

POWER, SEX, AND SOCIAL IDENTITY THEORY

POWER, SEX, AND SOCIAL IDENTITY THEORY

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ABSTRACT

Three research methods were employed to investigate the intergroup behaviour of men and women using Social Identity Theory (SIT; Tajfel & Turner, 1986) as a conceptual framework. In the first study, an extensive survey was administered to 105 male and 105 female undergraduates. Among several important findings, subjects perceived power differentials in favour of the male group. However, both male and female subjects identified strongly with their gender group and had a very positive gender social identity. Other key findings demonstrated that group power was very important to both male and female undergraduates.

In the laboratory, a variant of the Minimal Group Paradigm was used to investigate the effect of power and sex on the behaviour of undergraduates as members of same-sex (N = 346) and opposite-sex groups (N = 341). The main dependent measure was subjects' allocations using the Tajfel matrices. As in a power study by Sachdev and Bourhis (1985) in which sex was not salient, both male and female group members with power generally discriminated against outgroup members, whereas group members without power, did not. These findings are in contrast to Williams' (1984) notion that men have a more competitive orientation than women and would thus be more discriminatory. Furthermore, regardless of subjects' sex, power contributed towards a positive social identity. Overall, although subtle effects of sex were obtained, power had a strong impact on intergroup behaviour and subjects' social identity.

For the field study, 79 members of two sex-segregated labour federations were interviewed. As expected from SIT, female members of the dominant federation had a more positive social identity than did male members of the subordinate federation. Reasons for the behaviour of female members of an intermediary group who were attempting to 'pass' from the female to the male group were investigated. Taken together, evidence from these studies demonstrated that power had a greater impact on intergroup behaviour than did hypothesized sex-specific orientations, identification with the gender group, or attraction to opposite-sex group members.

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CHAPTER ONE

Male and *female* are important social categories that are recognized by both individual perceivers and society at large. Women and men relate to one another not only as individuals, but also as major societal groups. Thus, relations between the sexes are similar to relations between racial, ethnic, religious, social class, and age groups. (Del Boca & Ashmore, 1986, p. 319)

The categorization of ourselves and others according to sex¹ reflects our general capacity and tendency to categorize objects in our environment into simpler, more manageable and cognitively useful units (Hamilton, 1979; Maccoby, 1988; Miller, 1986; Rosch, 1977; Tajfel, 1969; Taylor, 1981). In particular, men and women not only perceive themselves and others as members of gender groups, but they also behave in ways consistent with these categories (Doise, 1978; Newcomb, 1951; Tajfel, 1978). Sherif (1966), one of the few early intergroup researchers, provides a succinct and often quoted definition of intergroup behaviour: "whenever individuals belonging to one group interact, collectively or individually with another group or its members *in terms of their group identification*, we have an instance of intergroup behaviour" (Sherif, 1966, p. 12). But although men and women do act as group members, intergroup aspects of male and female behaviour have rarely been addressed in recent discussions of the psychology of sex and gender (for examples, see Lips, 1988, 1991).

¹ The terms 'sex' and 'gender' have been used interchangeably in the literature. Because this confuses the true meaning of the terms, I have endeavoured, along with other authors (Archer & Lloyd, 1985; Deaux, 1984; 1985; Hare-Mustin & Marecek, 1988; Lipman-Blumen, 1984; Lips, 1988; 1991) to use 'sex' to refer to the biological category. No assumptions about how individuals perceive or feel about their sex category are made. 'Gender', on the other hand, refers to the psychological qualities associated with these biological categories. However, in accordance with Spence, Helmreich, and Stapp (1973), I refer to their measurement scale as a sex-role ideology scale. In reality, however, the separateness of sex and gender is more tenuous (Lipman-Blumen, 1984). Note also that the use of 'gender' in this thesis is a complete departure from its formal meaning referring to grammar, i.e., classification of words.

Indeed, several reviewers point to the relevance and importance of examining the dynamics of relations between women and men not just as individuals but as group members as well (Ashmore and Del Boca, 1986; Deaux 1985; Williams and Giles, 1978).

As part of an investigation of male-female relations, it is also important to recognize that social power is intimately associated with the category of sex. The conceptual and substantive relationship between sex and power has been noted by Lipman-Blumen (1984):

The sex-gender system represents the core power relationship on which all other power relationships are patterned. As such, the relationship between men and women as individuals or groups involves a process in which each repeatedly attempts to impose his, her, or their will on the other...(p. 11)

Therefore, to examine the social psychology of relations between the sexes, a conceptual framework should not only include an account of sociopsychological processes of male and female group members, but such a perspective should also include the concept of power playing a central role in intergroup behaviour (Deaux, 1985; Newcomb, 1951; Tajfel, 1978; Williams & Giles, 1978).

In response to the dearth of research on the intergroup behaviour of women and men in the social psychological literature, the present thesis is an investigation of the intergroup perceptions, feelings, and behaviour of males and females as group members. The effect of power on the behaviour of members of the male and female gender groups was also central to this investigation. Social Identity Theory (Tajfel, 1978, 1982; Tajfel & Turner, 1979, 1986), the most widely applied intergroup theory

in social psychological research (Messick & Mackie, 1989), was used as the conceptual framework for this series of studies.

The following sections in this chapter include a discussion of power differentials that exist between the sexes, a delineation of Social Identity Theory (SIT) and the Minimal Group Paradigm (MGP), a discussion of the applicability of SIT to an investigation of female-male relations, and an outline of the empirical studies for the thesis.

Power Differential between the Sexes

There are two cultures, the powerful and the powerless.
Traditionally, these have been men and women. (Miles,
1985, p. 9)

A number of reviews of the psychological, sociological, and anthropological literature on relations between men and women across the world have concluded that in many respects, men do have more social power than women (Ashmore & Del Boca, 1986; Deaux, 1985; Hare-Mustin & Marecek, 1988; Lipman-Blumen, 1984; Lips, 1988, 1991; Rogers, 1978). Although there are several types of personal power (French & Raven, 1959; Hamilton, 1976; 1977), when investigating relations between groups in society, power is most appositely defined in terms of intergroup behaviour (Ng, 1980). For this thesis, power was operationalized as the amount of control one group has over its own fate and that of the outgroup (Jones, 1972; Ng, 1982; Sachdev & Bourhis, 1985). The fate of the ingroup and outgroup was measured in terms of access and control of limited resources, including economic, political, and social resources. Investigators in sociology and anthropology have used a similar definition

of power of men and women as group members (Lipman-Blumen, 1984; Rogers, 1978; Wolf and Fligstein, 1979).

The seemingly ubiquitous power differentials in favour of men as a group in Canada can be objectively described in a number of ways. First, when comparing across occupations in the workforce as well as within the work setting itself, more men than women occupy high power positions. In the Canadian workforce, women are overrepresented in the service and clerical industries (in 1992, 57% and 80%, respectively, were women, Statistics Canada, February, 1993). Generally, jobs in service and clerical industries are relatively low in responsibility and allow little room for advancement. Similarly, within the power structure of the work setting, women are underrepresented in the higher paying, higher power, administrative and managerial jobs. In 1988, 10.4% of the women in the labour force held such higher status positions compared to 14.3% of the men (Statistics Canada, February, 1990). This gap, however, has recently decreased: in 1991, 12% of the women in the labour force held managerial/administrative positions compared to 14.7% of the men (Statistics Canada, March, 1993).

Second, although income is not equivalent to power, accumulated wealth and income can be considered a quantitative indication of the power one group has over another (Murphree, 1986; Wolf & Fligstein, 1979). Therefore, because women as a group control and receive proportionally less of the nation's wealth, women have less power than men do economically. In 1991, Canadian women working full-time and full-year, earned, on average, 69.6% of the wages of men (Statistics Canada, Revenue

data for 1991). However, salary differentials in favour of men are not only evident when comparing the salaries of men and women across occupations, but are also apparent when comparing salaries within occupations. This discrepancy exists even in work settings in which there is considerable room for advancement. For instance, in the university setting, men outnumber women in every rank and receive a greater salary than women in each faculty rank including full, associate, assistant professor, and lecturer (Ontario Confederation of University Faculty Associations, 1989, p. 1). Overall, the gap in the salaries of men and women has decreased by only 6% from 1970 to 1986 despite a continuing rise in the number of women entering the Canadian labour force. In April 1993, for example, women comprised 45% of the Canadian labour force (Statistics Canada) compared to 35.5% in 1970 (Statistics Canada, 1975). Clearly, men attain higher salaries and hold higher power positions in the workforce as well as within the work setting.

A third area in which women have less power than men is in the political arena where women are vastly underrepresented. Worldwide, only a few women have reached the top tiers of the government hierarchy: Margaret Thatcher of Great Britain, Indira Ghandi of India, Benazir Bhutto of Pakistan, and Gro Bruntlan of Norway, to name a few. Note, however, that delegates of two federal political parties have recently elected a woman as leader. Nevertheless, only 13.6% of the members of the Canadian federal parliament are women (May, 1993). In the Ontario provincial government, 21.5% of the members of the provincial parliament are women (May, 1993). Inaccessibility to top positions in male-dominated spheres is cited as one

reason for the substantial underrepresentation of women in politics (Glick, Zion & Nelson, 1988; Lipman-Blumen, 1984; Lips, 1991; Palmer & Lee, 1990). As well, self-attributions of women may contribute to the discrepancy in the proportion of men and women in high power positions. For instance, women in medical school tend to have less self-confidence in their ability to perform as a physician and rate themselves lower on academic and social skills (Fiorentine, 1988). Perhaps, because of these self-attributions, women perform differently on the job or may choose not to enter certain traditionally male-dominated fields like politics or engineering.

Socially, women also have less power than men. It is part of the cultural ideology of a patriarchal society to endorse male dominance, in decision-making, for example (Lips, 1991). Although such ideology is less dramatic in European-North American cultures than other cultures, such as Puerto-Rican or Mexican, it, nevertheless, still exists (Lips, 1991). Williams and Watson (1988) suggest that the social roles of women and men within the family reflect an underlying assumption that women are, and should be, subservient to men. In contrast, some view the tradition of male leadership in the home as a responsibility, rather than as a means of power (R. Dyer, personal communication, April, 1992). This alternate view emphasizes that although the male is to work in conjunction with his mate, he has the primary responsibility of providing for the emotional, psychological, and spiritual needs of his family. However, although the role of male leadership need not be a foundation for an abuse of power, it has traditionally been viewed as such.

Finally, power in the workforce is intimately related to the degree of status or prestige ascribed to groups. Tajfel (1982a) suggested that status is a reflection of power. In the workforce, occupational status varies according to whether the occupation is male- or female-dominated, probably because men's work is more highly valued than women's (Kipnis, 1976; Touhey, 1974). Notably, occupations that shift from being male- to female-dominated generally lose status (Kipnis, 1976). For instance, the occupation of bank teller was once a relatively high status, male-dominated occupation. Now it is a predominantly 'female' occupation and has declined in status (Kipnis, 1976). Note, however, that although Tajfel (1982a) claimed that status is a reflection of power, Sachdev and Bourhis (1991) demonstrated that this notion is inadequate and showed that status and power also have independent effects on intergroup behaviour.

A study by Touhey (1974) showed that the perceived status of an occupation is affected by whether it is male- or female-dominated. He investigated undergraduates' ratings of five occupations by comparing the scores of those who were told that there would not likely be a change in the proportion of women in the profession with those who were informed that a substantial increase in the proportion of women was expected. Touhey observed that male and female college students (N = 200) rated the profession of architect, college professor, physician, and scientist as significantly less prestigious and desirable if they were informed that "a sharply increasing proportion of women over the next 30 years" (p. 87) was expected within each of these professions.

Only in one case, the occupation of lawyer, were the ratings of desirability and prestige comparable between the conditions.

In view of the various ways in which the female group can be objectively defined as having less power than the male group, group power is clearly relevant to an investigation of relations between men and women. To study the intergroup behaviour of men and women, Social Identity Theory, used as the theoretical framework for this investigation, will be elaborated in the following section.

Social Identity Theory

Sociopsychological Variables. It is well established in the social psychological literature of intergroup relations that the mere categorization of individuals into two arbitrary groups is sufficient to elicit intergroup discrimination (Billig, 1976; Brewer, 1979; Brewer & Kramer, 1985; Messick & Mackie, 1989; Tajfel, 1982a, 1982b). This effect has been consistently demonstrated in studies using a very minimal basis for categorizing subjects into groups (Tajfel, 1978). The set of conditions that produces this minimal basis of categorization has been coined the Minimal Group Paradigm (MGP). The conditions of the Minimal Group Paradigm include the following: a) a random categorization of subjects into groups, b) anonymity of group members and no interaction between group members, c) no history of relations between the groups, and d) no relation between the main dependent measure and subjects' self-interests. Even under such minimal circumstances, group members discriminate against members of the outgroup.

To account for this minimal group effect, Social Identity Theory (SIT) was derived. From SIT, it is predicted that when individuals are categorized into groups, they will be motivated to compare their group favourably with a relevant outgroup on important dimensions of comparison to improve the quality of their social identity (Tajfel, 1978, 1982a, 1982b; Tajfel & Turner, 1979, 1986). A group member's social identity is, "that part of the individual's self-concept which is derived from their knowledge of their membership of a social group (or groups) together with the value and emotional significance of that membership" (Tajfel, 1982a, p. 24). A major tenet of SIT is that positive psychological differentiation created by comparing one's own group favourably with a relevant outgroup on a valued dimension of comparison contributes toward the positiveness of group members' social identity.

Lemyre and Smith (1985) devised a study to test the prediction that positive differentiation leads to a concomitant enhancement of one's social identity. In support of this notion, they demonstrated that discrimination against outgroup members leads to an increase in self-esteem. Using the Minimal Group Paradigm, Lemyre and Smith (1985) randomly assigned subjects to groups. In general, to ascertain the effect of discrimination on self-esteem, their measure of social identity, subjects' self-esteem scores were compared in conditions in which subjects were or were not given the opportunity to discriminate. Subjects discriminated when they gave more points to their own group members than to outgroup members on the Tajfel matrices. The Tajfel matrices, to be elaborated upon in chapter 3, were designed to measure a

number of behavioural strategies used by subjects, including discrimination (Bourhis & Sachdev, 1986; Bourhis, Sachdev & Gagnon, 1993).

Lemyre and Smith (1985) found that subjects given the opportunity to discriminate against outgroup members, did so. Furthermore, those who discriminated against outgroup members had higher scores on the self-esteem measure than those who could not discriminate. In addition, subjects' self-esteem scores were higher in a condition in which they were forced to discriminate than in a condition in which subjects were forced to distribute points equally. Also, self-esteem scores of subjects who were given the self-esteem test before the opportunity to discriminate were not related to the degree of discrimination. Note, however, that those who discriminated freely did not have significantly different self-esteem scores than those who were forced to discriminate. Finally, simply completing the experimental task, i.e., the Tajfel matrices, had no effect on self-esteem.

Overall, categorized subjects who discriminated had higher self-esteem scores than categorized subjects who could not discriminate and self-esteem scores correlated positively with discrimination. Therefore, the more subjects discriminated, the higher were their self-esteem scores. Lemyre and Smith (1985) emphasized that the effect of discrimination on self-esteem is especially significant considering the minimal conditions in which subjects were categorized into groups: even when divided into groups on an arbitrary basis, self-esteem is still enhanced by discriminatory behaviour.

The findings of the Lemyre and Smith (1985) study support Tajfel's proposition that social categorization, social comparison, and social identity are

interrelated. These sociopsychological constructs form the basis of Social Identity Theory. Their study demonstrated that individuals categorized into groups are motivated to compare their group favourably with a relevant outgroup and that creation of this positive differentiation leads to a more positive social identity. Importantly, Tajfel and his colleagues point out that positive psychological differentiation of one's group from another is not just the result of social categorization but also reflects our motivations or need to attain a positive social identity (Tajfel & Turner, 1986).

