

# Group Gender Composition and Work Group Relations

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## *Theories, Evidence, and Issues*

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Prior to the publication of Kanter's seminal *Men and Women of the Corporation* in 1977, the field of organizational studies exhibited a striking degree of oblivion to the effect of gender relations on work group dynamics (Acker & Van Houten, 1974). This neglect may have been due, in part, to the relatively small proportion of women in the labor force in the first half of the 20th century,<sup>1</sup> as well as to high levels of occupational and job segregation, which helped conceal the influence of group gender composition on individual and group behavior. In the postwar years, however, women's rate of entry into the labor force nearly doubled that of the preceding three decades, and women began to occupy many jobs and occupations that had been the near-exclusive province of men. In this context, Kanter's provocative analysis of the impact of work group gender composition on group relations served as the impetus for an outpouring of both theoretical and empirical work.

Studies following Kanter's have explored the effects of gender composition on a wide range of outcomes, based on a variety of theoretical perspectives. In this chapter, we review five major theoretical paradigms that, singly

or in combination, have provided the underpinning for most empirical studies, then review the findings from empirical work, focusing on the degree to which they provide support for each perspective. In concluding, we identify several avenues that merit greater attention in future research and theorizing.

## Theoretical Perspectives on the Gender Composition of Work Groups

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Empirical work on the effects of group gender composition has drawn on an array of sociological, social psychological, and psychological theoretical traditions, most of which were developed to explain phenomena other than gender-based social relations. As a consequence, their application to the study of the gender composition of work groups has, at times, required an expansion of the original theoretical logic. Here we focus on five general perspectives: similarity-attraction, social contact, group competition, social identity, and relative deprivation.

A number of key dimensions may be used in comparing these perspectives. One is whether they are aimed primarily at explaining social relations or individuals' subjective states, a distinction reflected in differences in central outcome measures implied by theoretical foci—attitudes and behaviors toward others versus the internally oriented attitudes and behaviors resulting from an individual's perception of the social setting (e.g., job satisfaction, propensity to leave a group). A second dimension is whether social competition for collective status and resources is treated as a driving force in the formation and evolution of intergroup relations. And a third dimension is whether the perspective provides an account of potential differences in the effects of composition on women and men. Our comparison of the perspectives highlights differences among them along these dimensions.

### ① *Similarity-Attraction Perspective*

A well-established explanatory framework often used in studies of gender composition is similarity-based interpersonal attraction. This psychological tradition traces its roots to early sociometric studies conducted by Moreno (1943) and to research by Newcomb (1943) on interaction and friendship patterns of students at Bennington College during the Depression years. The original studies aimed at explaining interpersonal attraction and the effects of such attraction and interaction on attitudinal change. The core logic of this approach suggests that individuals are attracted to others from whom they expect to gain positive outcomes as a result of interaction. What leads people to expect, a priori, more or less rewarding interactions? One documented basis for such expectations is perceived similarity between self and others in terms of attitudes, values, and activity preferences (Byrne, 1971). Individuals who are similar in these respects presumably are more likely to provide

positive, affirming feedback on opinions, abilities, and ideas, which enhances self-esteem. Prior interaction with a particular person may not be necessary for individuals to form expectations of attitudinal similarity; rather, similarity may be inferred on the basis of characteristics that are believed to serve as indicators of certain attitudes and values.

Thus, researchers have argued that easily visible demographic characteristics, such as age, sex, and race, are commonly used as indexes of similarity (Tsui & O'Reilly, 1989). Insofar as individuals are more attracted to and psychologically more comfortable with those they view as similar to themselves, the gender composition of a group should affect both subjective states (e.g., satisfaction) and behavioral predispositions (e.g., intentions to leave a group). This perspective implies that as the proportion of women in a work group increases, women are more likely to be satisfied with their jobs and less likely to leave; as the proportion of women decreases, the reverse should be true. Conversely, men should be less satisfied as the proportion of women in their work group increases and the proportion of men decreases.

This perspective emphasizes internally focused subjective states and, as developed, offers no specific insights into the effects of group proportions on social attitudes and behaviors (i.e., positive or negative attitudes toward others). This issue is addressed, however, by a related perspective, social contact.

## ② Social Contact Perspective

Studies of group gender composition that reflect a social contact perspective often draw on (two) key analyses published in 1977, by Rosabeth Moss Kanter (1997a) and by Peter Blau (1977a, 1977b). Tracing their arguments to work by Simmel (1908) on the impact of group size on inter- and intragroup relations, both analyses rest on (two) assumptions: that increased rates of social interaction among individuals will lead to the formation of affective ties to members of a given social group, and that such ties affect individuals' attitudes toward the group as a whole.<sup>2</sup>

Based on a case study she conducted of a large industrial firm, Kanter (1997a) developed her theory to explain her observations of interactions between men and women, both within and across different subunits. Her analysis emphasizes the way in which the proportion of individuals in a work group with a particular, visible characteristic affects that characteristic's salience within the group. In groups containing a very small proportion of members with a given characteristic (*skewed groups*, in her terminology), the majority often becomes sensitized to the characteristic as defining social boundaries within the work group, and inclined to act in ways that promote interaction among majority members and minimize their contact with minority members.

Kanter identified a number of social behaviors exhibited by majority members: increased solidarity in response to the heightened salience of their

common group membership; intense awareness and close scrutiny of the behavior and performance of individual minority members due to the visibility of the latter within the group; and cross-group interactions characterized by the role-casting of minorities in ways consistent with common cultural stereotypes. She hypothesized that, in response, minority members would experience a general sense of social isolation, intense performance pressure, and unusually strong social constraints on their behavior in social interactions.

Although Kanter's arguments are both provocative and intuitively plausible, her proposed theoretical framework has a number of logical limitations, as subsequent analysts have pointed out. A common criticism of her analysis is its exclusive focus on the impact of numerical proportions on work group dynamics, and its neglect of the potential mediating impact of general social prestige and status accorded to different groups in society (Martin, 1985; Yoder, 1991); that is, the social status of the minority group provides an important, unspecified scope condition for her theory. Moreover, she focuses almost entirely on the impact of group proportions on the attitudes and behaviors of majority members toward the minority, offering few specifics on the impact of group proportions on relations among members of the minority group, or on their attitudes and behavior toward the majority.

