective action simultaneously using structural equation modeling. In testing these theories simultaneously, we hope to provide an integrated theoretical account of why any person would engage in collective action. We hypothesize that for women and men, support for egalitarian beliefs will motivate them to reject sexism and engage in collective action to reduce gender inequality. We also hypothesize that women's ingroup identification will predict their anger and group efficacy about the gender wage gap, which will predict their willingness to engage in collective action. Men's ingroup identification should not predict greater group efficacy or anger about the gender wage gap, which will deflate their willingness to engage in collective action. Thus, we predict that the social dominance theory model of collective action will apply equally well to women and to men, but the dual pathway model will predict women's and not men's motivations to engage in collective action. In all, the present study provides one of the first tests of the social dominance theory model of collective action and compares its predictive utility to the dual pathway model.

Method

Participants

Participants for the present study were obtained in two independent samples drawn from the same population of undergraduate students who participated for partial fulfillment of a course requirement. Sample 1 included data from 181 participants. They were 65% female, 77% White, 83% reported being from middle or upper middle class families, and 19 years old on average ($SD = 1.37$). Sample 2 included data from 303 participants. They were 70% female, 68% White, 86% reported being from middle or upper middle class families, and 19 years old on average ($SD = 2.15$). All measures were the same for both samples, except for social dominance orientation, which is detailed in the Measures section. In total, 484 participants provided responses to the survey.

Procedure

Participants arrived to the laboratory in mixed-gender groups of 12 and were greeted by a female experimenter. After consent was obtained, participants were given the survey containing all of the measures. The survey began by describing the gender wage gap that exists at present in the United States. This description was:

Almost 40 years ago, President Kennedy signed the Equal Pay Act into law, making it illegal to pay men and women employed in the same establishment different wages for "substantially equal" work. However, the "gender gap" in pay persists with women making 80 cents for every dollar a man makes, even after controlling for education level, vocational interest, experience, and many other factors. Continued discrimination against women in the labor market may contribute to the remaining earnings gap.

Following this description, participants completed measures of anger, group efficacy, collective action willingness, hostile sexism, social dominance orientation, and other measures. Once

participants were finished, they were given a debriefing sheet containing a detailed explanation of the survey they had just completed.

Measures

Collective Action Willingness. Collective action willingness was measured using four items ($\alpha = .94$; adapted from van Zomeren, Spears, Fischer, & Leach, 2004). These items were “I would participate in a future demonstration for gender income inequality,” “I would participate in raising our collective voice to decrease the gender pay gap,” “I would do something together with fellow people to decrease the gender pay gap,” and “I would participate in some form of collective action to fight for gender income equality.” These items were rated on a scale from 1 (*not at all willing*) to 7 (*extremely willing*).

Anger. Anger at the gender wage gap was measured using four emotion terms from the hostility subscale of the positive and negative affect schedule-expanded form ($\alpha = .84$; PANAS-X; Watson & Clark, 1999). Participants rated how much they felt each of the following four emotion terms because of the gender wage gap: angry, hostile, scornful, and disgusted. These terms were rated on a seven-point scale with anchors 1 (*very slightly or not at all*), 2 (*a little*), 3 (*somewhat*), 4 (*moderately*), 5 (*quite a bit*), 6 (*very much*), and 7 (*extremely*).

Group Efficacy. Group efficacy was measured with two items ($\alpha = .90$; adapted from van Zomeren et al., 2004). These two items were “I think together we can reduce gender income inequality” and “I think together we can successfully fight against the gender wage gap.” Items were rated on a Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Gender Identification. Gender identification was measured using the ingroup satisfaction subscale from a larger ingroup identification measure ($\alpha = .90$; Leach, van Zomeren, Zebel, Vliek, Pennekamp, Doosje, Ouwerkerk, & Spears, 2008). Ingroup satisfaction assesses

how positive group members feel about their ingroup and is a general form of social identification (Leach et al., 2008). As such, ingroup satisfaction was the operationalization of ingroup identification we chose instead of other forms, such as centrality or ingroup homogeneity, because it is the most general form of ingroup identification. For male participants, the social category “men” was the identification target, and for female participants, the social category “women” was the identification target. Example items include “I feel a bond with women/men,” “It is pleasant to be a man/woman,” and “Women/men have a lot in common with each other.” Items were rated on a Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Hostile Sexism. Hostile sexism was measured using 11 items from the ambivalent sexism inventory ($\alpha = .86$; Glick & Fiske, 1996). Example items include “Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for ‘equality’” and “Women exaggerate problems they have at work.” Items were rated on a Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

Social Dominance Orientation. For the two samples, social dominance orientation was measured using two different measures. In Sample 1, SDO was measured using the 8 items from the SDO₆ scale (Pratto, Sidanius, Stallworth, & Malle, 1994). Specifically, we used the 8 items that measure opposition to equality, or SDO-E ($\alpha = .91$; Ho, Sidanius, Pratto, Levin, Thomsen, Kteily, & Sheehy-Skeffington, 2012). SDO-E was chosen rather than SDO-D (i.e., the dominance subscale) because SDO-E is more strongly associated with attempts at reducing inequality, whereas SDO-D is more strongly associated with aggressive and active domination of one group over another group. Because our collective action measure assesses how much people would work to reduce gender income inequality, SDO-E is the most relevant subdimension of

SDO. Example items include “Group equality should be our ideal” and “It would be good if all groups could be equal.” Items were rated on a Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*). In Sample 2, SDO was measured using three items from a newly developed short SDO scale ($\alpha = .75$; Pratto, Cidam, Stewart, Bou Zeineddine, Aranda, Aiello,..., Henkel, 2013). This measure shares one item with the SDO-E scale used for Sample 1, and two additional items from this short scale fall along the SDO-E subdimension, as they measure support/opposition to equality. These three items were: “In setting priorities, we must consider all groups,” “We should not push for group equality,” and “Group equality should be our ideal.” For both samples, there were 10 items used to measure SDO-E: 7 items exclusive to Sample 1, 2 items exclusive to Sample 2, and 1 item shared by Samples 1 and 2. Full information maximum likelihood (FIML) was used to estimate parameters in our model by using the implied values of the missing data to calculate parameter estimates. FIML is a common method of handling missing data (Enders & Bandalos, 2001).

Results

A multiple group structural equation model was estimated to test the integrated model of collective action using full information maximum likelihood estimation in MPlus v. 6.12. In a first step, we tested the measurement model with unconstrained parameters across gender, viz., the configural model. Six latent variables were specified for each construct, namely SDO-E, hostile sexism, gender identification, anger, group efficacy, and collective action. Their respective items were specified as indicators of the latent variable. Table 1 displays the factor means, factor standard deviations, and covariance matrices for each gender. Item loadings are presented in Table 2, and the residual variances are displayed in Table 3. We further specified all possible covariances among the latent variables. In the measurement model, all parameters were

set to vary freely across gender. The configural model demonstrated acceptable fit, $\chi^2 (1091) = 1798.90, p < .001, RMSEA = 0.052, 95\% CI [0.047, 0.056], CFI = 0.90, SRMR = 0.08$. The next step was to test for invariance across gender in the factor loadings, so the factor loadings were specified as equal across women and men. This model also demonstrated acceptable fit, $\chi^2 (1120) = 1860.87, p < .001, RMSEA = 0.052, 95\% CI [0.048, 0.056], CFI = 0.90, SRMR = 0.09$. Because the RMSEA values were equivalent between these models, the model with invariance of factor loadings demonstrated equivalent fit. Thus, the measurement of constructs was similar between women and men.