In support of Tajfel's (1978) proposition that group members discriminate in order to improve the quality of their social identities, Gagnon and Bourhis (1992) demonstrated a relationship between strength of identification, discrimination, and a positive social identity. Gagnon and Bourhis (1992) found that within the context of the Minimal Group Paradigm, degree of identification with the ingroup was positively related to the extent to which subjects discriminated against the outgroup. Also, those who identified strongly with the ingroup had significantly more positive social identities than did those who did not identify. Importantly, the findings of their study clearly indicate that group members who identify with their group and engage in discrimination, have more positive social identities than group members who do not identify as strongly or discriminate as much.

Taken together, laboratory studies have shown that group members can improve the quality of their social identity through the creation of positive psychological differentiation by discriminating on the Tajfel matrices. Tajfel and his

colleagues further predict that if, in 'real-life' intergroup contexts, group members perceive an unfavourable intergroup comparison as illegitimate or unstable, motivations to ameliorate one's social identity will be intensified (Tajfel, 1978; Tajfel & Turner, 1979). Accordingly, individuals could strive to achieve a positive social identity through positive differentiation in favour of their own group through a variety of collective means (i.e., acting as a group). Alternatively, they could choose to ameliorate their social identity through individual strategies (i.e., acting as an individual). Taylor, Moghaddam, Gamble and Zellerer (1987) suggest that an individualistic strategy for improving the quality of one's social identity will be sought first. Specifically, individuals will attempt to improve their social identity by 'passing' or leaving their erstwhile group which contributes negatively to their social identity to become a member of a group which would, through the process of social comparison, contribute positively to their social identity. Such individualistic action is implemented if group members have a social mobility belief system. In other words, they perceive that the boundaries between the groups are permeable (Tajfel & Turner, 1979).

If, however, group members face physical (e.g., skin colour, sex, or even physical threats) or psychological barriers (e.g., alienation by ingroup members) to leaving the group, or if they feel a strong sense of loyalty to the ingroup, they are more likely to work collectively to create positively evaluated comparisons with the outgroup. These group members would have a social change belief system by which the boundaries between groups within that society are perceived to be impermeable or,

at least, not easily transcended. According to Tajfel (1978), collective behavioural strategies include the following: i) creating new dimensions of comparison on which the ingroup would compare favourably, ii) redefining existing dimensions of comparison in a more positive light to contribute positively to group members' social identity, iii) choosing another comparison group with which the ingroup would compare favourably, and iv) direct social competition with the outgroup to change the existing *status quo*. According to SIT, attempts to change the *status quo* would be met by counterattempts by the outgroup to maintain it. Such attempts by outgroup members would further contribute to the instability of intergroup relations. Further, because instability of intergroup relations leads to an insecure social identity, more extreme attempts by ingroup and outgroup members to achieve or maintain positive psychological distinctiveness would ensue (Tajfel, 1978; Giles, Bourhis & Taylor, 1977).

To summarize this section on sociopsychological variables central to SIT, the functional relationship between social categorization, social identity, social comparison, and psychological differentiation has been illustrated. Group members are motivated to compare their group favourably with a relevant outgroup on important dimensions of comparison. Through the creation of positive psychological differentiation, the quality of their social identity is improved. These SIT predictions were supported by research findings. The next section delineates the role of power in intergroup behaviour.

Sociostructural Variables: Power. Usually within the context of the Minimal Group Paradigm, subjects are asked to distribute points on the Tajfel matrices to ingroup and outgroup members. Subjects can infer from the usual procedure that the experimenter will actually distribute points according to the matrix choices they made. In addition, subjects can also infer that choices made by members of their own group will have as much impact on the final distribution of rewards as choices made by members of the other group. Ng (1980, 1982) points out that because of these perceptions, the paradigm leads to the inference that there is an equal, bilateral distribution of power between the groups. Therefore, findings obtained in MGP studies represent group members' motivations to ameliorate their social identity coupled with the perception that they have the means, or power, to act on these motivations. However, an intergroup setting where groups have equal access to valuable resources is extremely rare (Lipman-Blumen, 1984; Ng, 1980, 1982). The Minimal Group Paradigm has been criticized on these bases (Ng 1980, 1982; Sachdev & Bourhis, 1984; 1985).

Sachdev and Bourhis (1985) have claimed that power is just one of several sociostructural variables that has been ignored in classic Minimal Group Paradigm studies. In response to what they refer to as a "sociostructural lacuna in the intergroup literature" (1985, p. 416), they designed a series of studies to investigate the independent effects of group numbers (Sachdev & Bourhis, 1984), power (Sachdev & Bourhis, 1985), and status (Sachdev & Bourhis, 1987), and the combined role of these variables (Sachdev & Bourhis, 1991) on intergroup behaviour. These studies showed

that each of these sociostructural variables has unique and combined effects on discriminatory intergroup behaviour.

In particular to the role of power in intergroup behaviour, Sachdev and Bourhis (1985) used a variant of the Minimal Group Paradigm to investigate the independent effect of power on group relations. They operationalized social power as the amount of control one group has over its own fate and that of a relevant outgroup (Jones, 1972). Based on Ng's (1982) proposal that power is the tool by which group members are enabled to discriminate, it was predicted that intergroup discrimination would increase with concomitant increases in group power. The more power groups had, the more group members would discriminate. In addition, the authors tested Ng's (1982) proposition that without power, group members would not discriminate.

Specifically, Sachdev and Bourhis (1985) arbitrarily categorized subjects into two groups of unequal or equal power. Each power group was comprised of both male and female subjects (i.e., mixed-sex groups). The main dependent measure was subjects' allocations of course credits to anonymous ingroup and outgroup members measured by the Tajfel matrices (Bourhis & Sachdev, 1986; Bourhis, Sachdev & Gagnon, 1992). In the equal power condition, both groups were ascribed 50% power over the final allotment of credits. In one of the unequal power conditions, the dominant group had absolute power or 100% of the control over the credit distributions. The other group in this condition was powerless and had 0% of the control. In the second unequal power condition, the dominant group had 70% of the control whereas the low power group was ascribed 30% of the control.

As predicted, the usual Minimal Group Paradigm effect was replicated in the equal power condition: group members with equal power discriminated against outgroup members. Further, low, high, and absolute power group members also discriminated against outgroup members although members of equal and dominant groups (i.e., 70% and 100% power group members) displayed more ingroup favouritism than did subordinate power group members (i.e., group members with 0% and 30% power). However, group members with no power did not discriminate at all against dominant outgroup members. Finally, although group members across the design also displayed high levels of parity (i.e., an equal allocation of points to ingroup and outgroup members), subordinate group members displayed more parity than did equal and dominant group members.

In accordance with Ng's (1980, 1982) conceptualization of power, dominant groups were more discriminatory than subordinate groups. Significantly, Sachdev and Bourhis (1985) concluded that group members who do not have any power within the experimental setting do not have any direct means of actualizing their motivations to achieve a positive social identity and therefore do not discriminate as do other group members with power.

In addition to the systematic effect of power on intergroup behaviour, the amount of power that group members had also affected their ingroup identifications and feelings about their group membership. Group power also affected the feelings subjects had about their own and other group members. First, and importantly, members of the no, low, equal, high, and absolute power groups identified with their

group. High power group members identified most strongly with their power group. Second, absolute, high, and equal power group members had a more positive social identity than did subordinate group members. Dominant group members reported that they felt more comfortable, satisfied, and happy about their power group membership than did low or no power group members. Third, group members in every power group reported that they liked members of their own group more than members of the outgroup. Similarly, subjects felt that outgroup members would like members of their own outgroup more than they would like members of the subjects' group. These results corroborate earlier studies showing that categorization *per se* is sufficient to trigger more ingroup than outgroup liking (Brewer, 1979; Brewer & Kramer, 1985). Thus, even under the minimal conditions of the Minimal Group Paradigm, arbitrary categorization is sufficient to elicit ingroup identification, discrimination against outgroup members, as well as more liking of ingroup than of outgroup members.

To summarize, group power, affects intergroup behaviour, and the degree and quality of group members' social identity. Basically, without power, group members do not have the means to improve the quality of their social identity through discrimination. However, when given the power to discriminate, they do so. As well, not only was there evidence to suggest that more powerful groups identify more strongly with their own group but group members with greater power have a more positive social identity than do those with less power. Also important, categorization has a powerful effect on intergroup perceptions and on feelings of liking for own and other group members.

Social Identity Theory and Female-Male Relations

In a seminal paper, Williams and Giles (1978) have proposed that Social Identity Theory is particularly useful as a conceptual tool to analyze male-female relations because it is essentially a theory of social change that describes strategies "women are currently using to assert themselves in society [and] also allows us to examine more closely the dynamics of the situation" (p. 432). Williams and Giles (1978) illustrated how women, having less status in society than men, have used individual and collective strategies to foster social change and improve the quality of their social identity. They pointed out how men also use intergroup strategies to counter attempts of social change made by women as group members. It can be further argued that SIT is an appropriate theory from which to examine the intergroup behaviour of men and women because the positions of men and women within society can be objectively differentiated in terms of power, and power has been shown to have specific effects on sociopsychological variables upon which SIT is based and, accordingly, intergroup behaviour.

Williams (1984), however, has claimed that SIT is based on the sociopsychological processes of men and thus sex as a subject variable has largely been ignored. Williams (1984), furthermore, suggested that men and women improve their social identity in different ways. She claimed that men typically implement competitive strategies, whereas, women use cooperative strategies. Therefore, according to Williams (1984), because only men are proposed to engage in social competition to create a positive differentiation between their group and an outgroup,

the applicability of fundamental aspects of SIT to both male and female group members is questioned. These conceptual shortcomings attest to the need of systematically investigating the intergroup behaviour of women and of men using an SIT perspective.

Note that it is not the purpose of this thesis to review and apply other theories to this topic. The main reason for this is that many of the theories typically applied to the social psychology of males and females are interindividualistic in orientation. No doubt, such research contributes to our understanding of relations between the sexes. However, it is also evident that our behaviour is affected by our membership in social groups (Brewer & Kramer, 1985; Tajfel, 1978, 1982a; Tajfel & Turner, 1979, 1986). According to Tajfel (1978), social behaviour can be represented on a continuum: at one end is interindividual behaviour; at the other, is intergroup behaviour. Although individuals' behaviour varies in these terms, processes important at the interindividual end, for example, cannot automatically be extrapolated to apply to behaviour at the other, intergroup, end (Brewer & Kramer, 1985; Tajfel, 1978, 1982a; Tajfel & Turner, 1979, 1986; Taylor & Moghaddam, 1987). Theories that mainly relate to interindividual or intraindividual (e.g., personality traits) aspects of behaviour may contribute to the understanding of intergroup behaviour, but intergroup aspects of behaviour must be studied in and of themselves, using an intergroup theory.

Tajfel (1978) articulated this point well as he explained that many interindividual social psychological theories have been inappropriately extended to social behaviour in intergroup contexts:

Our point is that most of these approaches and theories deal with the issues of the social psychology of intergroup relations at an inappropriate level of inquiry and explanation. It is not claimed here that they are invalid within their chosen contexts of empirical questions and findings, but that, however important these findings and questions may be in their own right, they do not amount - in our view - to a social psychology of intergroup relations which is articulately related to what happens in the world of real conflicts between real social groups. (Tajfel, 1978, p.3)

More recently, Taylor and Moghaddam (1987) further underscore this notion in their review of social psychological theories:

The first overriding feature to be noted is the reductionist nature of many current theories....At this level of theory and research, the emphasis has been on intra- or interindividual, not intergroup processes. The result is that individualistically based findings are extrapolated to the group level. While there may be certain valid parallels, it is equally clear that in many instances individual and group processes differ. More important, by not addressing issues in a group context, a number of potentially valuable questions and hypotheses are not even considered. (p. 10)

Clearly, it is important to use an intergroup approach to study intergroup behaviour. However, SIT is not the only theory to account for intergroup processes and behaviour. Two other theories, Realistic Conflict of Interests (RCT) and Relative Deprivation (RD) are, at least in part, relevant to the subject of the interaction of group members. From Realistic Conflict Theory (Sherif, 1966) conflict between groups is predicted to be directly related to the interests or goals of groups. If the attainment of one group's goals aids in the attainment of the other's, and thus the goals are positively interdependent, cooperation will result. However, if attainment of

one group's interests impedes the attainment of the goals of the other group, the groups' goals are said to be negatively interdependent. In such a case, RCT predicts that intergroup conflict will ensue. Although some support for RCT has been found in laboratory (Grant, 1992) and field studies which compared the relative predictions of RCT and SIT (Brown, Condor, Mathews, Wade & Williams, 1986; Kelly, 1988), not all groups with negatively interdependent goals are in conflict and many groups with positively interdependent goals do engage in conflict (Tajfel & Turner, 1979; Taylor & Moghaddam, 1987). Moreover, this theory says little about the processes underlying group behaviour: this, in part, and in contrast to SIT, explains its limitations in accounting for a broad range of intergroup behaviour (Tajfel & Turner, 1979).

Relative Deprivation theory (Crosby, 1976; Runciman, 1966) includes two forms of deprivation: egoistic and fraternal. Egoistic relative deprivation is that sense of deprivation that an individual can experience when comparing their particular situation with that of other individuals or other ingroup members. Fraternal relative deprivation, is the sense of deprivation that can be experienced when an individual compares the position of the ingroup with that of an outgroup. Research findings have demonstrated that it is fraternal deprivation, not egoistic, that best predicts whether group members will engage in collective action to change the *status quo* (Brewer & Kramer, 1985; Dube & Guimond, 1986; Runciman, 1966; Taylor & Moghaddam, 1987; Walker & Mann, 1987).

Relative Deprivation theory, however, does not elaborate on the process of intergroup comparison with respect to fraternal deprivation. For example, to which

groups will group members compare, and when, is not clear (Taylor & Moghaddam, 1987). Also, when will individuals act upon intergroup comparisons and under what conditions will they not? Do intergroup comparisons always affect group members in the same way or does behaviour depend upon some other, intervening, variables? Furthermore, relative deprivation theorists have typically emphasized egoistic deprivation. Accordingly, fraternal deprivation which more accurately accounts for social protest behaviour has, in comparison to egoistic deprivation, been ignored (Cole, 1990; Taylor & Moghaddam, 1987).

In contrast, SIT addresses many of the issues that these other theories do not. Consequently, SIT better accounts for findings both in and outside the laboratory (Tajfel & Turner, 1979). On these bases, the intergroup behaviour of men and women will be investigated from an SIT perspective in this thesis. In doing so, the thesis will contribute to the general literature on male-female relations (Deaux, 1985; Del Boca & Ashmore, 1986; Williams & Giles, 1978). To illustrate the dearth of intergroup research on male-female relations in the social psychological literature, a study by Aries (1982) will be reviewed.

A common finding in the social psychological literature on male-female behaviour is that men are more likely to exhibit verbal and nonverbal dominant behaviours: men are more likely to talk more, interrupt more, control the topic of conversation, initiate touch, smile less and stare more (Aries, 1987; Wood, 1987). Aries (1982) investigated whether the typical finding that men behave more dominantly in same- and mixed-sex groups would be true for a sample of bright,

career-oriented men and women. She observed the verbal and nonverbal behaviour of male and female undergraduates in same- and mixed-sex groups. Task-oriented, dominant verbal behaviour included verbal acts initiated and answers attempted. Socio-emotional, nondominant verbal behaviour was measured by the number of expressions of agreement or disagreement to statements uttered by other subjects. Dominant nonverbal behaviour included open body postures and subjects leaning back in their chairs. Subjects were randomly assigned to groups of five or six members. Their task was to reach a consensus in solving a case report of an ethical dilemma. Overall, male (n = 65) and female (n = 53) subjects were in the top 25% of high-school classes and intended to attain a graduate degree. In addition, results of a dominance scale showed that these subjects tended to be highly dominant. Male and female subjects did not differ on this measure.