Blau's (1977a, 1977b) theory, proposed as a generic theory of relative group size and group relations, addresses some of these issues. He distinguishes between two key aspects of social differentiation: (1) the relative sizes of categorically defined social groups and (2) hierarchically arranged status divisions, including levels of wealth, education, and power. He argues that status-graded as well as categorical group distinctions discourage social interaction across divisions and encourage interaction within divisions, presumably as a consequence of the sorts of social psychological processes postulated by the similarity-attraction perspective.

Blau's approach is distinguished from Kanter's (1977a) approach by its emphasis on how the proportionate size of a given subgroup within a larger group affects an individual's chances of interacting with members of her own subgroup (the in-group) and members of other subgroups (out-groups). He argues that the rate of out-group associations between members of two subgroups necessarily will be greater for the smaller of the two.<sup>3</sup> Although he does not elaborate on the social psychology involved in cross-group contacts to the extent that Kanter does, he does note that the

social experience of associating with persons with different backgrounds undoubtedly affects attitudes and conduct. It may well broaden people's horizons, promote tolerance, and stimulate intellectual endeavors. . . . The structurally generated differences in intergroup experience between small minorities and a large majority would lead one to expect these characteristics to be more prevalent among the minorities. (Blau, 1977b, p. 36)

Blau's quote suggests that in work situations characterized by a relatively large majority group, and a much smaller minority group, the lack of out-group contacts by majority members increases the likelihood that they will sustain prejudices against minority members and engage in discriminatory behavior. Increases in the proportionate size of the minority should, *ceteris paribus*, promote more out-group contacts among the majority and thus reduce negative attitudes and behavior. (Note the assumption that individuals have relatively few chances to leave the group; otherwise, increases in the minority could conceivably cause the majority simply to leave.<sup>4</sup>) On the other hand, because members of small minority groups have relatively few opportunities for in-group interactions and greater chances for out-group interactions, they might be expected to have, on average, a relatively high tolerance for (if not positive attraction to) out-group members. Paradoxically, an increase in the proportionate size of the minority group, by decreasing the probabilities of out-group interaction among minority members, may result in more negative attitudes toward the majority. Such an increase also enhances the likelihood that members of the minority will have more interaction with each other; this could be expected to reinforce initial attraction and propensities to provide support to in-group members.

Although a social contact perspective makes some of the same assumptions as a similarity-attraction perspective, it emphasizes the impact of group demography as an independent influence on the formation of social ties and focuses on individuals' attitudes and behaviors toward in-group and out-group members rather than on internal subjective states. It suggests that the higher the proportion of women in a work group, the more women will exhibit supportive attitudes and behaviors toward other women and the less they will show supportive attitudes and behaviors toward men. Although Blau explicitly recognizes the role of status as an influence on interaction patterns, he does not specify how the relation between group size and interaction patterns may differ for high- and low-status groups. As noted, Kanter does not consider the effects of status at all; the consequences of membership in a small minority group are presumably the same for men as for women.

Blau's framework does not give much attention to the impact of group proportions on individuals' internal subjective states. Kanter does, however, suggest that women in skewed groups suffer feelings of psychological discomfort and stress, largely as an outcome of the negative social environment created by the majority's attitudes and behaviors. Furthermore, she proposes that such feelings should decrease as the proportion of women increases and group dynamics shift. She does not address the impact of increases in the proportion of women on the psychological states of male work group members, nor whether men in small subgroups experience the same negative psychological outcomes as do women. If the group dynamics are the same when women are in a majority, as Kanter's and Blau's silence on this point might suggest, then it is reasonable to expect that when men are a minority

in a skewed group, they will experience psychological discomfort created by social isolation, heightened performance pressures, and so on.

### ③ Group Competition Perspective

Another perspective that focuses on the impact of group proportions on social relations but offers predictions very different from those of a social contact perspective is the group competition perspective. This approach, which originated in studies of racial and ethnic relations, assumes that individuals typically identify themselves in terms of membership in a social group and are inclined to protect and advance their group's interests vis-à-vis other groups (even at their own expense).

Blalock (1967) has offered one theoretical framework in this tradition on which a number of empirical studies have been based; thus, we will concentrate on his arguments here. Blalock's theorizing reflects his empirical work, which focused on expressions of prejudice and discrimination by Whites against Blacks.<sup>5</sup> In consequence, like Kanter (1977a), he does not explicitly distinguish between the effects of numerical and social dominance, nor does he consider the impact of relative group size on the attitudes and behavior of socially subordinate groups. He uses the term *minority* only in reference to socially subordinate groups; because we use that term to refer to the smaller of two groups, we substitute *socially subordinate group* for Blalock's *minority*.

His analysis is predicated on the notion that the outcomes of competition between social groups for collective control of resources are importantly influenced by the relative sizes of competing groups. Thus, as a socially subordinate group increases in size, so does its perceived level of threat to the dominant group, which leads to increased hostility among members of the latter toward the former and to discriminatory acts to protect the dominant group's control of resources.

Blalock distinguished between competition for economic resources (e.g., jobs) and social resources (e.g., power). In the case of economic resources, he theorized a positive, declining curvilinear relationship between subordinate group size and discrimination by the dominant group, based on the assumption that threats to economic resources would quickly generate strong discriminatory activity by the dominant group, generally aimed at confining subordinates to selected areas of economic activity (see Figure 10.1). If successful, such activity would largely eliminate the subordinate group's competitive threat, regardless of increases in size, and thus stabilize the level of economic discrimination by the dominants. The potential applicability of this analysis to gender-based occupational and job segregation is evident (see, e.g., Reskin & Roos, 1990; see also Chapter 7 by Jacobs in this book).