In a second step, we specified the structural model as displayed in Figure 1 so that we could test differences in slopes and intercepts between women and men (see Table 4). In this model, SDO and gender identification predicted hostile sexism, group efficacy, anger, and collective action. Group efficacy, anger, and hostile sexism predicted collective action. To test for differences between slopes, we first analyzed a constrained model where the slopes for women and men were specified as equal. This constrained model demonstrated adequate to poor fit, $\chi^2 (1135) = 1908.32, p < .001, RMSEA = 0.053, 95\% CI [0.049, 0.057], CFI = 0.89, SRMR = 0.09$. We then analyzed an unconstrained model where the slopes for women and men were allowed to vary freely, and this model demonstrated good fit, $\chi^2 (1120) = 1860.87, p < .001, RMSEA = 0.052, 95\% CI [0.048, 0.056], CFI = 0.90, SRMR = 0.085$. We then systematically unconstrained each structural path and identified four structural paths that differed for women and for men. This preferred model, which frees these four paths to vary by gender, demonstrated good fit, $\chi^2 (1131) = 1870.15, p < .001, RMSEA = 0.052, 95\% CI [0.048, 0.056], CFI = 0.90, SRMR = 0.085$. Through chi square difference testing, the preferred model was a better fitting model than the fully constrained model, $\Delta\chi^2 (4) = 38.17, p < .001$. The preferred model was also

statistically equivalent to the unconstrained model, $\Delta\chi^2(11) = 9.29, p = .60$. Because the preferred model demonstrates acceptable model fit (and equivalent to the unconstrained model) and is more parsimonious than the unconstrained model, we interpret this model. The preferred model is displayed in Figure 2.

The four structural paths that differed for women and men were: (a) the path from anger to collective action, (b) the path from gender identification to hostile sexism, (c) the path from SDO-E to hostile sexism, and (d) the path from gender identification to anger. The path estimates from anger to collective action for men, $b = .61, SE(b) = .06, p < .001$, and for women, $b = .33, SE(b) = .12, p < .001$, were different, Wald $\chi^2(1) = 4.95, p = .02$. Anger was a stronger predictor of collective action for men than for women. The path estimates from gender identification to hostile sexism for men, $b = .47, SE(b) = .11, p < .001$, and for women, $b = -.08, SE(b) = .07, p = .25$, were different, Wald $\chi^2(1) = 16.42, p < .001$. Men's ingroup identification predicted their hostile sexism, but women's ingroup identification did not predict their hostile sexism. The path estimates from SDO-E to hostile sexism for men, $b = -.38, SE(b) = .07, p < .001$, and for women, $b = -.12, SE(b) = .06, p = .06$, were different, Wald $\chi^2(1) = 8.98, p < .01$. Men's general endorsement of intergroup equality predicted lower levels of hostile sexism, but women's general endorsement of intergroup equality marginally predicted lower levels of hostile sexism. The path estimates from gender identification to anger for men, $b = -.36, SE(b) = .16, p < .05$, and for women, $b = .34, SE(b) = .14, p < .05$, were different, Wald $\chi^2(1) = 11.13, p < .001$. Men's ingroup identification predicted lower levels of anger about the gender wage gap, and women's ingroup identification predicted higher levels of anger about the gender wage gap.

We found statistically significant gender differences in the means and intercepts for anger, hostile sexism, and SDO-E. Compared to women, men experienced less anger, $b = -1.49$,

$SE(b) = .15, p < .001$, higher hostile sexism, $b = .34, SE(b) = .09, p < .001$, and lower SDO-E, $b = -.36, SE(b) = .11, p < .01$. There were no gender differences on collective action willingness, $b = .21, SE(b) = .16, p = .19$, ingroup identification, $b = .03, SE(b) = .08, p = .65$ or group efficacy, $b = -.02, SE(b) = .11, p = .85$.

Interpreting the preferred model, we observe that the dual pathway model was partially supported for women and men. For women, ingroup identification was a statistically significant predictor of anger at the gender wage gap, $b = .34, SE(b) = .14, p < .05$. Women's anger was also a statistically significant predictor of collective action willingness, $b = .33, SE(b) = .06, p < .01$. Women's group efficacy was a statistically significant predictor of collective action willingness, $b = .24, SE(b) = .07, p < .01$. For men, ingroup identification was a statistically significant negative predictor of anger at the gender wage gap, $b = -.36, SE(b) = .16, p < .05$, so the more men identified with their ingroup, the less anger they felt toward the gender wage gap. For men, both group efficacy, $b = .24, SE(b) = .07, p < .01$, and anger, $b = .61, SE(b) = .12, p < .001$ were statistically significant and positive predictors of collective action willingness. Further, men and women's ingroup identification was not a statistically significant predictor of group efficacy, $b = .14, SE(b) = .07, p > .05$. These results demonstrate that the variables in the dual pathway model have different relations for women and men. For women, the predictions from the dual pathway model were virtually confirmed (except for the small nonsignificant effect of ingroup identification on group efficacy). For men, ingroup identification deflates their anger toward the gender wage gap, but men's anger was a stronger predictor of collective action willingness compared to women.

Interpreting the preferred model, we observe partial support for the social dominance theory model of collective action. For women, SDO-E did not significantly predict their level of

hostile sexism, $b = -.12$, $SE(b) = .06$, $p > .05$, but for men, SDO-E was a statistically significant predictor of hostile sexism, $b = -.38$, $SE(b) = .07$, $p < .001$. For both women and men, hostile sexism was statistically significant negative predictor of collective action willingness, $b = -.30$, $SE(b) = .07$, $p < .05$, and SDO-E was not a statistically significant predictor of collective action willingness, $b = .14$, $SE(b) = .08$, $p > .05$. For men, the social dominance theory model of collective action was supported. Men's general endorsement of intergroup equality was associated with decreased hostile sexism, and men's hostile sexism predicted less willingness to engage in collective action to end the gender wage gap. For women, SDO-E was unrelated to hostile sexism, but hostile sexism was a negative predictor of collective action willingness.

Because the structural model tests an integrated model of collective action, we can assess relations among variables that derive from different theories. For both women and men, SDO-E predicted increased group efficacy, $b = .56$, $SE(b) = .07$, $p < .001$, and anger at the gender wage gap, $b = .28$, $SE(b) = .08$, $p < .001$. For women, ingroup identification was not related to hostile sexism, $b = -.08$, $SE(b) = .07$, $p > .05$, but for men, ingroup identification was a positive predictor of hostile sexism, $b = .47$, $SE(b) = .11$, $p < .001$. Future research can explore the relationships among the different models of collective action.

Discussion

The present study compares theoretical models of collective action from different theories of intergroup relations. We found that men who support intergroup equality are more likely to oppose hostile sexism, feel group efficacy, and feel angry about the reality of intergroup inequality, which predict their willingness to engage in collective action to reduce the gender wage gap. Also, strongly identified women are more likely to feel anger about the gender wage gap, which then motivates them to engage in collective action. For men, ingroup identification

decreases their anger about gender income inequality and relates to increased hostile sexism, which deflates their willingness to engage in collective action. It is likely that when men identify as men, they are endorsing hegemonic masculine beliefs that prescribe dominating others (Addis, Mansfield, & Syzdek, 2010), so men's ingroup identification may deflate their collective action willingness. Unexpectedly, we found that anger predicted collective action willingness more for men than for women. Women are stereotypically prescribed greater variability in emotional expression than men are (Addis et al., 2010), which may explain why anger was a stronger predictor for men versus women.

We found strongest support for the social dominance theory model of collective action among men, and we found strongest support for the dual pathway model of collective action among women. The present study provides one of the first tests of two different theories of intergroup relations simultaneously. We believe the results from the present study have implications for theoretical pluralism in the study of collective action, applications for improving gender relations, and future research.