Results showed that, in contrast to traditional interaction styles, the women in the study were more dominant verbally than the men. However, nonverbally, men were more dominant. Also, the sex of other group members had no effect on the extent to which subjects exhibited dominant behaviours. Aries (1982) hypothesized that the pattern of differentiation between dominant verbal and nonverbal behaviours between males and females can be expected "because verbal behaviour is more affected by conscious intentions. Indeed, the effects of sex-role socialization were operating at the nonverbal level" (p. 132).

Aries (1982) provides an interesting study that no doubt contributes to the social psychological literature on male-female relations. However, several questions

remain unanswered regarding intergroup processes. For instance, what are the social psychological processes underlying these patterns of findings? Did these subjects identify with their respective gender groups? How does their gender group identification relate to these findings? Did they identify with the other gender group? Perhaps, they identified more with one than the other, and if so, how might this account for the findings? Moreover, did these subjects actually identify with same-sex members in the group? Recall that, according to definition, ingroup identification is a prerequisite to intergroup behaviour (Tajfel & Turner, 1986). Furthermore, would the results be similar if males and females were explicitly categorized on the bases of their sex into same- and opposite-sex groups. In other words, how might the results differ if the task was to be completed by subjects as members of two groups?

These are just some of the questions that remain given the mainly interindividual level at which this study was conducted. Clearly, research on the intergroup behaviour of men and women would provide a useful contribution to the social psychological literature on female-male relations: "Not only must relations between the sexes be approached from a variety of complementary scientific perspectives, but also this topic should be construed as an instance of intergroup relations" (Del Boca & Ashmore, 1986, p. 319).

Empirical Studies for the Thesis

Three research methods were adopted for conducting this research: survey, laboratory, and field study. The first research method used was the survey technique. Although power differentials between women and men can be objectively defined,

such discrepancies between the sexes may not necessarily be perceived by individuals themselves. If this were the case, objectively defined power differentials between women and men would not have a predictive role in intergroup behaviour. For an investigation of the dynamics of intergroup relations between power groups, group members' perceptions and feelings about the intergroup context must be a matter of investigation itself. Subjective representations of objective discrepancies cannot be assumed. The existence, extent, and importance of these representations to men and women must be clarified. Such findings will illuminate the relevance of factors that may have an effect on behaviour to be studied using other techniques. In this way, hypotheses can be formulated with greater precision and observations more clearly understood. Undergraduates comprised the subject pool for the survey study (Cole & Bourhis, 1988).

The second research method used for this thesis was the laboratory technique. The findings of the survey revealed that power was important to undergraduates in female-male relations. Thus, power was manipulated within the context of same- and opposite-sex groups in the laboratory (Cole & Bourhis, 1990). A variant of the Minimal Group Paradigm was used for the two laboratory studies. By doing this, the effect of power, sex of subject, and sex of outgroup on the intergroup behaviour of male and female undergraduates could be examined.

As a follow-up to the laboratory studies, I interviewed members of the only two sex-segregated labour federations in North America for the third segment of the thesis, the field study (Cole & Bourhis, 1991). The Federation of Women Teachers'

Associations of Ontario (FWTAO) and the Ontario Public School Teachers' Federation (OPSTF) are perceived to have unequal amounts of power in the elementary school system. Traditionally, FWTAO, the women's federation, has been perceived as the more powerful teachers' federation; OPSTF, the men's federation, the less powerful. Consequently, the behaviour of men and women as members of two groups of differential power was investigated (Cole & Bourhis, 1991). The 'real-life' setting of the field study contrasts with the contrived setting of the laboratory.

Taken together, this thesis will contribute to a better understanding of the issue of social power in group relations. In addition, it will contribute to the literature on the social psychology of male-female relations. As such, and in line with the research program set forth in Bourhis (1986), the thesis is a response to pleas by reviewers of social psychological research for an investigation of the effect of power differentials on the behaviour of men and women as group members.

CHAPTER TWO

Undergraduates' Perceptions and Feelings about Power, Status, and Men and Women as Group Members

To begin a systematic investigation of the influence of power differentials between women and men as group members, it is important to understand how the power relations between men and women in a variety of intergroup settings are perceived. Do male and female undergraduates perceive the objectively defined power differentials in favour of men that were outlined in chapter one? If so, how do they feel about these discrepancies? Also, do they perceive the *status quo* to be changing and, if so, in what direction? A survey study was designed to investigate such issues pertaining to the power and status of men and women as group members.

There are several reasons for doing this study. First, although the objectively defined power positions of group members do have bearing on intergroup relations, individuals' representations of how groups compare within an intergroup setting are at least as important in the understanding of intergroup behaviour (Giles, Bourhis, Taylor, 1977; Tajfel, 1978; Tajfel & Turner, 1979, 1986). Bourhis, Giles, and Rosenthal (1981) emphasize the importance of assessing how ethnic group members perceive groups within their own intergroup setting. In their research on group vitality perceptions, Bourhis et al. (1981) compared objectively defined positions of ethnolinguistic groups with group members' subjective representations of their group's positions relative to the outgroup. Objective and subjectively represented positions of the ethnic groups were defined in terms of status (i.e., economic and social prestige),

group numbers (i.e., demography), and power (i.e., institutional support).

Significantly, they found that subjective representations of group vitality were not always identical to the groups' objectively defined positions. Bourhis et al. (1981) concluded that consideration of group members' subjective representations increases the likelihood of better accounting for intergroup behaviour. In chapter one, men were described as having more power and status than women. However, subjective representations held by undergraduates about the power relations between men and women as group members remain to be assessed (Bourhis & Sachdev, 1984; Bourhis et al, 1981; Genesee & Bourhis, 1982; Giles & Johnson, 1981; Johnson, Giles & Bourhis, 1983; Sweeting, 1982),

A second reason for doing this study is that subjects enter the laboratory with preconceived notions about male and female relations. Therefore, because undergraduates comprise the subject pool of the laboratory studies in this thesis, it is important to gain an appreciation of subjects' beliefs about the independent and dependent variables of the laboratory setting (Condor, Hilton & Abrams, 1986; Doise, 1980). One cannot assume that the researchers' categories have meaning to subjects (Condor et al, 1986; Duveen & Lloyd, 1986). Instead, an elaboration of the meaning and importance of the variables under study must be part of the investigation itself. More specifically, an understanding of the nature of the beliefs that subjects take into the laboratory can aid in the interpretation of behaviour observed in the laboratory. Subjects' perceptions and feelings about the intergroup relations of men and women could have an impact on their behaviour when group power is manipulated according

to the sex of ingroup and outgroup members. Thus, a number of items pertaining to the sociopsychological constructs and sociostructural variables outlined in chapter one have been included. The tendency for social psychologists to investigate intergroup behaviour on the basis of their own definitions of concepts rather than to examine the subjective experiences of group members has been noted elsewhere (Condor et al, 1986; Doise, 1980).

The third aim of this survey is to obtain findings that closely represent subjects' actual behaviour. To do so, the questionnaire incorporated items pertaining to different levels of analysis: intraindividual, interindividual, and intergroup aspects of behaviour. The result is a more thorough examination of power, and of women and men as group members (Doise, 1978, 1980). In addition, to improve the relationship between responses to survey items and actual behaviour, Allard and Landry (1986) suggested that researchers include four types of beliefs: general beliefs, beliefs about self, beliefs about norms and rules, and beliefs about goals. Each of these types of beliefs has been found to contribute significantly to the prediction of behaviour (Allard & Landry, 1986). Briefly, general beliefs refer to subjects' perceptions, such as the perception of the relative power positions of women and men in society. Beliefs about self entail subjects' feelings and self-reports of their own actions. Beliefs about norms and rules refer to what subjects feel should be, rather than what is. Beliefs about goals refer to desires and wishes, such as how much respondents themselves desire power or status. So that results of the survey would be more representative of subjects' actual behaviour, all four types of beliefs were incorporated.

The survey study was conducted with 210 undergraduate students. Items central to Social Identity Theory (SIT), the conceptual framework for the survey, were included. Such items pertained to social categorization on the basis of sex, social comparison between men and women in a variety of intergroup settings, and the degree and quality of respondents' social identity. The survey items also included perceptions of the intergroup situation between males and females (i.e., general beliefs).

Once again, it is important to recognize that ideology or one's belief system plays a pivotal role in intergroup behaviour (Gurin & Townsend, 1986; Lipman-Blumen, 1984; Tajfel, 1978; Tajfel & Turner, 1979; Williams & Giles, 1978). Perception of the legitimacy of the intergroup context is a mediating variable in group members' decision to engage in individual or collective strategies to improve the quality of their social identity. Likewise, sex-role ideology or the degree to which individuals believe in equal access to limited resources of social, economic, political, and judicial realms within society should have a predictable impact on intergroup behaviour (Frable, 1989; Gurin & Townsend, 1986). The Attitudes toward Women Scale (AWS, Spence, Helmreich & Stapp, 1973) developed in the United States, assesses the degree to which individuals believe in equality for women and men in social, political, and economic spheres of society. This scale was included in each study of the thesis: the extensive questionnaire of the survey study, the postsession questionnaire of the laboratory studies, and the postinterview questionnaire of the field

study. The following is a delineation of the validity, reliability, and the rationale for the inclusion of this measure.

Attitudes toward Women Scale (AWS). The shorter version with 25 items (Spence, Helmreich & Stapp, 1973) was used in lieu of the longer 55-item scale (Spence & Helmreich, 1972). Both scales, developed in the United States, have been widely used (see Archer, 1989 and Archer & Rhodes, 1989) and have been shown to have high construct validity, and test-retest and inter-item reliability (Kilpatrick & Dell Smith, 1974; Beere, 1979). In addition, scores from the shorter version of AWS are highly correlated with those from the extended version (Spence, Helmreich & Stapp, 1973). In a study by Salisbury and Passer (1982), the 25-item AWS was found to differentiate between women who participated in traditionally 'unfeminine' and 'feminine' sports: women who participated in the former were found to have a more liberal sex-role ideology. Eagly and Mladinic (1989) demonstrated that a liberal sex-role ideology, as measured by AWS, implies greater agreement with equal rights for women in all areas of life, including social, economic, political, and family roles. In contrast, a traditional sex-role ideology implies lesser agreement with equality in these spheres of society. Defined in these terms, Eagly and Mladinic (1989) conclude that AWS is "an excellent measure" of sex-role ideology (p. 555). Importantly, the items on AWS are aligned most closely with one of four categories of beliefs described by Allard and Landry (1986): beliefs about norms and rules. It is this category of beliefs which Eagly and Mladinic (1989) observed to be most predictive of behaviour. Note that because these studies were conducted in the United States, the Attitudes toward

Women Scale was used in the present investigation as an exploratory measure of sex-role ideology in a Canadian setting. However, this scale has been adapted for use in Britain and has been shown to be a valid and reliable measure of sex-role ideology in Britain (Durkin, Zaveri & Condor, 1986; Haworth, Povey & Clift, 1986; Parry, 1983). Also used in the survey study as an exploratory measure of sex-role ideology was a more recent sex-role ideology scale developed in Britain by Condor, Hilton and Abrams (1986). The Condor et al. scale was developed to provide another sex-role ideology scale relevant to British subjects in content and wording.

Method

Subjects. Subjects were 105 males and 105 females enrolled in an introductory psychology course or a second year sociology class at McMaster University. All subjects were Canadian and had English as their first language. The mean age of male and female subjects was 21 years (for males: $sd = 1.56$; for females: $sd = 1.41$).

Procedure. Subjects were administered the survey by a female experimenter (myself) during class time. Subjects were instructed not to put their name on the questionnaire and were told that the survey investigated attitudes people have about men and women in society. The time to complete the survey ranged from 30 to 50 minutes.

The survey (see Appendix A) assessed several issues related to female-male relations:

- 1) Degree and quality of gender group identification.

- 2) Assessment of subjects' sex-role ideology measured by the Attitudes toward Women Scale (AWS, Spence, Helmreich & Stapp, 1973) and the Condor et al. (1986) scale.
- 3) Perceptions of the intergroup situation: power and status positions of women and men in a variety of settings and the stability and the legitimacy of these positions.
- 4) Perceptions about the intergroup behaviour of men and women.

Subjects responded to questionnaire items on 7-point Likert scales with the following end points: a) '1' indicating 'not at all' and '7' indicating 'very much', b) '1' indicating 'definitely not' and '7' indicating 'definitely', and c) '1' indicating 'never' and '7' indicating 'always'. For the sex-role ideology scales (i.e., AWS and Condor et al, 1986) response scales were kept as originally devised. The order of 22 questions referring to perceptions and feelings of the legitimacy of power and of 22 referring to status (i.e., basic SIT items) was counterbalanced. A total of 110 subjects responded to the survey that had power questions first. In comparison, 100 subjects responded to the survey with status questions first. For conceptual coherence and to provide a logical order of presentation of items for the respondents, the other items followed these questions on power and status in a specific order for all subjects. For example, questions referring to interindividual aspects of behaviour followed items about intergroup behaviour so that subjects would not be switching between cognitive sets at either end of the interindividual/intergroup continuum (Tajfel, 1978). Also, sex-role ideology scales were at the end of the survey so that reactions to the items in

these scales would not influence responses to the central questions in the survey. As well, the response scales for items in the sex-role ideology scales are different than the 7-point Likert scales used in the rest of the survey.

Appropriateness of using parametric analyses. Parametric tests were predominantly used on data in this thesis. There continues to be a debate in the literature about the appropriateness of using these procedures on data obtained by the Likert scale (Mitchell, 1986; Pagano, 1990). Stevens (1946) and Siegel (1956) argue that psychological data can be categorized into four categories: nominal, ordinal, interval, and ratio. They stipulate that only data categorized as interval or ratio can be analyzed with parametric analytical procedures. Their reasons for this are several and counterarguments are presented elsewhere (Anderson, 1961; Campbell, 1991; Gaito, 1980, 1986; Lord, 1953; Velleman & Wilkinson, 1993). But assuming that the Stevens' model is correct, and that Likert scales can at least be categorized as having ordinal properties, there are, nonetheless, several arguments for applying parametric procedures on ordinal data.

First, it is customary for social psychological researchers to use parametric procedures on such data. Granted, customary practice does not necessarily mean that traditional procedures are correct. Although the actual points on the scale are equidistant one from another, it is true that we do not know exactly how subjects internally represent these categories. For instance, we do not know if subjects represent the difference between points 2 and 3 equal to that of the difference between points 5 and 6. However, Brown (1976) and Labovitz (1970) have argued that

measures such as the Likert scale, at least approximate equal intervals. A second argument for applying parametric procedures to data obtained from Likert scales is that a number of studies have shown that parametric procedures like analysis of variance are quite robust because such procedures are fairly insensitive to violation of the levels of measurement model (Campbell, 1991; Labovitz, 1970; Traylor, 1983). Third, although Likert scales may not be truly interval, if the analyses reveal big effects, failing to strictly meet the level of measurement assumption for parametric tests is of little or no consequence. This is because a slight diversion from the level of measurement assumption of parametric tests leads to randomness and therefore probably attenuates an effect. The effects obtained throughout the thesis are generally quite large.

As an alternative argument for applying parametric statistics to data obtained from Likert scales, Gaito (1986) has proposed that there are really only two kinds of data, continuous and discontinuous. Multivariate analysis of variance is appropriate for categorical independent variables and continuous dependent variables, and therefore, the argument of whether Likert scales are 'ordinal' or 'interval' becomes superfluous because both ordinal and interval scales provide continuous data. With this in mind, the measurement criteria for performing MANOVA's on the present data are met: in chapters 2, 3, 4, and 5, the independent variables are categorical, and because Likert scales yield continuous data, the dependent variables are continuous.

Results

A number of multivariate analyses of variance were performed on the items of the survey. These were followed by univariate analyses to identify the items that contributed to significant multivariate effects. When significant univariate interactions were revealed between more than two means, Newman Keuls multiple comparison tests followed (all p 's < .05 for Newman Keuls tests, unless otherwise stated).