In the case of political power resources, Blalock postulated a positive, exponential relationship between discrimination by dominant group members and increases in the size of the subordinate group based on the assumptions

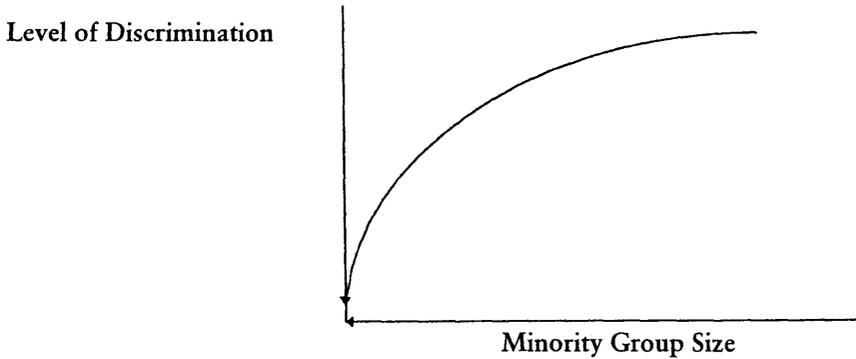


Figure 10.1. Relationship Between Subordinate Group Size and Discrimination by Dominant Group, by Type of Competition: Competition for Economic Resources

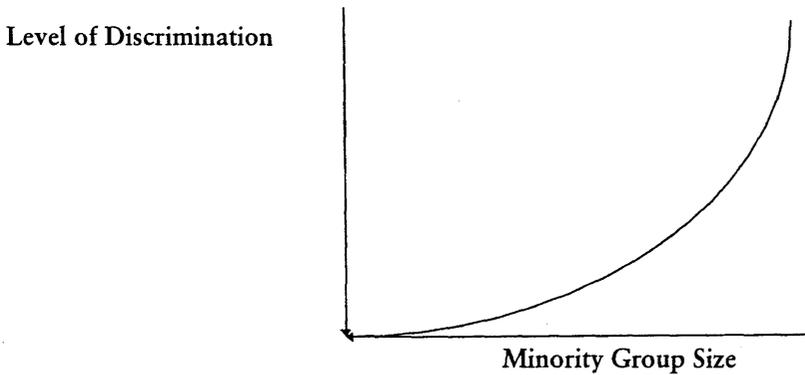


Figure 10.2. Relationship Between Subordinate Group Size and Discrimination by Dominant Group, by Type of Competition: Competition for Political Resources

that no comparable segregating tactics could allay competition for political power resources and that growth of the subordinate group would thus represent a progressively greater threat to the dominant group's control of political resources (see Figure 10.2). This argument may have particular relevance for analyses of the effects of increases in the number of women in management and decision-making positions.

Thus, in contrast to a social contact perspective, which predicts more positive attitudes and behaviors by a dominant majority toward an increasing subordinate minority (due to the increased rates of out-group contacts by the former group), a competition perspective predicts the opposite. Specifically, this perspective predicts that as the proportion of women in a work group increases, men will exhibit more negative attitudes toward them and engage more in economic and political discrimination. Because women are not a socially dominant group in contemporary American society (e.g., Ridgeway,

1997), whether they, as a majority group, would be similarly threatened by an increase in the proportion of men, and thus respond with more out-group antagonism, is unclear.

This perspective is largely silent on questions concerning the impact of group composition on internally oriented subjective states, as is a social contact perspective. Following Kanter's (1977a) arguments, negative social environments for women (presumed to be associated with increases in their relative group size) may lead to greater psychological discomfort and lower levels of attachment to the larger group. This might be reduced, however, once women reached a critical mass that allowed them to counter discrimination by the majority effectively. Insofar as economic and power threats entail uncomfortable psychological states, a competition perspective implies that the increasing representation of women in a work group will affect men's attitudes negatively (e.g., decrease work group satisfaction, increase willingness to leave the group).

The literature on social identity theory, on which studies of group gender composition have frequently drawn, shares some key assumptions with a group competition perspective. However, social identity theory provides a somewhat different view of the effects of increasing minority group size on individuals' psychological states.

#### ④ *Social Identity Perspective*

Social identity theorists assume that much, if not most, social behavior is driven by individuals' needs to protect and enhance their self-esteem or self-image (Tajfel, 1978, 1982; Tajfel & Turner, 1985; Turner & Giles, 1981). An individual's self-image reflects both a personal component, based on characteristics that are unique (e.g., personality, intellectual and physical capabilities), and a social component that is based on identification with various social groups and their perceived social status. The latter component entails self-categorization, the cognitive processes of developing contrasting categories of group membership, and assigning oneself to one or more of these categories.

The need to enhance self-esteem leads individuals to seek to maximize the status of groups with which they identify by attributing favorable qualities to members of those groups (and thus, themselves), and negative qualities to individuals who are *not* members of those groups. Because group social status is normally aligned with control of material resources and power, a social identity perspective implies that individuals will be motivated to maximize control of resources by group members and to prevent outsiders from having access. Thus, self-categorization processes enhance behavioral as well as attitudinal in-group solidarity and promote hostility and discrimination toward out-groups (Brewer & Miller, 1996).

Because individuals typically identify with an array of groups (status, occupational, religious, political, etc.), what determines the salience of a given identity at any point in time is a critical theoretical and empirical question. Research within this tradition has suggested a number of conditions that may influence salience, including the degree to which the group a person identifies with is perceived to be threatened by another (Ashforth & Mael, 1989; van Knippenberg, 1984). Insofar as increases in a subordinate group threaten control of power and resources by a dominant group, as Blalock suggests, this condition should heighten the salience of dominant group membership for individuals. In-group support and out-group hostility should increase among members of a dominant group when the subordinate group expands. Likewise, when a subordinate group is very small, in-group/out-group distinctions should be less salient to members of the dominant group, and they should show relatively little support for other in-group members or hostility toward out-group members.

Social identity theory elaborates the arguments of the group competition perspective by specifying effects of group size for members of lower-status minority groups. Social identity theorists have argued that identification with a group that is clearly accorded lower status in society may be threatening to an individual's self-esteem. If raising the status of the group does not appear to be viable, individuals may respond by distinguishing themselves from their group as being exceptional or uncharacteristically superior. Under these circumstances, the drive to promote positive self-identity may undermine in-group solidarity among members of subordinate groups and encourage more positive attitudes and behaviors toward members of out-groups than toward the in-group (Williams & Giles, 1978; see also Graves & Powell, 1995).

Insofar as increases in the size of a lower-status group lead to perceptions of greater power (and potentially higher group status), as small, socially subordinate groups increase in relative size, members could be expected to have more supportive attitudes and behaviors toward in-group members and more hostile attitudes and behaviors toward out-group members. In addition, individuals might be expected to be less satisfied in situations where the social identity that is activated threatens their self-esteem. The perception of increasing power and status of groups in which individuals have vested their social identities should alleviate stress created by unfavorable group status, and thus positively affect individuals' subjective psychological states (Wharton, 1992).