Theoretical Pluralism

Theories of intergroup relations often appear in the literature as competing with different sides of the debate attempting to discredit or falsify each other (see Turner & Reynolds, 2003; Sidanius & Pratto, 2003). Beyond these debates, it can be useful to view these theories as complementing each other, or as explaining different features of intergroup relations from different perspectives (see McGuire, 1973). The present study demonstrates the utility of *both* theoretical paradigms in explaining collective action. Future research can further explore and develop these models with the understanding that they may operate differently depending on group status or power. Theoretical pluralism is important for understanding collective action, but

it might also be important for other intergroup behaviors or dynamics of intergroup relations, which future research can explore.

As more studies begin to explore collective action willingness among advantaged groups on behalf of disadvantaged groups (e.g., van Zomeren, Postmes, Spears, & Bettache, 2011), researchers can be more open to what social dominance theory has to offer theoretically. Traditionally, social dominance theory has been criticized for not allowing for the emergence of intergroup equality (Turner & Reynolds, 2003), but that does not mean that it cannot explain hierarchy-attenuating intergroup behaviors, such as collective action to reduce gender inequality. SDT has always included these concepts of hierarchy-attenuating behaviors and ideologies, but researchers have rarely explored it. The present study is among the first studies to use social dominance theory to understand hierarchy-attenuating intergroup behaviors, such as collective action. The present study uses variables important to social dominance theory to demonstrate its utility in understanding collective action. Greater exploration of hierarchy-attenuation from a social dominance theory perspective is necessary.

Implications for Application

The results from the present study have implications for engaging women and men in working to reduce gender discrimination and inequality. In programs and interventions, it may be important to tailor the curriculum differently for women and for men. For women, it is important to make gender inequality salient and to increase the relevance of gender inequality to their selves. This technique should increase women's anger and group efficacy about gender inequality and motivate them to take action. Thus, for women, it is important to provide information about the reality of gender inequality and discrimination and to promote satisfaction with their gender category. For men, it is important to focus on general ideological beliefs, such

as egalitarianism and feminism. By increasing their support for intergroup equality in general, practitioners may be able to reduce their endorsement of sexist beliefs. Getting men to adopt feminist beliefs about women's equality to men may be important for encouraging collective action to reduce gender inequality.

The present studies also highlight the importance of group efficacy and anger for both women and men. Thus, interventions that involve skill building and give hope to participants that they can make a difference and work successfully to eliminate the gender wage gap will be effective in motivating its participants to engage in collective action. Further, using techniques (such as poetry, films, and images) that elicit strong emotional reactions (particularly anger) toward gender inequality can be effective in motivating participants to act as well (e.g., Stewart, *in press*).

Limitations and Future Research

The present study has several limitations. First, the present study relies on cross-sectional and correlational data, so causality is difficult, if not impossible, to discern. However, the models we tested have decades of empirical support from lab and field studies supporting the causal predictions (for reviews, see Sidanius, Pratto, van Laar, & Levin, 2004; van Zomeren, Postmes, & Spears, 2008). Future research, however, should explore experimentally the social dominance theory model of collective action because it is the least developed. Second, we only used the gender wage gap as the agenda? for collective action. It is possible that other social issues surrounding gender issues may change the relations among the variables for these models. Other social issues, such as sexual assault, parental rights and responsibilities, and work/life balance may yield different results. Future research should test the robustness of these models across different social issues. Third, we only explored these models in the context of gender relations,

so we do not know if the results would hold for other forms of intergroup relations, which is another direction for future research.

Fourth, the measurement of anger in the present study does not clearly specify men and women's target of anger. In the dual pathway model, anger among the disadvantage group is clearly targeted toward the disadvantage that they experience (van Zomeren, Leach & Spears, 2012), but for advantaged groups, their anger could be directed toward their unfair advantage (Leach, Snider, & Iyer, 2002). In the present study, the target of anger was the gender wage gap, which did not specify whether women were disadvantage or men advantaged. Although the description that participants read placed more of a focus on discrimination against women and women's subsequent disadvantage in pay at work, men were also mentioned as a reference group. Regardless, anger was a potent predictor of collective action willingness for both women and men, so it is possible (but unclear) that they were focusing on women's disadvantage, men's advantage, or merely the entirety of the situation, which is clearly stated as unfair in the description participants read.

Fifth, although the dual pathway model does predict that the self-relevance of collective disadvantage to the self can take the form of ingroup identification, it can also take other forms, such as domain relevance. If the self-relevance of the group was operationalized in a manner different from ingroup identification, the model tested may have yielded different results. Perhaps, (non-sexist) men believe that the gender wage gap is relevant to their self-concept as men who disavow their privilege and women's unfair disadvantage. Thus, if we were to measure self-relevance of the group in terms of domain relevance instead of ingroup identification, it may have been a positive predictor of anger, group efficacy, and collective action and thus support the dual pathway model among men. Future research can explore how anti-sexist men feel about

their unfair advantage (e.g., Leach, Pederson, & Iyer, 2006) and whether they believe that the gender wage gap is relevant to their self-concepts as non-sexist men. Still, including ideological beliefs into the dual pathway model can help to discern whether advantaged group members deem disadvantaged groups' grievances as relevant to the self, so incorporating social dominance theory or social identity theory's analysis of ideology is important for the future development of the dual pathway model.

Conclusion

We found support for theoretical complementarity and pluralism in the study of collective action. When exploring the psychology of collective action among dominant groups, it may be best to use social dominance theory's model, but social identity models should be used for disadvantaged groups. The psychology of collective action would benefit from theoretical contributions from other theories in addition to the traditional social identity models that have been used for decades. Particularly as research moves toward engaging bystanders or others who do not share the same social categorization, different theoretical models should be used. Theoretical pluralism is important for expanding our knowledge and understanding of the dynamics of collective action.

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Table 1

Factor means, standard deviations, and covariances from measurement model by gender

Factor	Women	Men	1.	2.	3.	4.	5.	6.
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)						
1. Collective Action	.00 (1.45)	-.67 (1.67)	--	1.04***	1.06***	-.64***	.87***	-.01
2. Efficacy	.00 (1.05)	-.22 (1.28)	.54***	--	.50**	-.34**	.92***	.08
3. Anger	.00 (1.53)	-1.59 (1.18)	1.05***	.54***	--	-.31**	.37**	-.17*
4. Hostile Sexism	.00 (.81)	-.36 (.91)	-.29***	-.17**	-.23**	--	-.48***	.21**
5. SDO	.00 (.90)	.50 (1.13)	.29**	.39***	.23*	-.09	--	.05
6. Identification	.00 (.72)	.04 (.69)	.24**	.12*	.20**	-.05	.09*	--

Note. *** $p < .001$. ** $p < .01$. * $p < .05$. Women's covariances are below the diagonal, and men's covariances are above the diagonal. M = mean. SD = standard deviation.

Table 2

Item loadings from measurement model set to be equal across gender

Variable	Estimate	SE
Collective Action		
collact1	1.00	--
collact2	1.02	0.04
collact3	0.98	0.04
collact4	1.01	0.04
Group Efficacy		
eff1	1.00	--
eff2	1.01	0.06
Anger		
angry	1.00	--
hostile	0.63	0.05
scornful	0.66	0.05
disgusted	0.90	0.05
SDO		
sdo9	1.00	--
sdo10	1.33	0.09
sdo11	1.04	0.08
sdo12	1.15	0.09
sdo13	1.04	0.09
sdo14	0.98	0.09
sdo15	1.26	0.12
sdo16	1.14	0.12
sdo17	0.88	0.09
sdo18	-0.92	0.10
Hostile Sexism		
hs1	1.00	--
hs2	1.21	0.11
hs3	1.50	0.13
hs4	-1.05	0.12
hs5	1.27	0.12
hs6	1.29	0.12
hs7	1.28	0.12
hs8	1.14	0.11
hs9	1.28	0.12
hs10	-0.58	0.09
hs11	-0.72	0.10
Identification		
id4	1.00	--
id5	0.88	0.06
id6	1.29	0.08
id7	1.25	0.09

Note. All factor loadings (except markers) are statistically significant at $p < .001$.