Items were entered into a MANOVA mainly according to design. For example, if subjects were asked how much they identified with the male gender group and how much they identified with the female gender group, these data were entered into a sex of subject by target sex repeated measure (2 X 2) MANOVA. Target sex refers to the sex of the rated. In addition, for ease of presentation, results are reported in sections according to the conceptual relatedness between items. Thus, items referring to identification and feelings about being a member of one's gender group are reported in one section. Note, however, that findings in one section may have been obtained from separate MANOVA's. Accordingly, one section may contain results from several MANOVA's and the results of univariate analyses for one MANOVA may be reported in separate sections. To help the reader, all significant multivariate effects are reported when a particular MANOVA is introduced. At this point, the number of items included in the MANOVA are also reported. Also, when a univariate effect contributing to a multivariate effect is reported in a subsequent section, the design of the MANOVA to which it relates is redescribed. Multivariate and univariate F and probability values for analyses that included a large number of

items are included in Appendix B. Also, note that I have chosen an experiment-wise probability level of .05 as alpha for the series of studies in the thesis. Thus, multivariate F's with probability values that fall below this criterion are designated as 'significant'. However, because of the large number of univariate analyses applied to the same set of data as a conservative approach, a Bonferroni correction factor was applied to obtain the criterion of significance for univariate analyses: the alpha level (.05) was divided by the number of dependent measures included in each MANOVA. For the reader's reference, I have included this stricter criterion, referred to as alpha', when I introduce and reintroduce univariate analyses applying to each MANOVA. Univariate F's and probability values that fall between alpha and alpha' are designated as marginally significant. I report all 'significant' and 'marginally significant' univariate F's that contribute to a significant multivariate effect.

2.1 Gender group identification and quality of social identity. Nineteen items were included in a sex of subject by target sex repeated measure (2 X 2) MANOVA (see section 2.1 in Appendix B). Analysis revealed a significant multivariate main effect for sex, $F(19,190) = 4.81, p < .0001$, target sex, $F(19,190) = 52.21, p < .0001$, and a significant multivariate interaction, $F(19,190) = 60.23, p < .0001$. Alpha was set at .05; for univariate analyses, alpha' for nineteen dependent measures is .0026. One item that contributed to the multivariate interaction was degree of identification with own sex and other sex. Table 2.1 presents the means for subjects' own gender group identification. Newman Keuls analysis ($p < .01$) showed that although subjects identified minimally with the other sex (combined $M = 2.14$), they identified much

TABLE 2.1 **SUBJECTS' IDENTIFICATION AND FEELINGS
ABOUT THEIR GENDER GROUP MEMBERSHIP**

	Male Subjects (n = 105)	Female Subjects (n = 105)	Sex Main Effect F (df = 1,208)
Identification with Gender Group	6.35*	6.34	ns
Feelings About Gender Group Membership:			
Positive	6.31	6.09	ns
Secure	6.31	5.94	5.92 (p < .02)†
Happy	6.43	6.13	4.00 (p < .05)†
Sex-Role Ideology:			
AWS	55.85	63.51	36.20 (p < .0001)
Condor Scale	93.90	107.62	32.17 (p < .0001)
Classification of Self as a "Feminist"	3.08	4.37	24.04 (p < .0001)
Age	21.02	21.02	ns
Feeling of being Canadian	6.20	6.11	ns

* The higher the mean rating on the 7-point scale, the higher the score on the item.

† probability > α'

more strongly with their own gender group (combined $M = 6.34$), $F(1,208) = 1067.40$, $p < .0001$.

Nineteen items were included in a MANOVA with sex as a between factor (see section 2.2 in Appendix B). Six of these items referred to subjects' feelings and perceptions about their respective gender group membership. Ten items referred to subjects' perceptions of power and status and the extent to which they categorized themselves as members of groups according to power and status. Two items pertained to age and feelings of being a Canadian.² Analysis revealed a multivariate effect for sex, $F(19,190) = 4.28$, $p < .0001$. Univariate analyses ($\alpha' = .0026$) suggested a marginally significant effect of the degree of security and happiness about belonging to subjects' own gender group (see Table 2.1). Therefore, female subjects tended to feel slightly less secure and happy about belonging to their gender group than did male subjects. In general, however, subjects felt highly positive (combined $M = 6.20$), secure (combined $M = 6.12$), and happy (combined $M = 6.28$) about belonging to their gender group.

Other items included in this one-way analysis pertained to how much subjects generally considered themselves to be members of a high power, high status, low power, or low status group. As expected, male subjects considered themselves to

² One item that referred to whether subjects had participated in an organization that dealt with male-female relations was inappropriately included in this analysis: subjects responded to a categorical scale in which '1' represented 'yes' and '2' represented 'no'. The mean and standard deviation for both males and females for this item were the same: $M = 1.92$, $sd = 0.03$. Because the means for males and females were equal, this item did not contribute to the multivariate effect of sex. Therefore, even if this item had not been included in the analysis, a significant multivariate effect of sex would still have been obtained. Age of subjects was also inappropriately included in this analysis. However, because there was no significant difference in age between the groups, this variable did not contribute to the multivariate effect of sex. This argument applies as well to analyses in chapters 3, 4, and 5 in which age of subjects was included as a dependent measure.

be members of a powerful group more ($M = 4.22$) than did female subjects ($M = 3.35$), $F(1,208) = 17.16$, $p < .0001$. However, male and female subjects perceived themselves to be members of a powerless group to the same extent (combined $M = 3.34$). There was also no difference in the degree to which male and female subjects perceived themselves to be members of either a high status (combined $M = 4.28$) or a low status group (combined $M = 2.54$).

2.2 Sex-role ideology. Also contributing to the multivariate main effect of sex for this one-way MANOVA, and as seen in Table 2.1, female subjects identified more with the term 'feminist' than did male subjects. Female subjects also had a significantly more liberal sex-role ideology than did male subjects as measured by both AWS and the Condor et al. (1986) scale. The Cronbach alpha for AWS was .88 for males and .85 for females. For the Condor scale, the Cronbach alpha was .84 for both male and female subjects. Accordingly, the inter-item reliability was quite satisfactory for both scales. However, when asked if they had actually participated in an organization that focussed on issues pertinent to relations between women and men, neither males nor females reported having done so to any great extent (7.6% of both males and females).

2.3 Perceptions of the intergroup structure. Table 2.2 illustrates subjects' perceptions of the power of the male group and female group in society in general, in the workforce, and in the university setting. These items were included in the previously mentioned sex by target sex repeated measure (2 X 2) MANOVA (section 2.1 in Appendix B; $\alpha' = .0026$). First, a univariate effect of target sex on one item

TABLE 2.2 PERCEPTIONS OF POWER OF THE MALE AND FEMALE GROUP IN A VARIETY OF SETTINGS

	Male Subjects		Female Subjects		Target Sex
	Rating of		Rating of		Main Effect
	Male Group / Female Group		Male Group / Female Group		F
	(n = 105)		(n = 105)		(df = 1,208)
Perceived Power:					
In Society	5.81	4.23	5.58	4.21	175.59 (p < .0001)
In the Workforce	5.85	3.96	6.21	4.29	586.50 (p < .0001)
As Undergraduates	4.35	4.04	4.43	4.02	53.96 (p < .0001)
As Graduate Students	5.15	4.70	5.34	4.75	93.88 (p < .0001)

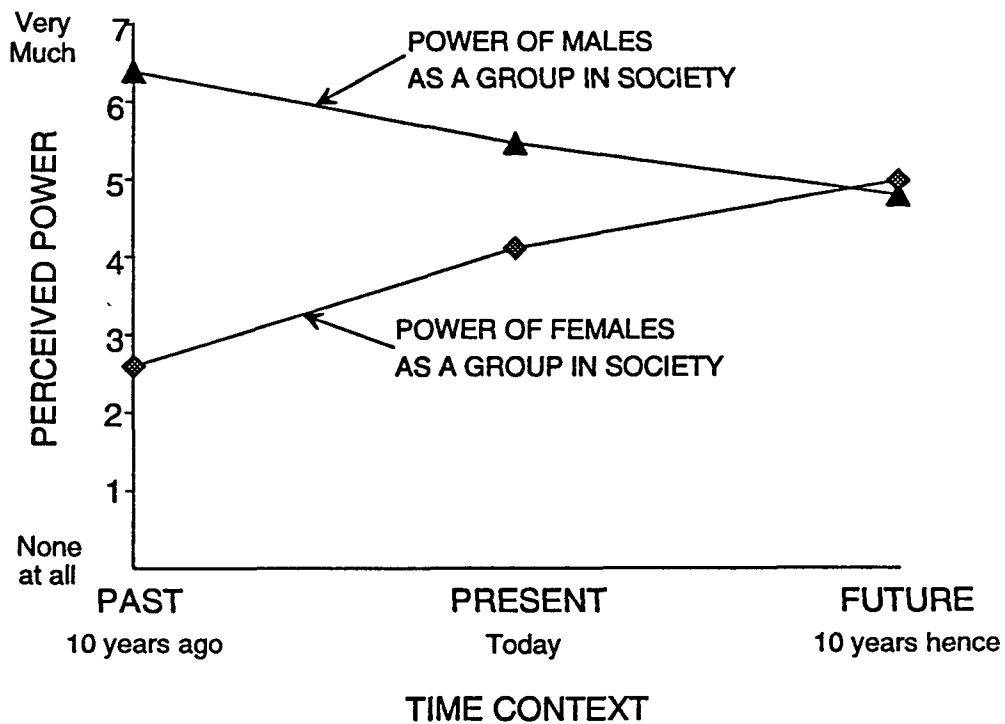
showed that both male and female subjects perceived men as a group to have more power today in society in general (combined $M = 5.70$) than women as a group (combined $M = 4.22$). Furthermore, a power differential in favour of men was also perceived in the workforce (for the male group: combined $M = 6.03$; female group: combined $M = 4.12$). A univariate effect of sex, $F(1,208) = 15.15$, $p = .0001$, demonstrated that female subjects gave higher estimates of power in the workforce ($M = 5.25$) than did male subjects ($M = 4.90$). In addition, male and female subjects perceived men to have more power than women as a group in the university setting as undergraduates (male group: combined $M = 4.39$; female group: combined $M = 4.03$), as well as graduate students (male group: combined $M = 5.24$; female group: combined $M = 4.72$).

The same pattern of results was obtained for items referring to the status of the gender groups included in this same MANOVA. The male group was perceived to have more status in society in general (combined $M = 5.74$) than the female group (combined $M = 4.41$), $F(1,208) = 150.73$, $p < .0001$. Similarly, as undergraduates, the male group was perceived to have more status (combined $M = 4.70$) than the female group (combined $M = 4.34$), $F(1,208) = 46.35$, $p < .0001$. In the workforce, a status differential in favour of men was also perceived (male group: combined $M = 5.94$; female group: combined $M = 4.30$), $F(1,208) = 444.03$, $p < .0001$. A marginally significant univariate effect of sex, $F(1,208) = 6.03$, $p < .02$, indicated that female subjects tended to give higher estimates of status in the workforce ($M = 5.23$) than did male subjects ($M = 4.98$). Also, although a status differential in favour of men was

perceived for graduate students, (male group: combined $M = 5.51$; female group: combined $M = 5.05$), $F(1,208) = 69.03$, $p < .0001$, a marginally significant univariate interaction for this variable followed by Newman Keuls analysis revealed that female subjects tended to perceive male graduate students to have more status ($M = 5.65$) than male subjects perceived male graduate students to have ($M = 5.37$), $F(1,208) = 7.99$, $p < .006$.

Also contributing to this multivariate main effect for target sex were items about the perceived stability of the power and status positions of the male and the female group. Univariate analyses demonstrated that both male and female subjects perceived the power (combined $M = 5.42$) and status (combined $M = 5.50$) of the female group to have changed significantly more over the past ten years than had the power (combined $M = 4.46$) and status (combined $M = 4.20$) of the male group (power: $F(1,208) = 54.30$, $p < .0001$; status: $F(1,208) = 119.88$, $p < .0001$). Both female and male subjects also perceived that the power and status of the female group (power: combined $M = 4.82$; status: combined $M = 4.88$) would change at a faster rate than would the power and status of the male group over the next ten years (power: combined $M = 4.06$; status: combined $M = 3.84$) (power: $F(1,208) = 51.45$, $p < .0001$; status: $F(1,208) = 96.85$, $p < .0001$).

Figure 2.1 illustrates other items in the survey referring to subjects' perceptions of the present, past, and future power positions of the female and male group in society in general. Responses to these items were analyzed by a sex by two repeated



2 x 2 x 3 ANOVA

- Target Sex x Time Context Interaction: $F(2,416) 941.0, p < .0001$
- Target Sex Main Effect: $F(1,208) 486.4, p < .0001$
- Time Context Main Effect (Past, Present, Future): $F(2,416) 65.1, p < .0001$
- Sex of Subject x Target Sex x Time Context Interaction: $F(2,416) 6.11, p < .005$
- No Sex of Subject Main Effect

Figure 2.1: Perception of the Power of the Male and Female Group in Society across Time Context: Past, Present and Future (Cole and Bourhis, 1988). (Note: For ease of presentation the data along the abscissa were plotted as if Time Context were a continuous variable.)

measures (2 X 2 X 3) ANOVA (section 2.5 in Appendix B). The repeated measures were target sex and time context. The analysis revealed a main effect for target sex, $F(1,208) = 486.44$, $p < .0001$, the time context repeated measure, $F(2,416) = 65.14$, $p < .0001$, a significant interaction of target sex and time context, $F(2,416) = 940.99$, $p < .0001$, and a significant interaction of sex by target sex by time context, $F(2,416) = 6.11$, $p < .005$. There was no effect for the sex of subjects. As illustrated, the target sex by time context interaction followed by Newman Keuls analysis revealed that the male group was perceived to have more power ($M = 6.38$) than the female group in the past ($M = 2.59$) and present (male group: $M = 5.46$; female group: 4.10). Thus, in corroboration with previously obtained power perceptions, a perceived power differential in favour of the male group 'today' was also reported here by both male and female subjects. The third order interaction of sex, target sex, and time context, and Newman Keuls analysis indicated that although male subjects perceived that the male and female group would have equal power in ten years ($M = 4.82$), female subjects perceived that the female group would actually have more power ($M = 5.04$) than the male group ($M = 4.74$) in the future. This interaction and Newman Keuls analysis also indicated that female subjects rated the female group as having less power ($M = 2.44$) than male subjects rated them as having in the past ($M = 2.74$).

Results from a similar sex by target sex by time context repeated measures (2 X 2 X 3) ANOVA for the status variable revealed a similar pattern of results (section 2.6 in Appendix B). Analysis revealed an effect for target sex, $F(1,208) = 494.65$, $p < .0001$, time context, $F(2,416) = 60.37$, $p < .0001$, and an interaction of sex and target

sex, $F(1,208) = 4.04$, $p < .05$, and target sex and time context, $F(2,416) = 694.55$, $p < .0001$. The second order interaction for target sex and time context, analyzed by Newman Keuls multiple comparison test, showed that both male and female subjects perceived the female group (combined $M = 2.87$) to have substantially less status than that of the male group in the past (combined $M = 6.37$) and present (for female group: combined $M = 4.28$; for male group: combined $M = 5.48$). Therefore, consistent with other survey findings, a status differential in favour of the male group 'today' was perceived here as well by both male and female undergraduates. Also, both male and female subjects perceived that the status of the female group would be equal to that of the male group in ten years (combined $M = 5.05$). A Newman Keuls test did not identify the source of the sex by target sex interaction.

2.4 Feelings about the intergroup structure. Two items included in the previous sex by target sex repeated measure (2 X 2) MANOVA referred to how much power and status the gender groups should have in the future (section 2.1 in Appendix B; $\alpha' = .0026$). A marginally significant effect for target sex was indicated for both the power, $F(1,208) = 7.82$, $p < .01$, and status item, $F(1,208) = 6.17$, $p < .02$. Interestingly, a univariate interaction obtained on the item referring to power and follow-up Newman Keuls ($p < .01$) demonstrated that only female subjects felt that the male and female group should have equal power ($M = 5.06$), $F(1,208) = 22.75$, $p < .0001$. In addition, although male subjects felt that the male group should have as much power as female subjects thought the male group should have (combined $M = 5.10$), male subjects felt that the male group should have more power ($M = 5.19$) than

the female group ($M = 4.75$). No such interaction was obtained for the same item for status, $F(1,208) = 2.83$, $p < .10$.