The application of these arguments to analyses of gender relations suggests that when the proportion of women in a work group is smaller, women are more likely to hold negative attitudes toward other women in the group and positive attitudes toward men. Once the proportion of women reaches a level that makes it possible (in actuality or perception) to exercise collective influence, women should show higher levels of in-group support and less favorable out-group attitudes with further increases in proportional

representation. In addition, women should experience more positive internally oriented psychological states as the number of women in a work group increases.

Because men hold higher status in society, they could be expected to exhibit positive attitudes and supportive behavior toward other men, as members of their in-group, even when they constitute a numerical minority.

In fact, insofar as being in a minority enhances the salience of their gender group membership, they may show an even stronger commitment to other men in the work group than when they are in a majority. The impact of minority status on men's subjective states is more ambiguous theoretically, but it seems likely that the lower power associated with being in a small minority will reduce the normally positive effects on self-esteem of having membership in a socially dominant group. Status ambiguity is a key element in the final perspective that we consider: relative deprivation.

### § Relative Deprivation Perspective

The term *relative deprivation* was first applied in research on American soldiers in World War II (Stouffer, Suchman, DeVinney, Starr, & Williams, 1949) that found that men in units with high rates of promotion reported significantly lower morale and more negative attitudes than those in units with much lower rates. The general explanation of this phenomenon, that individuals' expectations, based on social comparisons, determine levels of contentment regardless of their objective situation, was soon adopted by researchers interested in explaining variations in individuals' political discontent and susceptibility to political protest activity (Gurr, 1970; Runciman, 1966).

Crosby (1982) was among the first to apply the concept of relative deprivation in the context of gender studies to explain the common finding of that women and men have comparable levels of job satisfaction, despite women's lower earnings and less favorable working conditions. She suggested that, because of job and occupational segregation, women typically use other women as their social comparison group and, consequently, have lower expectations for work rewards than do men. Building on Crosby's work, Major (1994) argued that women feel less entitled to job rewards than men, and that is key to women's greater job satisfaction. Women's sense of entitlement is likely to be affected by their acceptance of gender-based inequality in job rewards and conditions.

Research using a relative deprivation perspective has not explicitly addressed the issue of how changes in a group's gender composition may affect women's choices for self-comparisons or their level of job satisfaction. However, Crosby cites job and occupational segregation in explaining why women compare themselves to other women, and her data (1982) indicate that women in occupations with low prestige are much less likely to compare

themselves to men than women in high-prestige occupations (which are more likely to be male dominated). This suggests that whether women compare themselves to men or other women depends on the gender composition of the groups to which they belong. Women in male-dominated groups should be more likely to adopt men as a comparison group; conversely, women in female-dominated groups should be more likely to compare themselves to other women. Because men tend to receive greater job rewards than women, women's work satisfaction should be lower in groups with a smaller proportion of women (Graham & Welbourne, in press).<sup>6</sup>

Most of the research on job satisfaction that draws on a relative deprivation perspective has focused on women; how relative deprivation processes might affect men's work attitudes has been almost completely neglected. If men take other men as their reference group, their overall level of job satisfaction could be expected to be negatively related to the proportion of women in their group, because female-dominated occupations and jobs typically provide low levels of rewards (Pfeffer & Davis-Blake, 1987). Crosby's (1982) research suggests that men rarely use women as a comparison group.

However, based on assumptions of theoretical consistency, because women's choice of comparative others is presumed to be affected by the gender composition of groups, we infer that men's choices of comparison others should also be affected by the composition. Small-groups research (see Walker & Fennell, 1986; Walker, Ilardi, McMahon, & Fennell, 1996) indicates that men in gender-mixed or female-dominated groups often enjoy greater nonmaterial rewards, such as opportunities for participation and influence, than in all-male groups. These advantages could conceivably result in *higher* levels of satisfaction for men as the proportion of women in their group increased. And if men in groups with a high proportion of women take their female coworkers as a reference group, they should have relatively high levels of job satisfaction compared with men in groups with a higher proportion of males, because men often receive higher rewards than women coworkers (Blau & Ferber, 1992).

### Empirical Research on Group Gender Composition

The predictions from each of these perspectives are depicted schematically in Table 10.1. As the table and our review imply, different theories address three possible outcomes of an increase in the proportion of women in a work group: changes in subjective attitudes toward the social setting (e.g., job satisfaction or propensity to change jobs), changes in attitudes and behaviors toward other members of an in-group, and changes in attitudes and behaviors toward members of out-groups. Most studies consider only one of these potential outcomes, and none explicitly addresses all three. We group studies according to the outcome they examine and then assess the degree to which empirical

**TABLE 10.1** Predicted Effects of Increases in the Proportion of Women in a Work Group, by Sex

<i>Predicted Outcomes</i>	<i>Theoretical Perspectives</i>									
	<i>Similarity-Attraction</i>		<i>Social Contact</i>		<i>Group Competition</i>		<i>Social Identity</i>		<i>Relative Deprivation</i>	
	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>	<i>Men</i>
<i>Subjective states</i>	Positive	Negative	Positive	Negative	Negative to positive	Negative	Positive	Negative	Positive	Positive
<i>Responses to in-group members</i>	Unspecified	Unspecified	Positive	Negative	Unspecified	Unspecified	Positive	Positive	Unspecified	Unspecified
<i>Responses to out-group members</i>	Unspecified	Unspecified	Negative	Positive	Unspecified	Negative	Negative	Negative	Unspecified	Unspecified

support exists for different, relevant theoretical frameworks. We focus first on work that has examined the impact of group gender composition on individuals' attitudes toward their work and the social setting (which constitutes the largest stream of research in this area), then turn to studies focused on in-group relations, and finally examine work on out-group relations.

### ① Consequences for Internally Oriented Work Attitudes and Behavior

Much, if not most, of the research on group gender composition has focused on women's satisfaction with work and group relations, intentions to leave a group, and other similarly self-oriented attitudes and behavior. As Table 10.1 indicates, similarity-attraction, social contact, social identity, and relative deprivation perspectives all predict that increases in the proportion of women in a group will have positive effects on such outcomes, although each perspective suggests slightly different mechanisms through which such effects are produced. A group competition perspective, on the other hand, implies at least an initial decline in women's satisfaction with their work and the social setting as their representation in a group increases, presumably occasioned by the decreased support and negative treatment of women by men in such groups.