Table 3

Residual variances from measurement model by gender

Item	Women		Men	
	Variance	SE	Variance	SE
collact1	1.12	0.10	0.70	0.09
collact2	0.58	0.07	0.46	0.07
collact3	0.55	0.06	0.41	0.06
collact4	0.78	0.08	0.24	0.05
eff1	0.22	0.07	0.31	0.11
eff2	0.30	0.07	0.37	0.11
sdo9	0.46	0.07	0.54	0.11
sdo10	0.54	0.08	0.70	0.13
sdo11	0.29	0.05	1.50	0.28
sdo12	0.54	0.08	0.46	0.11
sdo13	0.69	0.10	0.52	0.11
sdo14	0.63	0.09	0.99	0.19
sdo15	1.02	0.15	2.21	0.42
sdo16	1.56	0.21	1.81	0.34
sdo17	0.92	0.11	1.04	0.19
sdo18	1.54	0.17	1.23	0.22
hs1	1.79	0.15	1.81	0.22
hs2	1.34	0.12	1.24	0.16
hs3	1.11	0.11	0.96	0.14
hs4	2.46	0.20	2.21	0.27
hs5	1.92	0.16	1.34	0.18
hs6	1.53	0.13	1.65	0.21
hs7	1.23	0.11	1.29	0.17
hs8	1.63	0.14	1.46	0.18
hs9	1.37	0.12	1.50	0.19
hs10	2.06	0.16	1.87	0.22
hs11	2.05	0.16	1.91	0.23
id4	0.42	0.04	0.36	0.06
id5	0.29	0.03	0.86	0.11
id6	0.74	0.08	0.34	0.07
id7	0.57	0.06	0.62	0.09
angry	0.76	0.13	0.80	0.17
hostile	1.76	0.16	0.68	0.10
scornful	1.77	0.16	0.88	0.12
disgust	1.64	0.16	1.50	0.21

Note. All variances are statistically significant at $p < .001$.

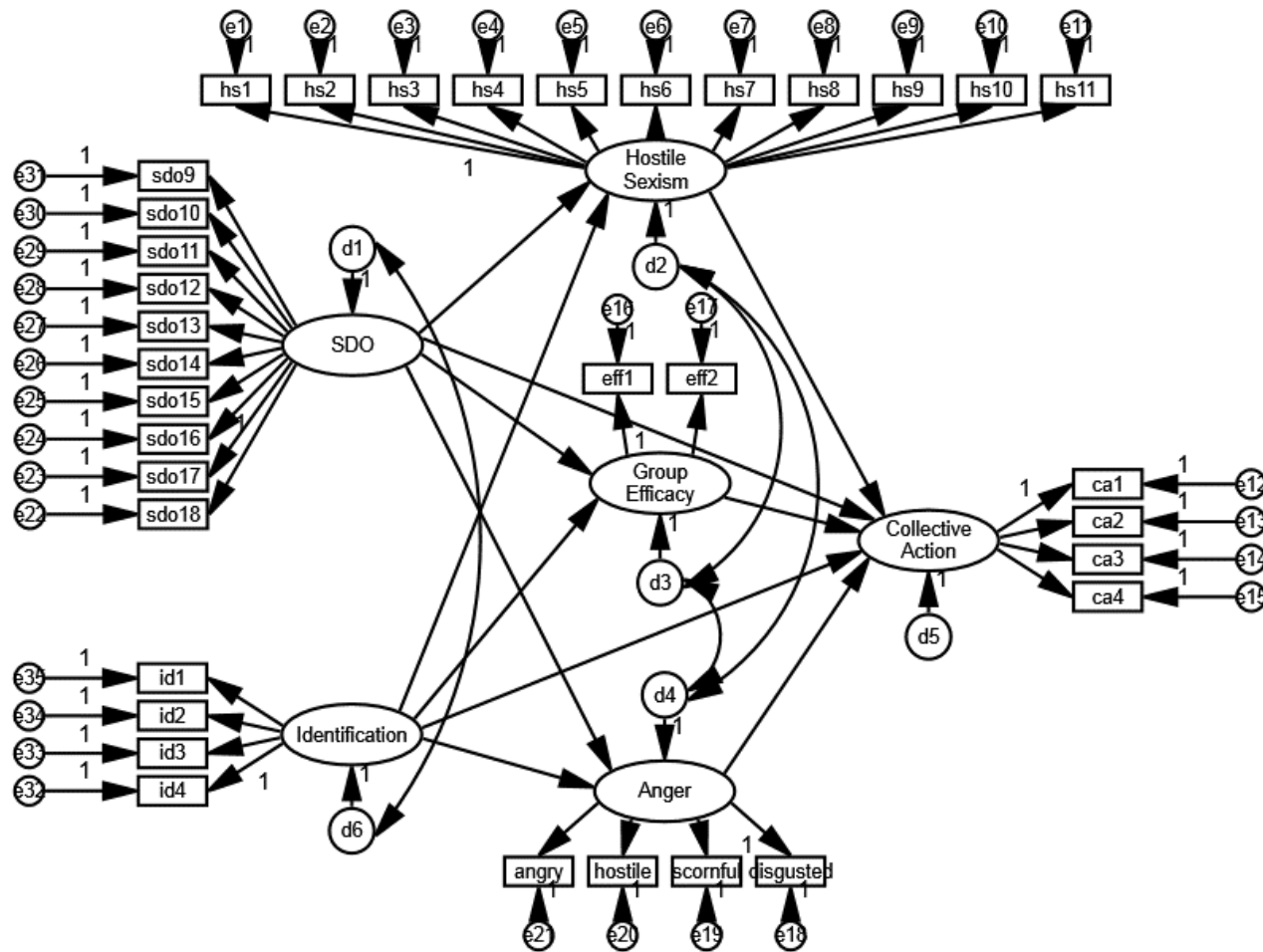
Table 4

Parameter estimates for three structural models

Path	Constrained				Unconstrained				Preferred			
	Women		Men		Women		Men		Women		Men	
	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>	<i>b</i>	<i>SE(b)</i>
Anger→CA	.38***	.05	.38***	.05	.35***	.06	.57***	.12	.33***	.06	.61***	.12
Efficacy→CA	.24**	.07	.24**	.07	.22*	.09	.28*	.13	.24**	.07	.24**	.07
HS→CA	-.31***	.09	-.31***	.09	-.23*	.10	-.46*	.17	-.30***	.09	-.30***	.09
SDO→CA	.16	.08	.16	.08	.10	.10	.13	.16	.14	.08	.14	.08
ID→CA	.19*	.10	.19*	.10	.22*	.11	.31	.20	.22*	.10	.22*	.10
ID→Anger	.07	.11	.07	.11	.35*	.14	-.38*	.16	.34*	.14	-.36*	.16
ID→Efficacy	.13	.07	.13	.07	.16	.09	.08	.15	.14	.07	.14	.07
ID→HS	.09	.06	.09	.06	-.09	.07	.47***	.11	-.08	.07	.47***	.11
SDO→Anger	.28***	.08	.28***	.08	.24*	.11	.31**	.10	.28***	.08	.28***	.08
SDO→Efficacy	.57***	.07	.57***	.07	.47***	.08	.72***	.10	.56***	.07	.56***	.07
SDO→HS	-.24***	.05	-.24***	.05	-.10	.06	-.40***	.08	-.12	.06	-.38***	.07