Table 2.3 presents other items contributing to the multivariate effects obtained by this 2 X 2 MANOVA. These items referred to subjects' feelings of the legitimacy of the present and past power and status positions of the male and female group. A significant univariate main effect of target sex for these items demonstrated that subjects felt that the present and past power and status positions of the female group were less legitimate than those of the male group. However, a marginally significant interaction and a subsequent Newman Keuls test showed that female subjects tended to rate the legitimacy of the present power of the male group as low as they rated the present power of the female group. The main effect for sex of subject on both the power and status items showed that female subjects gave lower ratings of legitimacy for both male and female power and status positions in the present (power: combined $M = 3.80$; status: combined $M = 3.79$) than did male subjects (power: combined $M = 4.58$; status: combined $M = 4.60$). In other words, female subjects felt that the present power and status of both the male and female group were less legitimate than did male subjects. Similar univariate main effects for sex were obtained for items referring to feelings of the legitimacy of the power and status of the gender groups in the past: female subjects gave lower estimates of the legitimacy of the power and status of the male and female group in the past than did male subjects.

Two items referring to subjects' feelings of legitimacy and threat about perceived changes in power and status of the male and female group were included in

TABLE 2.3

**FEELINGS OF LEGITIMACY OF THE PERCEIVED POWER AND
STATUS POSITIONS OF THE MALE AND FEMALE GROUP
IN THE PAST AND PRESENT**

	Male Subjects Rating of Male Group / Female Group (n = 105)		Female Subjects Rating of Male Group / Female Group (n = 105)		Sex Main Effect F (df = 1,208)	Target Sex Main Effect F (df = 1,208)	Interaction of Sex and Target Sex (df = 1,208)
Perceived Legitimacy of:							
<u>Power</u>							
Today	4.92 ^c	4.23 ^b	3.89 ^a	3.70 ^a	17.63 (p < .0001)	19.10 (p < .0001)	6.20† (p < .02)
In the Past	4.19	3.17	3.22	2.21	25.64 (p < .0001)	73.31 (p < .0001)	ns
<u>Status</u>							
Today	5.01	4.20	4.05	3.53	19.91 (p < .0001)	54.61 (p < .0001)	ns
In the Past	4.27	2.99	3.21	2.24	22.18 (p < .0001)	105.30 (p < .0001)	ns

$a < b < c$, $p < .05$ (Newman Keuls Multiple Comparison Test)

† probability > α'

eight separate MANOVA's with sex as a between factor (see section 2.3 in Appendix B). Eight MANOVA's with two dependent measures each were performed because the total number of subjects responding to each pair of items in the questionnaire varied: subjects chose only one pair of three pairs of items. The pairs of items referred to a decrease, increase, or no change in power or status. Consistent with other findings of the survey, most subjects perceived a decrease in power and status of the male group in the past and in the future and a corresponding increase in power and status of the female group in the past and in the future. These pairs of items were entered into eight separate MANOVA's. A significant multivariate main effect for sex was obtained for each MANOVA. All multivariate and univariate F and probability values are presented in section 2.3 of Appendix B (alpha' = .003 for 16 univariate analyses).

Overall, results showed that compared to female subjects, male subjects felt significantly more threatened about the perceived decrease of the power of the male group during the past ten years ($M = 2.38$), $F(1,150) = 18.57$, $p < .0001$, and over the next ten years ($M = 2.51$), $F(1,128) = 31.00$, $p < .0001$. In fact, female subjects hardly felt threatened at all (past: $M = 1.52$; future: $M = 1.32$). The same pattern was observed for male subjects for the perceived decrease of status of the male group in the past ($M = 2.21$) $F(1,123) = 10.79$, $p < .001$, and future ($M = 2.69$) $F(1,102) = 17.15$, $p = .0001$ (for females: past: $M = 1.52$; future: $M = 1.62$). Likewise, compared to female subjects, male subjects felt more threatened by the perceived increase in power of the female group in the past ($M = 2.26$), $F(1,197) = 24.31$, $p < .0001$, and future (M

= 2.29), $F(1,169) = 17.69$, $p < .0001$, (for females: past: $M = 1.39$; future: $M = 1.47$).

The same pattern of feelings of threat was obtained for the perceived changes in the status of the female group in the past and future (both p 's $< .001$).

Results of univariate analyses on the second item included in each MANOVA referring to legitimacy, showed that, compared to male subjects, female subjects tended to feel that the increase in power and status of the female group in the past and future was more legitimate. Of the four relevant analyses, however, only the probability for the perceived legitimacy of the increase of the power of the female group in the future was below alpha'. Female subjects also tended to perceive that the decrease in status of the male group in the past and future and the decrease in power of the male group in the future was more legitimate. As an exception to this general pattern, male and female subjects felt equally strongly about the legitimacy of the perceived decrease in power of the male group in the past (combined $M = 5.08$).

In Table 2.4, the means for subjects' perceptions about how much more power and status the gender groups should have in society in general and in the workforce are presented. These four items were included in another sex of subject by target sex repeated measure (2 X 2) MANOVA (section 2.7 in Appendix B). Another four items pertaining to the importance and value of power and status to the male and female group, presented in Table 2.5, were also included in this MANOVA. Analysis revealed a multivariate main effect for the target sex repeated measure, $F(8,201) = 93.09$, $p < .0001$, and a significant multivariate interaction of sex and target sex,

TABLE 2.4

**HOW MUCH MORE POWER AND STATUS THE MALE AND FEMALE
GROUP SHOULD HAVE IN SOCIETY IN GENERAL
AND IN THE WORKFORCE**

	Male Subjects Rating for		Female Subjects Rating for		Target Sex Main Effect	Sex of Subject by Target Sex Interaction
	Male Group	Female Group	Male Group	Female Group	F	F
	(n = 105)		(n = 105)		(df = 1,208)	(df=1,208)
How much more <u>Power</u>:						
In Society	3.18 ^b	4.88 ^c	2.02 ^a	6.06 ^d	351.19 (p < .0001)	58.64 (p < .0001)
In Workforce	3.48 ^b	5.07 ^c	2.19 ^a	6.48 ^d	393.26 (p < .0001)	82.73 (p < .0001)
How much more <u>Status</u>:						
In Society	3.47 ^b	5.12 ^c	2.35 ^a	6.34 ^d	410.42 (p < .0001)	70.06 (p < .0001)
In Workforce	3.49 ^b	5.14 ^c	2.13 ^a	6.62 ^d	498.93 (p < .0001)	105.79 (p < .0001)

$a < b < c < d$, $p < .01$ (Newman Keuls Multiple Comparison Test)

$F(8,201) = 13.92, p < .0001$. A multivariate effect of sex was marginally significant, $F(8,201) = 1.84, p < .10$. Univariate analyses demonstrated that each of the items listed in Table 2.4 contributed to the significant multivariate main effect of target sex and the significant multivariate interaction ($\alpha' = .006$). Newman Keuls analyses ($p's < .01$) showed the following. First, both male and female subjects thought that relative to the male group, the female group should have more power in society in general (combined $M = 5.47$) and in the workforce (combined $M = 5.78$) than it presently does (for male group: society: combined $M = 2.60$; workforce: combined $M = 2.84$). Subjects felt the same about the relative status of males and females in society in general and in the workforce. Second, Newman Keuls multiple comparison analyses showed that female subjects were more extreme about these feelings (all $p's < .01$). Compared to male subjects, female subjects felt that the female group should have a greater increase of power and status in society and in the workforce.

2.5 Value and importance of power and status. Items pertaining to the importance and value of power and status to the male and female group, presented in Table 2.5, were also included in this (2 X 2) MANOVA with sex as a between factor and target sex as a repeated measure. Univariate analyses ($\alpha' = .006$) showed that each item contributed to the multivariate main effect of target sex. Both male and female subjects felt that power and status were more valuable to members of the male group (power: combined $M = 6.54$; status: combined $M = 6.44$) than to members of the female group (power: combined $M = 5.16$; status: combined $M = 5.82$). Note that although a significant univariate sex effect was indicated for these items, the

TABLE 2.5

**PERCEPTIONS OF THE VALUE AND IMPORTANCE OF POWER AND
STATUS TO THE MALE AND FEMALE GROUP**

	Male Subjects Rating for Male Group/Female Group (n = 105)		Female Subjects Rating for Male Group/Female Group (n = 105)		Sex Main Effect F (df = 1,208)	Target Sex Main Effect F (df = 1,208)	Sex of Subject by Target Sex Interaction F (df = 1,208)
<u>Value of:</u>							
Power	6.31	5.05	6.78	5.27	12.49 (p < .001)	224.15 (p < .0001)	ns
Status	6.28	5.72	6.60	5.91	5.77 (p < .02)	67.88 (p < .0001)	ns
<u>Importance of:</u>							
Power	5.34 ^c	4.58 ^a	5.10 ^b	5.03 ^b	ns	24.53 (p < .0001)	17.27 (p < .0001)
Status	5.49 ^b	5.02 ^a	5.55 ^b	5.46 ^b	ns	17.66 (p < .0001)	7.72 (p = .006)

$a < b < c$, $p < .05$ (Newman Keuls Multiple Comparison Test)

multivariate effect of sex was only marginally significant. Significant interactions for the remaining two items showed that female subjects felt that it was equally important to the male group and to the female group to have power (combined $M = 5.06$) and status (combined $M = 5.50$, $p = .006$). In contrast, male subjects felt that power was more important to the male group ($M = 5.34$) than female subjects reported it to be, and less important to the female group ($M = 4.58$) than indicated by female subjects themselves. Similarly, although male subjects felt that status was as important to the male group ($M = 5.49$) as indicated by female subjects, they gave lower ratings of the importance of status to the female group ($M = 5.02$) than did female subjects themselves.

However, analyses on items included in the MANOVA with sex as a between factor (see section 2.2 in Appendix B) showed that when subjects were asked how much they themselves valued power and status as individuals, male and female subjects reported to value power and status equally highly (power: combined $M = 5.40$; status: combined $M = 5.78$). Related to this, male and female subjects were alike in expressing an equally strong desire for more power and status than they presently had as individuals (power: combined $M = 5.28$; status: combined $M = 5.38$). Taken together, these results show that both male and female respondents highly value power and status.

2.6 Perceptions about the behaviour of men and women. Other items pertained to subjects' perceptions about the intergroup and interindividual behaviour of

women and men and are presented in Table 2.6. These items referred to perceptions of how much subjects behaved, were treated, and treated others as gender group members and as individuals. A sex of subject by repeated measure (2 X 2) MANOVA was performed on these items (section 2.8 in Appendix B; $\alpha' = .0125$). The repeated measure referred to ratings as a member of gender group or as an individual. A significant multivariate main effect of the repeated measure, $F(4,205) = 9.28, p < .0001$, and an interaction of sex and the repeated measure, $F(4,205) = 6.06, p = .0001$, were obtained. A multivariate effect of sex was only marginally significant, $F(4,205) = 2.06, p < .10$. As shown, male and female subjects felt that in the course of a normal day, they themselves were treated more as members of their gender group (combined $M = 5.78$) than as individuals (combined $M = 5.34$). Univariate main effects for the repeated measure were also obtained for items referring to how much subjects behaved, and treated women, as individuals and as group members. However, the univariate interaction effects and Newman Keuls analyses indicated that male subjects reported to treat men (combined $M = 5.59$), treat women (combined $M = 5.78$), and reported to tend to behave (combined $M = 5.53$) just as much as individuals as group members. In contrast, female subjects reported to treat men, treat women, and tended to report to behave more as individuals than as group members. Moreover, male subjects reported to treat men, treat women, and tended to report to behave more as group members than female subjects.

2.7 Factors contributing to sex-role identity. Finally, it was of interest to assess what factors contributed to undergraduates' sex-role ideology. Upon what do

TABLE 2.6

**SELF-REPORTS ABOUT HOW MUCH SUBJECTS
BEHAVE, ARE TREATED, AND TREAT OTHERS
GENDER GROUP MEMBERS AND AS INDIVIDUALS**

	Male Subjects Rating as		Female Subjects Rating as		Repeated Measure Main Effect	Sex by Repeated Measure Interaction
	a Member of Gender Group (n = 105)	an Individual	a Member of Gender Group (n = 105)	an Individual	F (df = 1,208)	F (df = 1,208)
The extent to which subjects						
Behave as...	5.50 ^b	5.56 ^b	5.26 ^a	5.76 ^b	6.57 (p < .011)	3.90 (p < .05)†
Are Treated as...	5.90	5.35	5.65	5.32	14.57 (p < .0005)	ns
Treat Men as...	5.72 ^b	5.45 ^{ab}	5.30 ^a	5.79 ^b	ns	10.34 (p < .002)
Treat Women as...	5.90 ^d	5.67 ^d	5.10 ^c	5.94 ^d	7.24 (p < .01)	22.96 (p < .0001)

^a < ^b, p < .05

^c < ^d, p < .01 (Newman Keuls Multiple Comparison Test)

† probability > α'

respondents' beliefs about the roles of men and women depend? Accordingly, separate standard multiple regressions were performed on data with AWS and the Condor scale as dependent, predicted variables. Eighteen independent, predictor variables were comprised of items pertaining to the degree and quality of gender group identification, self-perceptions of being a member of a powerful group, feelings of legitimacy about the power and status positions of the male and female group in the past, present, and future, and perceptions of how much power and status the groups should have. Multiple regression analyses revealed that only the variables that pertained to feelings of legitimacy of the intergroup situation and how much power and status each gender group should have in the future were significant predictors of sex-role ideology scores. For AWS, when male and female subjects were combined as a single group, the explained variance was $R^2 = .44$, $F(18,191) = 8.18$, $p < .0001$. When subjects were analyzed separately by sex, the explained variance for males was $R^2 = .52$, $F(18,86) = 5.18$, $p < .0001$, and $R^2 = .36$, $F(18,86) = 2.72$, $p < .002$, for females. When male and female subjects were analyzed together as a single group for the Condor et al. scale, the explained variance obtained was $R^2 = .43$, $F(18,191) = 8.10$, $p < .0001$. The same result was obtained when the data of male and female subjects were treated separately: for males, $R^2 = .44$, $F(18,86) = 3.72$, $p < .0001$; for females, $R^2 = .43$, $F(18,86) = 3.55$, $p < .0001$. These results suggest that sex-role ideology scales tap beliefs that reflect the value system of respondents.

2.8 Testing for order effects. The order of questions referring to power and to status was counterbalanced. A total of 110 subjects responded to the survey that had

power questions first, whereas 100 subjects responded to the survey with status questions first. In preliminary analyses to test for carry-over effects, three MANOVA's and two ANOVA's were performed on items of the survey.³ Note that dependent measures included in the relevant separate MANOVA's in the previous, main analyses were also included in separate MANOVA's here. Order of items was a between-subject variable for each of these analyses: i) an order by sex of subject (2 X 2) MANOVA on 16 items, ii) an order by target sex repeated measure (2 X 2) MANOVA on 19 items, iii) an order by target sex repeated measure (2 X 2) MANOVA on 8 items, iv) for male subjects, an order by target sex by time context repeated measures (2 X 2 X 3) ANOVA, and v) for female subjects, and order by target sex by time context repeated measures (2 X 2 X 3) ANOVA.