With a few notable exceptions, empirical research has generally supported predictions that increases in the proportion of women in a work group have positive effects on women's subjective states. One exception to this conclusion is represented by Wharton and Baron's (1991) analysis of data from the 1973 Quality of Employment Survey. They found a curvilinear, rather than a linear, relationship: Women in occupations that had a more balanced proportion of women exhibited lower job satisfaction compared with women in occupations that had either a high proportion of men or a high proportion of women. This is at least partially consistent with predictions of a positive effect of increases in the proportion of women in a group on women's psychological states. In contrast, Fields and Blum (1997), using data from a randomly drawn survey of workers in 1992, found that both men's and women's job satisfaction was significantly lower in more homogeneous groups; they argue that these results are consistent with a social contact perspective.<sup>7</sup>

The bulk of research, however, suggests a positive linear relationship between the proportion of women in a group and the degree to which a favorable psychological environment exists for women. Thus, for example, Spangler, Gordon, and Pipkin (1978), following Kanter's (1977a) arguments, found that women in a law school with a small proportion of women scored significantly higher on measures of performance pressure and social isolation than women in a school with a more balanced gender composition. Some behavioral support for this is provided in an analysis by Alexander and Thoits



(1985) of gender differences in the academic achievements of students, which indicated that the proportion of women in a department had a positive impact on women's grades; men's grades were not affected by the demographic composition of departments. Both of these analyses are consistent with research by Stover (1994), Tolbert and Oberfield (1991), and Tidball (1986) indicating a positive relation between the proportion of women faculty in a school or department and the proportion of women students. Similarly, Izraeli's (1983) study of local union officers in Israel showed that women on committees with relatively few women were significantly more likely to feel constrained by gendered role expectations than women on committees with greater gender balance. Izraeli's study also showed that the self-reported efficacy of women on the committees with a small proportion of women was significantly lower than that of their male colleagues. This was not the case in committees with more women.



Studies have also found the proportion of women in a work group to affect women's perceptions of their own efficacy and performance. Mellor's (1995) study of local unions showed that women in locals with a small proportion of women officers evaluated their own competence and ability to participate significantly lower than did those in locals with more women officers. Likewise, Ely (1995) found that women associates in law firms with few women partners were significantly more likely to perceive differences in the attributes of successful lawyers and their own attributes than did women in firms with higher proportions of women partners. These results are compatible with the findings of experimental research by Eskilson and Wiley (1976) that indicated that women in charge of two men were less likely to exhibit leadership behaviors than those in charge of two women, or one woman and one man.



Relatedly, research has indicated that women in groups with relatively few women are less satisfied than women in more gender-balanced groups. For example, Konrad, Winter, and Gutek's (1992) study of white-collar work groups found that the fewer women in a group, the greater women's social isolation and the lower their job satisfaction. This effect was particularly pronounced in groups where women held positions of higher authority. Martin and Harkreader's (1993) study of a military depot indicated that having a higher proportion of women in a work group significantly increased women's overall level of job satisfaction as well as their satisfaction with coworkers. Consistent with these findings, Loscocco and Spitze (1991) found that both women's and men's pay satisfaction was enhanced when they worked in factories with higher proportions of women. Similarly, Graham and Welbourne (in press) found that in a highly gender-segregated workplace, women exhibited higher pay satisfaction than men.



In addition, several studies have shown that the lower the proportion of women in a work group, the more likely women are to contemplate leaving the organization. Burke and McKeen (1996), in a study of professional and

managerial women, found that women in organizations with lower proportions of women indicated greater job dissatisfaction and were more likely to express intentions to quit. Popielarz and McPherson (1995) found that both women and men in voluntary organizations who were in a distinct gender minority had higher rates of dropout than did those in organizations with more favorable (from the respondents' standpoint) gender ratios.

This last study raises the question of whether the impact of group gender composition on subjective states is the same for men and women (Guttek, 1985). Research on the relationship between the proportion of men in a work group and men's self-related attitudes has produced much more mixed results than that focusing on women. As noted, Fields and Blum (1997) found no difference between men and women in the effects of gender composition on job satisfaction. Their research indicated that both groups exhibited the highest level of satisfaction in more heterogeneous, gender-balanced groups. These results are in sharp contrast to those from Wharton and Baron's (1987) analysis of male respondents in the 1973 Quality of Employment Survey. Their research indicated that for men, as for women, job satisfaction was significantly higher in positions that were typified as either all male or predominantly female than positions in mixed-sex settings. Martin and Harkreader's (1993) study indicated that men's job satisfaction was unrelated to the proportion of women in their department; this is in contrast to the positive relation found among women. However, the proportion of women in the same *job ladder* did have a positive impact for male respondents on four of the five measures, including a measure of satisfaction with coworkers.

One possible interpretation of the latter finding, as well as of Wharton and Baron's finding that men had relatively high levels of satisfaction in female-dominated work settings, is that men perceive greater opportunities for promotion when there are more women on the job ladder. This is consistent with Williams's (1992) findings from research on the advantages enjoyed by men in traditionally female occupations. Thus, these results are compatible with a relative deprivation perspective, suggesting that men's satisfaction is the result of their gender-based expectations for promotion and advancement being more than met in female-dominated occupations and career ladders. We know of no research, however, that shows whether men's rate of advancement is indeed greater in female-dominated settings than in balanced or male-dominated settings.

Other research, however, indicates that men become increasingly satisfied as the proportion of men in their group rises. Pelled's (1996) research on blue-collar work groups indicated that both men and women experienced less emotional conflict as the proportion of group members of the same gender increased. Likewise, studies by Tsui, Egan, and O'Reilly (1992) and Allmendinger and Hackman (1995) found that being in groups with fewer members of their gender decreased satisfaction and lowered group attachment among men significantly more than among women. This is consistent with McPherson's

# My stay-gap

son and Smith-Lovin's (1986) finding of high levels of sex segregation in voluntary organizations.

Although the range of findings in research on men makes drawing general conclusions about the impact of gender composition on men's attitudes problematic, it does suggest that the psychological impact of being a member of a gender minority may differ for men and women. A similar conclusion emerges from research focused on in-group relations.