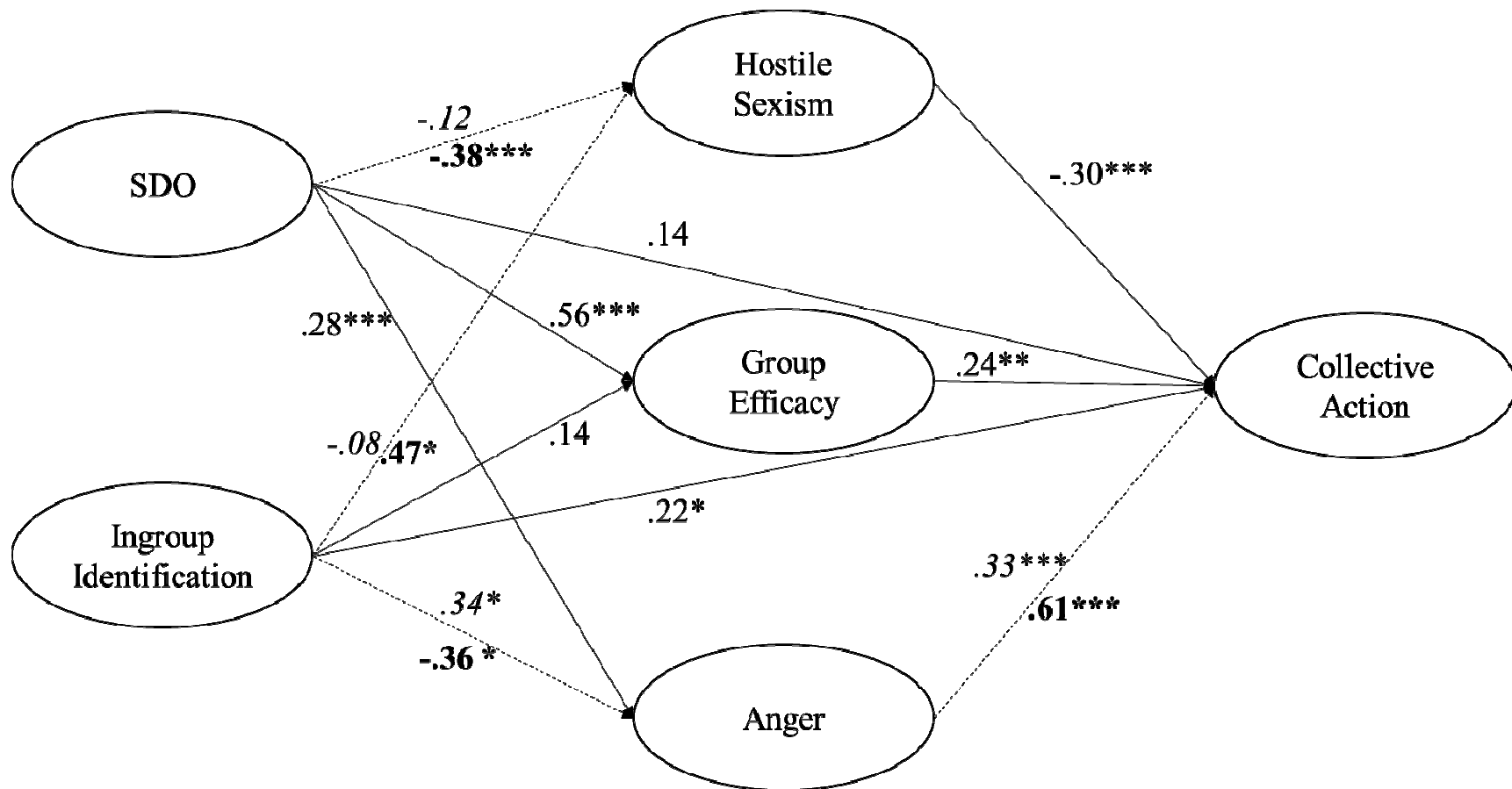
Note. *** $p < .001$. ** $p < .01$. * $p < .05$. CA = collective action. SDO = social dominance orientation: egalitarianism. HS = hostile sexism. ID = gender identification. Unstandardized estimates are presented.

Figure 1

Integrated model of collective action

Note. SDO = social dominance orientation: egalitarianism.

Figure 2

Preferred structural model for women and men

Paper 5: The Men's Project: A Sexual Assault Prevention Program Targeting College Men

Men are rarely targeted for primary prevention of sexual violence even though they are the primary perpetrators and contributors to a culture of hegemonic masculinity that supports sexual violence (Abbey & McAuslan, 2004; Barone, Wolgemuth, & Linder, 2007; Gidycz, Orchowski, & Edwards, 2011; Pratto & Walker, 2004; Sidanius & Pratto, 1999). Instead, sexual assault prevention programs overwhelmingly target women (Gidycz et al., 2011), providing them with risk reduction tools and skills to prevent their own potential assaults (e.g., providing rape whistles). Prevention programs targeting college men are necessary to complement risk reduction programs that are mandated for institutions of higher education (Gidycz, Orchowski, & Berkowitz, 2011). Further, the extent of male victimization of sexual violence also points to the importance of including men in primary prevention because they have an overlooked stake in the issue (Aosved, Long & Voller, 2011; Turchik, 2012). Encouraging different forms of masculinity that eschew dominance over others is important for preventing violence and improving men's health (Davies, Shen-Miller, & Isacco, 2010; Kiselica & Englar-Carlson, 2010; O'Neil, 2008). The present paper evaluates a sexual assault prevention program that targets college men called "The Men's Project."

Primary prevention programs should target ideologies and behaviors that contribute to an environment that allows sexual assault to occur (Gidycz et al., 2011). Several ideologies have been empirically associated with environments that foster sexual violence. Sexism, for example, can motivate people to perpetrate sexual assault (Abbey & McAuslan, 2004). Sexism is the belief in the relative inferiority of women to men, which can have a positive or a negative evaluation, viz., benevolent and hostile sexism, respectively (Glick & Fiske, 1996). Rape myth acceptance is another ideology that promotes and justifies sexual assault (Burt, 1980). Rape myths are

“prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists” (Burt, 1980, p. 217). Rape myths can encourage victim-blaming, and when people blame the victim, survivors are less likely to report their sexual assaults (e.g., Heath, Lunch, Fritch, McArthur, & Smith, 2011). The Men’s Project facilitators also sought to change men’s gender-biased language use (Stout & Dasgupta, 2011), which can also contribute to the invisibility and subordination of women relative to men (Cralley & Ruscher, 2005).

Accompanying factors that promote sexual assault, promoting behaviors that reduce sexual violence is important to target in prevention programs. Engaging in anti-rape protests (e.g., “Take Back the Night”) every year is a form of collective action that can prevent sexual violence (Earnshaw, Pitpitan, & Chaudoir, 2011). Engaging in feminist activism behaviors (e.g., attending a university program aimed at preventing sexual assault) would propagate a gender egalitarian norm that may dismantle the rape-supportive environment (Liss, Crawford, & Popp, 2004). However, many men feel uncomfortable participating in these events or confronting their peers about their sexist language or behavior (Kilmartin, Smith, Green, Heinzen, Kuchler, & Kolar, 2008), so the facilitators of the Men’s Project also attempted to increase bystander efficacy among our participants. Bystander efficacy is important for making men believe that they can be effective in ending sexual violence (Banyard, Moynihan, & Plante, 2007).