Analyses from the order by sex of subject (2 X 2) MANOVA, $F(16,191) = 0.47$, ns, the order by target sex repeated measure (2 X 2) MANOVA on 8 items, $F(8,201) = 1.49$, ns, and the order by two repeated measures (2 X 2 X 3) ANOVA performed on data for female subjects, $F(1,103) = 0.02$, ns, indicated no systematic effect of the order in which questions were presented. These analyses also showed that the order manipulation did not interact with any other variable: a) in the 2 X 2

³ It could be argued that performing analyses twice on data, once to test for carry-over effects and again to analyze for effects of the study proper, increases the type I error rate such that results of the second analysis can be called into question if the error rate (i.e., alpha level) has not been adjusted. However, in support of this procedure, several arguments can be made. First, it is standard practice within a number of scientific fields, including social psychology, to collapse across variables that do not compromise the variables under study. Second, because the majority of effects obtained in the survey study are quite large (i.e., the probability values are very small), it is less likely that the type I error has increased such that the main findings would change. Overall, even with an adjusted error rate for order, the 'bottom line' is likely not going to change. Third, the two sets of tests represent different dimensions to the data: the test for order is a qualitatively different question than those for the second set of analyses for the study proper. Accordingly, the error rates for order are irrelevant to subsequent analyses.

MANOVA, no interaction of order by sex, $F(16,191) = 0.91$, ns, b) in the 2 X 2 MANOVA on 8 items, no interaction of order by target sex, $F(8,201) = 0.36$, ns, and c) in the 2 X 2 X 3 ANOVA for female subjects, no interaction of order with target sex, $F(1,103) = 0.84$, ns, time context, $F(1,103) = 0.23$, ns, or with target sex and time context, $F(2,102) = 1.13$, ns.

However, the order by two repeated measures (2 X 2 X 3) ANOVA performed on the data for male subjects indicated an effect for the order of presentation that just reached significance, $F(1,103) = 5.09$, $p < .05$. This indicated that male subjects gave higher responses to items when status questions were first ($M = 4.94$) than when power questions were first ($M = 4.67$). This effect, however, did not interact with any other variable, and therefore would not likely have a significant effect on the results when the data for male subjects were collapsed across order of presentation.

Finally, the order by target sex repeated measure (2 X 2) MANOVA for 16 items revealed a significant multivariate main effect for order, $F(19,190) = 6.75$, $p < .0001$, and a significant interaction effect of order and target sex, $F(19,190) = 3.87$, $p < .0001$. Univariate analyses showed that this interaction was contributed to by only three variables (see section 2.4 in Appendix B; $\alpha' = .0026$): i) perceived power of the male and female group, $F(1,208) = 21.22$, $p < .0001$, ii) perceptions of how much the power of the male and female group has changed in the past, $F(1,208) = 5.76$, $p < .02$, and iii) perceptions of how much the power of the male and female group will change in the future, $F(1,208) = 6.38$, $p < .02$. Note that only one of these probabilities is below α' .

Subsequent Newman Keuls analyses indicated that when comparing the means across the repeated measure for each between factor of the design, the differences obtained between the means when power questions were first and when status questions were first were in the same direction and thus would not change the direction of differences between male and female subjects on any measures. For example, Newman Keuls multiple comparison analysis performed on one item showed that when status questions were presented first, the perceived difference between the present power of the male and female group was greater than when power questions were presented first. The important point is that, regardless of the order of items, both male and female subjects perceived the male group to have more power ($M = 5.71$) than the female group ($M = 4.21$). This argument applies to the two other items as well.

Discussion

Undergraduates' perceptions and feelings about power and status relations between men and women can be summarized as follows. First, both male and female undergraduates perceived men to have more power and status than women in society in general, in the workforce, and in the university setting (Table 2.2). Second, both men and women perceived these power and status differentials to be unstable (2.3; Figure 2.1). Both gender groups perceived the male group to be losing power and status while the female group was perceived to be gaining. Third, female undergraduates tended to feel that these changes in status and power in favour of women were more legitimate than did male undergraduates (2.4; section 2.3 in

Appendix B). Female undergraduates also felt that the present power and status positions of the male and female group were less legitimate than male undergraduates felt them to be (Table 2.3). Fourth, related to these feelings of legitimacy, male undergraduates felt more threatened by the changes in power and status of the male and female group than did female undergraduates. Although male undergraduates perceived that the gender groups would have equal power and status in the next ten years (Figure 2.1) and that the female group should have more power and status in the workforce than they presently do (Table 2.4), they indicated that increasing the power and status of the female group in these settings is appropriate as long it does not exceed their own (2.4; Figure 2.1; sections 2.1 and 2.3 in Appendix B).

These findings suggest that men and women have similar perceptions about the power and status relations between the male and female group in a variety of settings and, across a twenty-year time span. Overall, the perceptions held by undergraduates reflect the objective positions of men and women in Canadian society as discussed in chapter one. The relationship between the objective positions of men and women in society and respondents' subjective representations is consistent with the findings of another study by Kalin and Brown (1985). In their study, Canadian university students accurately perceived that men and women typically hold different occupations in society. The authors concluded that "the actual division of labour in the work force is relatively accurately represented in the minds of university students." Similarly, relatively accurate perceptions of the power and status positions of ethnic group

members were also obtained in subjective vitality studies conducted during the last decade (Bourhis & Sachdev, 1984; Sachdev & Bourhis, 1990).

Note, however, that although male and female undergraduates had similar perceptions about the power and status positions of men as a group and women as a group, they felt differently about how much more power and status the sexes should have. Both male and female undergraduates thought that women should have more power than they do now in society in general and in the workforce, but females were more extreme about these feelings (Table 2.4). Women gave higher estimates than the men of how much more power and status the female group should have in these intergroup settings and lower estimates of how much more power and status men should have. Conversely, compared to the women, men gave lower estimates of how much more power and status the female group should have and higher estimates of how much more power and status their own male group should have. Consistent with this pattern of results, male undergraduates had a more traditional sex-role ideology and considered themselves as being less of a 'feminist' (Table 2.1). Clearly, this is an instance in which mutual intergroup comparisons led to social competition over relative positions in the sociostructural hierarchy (Tajfel & Turner, 1986). Members of each gender group wanted relatively more power and status for their own gender group and less for the other.

Of all the measures, there were only a few instances in which males and females differed in their perceptions of the relative share of power between males and females as group members. In these cases, the differences were minimal. For

instance, females reported the power of the female group to be less in the past and more in the future than did male subjects (2.3). Note, however, that female group members may have been exaggerating their lack of power in the past in order to legitimize claims for more power in the future (Bourhis & Hill, 1982). In another instance, female subjects tended to rate the status of male graduate students higher than did male subjects (2.3). In contrast, with the hopes of maintaining the *status quo*, males could have underestimated status differentials in favour of the male group to hamper women's claims that they deserve more. Female subjects, on the other hand, may have attempted to exaggerate the status advantage of the male group to add credence to their claims for more. Conceivably, male and female subjects could have underestimated and exaggerated, respectively, the status of the male group to serve their own purposes.

It is important to note, however, that in spite of the past and present status and power differentials in favour of the male group, female undergraduates felt as highly positive, and just about as secure and happy about their gender group membership, as did male undergraduates (Table 2.1). Also, both male and female undergraduates identified strongly with their gender group. Female undergraduates' positive feelings about their gender group membership - despite their comparatively lower positions on the power and status hierarchies - suggest that women may have various ways in which to ameliorate the quality of their social identity (Skevington, 1989). Perhaps the perceived future structural relations between the sexes contributes to this process. Also, although male undergraduates in general thought of themselves as being

members of a powerful group more so than did females, there was no difference in the extent to which male and female subjects considered themselves to be members of either a high or low status group (2.1; section 2.2 in Appendix B). These patterns of findings are in line with the suggestion that status contributes more directly to the quality of one's social identity than does power (Sachdev & Bourhis, 1991).

Interestingly, according to SIT, male undergraduates should have a fairly insecure social identity with respect to their power and status positions because of the instability of the intergroup relations. On the contrary, male undergraduates reported strong feelings of security about belonging to their gender group. The reason for this might lie in men's perceptions of the value of power and status to women and the importance to the female group to have access to these resources. Compared to female undergraduates, males perceived power and status to be more important to the male group than to the female group (Table 2.5). They also felt, as did female undergraduates, that the male group valued power and status more than did the female group. Possibly, male undergraduates felt less threatened by a group for which power and status was deemed less important and valuable. Such assumptions are consistent with the comparatively lower ratings of value of power and status to women as a group than to men by female undergraduates.

Alternatively, it is possible that female subjects were underrating the value of power and status to women as a group. Wagner, Lampen and Syllwasschy (1986) found that group members who compared unfavourably on a particular dimension of comparison, later devalued the importance of that dimension. In line with these earlier

findings, female subjects may have devalued power and status resources because women compare unfavourably with men on such dimensions of comparison. On the item referring to how important it is for the female group to have power and status, female subjects, in this case, might have been acknowledging the importance of having these variables. It could have been inferred from the wording of this question that subjects were being asked how they would like the male and female group to compare rather than how they actually compared. In contrast, the question pertaining to value, refers more closely to the present power and status of the gender groups. It is in this instance that female subjects may have underrated power and status because, presently, they compare negatively. However, female subjects felt that, in the future, their gender group should and would have more power and status (Figure 2.1; Table 2.4). In fact, they perceived that the female group would have power and status at least equal to that of the male group.

On an individual level, and consistent with other findings (Winter, 1988), female and male undergraduates valued and desired power and status equally strongly (2.5). Also, on an individual level, female subjects classified themselves as being members of a high or low status group to the same extent as did male subjects (2.1).

Importantly, researchers' claim that female-male relations should be investigated using an intergroup approach are well founded. In the present study, both male and female undergraduates gave high estimates of behaving, being treated, and treating others as individuals as well as group members (Table 2.6). Because the estimates of intergroup vs. interindividual behaviour were all quite high, Tajfel's

(1978) notion of an intergroup and interindividual continuum of social behaviour is corroborated. Undergraduates perceive themselves as acting both as individuals and as gender group members. Depending on the particular circumstances, perhaps, individuals will act either as individuals or as group members. Clearly, the findings suggest that not only are individuals aware of their gender group membership, but that, sex, as a basis of group categorization, is central to their daily activities. It was also interesting to find that male undergraduates reported to treat others more as gender group members than did female undergraduates. They also tended to behave more as a member of their gender group than did females. Perhaps, the sex category and its relevance to behaviour is even more central for male than for female undergraduates. The results of this survey also show that power and status differentials between the sexes are important to both male and female undergraduates.

CHAPTER THREE

The Effect of Power on the Intergroup Behaviour of Male and Female Undergraduates as Members of Same-Sex Groups*

The effect of social categorization on intergroup discrimination has been demonstrated in many studies conducted in both Europe and North America (Billig, 1976; Brewer, 1979; Doise, 1978; Messick & Mackie, 1989; Tajfel, 1978, 1982b; Turner, 1975). Group members, divided on the most trivial of bases, allocate more resources to ingroup members than to outgroup members. Moreover, group members typically choose a maximum differentiation option which gives fewer overall points to the ingroup in order to maintain the greatest point advantage over the outgroup. Maximum differentiation is used despite the availability of other options such as maximum joint profit which give members of both groups more points.

As previously described, minimal conditions of categorization sufficient to trigger discrimination, coined the Minimal Group Paradigm (MGP), include the following features: 1) random categorization of subjects into groups, 2) no face-to-face interaction amongst subjects, 3) no history of relations between the groups, and 4) no relation between subjects' self-interests and the main dependent measure (Billig, 1976; Brewer, 1979; Brewer & Kramer, 1985; Messick & Mackie, 1989; Tajfel, 1982a). Interpretation of these findings has been elucidated by Tajfel and his

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colleagues using Social Identity Theory (SIT) (Tajfel, 1978, 1982a; Tajfel & Turner, 1979, 1986; Turner, 1975). According to SIT, discrimination against outgroup members reflects subjects' motivation to ameliorate the quality of their social identity. Importantly, theoretical articulations of Social Identity Theory and research have been extended beyond the laboratory to numerous natural intergroup settings (Bourhis & Hill, 1982; Brown, 1978; Brown, Condor, Mathews, Wade & Williams, 1986; Kelly, 1988; Williams & Giles, 1978).

According to SIT, individuals strive to maintain or attain a positive social identity once they have been categorized as members of social groups. As noted in chapter one, Lemyre and Smith (1985) demonstrated that after discriminating against outgroup members, group members had a more positive self-esteem. Furthermore, they observed that the degree of positiveness of group members' self-esteem varied directly with the degree to which they had favoured their own group.

However, classic Minimal Group studies employed groups that were, implicitly, of equal power, status, and numbers of group members. Within the usual Minimal Group Paradigm there is no visible difference in the number of group members in each of the groups. In fact, because subjects are assigned randomly to groups, subjects would probably assume equal numbers of group members. Furthermore, the experimenter does not mention relative power or status of the groups. Sachdev and Bourhis (1984) pointed out that the power, status, and demographic strength of group members could be important determinants of intergroup behaviour. Laboratory studies on power (Ng, 1980, 1982; Sachdev & Bourhis, 1985), status (Turner & Brown, 1978; Sachdev & Bourhis, 1987), and group numbers (Sachdev & Bourhis, 1984) have

shown that these sociostructural variables have unique and combined effects on discriminatory behaviour (Sachdev & Bourhis, 1991). Moreover, the inclusion of such variables increases the generalizability and applicability of the findings from Minimal Group Paradigm studies to 'real-life' intergroup relations (Bourhis, Cole & Gagnon, 1992). Indeed, it is difficult to conceive of a 'real-life' intergroup setting in which these sociostructural variables are nonexistent or irrelevant to group relations (Giles, Bourhis & Taylor, 1977; Sachdev & Bourhis, 1991).

It is also possible that the effect of these variables differs for members of either sex. Recall from chapter two (Cole & Bourhis, 1988) that male and female undergraduates behave, are treated, and treat others as individuals and as members of their gender group. Thus, individuals are readily categorized on the basis of their gender group membership and behave as members of their gender group. Conceivably, members of each gender group could behave differently from the other in an intergroup context. Therefore, in addition to sociostructural variables, group membership based on sex as a category could have a systematic effect on the discriminatory behaviour of members of same- and opposite-sex groups.

Molm (1985) investigated the relative effects of power and sex on the behaviour and perceptions of men and women as individuals. More specifically, she investigated, at the interindividual level, the effects of sex on power use and evaluations of 'powerful' individuals. In her investigation, she applied the power-dependence theory in her operationalization of power: "power is defined as a structural potential, determined by the amount of control that a person exercises over

another's valued outcomes...the magnitude or strength of dependency (and hence of power) is determined by...B's dependence on A (and A's power over B) and increases with the value of the outcomes that A controls for B, and decreases with the number and value of the alternatives that B has to exchange" (p. 288). As in Jones (1972) and Sachdev and Bourhis (1985), power is related to control which is related to the degree of dependency between two parties.

Molm (1985) varied the power of male and female undergraduates in same- and opposite-sex dyads. She found that the 'powerful' person's sex had no effect on how others perceived their power. In addition, Molm concluded that sex of persons in an unbalanced power situation had no independent effect on power use, the behaviour of the powerful person, or on evaluations of the powerful person's personality, competence, or power. She did find, however, that compared to females, powerful males were more likely to base evaluations of themselves, in terms of aggressiveness, competence, and power, on their actual power use. Molm (1985) suggested that this may be due to different socialization patterns for boys and girls: boys are taught that they will be judged more on instrumental behaviours, such as their actual achievements, than are girls. Also, when evaluating the 'powerful' person, both male and female subjects placed less emphasis on the actual power use of the powerful person when that person was opposite in sex than when of the same sex. Thus, sex of the 'powerful' person in opposite-sex dyads, to some extent, overrode effects of actual behaviour (i.e., power use) on evaluations.