## ② Consequences for In-Group Relations

Relatively little research has been devoted to exploring the effects of gender composition on either in-group or out-group relations. Studies by Ely (1994, 1995), South, Markham, Bonjean, and Corder (1987), South, Bonjean, Markham, and Corder (1982), and Izraeli (1983) investigated the impact of increases in the proportion of women on women's attitudes toward other women. In Izraeli's study of local unions in Israel, women respondents in locals whose membership contained less than 20% women were significantly less likely to view women as possessing necessary leadership skills than women in locals with a greater proportion of women. Ely (1994) found very similar results in a notably different context: women lawyers in corporate law firms in the United States. Women associates in firms with relatively few women in partnership positions were significantly less likely to perceive relationships with same-gender peers as supportive, and they were also less likely to perceive women partners as suitable role models. Further analysis (Ely, 1995) indicated that women in firms with fewer women were more likely to characterize women as "flirtatious" and "sexually involved with coworkers" compared with women in firms with a greater number of women; the latter were more likely to characterize women in more high-power terms such as "aggressive" and "able to promote oneself."

In a study of six departments in a federal agency, South et al. (1982) found that the greater the proportion of women in a department, the higher the rate of reported social contacts among women. As this rate increased, women perceived greater encouragement for advancement from other women. Surprisingly, though, controlling for the effects of social contact, the higher the proportion of women in a department, the *less* women perceived that other women provided encouragement for advancement. A second study by South et al. (1987), exploring this issue in more detail, found that men and women did not differ in the amount of encouragement they perceived women coworkers as providing. Men did perceive significantly more encouragement from male coworkers than women did; moreover, the amount of encouragement men received from other men was positively related to the proportion of women in the work group.

This finding is compatible with Williams's (1992) research on men in four female-dominated occupations: nursing, librarianship, elementary school

teaching, and social work. Based on in-depth interviews with men and women in these occupations, she concluded that men were commonly on a "glass escalator" to higher-level administrative positions within the occupation, often under the mentorship of male supervisors. Similarly, Izraeli's (1983) analysis indicated that men in local unions with a higher proportion of women were more likely to perceive men as having greater leadership skills than women, compared with men in locals with fewer women (although this difference did not attain significance). Regardless of group gender composition, men were significantly more likely to attribute such qualities to men than were women.

Schmitt and Hill's (1977) research on the composition of assessment center groups on assessment center ratings is the only study that suggests a negative relation between the proportion of women in a group and the level of support for men by men. In this study, the proportion of men in an assessment group was found to be positively related to ratings of male applicants on both oral and written communication skills. The correlation between the number of men and overall ratings of male applicants, however, was not significant.

Thus, the limited research on the impact of gender composition on in-group relations suggests that the impact may vary for men and women. Men appear to be more inclined to support other men than women are to support other women, and when men are part of a numerical minority this propensity may intensify. For women, being in a group with relatively few women is likely to be detrimental to in-group relations.

### 3 Consequences for Out-Group Relations

The research on the impact of gender composition on out-group relations is even more limited than that on in-group relations. The lack of research on this topic stands in marked contrast to the literature on racial and ethnic relations, in which studies of the consequences of group proportions on prejudice and discrimination constitute a major stream of research. This neglect is surprising in light of Kanter's (1977a) emphasis on the role of men's reactions to female "tokens" as a driving force in the dynamics she observed.

The studies by Ely (1995) and Izraeli (1983) support the argument that women's attitudes toward male group members will be most favorable when there are few women in a group and will become less favorable as the proportion of women increases. Ely showed that women lawyers in firms with few women were significantly more likely to see men as possessing attributes of successful lawyers than were women in firms with a higher proportion of women. Likewise, Izraeli found that women in locals with fewer women were more likely to characterize men as having necessary leadership qualities than were women in locals with more women.

However, Williams's (1992) interviews of women in traditionally female occupations yielded no evidence of negative or hostile attitudes toward male colleagues. Thus, conditions that foster less favorable in-group relations for women appear to foster more favorable out-group relations, but even in groups where men represent a distinct minority, women's attitudes and behaviors toward male colleagues are not overtly hostile. Perhaps a curvilinear relationship exists between the proportion of women in a work group and the amount of support provided by women to male colleagues; this remains to be explored in empirical work.

There is only indirect evidence on the impact of increases in the proportion of women on men's out-group attitudes and behavior. Although Kanter reported that, in her study, a lower representation of women was associated with more negative attitudes toward women by men, she did not offer a systematic comparison of men in work groups with few women and those with many women. The women respondents in the study by South et al. (1987), contrary to Kanter's (and Blau's) arguments, reported significantly less support from male coworkers and supervisors as the proportion of women in a department increased. Similarly, Tolbert, Simons, Andrews, and Rhee (1995), studying turnover of women in academic departments, found a positive relation between the rate of turnover and the proportion of women in a department, which they interpreted as the result of more conflict with male colleagues in departments with more women.<sup>8</sup>

Bhatnagar and Swamy (1995) examined the impact of frequent interactions with female bank managers on male managers' attitudes toward female colleagues. Their results indicate no relationship between the frequency of interaction and holding favorable attitudes, which directly contradicts social contact arguments. This null result held when they considered male managers' rates of interactions with female bank clerks. An experimental study of the impact of group composition on patterns of social interaction by Smith-Lovin and Brody (1989), however, found that although men systematically interrupted women more than other men, this pattern was not affected by the proportion of women in the group. Thus, although the evidence is relatively limited, existing data suggest that increases in the number of women in a group have a negative rather than a positive impact on men's attitudes and behaviors toward women.

### Assessing Empirical Support for the Theoretical Perspectives

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We return to the five theoretical perspectives described at the outset to assess how well these empirical results support their predictions. The majority of studies suggest a positive effect of increases in the proportion of women in a group on women's job satisfaction and attachment to the group, as four of the theoretical perspectives, similarity-attraction, social contact, relative dep-

rivation, and social identity, predict. A similarity-attraction approach explains such results in terms of the satisfaction of desires to interact with others who are perceived to be similar and suggests that men should exhibit complementary attitudes: Their attitudes toward their job should become progressively less positive with increases in the proportion of women. There is some evidence to support this (Tsui et al., 1992), although other evidence suggests that the relationship may be curvilinear (Wharton & Baron, 1987; Williams, 1992); "token" men may be happier than men in settings where the gender balance is more even. This finding is difficult to explain strictly from a similarity-attraction approach. Because this approach also fails to offer any substantial insights into the impact of work group gender proportions on either men's or women's in-group and out-group relations, its theoretical limitations seem to make it less useful to research on gender composition than the other approaches.