The Men’s Project integrates components from other sexual assault prevention programs designed for men (Barone, Wolgemuth, & Linder, 2007). Specifically, the Men’s Project utilizes content from (1) social norms interventions, (2) empathy-based interventions, and (3) bystander interventions (for a review, see Gidycz et al., 2011), all of which are based in social-psychological theory and research. Social norms interventions (e.g., Brown & Messman-Moore, 2010; Kilmartin et al., 2008) focus on how participants’ perceive sexist norms, which can often

be inaccurate perceptions of actual norms. The interventions attempt to correct this misinformation by providing factual information and change personal attitudes toward sexual assault. Empathy-based interventions (e.g., Berg, Lonsway, & Fitzgerald, 1999) focus on the emotional experience of understanding the impact of sexual assault on the victim and also on connecting men to the problem, which can form the basis for engaging in activist behaviors (van Zomeren, Spears, Fischer, & Leach, 2004). Finally, bystander intervention programs focus on providing participants with the skills necessary to notice sexism or sexist behavior and to intervene effectively (Banyard, Moynihan, & Plante, 2007; McMahon & Dick, 2011). Various techniques are used to increase bystander intervention skills among participants, including role-playing and discussions. The Men's Project utilizes all of these three approaches in its curriculum.

The content of the Men's Project is presented to participants in three major sections: (1) three weeks dedicated to understanding different masculinities, socialization, and male privilege, (2) five weeks exploring the breadth, depth, and emotional impact of sexual assault, and (3) three weeks developing bystander intervention strategies on an individual (e.g., confronting sexist jokes) and institutional (e.g., joining women's rights organizations) basis. The full program manual is available from the author. The major hypothesis of the present paper is that the Men's Project is an effective sexual assault primary prevention program because it reduces sexism and sexist behavior among men and also increases their feminist activism and commitment to ending sexual violence.

Method

Participants and Procedure

Participants were 36 undergraduate students of whom 35 identified themselves as men and one participant identified himself as female-to-male transgender. Participants' class standing was distributed as 14% first year, 17% sophomore, 33% junior, and 36% senior. Participants reported being 86% heterosexual, 8% gay, and 6% bisexual. Approximately 28% of participants reported being a member of a fraternity. Participants' age ranged from 18 to 22 ($M = 20.33$, $SD = 1.26$).

Men's Project participants were recruited through a nomination process. Staff affiliated with the campus Women's Center solicited nominations for Men's Project participants from faculty and staff. These potential participants were student leaders who had access to large social networks through their leadership roles in their respective organizations (e.g., residence hall assistants). Approximately 30% of nominated students agreed to participate in the Men's Project with no incentive for participation. The program lasted for 11 weeks, and participants attended the program every week for two hours. Two graduate students facilitated the Men's Project and were presented as experts in the area of sexual assault and gender (see Anderson & Whiston, 2005).

The survey was emailed to all participants one week before the Men's Project began (i.e., baseline measures) and two weeks after the Men's Project finished (i.e., post-test measures). Of the 36 total participants in the Men's Project, 33 provided data at baseline. After the Men's Project was completed, 23 Men's Project participants provided data and in total 20 Men's Project participants provided data for both time points. Attrition often due to time conflicts explains the discrepancy between the sample size pre- and post-test.

Measures

All items were rated on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The complete survey is available from the author.

Hostile Sexism. Hostile sexism was measured with five items from the ambivalent sexism inventory (ASI; Glick & Fiske, 1996). Originally, the hostile sexism subscale of the ASI contained 11 items, but the five items selected had the highest factor loadings established in a pilot study of male undergraduate students. Example items include: “Women are too easily offended” and “Most women fail to appreciate fully all that men do for them.” The scale demonstrated good reliability at baseline ($\alpha = .90$) and post-test ($\alpha = .90$).

Benevolent Sexism. Benevolent sexism was measured with five items taken from the 11 item benevolent subscale of the ASI (Glick & Fiske, 1996). The 5 items selected also had the highest factor loadings identified in a pilot study. The scale demonstrated acceptable reliability at baseline ($\alpha = .84$) and post-test ($\alpha = .83$). Example items include: “A good woman should be set on pedestal by her man” and “Men should be willing to sacrifice their own wellbeing in order to provide financially for the women in their lives.”

Rape Myth Acceptance. Rape myth acceptance was measured with five items from the 20 item Illinois Rape Myth Acceptance Scale-Short Form (IRMA-SF; Payne, Lonsway, & Fitzgerald, 1999). These five items were the highest loading items identified in a pilot study. The scale demonstrated acceptable reliability at baseline ($\alpha = .81$). At post-test, the reliability was poor ($\alpha = .25$) due to low variance on the items (see Table 1). Example items include: “When women are raped, it’s often because the way they said no was ambiguous” and “Rape accusations are often used as a way of getting back at men.”

Bystander Efficacy. Bystander efficacy was measured using five items (Banyard, Plante, & Moynihan, 2005). These items had the highest factor loadings in a pilot study. The scale

demonstrated acceptable reliability at baseline ($\alpha = .78$) and post-test ($\alpha = .72$). Example items include: “I don’t think I could stop a group of guys who are harassing a woman at a party” and “I believe my peers will listen to me if I speak out against sexual violence.”

Collective Action Willingness. Participants rated how willing they were to engage in collective action to fight against sexual assault with a five item scale (from van Zomeren, Spears, Fischer, and Leach, 2004, adapted to refer to sexual assault). The scale demonstrated acceptable reliability at baseline ($\alpha = .89$) and post-test ($\alpha = .94$). Example items include: “I would participate in a future demonstration for ending sexual assault” and “I would sign a petition to help end sexual assault.”

Feminist Activism. Feminist activism was measured with four items created for the present study ($\alpha = .82$ at baseline, $\alpha = .49$ at post-test¹). Example items include: “I inform myself of women's rights issues,” “I talk with others to influence their attitudes about women's rights issues,” “I participate in other activity related to women’s rights,” and “I plan to be committed to actively working to end oppression after I graduate from college.”

Gender-Biased Language. Gender-biased language was measured using two items created for the present study ($\alpha = .72$ at baseline, $\alpha = .77$ at post-test). These items were: “I refer to women as girls sometimes” and “I refer to groups of people as guys (for example, ‘See you later guys’).”

Results

In all analyses, missing data were estimated using full information maximum likelihood (FIML; as recommended by Schlomer, Bauman, & Card, 2010), which allowed the analyses to use the full sample ($N = 36$). For all variables, paired-samples t tests were conducted to compare baseline and post-test means. Analyses were conducted in MPlus v. 6.12, which uses FIML to

estimate missing data. Cohen's d effect sizes for paired samples were calculated using Morris and DeShon's (2002) formula, which corrects for correlation between pre- and post-test.

Table 1 displays the means and standard deviations for all variables at baseline and post-test, and Table 2 displays the correlation matrices at baseline and post-test. Results demonstrate decreases from baseline to post-test in hostile sexism ($t(35) = 2.49, p < .05, d = .45$), benevolent sexism ($t(35) = 2.27, p < .05, d = .34$), rape myth acceptance ($t(35) = 2.67, p < .05, d = .87$), and a marginal decrease for gender-biased language ($t(35) = 1.84, p = .08, d = .24$). Results demonstrate increases from baseline to post-test in collective action willingness ($t(35) = 2.82, p < .01, d = -.62$), bystander efficacy ($t(35) = 4.31, p < .001, d = -.95$), and feminist activism ($t(35) = 5.79, p < .001, d = -1.11$).