Note that in Molm's (1985) study, subjects were assigned to dyads and thus the relevance of these findings to relations between the sexes as group members is limited. No conclusions can be drawn about the extent to which individuals were acting as individuals or as group members. It is entirely possible that because subjects were tested in pairs, they acted as individuals. It would be inappropriate to directly extrapolate these findings to the context of intergroup behaviour - though there may be some similarities. Also, because only the behaviour of the powerful person in the dyad was observed, there is no information about how the less powerful person behaved. In addition, Molm did not use an intergroup theoretical framework to investigate sociopsychological processes. Thus, how aspects of gender group membership, for instance, relate to the behaviour and evaluations in Molm (1985) has not been clarified. Further, power was conceptualized on the basis of the principles of the power-dependence theory. This conception does not disentangle subjects' 'power use' behaviour from their self-interest of desiring to accumulate as many rewards for self as possible. Accordingly, it is unclear whether the results demonstrate actual use of power or simply subjects' individualistic selfish intentions. Consequently, the relative effects of sex and power on behaviour remain to be explored within an intergroup context.

As proposed in Bourhis (1986), the present study employs a variant of the Minimal Group Paradigm to investigate the effect of power on the intergroup behaviour of members of same-sex groups. Male and female undergraduates were randomly categorized into two groups of equal or unequal power in which the ingroup

and the outgroup were of the same sex. Sex was assumed to be salient to decisions about the outgroup for several reasons. First, undergraduates are rarely in a class with only members of their own sex. Second, subjects not only signed up to participate in the experiment on sheets with either 'FEMALES' printed in pink or 'MALES' printed in purple at the top but they also signed their name on a sheet with the same headings when they entered the laboratory. The main dependent measure was subjects' allocations of course credits to other ingroup and outgroup members. The results of the same-sex study will be compared to those of a study by Sachdev and Bourhis (1985) which investigated the independent effects of power on intergroup behaviour in a setting in which sex was not salient to members' distributions. For this study, a number of conceptual frameworks are relevant to the prediction and understanding of behaviour of members of same-sex groups. These perspectives provide the bases for three competing hypotheses.

The first perspective is derived from SIT and predicts that an interaction of sociopsychological and sociostructural variables account for social behaviour, irrespective of the sex of group members. Ng (1980, 1982), however, pointed out the dearth of intergroup research that includes power as an independent variable. He concluded that, in an intergroup context, power is the tool by which group members are enabled to ameliorate their social identity. The usual Minimal Group Paradigm studies have implicitly introduced a bilateral and equal distribution of power. The perception of having equal power with the outgroup enables subjects to adopt behavioural strategies that would lead to psychological differentiation in favour of

one's own group. Members of groups differing in power, as conceptualized by Ng, would have unequal means of creating positive psychological distinctiveness. The greater the power of a group, the greater will be the displays of discrimination against the outgroup; the less the power of a group, the less members will be able to actualize their motivations to attain ascendancy on relevant and consensually valued dimensions of comparison. Following this line of reasoning, Ng (1982) predicted that an absence of power would eliminate group members' ability to attain a positive social identity through the creation of positive psychological distinctiveness, specifically, discrimination against the outgroup.

Such predictions can be tested using the Tajfel matrices. The Tajfel matrices can be used as dependent measures in numerous types of studies ranging from the minimal conditions of the laboratory to 'real-life' settings of the field. The Tajfel matrices have been extensively used to measure a variety of social orientations such as favouritism toward ingroup members, favouritism toward outgroup members, and parity in which subjects distribute resources equally between ingroup and outgroup members (Bourhis & Hill, 1982; Brown, 1978; Lemyre & Smith, 1985; Messick & Mackie, 1989; Oakes & Turner, 1980; Sachdev & Bourhis, 1984, 1985, 1987, 1991; Turner & Brown, 1978; Wetherell, 1982). Assessing strategies such as parity, independently from discrimination is one advantage of using the Tajfel matrices. Bourhis and Sachdev (1986) concluded, "The results of the studies conducted so far show that the Tajfel matrices can provide psychologically meaningful and valid measures of intergroup behaviours and perceptions" (p. 34). Although the matrices

typically contain 13 boxes, the number of boxes can be easily modified to simplify the matrices, tailoring the measure to the particular group of subjects. For children, for instance, fewer boxes would be used (Bourhis & Sachdev, 1986). For this thesis, the matrices were included in the laboratory studies and the field study.

As delineated in chapter one, Sachdev & Bourhis (1985) adopted the conditions of the Minimal Group Paradigm to investigate the role of power on intergroup behaviour. They arbitrarily categorized subjects into mixed-sex groups of unequal or equal power. Because the sex composition of the groups was mixed, sex was not salient to decisions about the outgroup. After the categorization of subjects, power was ascribed to the groups. In the equal power condition, each group had 50% of the power or control over the final allotment of course credits. In one unequal power condition, one group had absolute power (i.e., 100%) while the other had no power (i.e., 0%). In the second unequal power condition, one group, the high power group, had 70% of the power; the other, low power group, had 30% of the power over the distribution of course credits. Group members used the Tajfel matrices to allocate extra course credits to other ingroup and outgroup members.

Sachdev and Bourhis (1985) obtained a replication of the usual Minimal Group Paradigm effect in which group members with equal power discriminated against the outgroup. Also, dominant group members (i.e., 70% and 100% power group members) were more discriminatory than subordinate group members (i.e., 0% and 30% power group members). Group members with no power did not discriminate at

all against the dominant outgroup. Taken together, these findings support Ng's (1982) proposition that,

...outgroup discrimination is not a necessary outcome of social categorization, but is contingent upon a permissive intergroup power relation. In the presence of such a power relation, the magnitude of discrimination increases when the power advantage becomes decisive (p. 204).

Sachdev and Bourhis (1985) concluded that "whereas the search for a positive social identity (Tajfel & Turner, 1979, p. 42) may be the psychological antecedent to discriminatory behaviour, power enables group members to discriminate effectively" (p. 430).

Sachdev and Bourhis (1985) also observed that regardless of their power ascription, group members adopted parity as a strategy. Unlike discriminatory intergroup behaviour, group members displayed parity as they distributed credits equally between ingroup and outgroup members whether they had power or not. Also, no and low power group members displayed more parity than did high power group members. Therefore, in support of Ng's (1982) notion, power is the means by which group members are enabled to discriminate because only group members with power discriminated while members of both powerful and powerless groups displayed parity.

Sachdev and Bourhis (1985) obtained other pertinent findings as well. First, group members with absolute, high, and equal power reported to feel more comfortable, satisfied, and happy about their power group membership than did members of low and no power groups. Sachdev and Bourhis surmised that discrimination serves to give group members a more positive social identity and that,

in general, discrimination was proportional to the degree of power the groups were ascribed: groups that had equal or greater power than the outgroup had a more positive social identity and discriminated more than did members of groups that had less or no power. Second, with respect to ingroup identification, members of all groups identified with their own group. Notably, high power group members, who discriminated more than any other group, also reported the greatest degree of identification with their power group. Another important finding, however, suggests that low and no power group members may still have attained a satisfactory social identity, although comparatively less positive, by displaying favouritism toward their own group on the liking measure: members of all groups reported to like members in their own group more than members of the outgroup. Thus, although power was necessary for displays of discrimination, social categorization was sufficient to elicit prejudicial attitudes in terms of liking. As a third important finding and consistent with Sachdev and Bourhis (1984), undergraduates perceived that power and status are positively related: group members with unequal power perceived groups with greater power to have more status and a greater number of group members than groups with less or no power. Equal power group members perceived no difference in status and group numbers between their own and outgroup. However, 'real-life' intergroup situations with unequal and varying distributions of power, status, and group numbers are the rule rather than the exception (Giles, Bourhis & Taylor, 1977; Sachdev & Bourhis, 1991). Taken together, Sachdev and Bourhis (1985) demonstrate the important role of power in intergroup behaviour and its effect on sociopsychological

variables and the perception of other sociostructural variables within an intergroup context.

Clearly, power is an important variable in relations between social groups. Thus, the first theoretical position to be evaluated in this chapter is structural in orientation: power, as one sociostructural variable, has predictive effects on sociopsychological constructs and behaviour of group members - irrespective of their sex. But, as already noted, possible effects of sex on intergroup constructs and behaviour could also be important (Condor et al, 1986; Deaux, 1984; Del Boca & Ashmore, 1986; Williams & Giles, 1978). Much of the intergroup literature has focussed on males (Brewer, 1979; Brewer & Kramer, 1985; Williams, 1984). Furthermore, research on male-female relations has been primarily based on intraindividual and interindividual processes and behaviour (Deaux, 1985; Del Boca & Ashmore, 1986; Williams & Giles, 1978). In response to these shortcomings, the present study investigates the intergroup behaviour of undergraduates using Social Identity Theory as an intergroup, conceptual framework.

The second perspective to be examined in this chapter is based on Williams' (1984) argument that men and women achieve a positive social identity in different ways. Williams asserted that SIT does not take into account the unique ways in which men and women ameliorate their social identity. She suggested that men are more competitive or agentic in orientation and therefore, as predicted from SIT, ameliorate their social identity by favouring the ingroup and discriminating against the outgroup. Williams proposed that women, on the other hand, being more communal in

orientation, are more concerned with between and within group affiliations. Because women are proposed to have a communal orientation, it could be hypothesized that they would implement parity as a strategy to achieve positive group distinctiveness rather than discrimination as is usually observed in Minimal Group Paradigm studies. Consequently, in the present study, according to Williams, men would be more discriminatory than women - irrespective of power.

Furthermore, there is contradictory evidence about the extent to which males and females differ in their desire and use of power. For instance, as discussed in chapter two, both male and female undergraduates perceived males as a group to value power and status more than did members of the female group (Cole & Bourhis, 1988). Accordingly, undergraduates perceived power to be a more valuable dimension of comparison to the male group than to the female group. However, consistent with Winter (1988), Cole and Bourhis (1988) also found that men and women, as individuals, equally desire and value power. These apparently contradictory findings may in fact yield complementary evidence. As group members, men and women may desire and use power differently (Cole & Bourhis, 1988; Duffy, 1986); but as individuals, they may desire and use power similarly when engaging in interindividual behaviour (Dovidio, Ellyson, Keating, Heltman & Brown, 1988; Dovidio, Brown, Heltman, Ellyson & Keating, 1988; Molm, 1985; Winter, 1988). In view of these discrepancies, in addition to investigating intergroup behaviour, the present study monitored undergraduates' feelings and perceptions about power and their gender group membership. An understanding of subjects' subjective representations is

important because subjects are entering the laboratory with 'real-life' perceptions that may have an impact on the behaviour being studied. Overall, according to the second perspective, sex of subjects could be as, or even more, important than power in the prediction of intergroup behaviour and feelings.

Taken together, from a sociostructural perspective, we can hypothesize that power, over and above sex, would have a systematic effect on intergroup behaviour (hypothesis 1). From the second perspective regarding sex differences in the use of power, one can propose that sex would have an effect on intergroup behaviour such that men would be more discriminatory than women (hypothesis 2). But note that in the present study, ingroup and outgroup members were of the same sex. Therefore, experimental ingroup and outgroup members shared 'real-life' gender-group membership - despite the experimentally imposed ingroup/outgroup categorization. Thus, as the basis for the third hypothesis, ingroup loyalty to one's sex could play an important role in the effect of power on intergroup behaviour.

In the usual Minimal Group Paradigm only one basis of categorization has been made salient. Note, however, that Tajfel (1969, 1982a) and Brown and Turner (1979) pointed out that we are typically members of a number of groups within society. They asserted that particular group memberships become more or less salient depending upon the social context. All of these group memberships contribute to the quality of our social identity, but each is salient under different circumstances. Occasionally, an individual (e.g., a single female) is a member of one group according to one categorization (e.g., marital status), but may, simultaneously, be a member of

an 'outgroup' (e.g., married females) based on a second categorization (e.g., gender group membership). In this case, one categorization overlaps or crosses with the other. Once categorized, group members will be motivated to compare their group favourably with respect to the outgroup on the basis of one of these categorizations.

In this study, group members were categorized on an arbitrary basis into *ad hoc* groups within the experiment. Ingroup and outgroup members were of the same sex and, therefore, share a 'real-life' basis of categorization. Furthermore, from chapter two, both female and male undergraduates identify strongly with their own gender group and reported to be treated, treat others, and behave as a member of their gender group. Therefore, it could be argued that sharing the sex category with outgroup members as a basis of categorization outside the laboratory was salient to subjects (chapter 2, Cole & Bourhis, 1988). From SIT, it could be predicted that if the gender group membership and the *ad hoc* categorization were equally salient within the intergroup setting, intergroup differentiation would not occur. However, Brown and Turner (1979) affirmed that simply crossing categorizations should not necessarily eliminate the motivation to achieve a positive social identity and that, "Therefore, intergroup discrimination may be expected to persist in the criss-cross situation..." (p. 373). Typically, one categorization would be more salient than the other, and on the basis of the more salient categorization, group members would favour their own group. Therefore, depending on the comparative salience or relevance of the categorizations within the setting, psychological or behavioural differentiation may or may not ensue.

However, it is important to note that in the process of social categorization, ingroup differences are minimized and differences between ingroup and outgroup members are accentuated (Tajfel, 1969; Doise 1978). Consider, for example, as in the present study, individuals who are designated as members of two groups based on one criterion, yet share group membership based on a second criterion. Compared to a setting in which individuals are not categorized, Doise (1978) claimed that differences between the two created groups are accentuated because according to one criterion (e.g., single vs. married), ingroup and outgroup members belong to two separate groups. However, on the basis of the other criterion (e.g., the female vs. male group) which members of both groups share (e.g., single female & married female), Doise (1978) suggests that group members perceive the 'ingroup' and 'outgroup' as one group. Through this shared category, differences between the groups are attenuated and similarities between the groups are accentuated. Consequently, the accentuation of differences between the groups based on the one categorization and the simultaneous attenuation of differences between the groups based on the second categorization would neutralize each other leading to an absence of intergroup discrimination (Doise, 1978). However, from SIT, Brown and Turner (1979) further stipulate that the salience of both categorization in the crossed-categorized situation must be equal in salience in order for discrimination to be eliminated.

Doise (1978) parallels behavioural differentiation with perceptual differentiation. He proposed that an increase in the perception of differences between two groups leads to an increase in differentiation between the groups on a behavioural

task. The contrary is true for a decrease in perceptual differences between groups. Thus, according to Doise's (1978) category differentiation theory, subjects' perception of being in the same group, would lead to an attenuation of discrimination against same-sex members of the experimental *ad hoc* 'outgroup'. Although Deschamps and Doise (1978) proposed that both categorizations in a crossed-categorized situation must be salient in order for one categorization to affect the other, Doise (1978) does not compare the salience of categorizations but considers similarity between groups, on any particular dimension, to have a role in the degree of intergroup discrimination displayed by group members. Deschamps and Doise (1978) predicted that crossing categorizations should lead to a decrease in discrimination, but they did not clarify the conditions under which discrimination would be decreased from those in which discrimination would be eliminated. Following the more conservative hypothesis of Deschamps and Doise (1978) that discrimination would be attenuated but not necessarily eliminated, one would expect less discrimination in this same-sex study than in the mixed-sex study by Sachdev and Bourhis (1985).

In contrast, predictions from SIT are based on the comparative salience of the *ad hoc* and the 'real-life' categorizations of ingroup and outgroup members. If subjects perceive only the experimental categorization to be salient, intergroup discrimination will occur. If only the 'real-life' categorization is relevant to subjects, loyalty to the category membership of sex would follow and subjects would not discriminate. This is unlikely, however, given group members' motivations to achieve a positive social identity through the creation of positive, psychological differentiation

(Brown & Turner, 1979). If both the 'real-life' categorization of sex and the experimental manipulation of categorization are perceived to be salient to distributions, the 'real-life' group membership would have a 'subtraction effect' on discrimination that would have otherwise occurred. Thus, assuming the experimental categorization is sufficiently salient, subjects would still be expected to discriminate, but they would do so to a lesser extent than if only the *ad hoc* categorization held significance. In this case, predictions based on Doise's category differentiation theory and SIT are similar: compared to levels of discrimination displayed by members of mixed-sex groups, members of same-sex groups will be less discriminatory. From SIT, no difference in levels of discrimination between the two studies would be expected if the *ad hoc* categorization was salient to distributions and sex, shared with outgroup members, was not. Deschamps and Doise (1978) do not address the instance in which one categorization were salient and the other were not.