Social contact theory, which draws attention to out-group as well as in-group connections, also suggests that women should experience more favorable subjective states as the proportion of women increases, because of greater opportunities to satisfy desires to associate with other women. Male colleagues should show more positive attitudes and behaviors toward women as their relative proportion increases, as a consequence of men's higher rates of interaction with women. Although evidence does suggest that the proportion of women in a group enhances women's attitudes toward their work, the predicted positive effect of frequent interaction with women on men's attitudes and behaviors toward women is not supported in research (Bhatnagar & Swamy, 1995; Smith-Lovin & Brody, 1989). Some studies even suggest a negative relation between the proportion of women in a work group and the amount of support men provide to women colleagues (South et al., 1987; Tolbert et al., 1995). Moreover, little evidence exists to support the implication of a social contact perspective that men's attitudes and behaviors toward other men will become less positive as the proportion of women in a group increases, as a function of fewer opportunities for in-group interaction. If anything, men's support for other men appears to increase with increases in the proportion of women (South et al., 1987; Williams, 1992).

As a social contact perspective predicts, however, increases in the proportion of women in a group are generally associated with more positive in-group relations among women (Ely, 1994; South et al., 1982; South et al., 1987) and less favorable attitudes and behaviors toward men (Ely, 1995; Izraeli, 1983). These patterns are also consistent with predictions from group competition and social identity perspectives. On the balance, support for the predictions derived from a social contact perspective is mixed, and the predictions pertaining to men's attitudes and behavior appear especially problematic.

Although a competition perspective suggests that increases in the number of women will lead to greater power for women ultimately and thus to women's increased satisfaction, it predicts that before the threshold is reached,

such increases will result in more hostile relations with male coworkers and thus negatively affect women's satisfaction. This implies a curvilinear impact of the proportion of women on women's subjective outcomes, with increases in the proportion of women in a group leading first to a decline in women's satisfaction, then to an increase once the number of women is sufficient to affect power relations. There is some evidence that a curvilinear relationship may exist, such that women have the most positive attitudes when there is either a high or very low proportion of women in a group (Wharton & Baron, 1987, 1991). Unfortunately, the possibility of nonlinear effects has been explored in only a limited number of studies, perhaps because gender and job-level sex segregation make it difficult to find settings in which the proportion of women in a given type of work group varies substantially. Insofar as most research suggests a positive, linear effect of increases in women's representation in a group on women's subjective states, however, the prediction of curvilinearity from a competition perspective is not borne out.

A group competition perspective offers few insights into the effects of changes in gender composition on women's attitudes towards either in-group or out-group members. It does suggest that increases in the proportion of women may create an environment in which men's collective control of resources and power are threatened, leading men to be more dissatisfied and to experience other negative psychological states. This prediction is supported by a number of studies (Allmendinger & Hackman, 1995; Tolbert et al., 1995; Tsui et al., 1992). Thus, although some predictions derived from a competition perspective are consistent with empirical research, others are called into question. And like other perspectives, the utility of a competition approach for research on the effects of group gender composition is limited by its lack of theoretical specificity in a number of respects.

Research findings indicating positive effects of increasing numbers of women on women's psychological states are generally consistent with a social identity perspective.<sup>9</sup> In contrast to either similarity-attraction or social contact perspectives, this approach explains such findings in terms of the greater collective power and status that members of low-status groups may receive as a consequence of increasing group size. It also yields predictions about these effects of group gender composition on women's in-group and out-group relations, ones that are consistent with the findings that increases in women's representation in work groups have a positive impact on women's in-group attitudes (Ely, 1994, 1995; Izraeli, 1983; South et al., 1982) and a negative impact on women's out-group attitudes (Ely, 1995; Izraeli, 1983). It also suggests that proportionate increases among women will have a positive impact on men's in-group relations, consistent with research by South et al. (1987) and Williams (1992), and a negative impact on men's out-group relations, supported by South et al. (1987), Izraeli (1983), and Tolbert et al. (1995). In addition, there is some support for social identity's prediction that the potential group power loss associated with increases in the proportion of

women in a group will have offset the generally positive psychological outcomes for men of membership in a high-status group (Allmendinger & Hackman, 1995; Tsui et al., 1992). Thus, there is a relatively high level of support for predictions derived from social identity theory.

Research findings of a positive relation between the proportion of women in a group and levels of satisfaction are consistent with relative deprivation claims that women are more likely to compare themselves to other women, and that such comparisons should not produce relative deprivation. We infer from the logic of relative deprivation research that men should also be more likely to use female coworkers for social comparisons when the proportion of women in a group increases. Because such comparisons are likely to be favorable for men, their satisfaction should be higher in groups with more women. This prediction is supported by several studies (Martin & Harkreader, 1993; Wharton & Baron, 1987; Williams, 1992) that suggest men perceive greater advancement opportunities in female-dominated groups than in male-dominated groups. Other research suggests that men who work with women may experience greater satisfaction because they realize that they are substantially better off than their female coworkers (Graham & Welbourne, *in press*; Major, 1994).

Although the concept of fraternal, or group-based, deprivation from relative deprivation theory implies in-group and out-group distinctions, how fraternal deprivation may be related to changes in minority and majority group proportions, and hence to in-group/out-group attitudes and behaviors, is not specified. Although we have drawn some inferences about the effects of group proportions on individuals' sense of relative deprivation, we should emphasize that most work in this tradition does not explicitly specify how individuals choose referent comparisons, or how changes in these comparisons may occur. This lack of theoretical specificity limits the utility of a relative deprivation approach for current studies of the impact of group gender composition.

Based on our review of empirical research, then, we conclude that a social identity approach provides predictions most compatible with findings from existing research. However, limits in research as well as in the theoretical frameworks themselves require a good deal of caution in drawing strong conclusions along these lines. It is to such limits that we turn in our concluding section.

### Directions for Future Theorizing and Research

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Despite the growing accumulation over the past 20 years of empirical research on group gender composition, there are some striking lacunae in this research, due at least in part to the limits of extant theoretical perspectives. A completely developed theory of gender composition would specify how variations in the relative numbers of men and women in a group affect the attitudes and actions of members of the numerical majority toward members of their in-group,

out-group members, and their social setting (in terms of internally oriented subjective states such as job satisfaction, sense of competence, efforts to participate, etc.). It would also explain the impact of gender composition on the attitudes and actions of members of the numerical minority toward their in-group, their out-group, and their social setting. Such a theory would specify other variables that mediate the effect of group proportions on outcome variables, such as differences in the relative social status of men and women or the degree to which a given context is defined as gender appropriate, and so on (see Yoder, 1991, 1994).