Testing for differences in variances from baseline to post-test allows us to assess normative changes associated with participating in the Men's Project. A likelihood ratio test can compare a repeated measures model that assumes the variances are equal to a repeated measures model that allows the variances to be unequal between time points. For hostile sexism, the standard deviation at baseline ($SD = 1.32$) was marginally larger than the standard deviation at post-test ($SD = 1.03$), $\chi^2(1) = 1.84, p < .10$. For benevolent sexism, the standard deviation at baseline ($SD = 1.55$) was not significantly different from than the standard deviation at post-test ($SD = 1.34$), $\chi^2(1) = 1.11, p > .10$. For rape myth acceptance, the standard deviation at baseline ($SD = .77$) was significantly larger than the standard deviation at post-test ($SD = .37$), $\chi^2(1) = 11.67, p < .001$. For bystander efficacy, the standard deviation at baseline ($SD = 1.10$) was significantly larger than the standard deviation at post-test ($SD = .70$), $\chi^2(1) = 3.32, p < .05$. For collective action willingness, the standard deviation at baseline ($SD = 1.09$) was significantly larger than the standard deviation at post-test ($SD = .72$), $\chi^2(1) = 3.57, p < .05$. For feminist

activism, the standard deviation at baseline ($SD = 1.25$) was significantly larger than the standard deviation at post-test ($SD = .80$), $\chi^2(1) = 5.13, p < .05$. For gender-biased language, the standard deviation at baseline ($SD = 1.47$) was not significantly different from the standard deviation at post-test ($SD = 1.60$), $\chi^2(1) = .21, p > .10$. When the standard deviation decreases from baseline to post-test, it indicates normative changes from baseline to post-test, so for (marginally) hostile sexism, rape myth acceptance, bystander efficacy, collective action, and feminist activism, we observed normative changes associated with participating in the Men's Project. Participants responded similarly at post-test compared to baseline for these variables.

Discussion

Sexual violence is a men's issue, and men can be an integral part of the solution (Katz, 1995). The Men's Project is a primary prevention program that provides men with the tools and skills necessary to challenge sexual violence. Analyses revealed that after participating in the Men's Project (versus before), participants report lower sexism and rape myth acceptance and higher efficacy to confront sexism and challenge sexual assault. Participants also reported increases in collective action willingness to end sexual violence and in feminist activism. Men's Project participants also reported using less gender-biased language. For attitudinal measures (e.g., sexism and rape myth acceptance), medium to large effect sizes were observed, and for behavioral measures (e.g., collective action willingness and feminist activism), large effect sizes were found (Cohen, 1992). Small effects were observed on gender-biased language and benevolent sexism. With a small sample size, it is difficult to discern why there are fluctuations in the effect sizes observed. Future research with larger samples can address this issue. We also observed normative changes among the participants, where participants agreed with each other

more at post-test compared to baseline. The results provide evidence that the Men's Project is effective in encouraging men to challenge sexual violence.

The Men's Project content integrates different types of prevention programs that have been used in the past. It integrates social norms interventions, empathy-based interventions, and bystander training interventions. Because of its integrative approach, it is unclear which aspects of the Men's Project created the changes in ideologies and behaviors that were observed, so future research can identify whether there are unnecessary aspects of the intervention, and how they work together. However, each component may not have additive effects on the men's transformations, and when presented together, they create a holistic, transformative experience. Anderson and Whiston's (2005) meta-analysis on the efficacy of sexual assault prevention programs suggests that content addressing information on sexual assault and discussions of socialization may be the most effective, and Banyard, Moynihan, and Plante's (2007) call for greater bystander education suggests that bystander training is important for preventing actual sexual assaults. The Men's Project contains all of these elements in one intensive program that can be administered to college males.

Despite the promising initial results, the study has several limitations. First, sample size for Men's Project participants was low. The low sample size was due to the institution's constraints on staff and resources to conduct the Men's Project. Future research should evaluate the program with more participants. Second, future research can also improve on the design of the study. Ideally, participants would be randomly assigned to participate in the Men's Project or not, which would increase the internal validity of the program. A follow-up survey to assess the long-term effects of the program would also be ideal. Some research suggests that the effects of these programs diminish over time (Breitenbecher, 2000), so testing the Men's Project's long-

term effects is important for future research. Third, the study design may have demand characteristics and encourage social desirability among the participants. Participants may have been motivated to respond more favorably on the survey, particularly because they had invested much time and emotional involvement into the program. Having personnel other than those who delivered the program to participants might have reduced demand or social desirability in the present study. Future research can include a measure of social desirability and can use different measures pre- and post-intervention to reduce demand. Finally, the Men's Project participants were low on sexism and rape myth acceptance (as indicated by their average responses on the scales), so future research should test whether the program is effective with men who may be resistant to feminist messages (see Rich, Utley, Janke, & Moldoveanu, 2010).

Despite these limitations, the Men's Project represents a promising primary prevention program that targets men. Engaging men has been noticeably absent from the discussion of sexual violence prevention until only recently. Most men do not perpetrate sexual violence (Barone et al., 2007) and actually disapprove of sexual violence (Kilmartin et al., 2008), so encouraging the expression of different forms of masculinity other than ones where dominance over others is primary can be used for prevention programs targeting men (see Davies, Shen-Miller, & Isacco, 2010; Kiselica & Englar-Carlson, 2010; O'Neil, 2008). Primary prevention programs that are theoretically derived, practical, and effective are important for preventing sexual violence before it begins. The Men's Project is an important part of this general movement.

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Footnotes

¹The poor reliability at post-test was due to an outlier on one of the items for one participant. The item was “I plan to be committed to actively working to end oppression after I graduate from college,” and the participant rated this item as a 1 on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Removing this outlier improves the reliability ($\alpha = .67$). . Exclusion of the outlier did not affect the conclusions from the analyses. The analyses include the outlier because there was no reason to remove it.

Table 1

Means and standard deviations for all variables for baseline and post-test, total N = 36

Variable	<u>Baseline (N = 33)</u>		<u>Post-Test (N = 23)</u>	
	<i>Raw M (SD)</i>	<i>FIML M (SD)</i>	<i>Raw M (SD)</i>	<i>FIML M (SD)</i>
Hostile Sexism	2.61 (1.32)	2.62 (1.63)	2.15 (1.03)	2.16 (1.08)
Benevolent Sexism	3.52 (1.55)	3.55 (2.30)	2.94 (1.34)	3.06 (1.70)
RMA	1.69 (.77)	1.67 (.57)	1.33 (.37)	1.33 (.14)
Bystander Efficacy	4.99 (1.10)	5.00 (1.19)	5.81 (.70)	5.51 (.47)
Collective Action	5.92 (1.09)	5.92 (1.14)	6.56 (.72)	6.51 (.52)
Feminist Activism	4.62 (1.25)	4.62 (1.51)	5.93 (.80)	5.94 (.62)
Language Use	5.08 (1.47)	5.09 (2.09)	4.37 (1.60)	4.36 (2.46)

Note. *M* = mean and *SD* = standard deviation. RMA = rape myth acceptance. FIML = full

information maximum likelihood. Raw means and standard deviations are calculated with part of the sample, and FIML means and standard deviations are calculated after missing data are estimated using maximum likelihood estimation.

Table 2

Correlations among all variables for baseline and post-test.