Most theoretical perspectives currently used in research on work group gender demography address a fairly narrow subset of potential consequences of variations in gender composition: psychological states of comfort or discomfort, attitudes and behaviors of men toward women colleagues, or women colleagues toward other women. Insofar as gender composition affects a variety of relationships that interact to produce group outcomes, predicting such outcomes requires theoretical and empirical consideration of all these relationships.

Several specific issues deserve more attention. One is how variations in the proportion of women in a group affect men's and women's in-group and out-group attitudes and behaviors, and whether any such effects are monotonic or curvilinear. The issue of curvilinear effects has been suggested by several studies, and such effects seem intuitively plausible, although not considered in extant theoretical perspectives. Current levels of sex segregation in jobs and occupations may pose some problems for examining curvilinear relationships, although research could compare several similar occupations or jobs (e.g., comparable in level of education, pay, etc.) that differ in terms of gender composition. Surveying both men and women in such occupations could provide some insights into the relationship between gender composition and our major outcome variables: subjective perceptions of the social setting, in-group attitudes and behaviors, and out-group attitudes and behavior.

Researchers also need to recognize that different measures of the demographic composition of groups severely hinders comparison of results. Whereas similarity/attraction and social identity approaches typically rely on measures of "fit" between the gender of a given individual and that of other persons in the group, social contact, group competition, and relative deprivation approaches commonly use the proportion of women as their measure. Although these two general approaches yield important information on the effects of gender composition, they do not produce identical measures for a given group and they may lead to differing conclusions concerning the effects of group gender composition.

Even within the two general measurement approaches, the nature of measures that are used varies. Some studies treat the percentage of women in a work group as a continuous variable, whereas others create categorical variables (e.g., 0 to 25%, 26% to 50%, etc.). These categories are rarely

derived from theory and do not contribute to the theoretical or empirical development of the notion of “tipping points” at which gender composition effects may occur. Similarly, studies focusing on the fit between an individual’s gender and that of other group members use a variety of measures of fit. We note that a number of fit measures commonly employed in gender composition studies may not be measuring the “fit” construct adequately (see Edwards, 1994, for a complete discussion of this issue).

More theoretical and empirical attention should be given to the issue of whether variations in proportions have differing effects on men and women, and what conditions are associated with such differential effects. Differences in men’s and women’s social status in contemporary society, social definitions of different types of work as appropriate for men or for women, and cross-hierarchical relations could all produce differences in responses of men and women to variations in gender composition—these confounding factors are generally ignored in current theoretical perspectives, and this neglect is, not surprisingly, echoed by empirical work (see Yoder, 1994).

Finally, researchers should give more consideration to comparing the effects of gender composition and racial/ethnic composition of work units. For example, although both women and minority workers may experience dominant group hostility, the contexts in which this hostility occurs may differ. Likewise, the effects of group proportions on such hostility may vary by race and by gender.

We are encouraged by the progress made to date in understanding the potential effects of gender composition on organizational groups, but clearly many topics still demand research attention. The growth in the number of women in the work force, reductions in gender-based occupational segregation, and changes in the representation of women at higher levels of organizational hierarchy increase the need for better understanding gender composition effects to develop effective organizational and social policies.

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## Notes

1. The proportion of the labor force constituted by women rose from 20% in 1920 to 27% by 1950; thus, women remained a small (but hardly negligible) fraction of workers up through midcentury (Deldycke, 1968). This proportion increased to 32% in 1960 and 37% by 1970; thus, the rate of increase during these two decades was nearly double that of the three earlier decades. By 1990, women made up just under half (45%) of the labor force (U.S. Bureau of the Census, 1997).

2. In addition to Simmel’s (1908) influence, each work reflects, at least implicitly, conclusions drawn from post-World War II research on the effect of cross-group interaction on racial prejudice and discrimination. This research suggested that increased social interaction among members of two different social groups tended to decrease individuals’ propensity to subscribe to stereotypes and prejudicial attitudes toward the other group’s members, and hence to reduce discriminatory behavior. (See

Allport, 1954, for a classic statement of this research, and Hewstone & Brown, 1986, for a more contemporary summary.)

3. This is inherent in the computation of rates of in-group and out-group associations. For any two groups, the number of contacts with the other group will be identical. Thus, the numerator used in calculating the rate of association will be the same for both groups, whereas the denominator is based on the size of the group. Smaller groups will have a smaller denominator and thus a higher rate of out-group contacts. This proposed measure does not, of course, take into account the proportion of members within a group that have out-group contacts. In practice, such contacts could be concentrated in just a few members or widely distributed among members. How the concentration of out-group associations within a group might affect the typical attitudes and behaviors by members toward the out-group is not made clear in Blau's arguments.

4. As suggested by the editor, Blau's argument also assumes the work group is a self-contained entity and ignores the possibility that people may learn from their contacts with others outside the group.

5. Other sociological studies that also have contributed to this perspective have similarly focused on changes in the racial composition of communities and have emphasized the role of the dominant majority group—Whites—as the key force in shaping intergroup relations (e.g., Bonacich, 1972; Beck & Tolnay, 1990; Brown & Fuguitt, 1972).

6. If women compare themselves to other women, they may become even more satisfied with their situation when there are more men in their group, because women in male-dominated jobs and occupations may receive higher rewards than those in female-dominated ones (Loscocco & Spitze, 1991). However, Tolbert's (1986) research, indicating that differences in the average salary of women faculty in large, research-oriented, male-dominated institutions and in smaller, less prestigious, female-dominated institutions were comparatively small, suggests that employment in male-dominated work settings may bring women fewer rewards than expected.

7. We disagree with their interpretation that a social contact approach, and Blau's work in particular, necessarily implies that women will experience more negative social relations as the proportion of women in a group exceeds a balanced threshold. Our reading suggests that women will experience out-group relations (i.e., those with men) as more unpleasant in this condition, as the result of fewer affiliation-building contacts, but their in-group relations will be increasingly positive, and because they will have more opportunities for interacting with other women, the net psychological effects should be positive.

8. Thanks go to the editor for suggesting another interpretation on these findings: that an increase in women faculty may result in a more cohesive and supportive work group, such that women gain the confidence to leave voluntarily for better jobs.

9. A social identity perspective could also be taken to imply a threshold-level effect, as does a competition perspective, but it does not suggest a negative relation between the proportion of women in a group and women's satisfaction prior to that point, as a competition perspective does.