Variable	1.	2.	3.	4.	5.	6.	7.
1. Hostile Sexism	.72***	.51*	.10 ^{ns}	-.08 ^{ns}	.01 ^{ns}	-.27 ^{ns}	.42*
2. Benevolent Sexism	.35*	.76***	-.29 ^{ns}	.15 ^{ns}	.23 ^{ns}	-.04 ^{ns}	.24 ^{ns}
3. RMA	.69***	.38*	.27 ^{ns}	-.57**	-.59**	-.43*	.21 ^{ns}
4. Bystander Efficacy	-.26 ^{ns}	-.03 ^{ns}	-.51**	.48*	.80***	.66**	-.36 ⁺
5. Collective Action	-.47**	-.16 ^{ns}	-.56**	.50**	.31 ^{ns}	.65**	-.09 ^{ns}
6. Feminist Activism	-.50**	-.17 ^{ns}	-.46**	.48**	.71***	.37 ^{ns}	-.39 ⁺
7. Language Use	.16 ^{ns}	.20 ^{ns}	.12 ^{ns}	.01 ^{ns}	.05 ^{ns}	-.11 ^{ns}	.12 ^{ns}

Note. *** $p < .001$, ** $p < .01$, + $p < .10$, ^{ns} $p > .10$. RMA = rape myth acceptance. Correlations at baseline ($N = 33$) are below the diagonal, and correlations at post-test ($N = 23$) are above the diagonal. Correlations along the diagonal are the correlations between the same variable measured at baseline and post-test ($N = 20$).

General Conclusion

Across five papers, I have explored various ways to examine social change using social dominance theory. By reconceptualizing social change as the dynamics of intergroup behavior, I hope to evince how social dominance theory can contribute to the social psychology of social change. The first paper attempted to provide the theoretical rationale for viewing social change as the dynamics of intergroup behavior. The second section of this dissertation examined the consequences of ideological norms (i.e., masculinity and sexist norms) for intergroup violence and discrimination in gender relations. Both papers demonstrate that violence against women, or tolerance of it, occurs more often when there is ideological disagreement. In the small groups experiment, women, who were stereotyped as communal, were the primary targets of violence when masculinity was normative. Thus, the disagreement between the stereotypes of women and the normative traits for the group contributed to violence against women. In the cross-national study, I found that when sexism was contentious (versus normative) (a) people believed domestic violence was more justified and (b) individual-level sexist beliefs predicted people's support for domestic violence.

Throughout the dissertation, I have made the argument that ideological norms at the national or group levels is important for studying intergroup beliefs and behaviors at the individual level, which have a complex relationship. The results presented here suggest that disrupting ideological norms or cultural hegemony can de-stabilize intergroup relations and greater intergroup conflict and violence. Thus, challenging dominant ideologies can come at a price. For example, when sexist beliefs were less normative in some countries compared to other nations, people (particularly sexist people) believed that domestic violence was more justified. These results suggest that challenging sexist norms can lead people who are motivated to

maintain male dominance over women to use violence in order to achieve that goal. Women are discriminated against (either violently or nonviolently) when sexist beliefs are non-normative and normative. It may be the case that normalizing a new ideology is necessary to stabilize intergroup relations and to reduce intergroup conflict and violence. This new ideology could be one that promotes gender equality, such as feminism. In the process of de-normalizing sexism, it may be important to simultaneously normalize another ideology, such as feminism, so that intergroup violence is reduced. Normalizing new ideologies, such as feminism, is easier said than done, but if done successfully, intergroup violence and conflict could be attenuated through the transition from one ideological norm (e.g., sexism) to another (e.g., feminism). People who work toward normalizing hierarchy-attenuating ideologies can be mindful of the ways that people who are motivated to maintain intergroup inequality may co-opt their messages or use violence as a last resort to maintain unequal gender relations. Simultaneously de-normalizing hierarchy-enhancing ideologies and normalizing hierarchy-attenuating ideologies may be a successful strategy leading to a peaceful transition.

In addition to examining the ideological foundations for violence against women, I have tried to understand how to get people to challenge cultural hegemony in order to reduce violence and discrimination. In the third section, I presented two papers that explored people's motivations to engage in collective action to reduce the gender wage gap and to work toward ending sexual violence through sustained activism and grass-roots efforts. The collective action paper demonstrated that general egalitarianism and anti-sexism are important motivators for men to engage in collective action on behalf of women. For women, ingroup identification was an important predictor of anger at the gender wage gap and feelings of group efficacy that they could be successful by taking collective action. This work expands our understanding of what

motivates men and women to engage in collective action. The Men's Project paper evaluated an intervention designed to engage men in sexual violence prevention by changing their conceptualizations of masculinity, inducing empathy with survivors of sexual assault, and providing them with the skills to be effective bystanders in preventing sexual assault.

Participating in the intervention was associated with reduced sexism, rape myth acceptance, and gender-biased language as well as increase collective action willingness, feminist activism, and bystander efficacy. In all, these papers explored how men and women could challenge cultural hegemony and work toward normalizing ideologies that oppose sexism and group dominance. I believe that the research presented in this dissertation makes theoretical, methodological, and applied contributions to the science of intergroup relations.

Many researchers do not consider social dominance theory to be a theory of social change in social psychology. I hope that the theory and research presented in this dissertation contributes to changing this perception. Hierarchy-attenuating ideologies and intergroup behaviors have always been an important part of social dominance theory, and my research focuses on SDT's contributions to understanding collective action and improving intergroup relations. For example, SDT is widely considered to be a theory of intergroup inequality, but from a different perspective, SDT can also be considered a theory how to overcome cultural hegemony and its associated social problems to change towards intergroup equality. In future research, exploring hierarchy-attenuating processes can work toward changing the perception that SDT is opposed to social change research and theory.

The multilevel research presented in this dissertation also makes theoretical contributions to the social psychology of intergroup relations. Virtually all theories of intergroup relations argue that intergroup relations should be examined at multiple levels of analysis, and my

research explicitly includes multilevel analyses. By specifying ideological norms at a group or societal level of analysis, I can examine theoretical predictions that have not been empirically tested (e.g., sexist norms at the societal level and sexist beliefs at the individual level). My research on masculinity and sexist norms is evidence of examining multiple levels of analysis in studying intergroup relations. Because of the multilevel nature of much of my research, I can draw from theories in other social science disciplines, such as sociology (e.g., velvet glove theory and neo-Marxism). Examining multiple levels of analysis allows for an interdisciplinary analysis of complex intergroup relations.

The research presented in this dissertation also makes methodological contributions to the study of intergroup relations. Although the use of multilevel modeling is gaining popularity in social psychology, there are still too few studies using these statistical techniques to test theoretical predictions. Because most theories of intergroup relations are multilevel theories, they demand the use of multilevel modeling to test their most important predictions. For example, social identity theory argues that structural characteristics of intergroup relations gives rise to ingroup identification and behavioral responses to intergroup inequality, but most research examining these structural influences has measured them at the individual level. Constructs, such as status instability, are measured as individual perceptions. With multilevel modeling, we can measure the objective level of status stability and examine if it predicts ingroup identification and intergroup behavior. These methods provide a more explicit test of this theory's predictions. My research takes multilevel constructs from social dominance theory and operationalizes them at the level of analysis at which they should exist. Ideological norms, for example, are societal or group level constructs, so I have operationalized them at the societal and group levels.

Finally, it is important to me that my research makes applied contributions. The insights gained from the study on collective action (i.e., that men's egalitarian beliefs are important for motivating collective action) can inform interventions to reduce sexism and to increase collective action. The Men's Project has shown promise as an intervention to engage men in working toward sexual violence. Although more research is necessary to test the Men's Project's internal validity and generalizability, the research presented in this dissertation is promising. Theories of intergroup relations have a lot to offer to applications and interventions, but they are underutilized as tools for improving intergroup relations. The present dissertation seeks to push theories of intergroup relations to contribute to interventions and applications that can improve intergroup relations.