Vanbeselaere (1987) tested the predictions of Doise's category differentiation theory. He compared the degree of ingroup favouritism of subjects in simple categorized groups with that of subjects in crossed-categorized groups. In the simple categorization condition, subjects were divided into groups on the basis of the colour of pen they happened to have on their desk (i.e. either red or green) or on the basis of similarity of impressions from two pictures. In the crossed-categorized condition, subjects were categorized into groups on the basis of both ostensibly created criteria such that ingroup and outgroup members would be divided on one particular basis of categorization (i.e., either the colour of pen or similarity of impressions) while

simultaneously sharing the alternate characteristic with outgroup members. The main dependent measure (i.e., behavioural measure) was subjects' evaluations of other ingroup and outgroup members' performance on a perceptual ability task. All subjects were boys from age 12 to 15.

Vanbeselaere (1987) observed that compared to the simple categorization condition, ingroup favouritism in the crossed-categorization condition was significantly reduced. The author suggested that in support of Doise's (1978) category differentiation theory, behavioural differentiation (i.e., evaluation of outgroups' performance) was related to differentiation between the ingroup and outgroup on the cognitive-perceptual level. In the simple categorization condition, unambiguous differences between the groups were related to significant intergroup differentiation. However, in the crossed-categorization condition in which the differences between the groups were neutralized, ingroup favouritism was practically nonexistent. As in the simple categorization condition, group members in the crossed-categorized condition preferred to be members of their own group.

Vanbeselaere did not expect any ingroup favouritism in the crossed-categorized condition. Although ingroup favouritism was reduced, the cumulative perceptual effects did not appear to 'neutralize', eliminating all evidence of ingroup favouritism. In line with SIT, categorization does lead to some form of ingroup favouritism - despite similarities between ingroup and outgroup members on one dimension of comparison.

The important point is that we cannot expect the intrinsic cognitive effects of social categorization to provide a

solution to intergroup discrimination. Whether intergroup distinctions are crossed or not, the divisions into ingroups and outgroups remain, with the same potential for discrimination as before... more motivational factors are necessary to explain the actual quality of intergroup relations. (Brown & Turner, 1979, p.382)

Furthermore, Vanbeselaere's (1987) crossed-categorized condition was actually a combination of two essentially different group situations. Within the crossed-categorized condition, he included group members who were in separate groups, not just on the basis of one criterion while sharing the second, but group members who were in separate groups on the basis of two or both criteria. The latter situation represents a double categorization. Based on Vanbeselaere's findings for the single-categorization condition, ingroup favouritism would also be expected for group members in the double-categorization condition. However, Vanbeselaere found no difference between subjects' evaluations in the double-categorization and those in the crossed-categorized condition.

Given the methodological weaknesses of Vanbeselaere's (1987) study, Doise's category differentiation theory will be further examined as the basis for hypothesis three. One could argue that being first categorized on an arbitrary basis such as a toss of a coin while sharing a second basis of categorization with outgroup members could lead to a reduction of intergroup discrimination, particularly if the shared basis of categorization across groups reflects a 'real-life' categorization such as sex (Deschamps & Doise, 1978; Tajfel, 1969). Therefore, in the present experiment, both male and female subjects would be expected to display significantly reduced discrimination or, given a cancellation of the effects of the experimental and 'real-life'

categorization, not discriminate at all. Ingroup and outgroup members who share gender group membership across experimentally imposed category delineations would be less discriminatory than group members in a comparable study who did not - regardless of the power ascriptions.

The purpose of this investigation was to examine the validity of each of the three previously delineated predictions. As pointed out by Dion (1985), "...of the studies focusing on the group behaviour of women and men...much of the recent literature is piecemeal, unintegrated, and often atheoretical in its orientation" (p. 298). The present study of the effect of power on the behaviour of men and women in the context of same-sex groups is an initial step towards exploring the interplay of sociopsychological, sociostructural variables, and sex in the process of social change of 'real-life' groups.

From the previous arguments, the three hypotheses are as follows:

- 1) If power of group members, in contrast to their sex, is the main factor influencing intergroup discrimination, one would expect a replication of the pattern of results obtained in the mixed-sex power study by Sachdev and Bourhis (1985). Dominant and equal power group members would discriminate more than subordinate group members. Powerless, no power group members would not discriminate at all against dominant outgroup members. Also, dominant and equal power group members would have a more positive social identity than would subordinate group members.

2) If, according to Williams (1984), men and women ameliorate their social identity in essentially different ways, one would expect 'agentic' male subjects to discriminate against same-sex outgroup members to a greater extent than would female subjects. In contrast, female subjects, proposed as being more communal in orientation, would make greater use of the parity strategy than would male subjects. Also, males would be expected to discriminate more because power is a more important dimension of comparison to the male group than to the female group (chapter 2, Cole & Bourhis, 1988). Conceivably, the effects of power may influence males more than females because it is more important to members of the male group. According to Williams (1984), men and women employ different strategies to improve the quality of their social identity because of their social orientations. Therefore, sex of outgroup members is not predicted to influence displays of parity or discrimination.

3) Note, however, that in this experiment, subjects share a 'real-life' gender group membership despite the experimentally imposed ingroup/outgroup categorization. Cole and Bourhis (1988) found that both male and female undergraduates identify strongly with their gender group. Hence, according to Doise's (1978) category differentiation theory, an absence of, or significantly reduced, displays of ingroup favouritism would be expected. Crossed-category membership would have an attenuating effect on intergroup discrimination (Deschamps & Doise, 1978; Doise, 1978). According to SIT, a decrease in

discrimination would be expected if subjects perceived both the *ad hoc* and 'real-life' categorizations to be salient to ingroup/outgroup distributions.

Specifically, identification with the arbitrarily created ingroup (Sachdev & Bourhis 1984, 1985, 1987, 1991) would compete with subjects' 'real-life' identification with their gender group (Cole & Bourhis, 1988) which, in the present study, crosses the experimentally created group category.

A variant of the Minimal Group Paradigm was used to investigate the effect of power and sex on the intergroup behaviour of males and females as members of same-sex groups.

Method

Subjects. Subjects were 169 male and 177 female Introductory Psychology students who volunteered to take part in the experiment for partial fulfillment of a course credit. As in the mixed-sex power study conducted by Sachdev and Bourhis (1985), all subjects were Canadian and had English as their first language. The mean age for males was 19.6 years ($sd = 1.70$). The mean age for females was 19.5 ($sd = 1.82$).

Design. Subjects were run in group sessions consisting of 25 to 30 male or 25 to 30 female subjects per session. Five levels of power crossed with sex yielded a 5 X 2 design. For each session, subjects were categorized into same-sex groups of unequal or equal power. One of the following three conditions was determined randomly for each session until each group had 30 to 40 subjects: i) absolute (100%)

power group and a no (0%) power group, ii) a high (70%) power group and a low (30%) power group, or iii) two equal (50%) power groups.

Procedure. As in Sachdev and Bourhis (1985), an English-speaking Canadian male experimenter introduced himself to the group and proceeded to deliver the instructional set. He was assisted by a female experimenter (myself). The procedures and the operationalization of power were the same as in Sachdev and Bourhis (1985) - except that subjects were tested in same-sex groups. To participate in the laboratory study, undergraduates had to sign their name on a sheet posted in the main rotunda of the psychology department. The word 'FEMALES' was printed in pink as a heading on the sheet for female subjects; on a separate sheet for males, the word 'MALES' was printed in purple. Subjects also signed their name on a list with the same headings when they entered the laboratory.

In the laboratory, subjects were told that the experiment was about group decision-making processes and that their task was to make decisions about how they would allocate an extra course credit to others in the room. Subjects were led to believe that they would all get at least one course credit for participating in the experiment but through special permission from the Psychology Department, subjects could obtain two course credits. The possibility of receiving a second course credit was an important resource to subjects because with two course credits, subjects would not have to write one of two short papers due that term. This procedure regarding the second course credit was the same as that used in the Sachdev and Bourhis (1985) power study.

Subjects were then asked to come to the front of the room to toss a coin to ostensibly determine the group to which they would belong, group X or group W. In fact, the assistant experimenter assigned alternate subjects to group X and to group W. After subjects were randomly allocated into two groups, they were told about the decision-making task. Using the Tajfel matrices (Bourhis, Sachdev & Gagnon, 1993), subjects were to allocate course credits to two other anonymous students in the room, a group X member and a group W member. It was emphasized to subjects that under no circumstances would they be giving credits to themselves as the experimenters had arranged their booklets so that their personal identity code would not appear in their own booklet.

Following an explanation of the main dependent variable, the Tajfel matrices, the independent variable, power, was introduced. For the equal power condition, subjects were told, "to make it easier for us, we are going to assign equal weights to the decisions made by each group X member and by each group W member. Thus, group X and group W members will each have 50% power or control over the final distribution of course credits." Subjects were told, in the absolute/no power condition, that to make it easier one group would have 100%, or all of the control over the final distribution of course credits. In contrast, the other group would have 0%, or none of the control over the final distribution of course credits. For the second unequal power condition, subjects were told that one group would have 70% control or high power and the other group would have 30% or low power in the intergroup situation. In both unequal power conditions, subjects were led to believe that a toss of a coin by the

assistant experimenter would determine which group would have more power in the experiment. Finally, it was impressed upon subjects that the experimenters were only interested in how they made decisions, regardless of how much control group members had in determining the final tally of credits.

After subjects completed the matrices booklets and the postsession questionnaires, they were told that a debriefing sheet would be made available to them after all the sessions had been completed.

Dependent Measures

Course credit distributions. Credits were distributed by subjects to ingroup and outgroup others through use of the Tajfel matrices (Bourhis & Sachdev, 1986; Bourhis et al., 1993). The Tajfel matrices allow subjects to distribute points to other members of the ingroup and to members of the outgroup by choosing one of 13 boxes in which each box contains a pair of numbers (see Appendix C). These numbers or points represent some value to subjects particularly relevant within the intergroup context. For instance, in this study, these points represented course credits to be allocated to ingroup and outgroup members. Several distributive strategies are represented on each matrix. These strategies are outlined in Table 3.1. Subjects' actual choice on each of the matrices indicates the degree to which they utilized the distributive strategies represented on that matrix.

For this study, three types of matrices were used (see Appendix C). In matrix type A, maximum joint profit (MJP) was pitted against ingroup favouritism (FAV = MIP + MD). Note that ingroup favouritism (FAV), a discrimination strategy, is

TABLE 3.1 THE FOUR BASIC STRATEGIES OF THE TAJFEL MATRICES

STRATEGY	ABBREVIATION	DEFINITION
Parity	P	That choice which allocates an EQUAL number of points to the ingroup and outgroup member.
Absolute Ingroup Favouritism or Maximum Ingroup Profit	MIP	That choice which gives the highest ABSOLUTE number of points to the ingroup member regardless of points allocated to the outgroup member.
Relative Ingroup Favouritism or Maximum Differentiation	MD	That choice which maximizes the DIFFERENCE in points allocated to two recipients, the difference being in favour of the ingroup.
Maximum Joint Profit	MJP	That choice which maximizes the total, COMBINED number of points to <u>both</u> the ingroup and outgroup member.

indicated by a combination of maximum ingroup profit (MIP) and maximum differentiation (MD). In matrix type B, maximum differentiation (MD), another discrimination strategy, was pitted against a combination of maximum ingroup profit (MIP) and maximum joint profit (MJP). Finally, in matrix type C, parity (P) was pitted against ingroup favouritism (FAV). Each of the three matrices was inverted and reversed resulting in six matrices in total. The six matrices were presented in random order in the matrices booklets.

Because these matrices contained 13 boxes, 'pull' scores ranged from -12 to 12. (Refer to Appendix C for the procedure for calculating 'pull' scores.) Psychological meaning is inferred from each 'pull' score (Bourhis & Sachdev, 1986; Bourhis, Sachdev & Gagnon, 1993). Several resource distribution strategies are inferred from the 'pull' scores. These are parity which is expressed as P on FAV, three types of discrimination strategies including ingroup favouritism when pitted against parity (FAV on P), ingroup favouritism when pitted against maximum joint profit (FAV on MJP), and maximum differentiation (MD on MIP+MJP). Also obtained are a more subtle form of ingroup favouritism (MIP+MJP on MD) and maximum joint profit (MJP on FAV), a prosocial strategy. In addition, negative FAV and negative MD indicate outgroup favouritism in which subjects award more points to an outgroup member than to an ingroup member.

The nonparametric Wilcoxon-matched pairs test was used to test whether scores were significantly different from a zero 'pull' score. The difference in rank scores between the strategies opposed and the strategies together versions of each

matrix type was used as the difference score for the Wilcoxon-matched pairs test. The statistic for this test was obtained from the rank scores obtained from the difference scores. For the within treatment analysis, the more conservative nonparametric test was used in lieu of a parametric test for paired scores as no assumptions were made about the shape of the distribution of rank scores. An *a priori* criterion for significance was set at .01 to avoid inflation of type I error. (This is very close to a criterion of significance of .008 that would have been attained from a Bonferroni correction factor.) Probabilities between .01 and .05 were designated as marginally significant.

Subjects also distributed course credits to ingroup and outgroup others using a 100-point zero-sum task. This task was used as an additional measure of bias in resource distribution. On this measure, subjects had 100 points to divide between a member of their own and other group. Consequently, a gain for one group necessarily entailed a corresponding loss for the other. The zero-sum allocations should yield patterns of results that concur with strategy choices made using the Tajfel matrices. To test for distributions against the null hypothesis that subjects distributed credits equally between the ingroup and the outgroup, allocations made to the outgroup were subtracted from allocations made to the ingroup and the Wilcoxon-matched pairs test was performed on these difference scores.⁴

⁴ This is the same as testing for the difference between allocations made to the ingroup and an expected value of 50. This is an extension of the Wilcoxon-matched pairs test usually used to compare two dependent measures. This extension can be derived from the original procedure (for details of the original procedure, see Wilcoxon, F. (1945). Individual comparisons by ranking methods. *Biometrics*, *1*, 80-83).

Postsession questionnaire. Postsession questionnaires (see Appendix D)

included manipulation checks, self-report measures of subjects' distributions of course credits, and questions about subjects' degree of own-group identifications and their feelings and perceptions about their group membership. Items pertaining to subjects' quality of identification with their power group included how comfortable, satisfied, and happy group members were with their own group membership along with how much they liked being members of their own group. Items also referred to subjects' liking for other ingroup and outgroup members. Subjects responded to questionnaire items on 7-point Likert scales with '1' indicating 'not at all' and '7' indicating 'very much'. Items pertaining to subjects' gender group membership including the Attitudes toward Women Scale (AWS, Spence, Helmreich & Stapp, 1973) and a gender identification scale adapted from Brown et al. (1986) were also included.

Gender Identification Scale. Identification with one's own group has a central role in intergroup behaviour (Tajfel & Turner, 1986):

There are at least three classes of variables that should influence intergroup differentiation in concrete social situations. First, individuals must have internalized their group membership as an aspect of their self-concept: they must be subjectively identified with the relevant ingroup. It is not enough that the others define them as a group, although consensual definition by others can become, in the long run, one of the most powerful causal factors determining a groups' self-definition. (Tajfel & Turner, 1986, p. 16)

As a reflection of the importance of the degree and quality of group members' social identity, Brown et al. (1986) devised a ten-item group identification scale adaptable for any category of group. Their measure has been shown to have

reasonable validity and inter-item reliability (Brown et al. 1986). They concluded that "the inventory was indeed tapping aspects of people's affinity to their group" (p. 278). This scale was adapted for use with men and women as group members in the same- and opposite-sex laboratory studies.

Results

Analyses of Course Credit Distribution

3.1 Within treatment analyses. Table 3.2 displays the means of the 'pull' scores for males and females. For male subjects, the strength of 'pulls' declined in magnitude in the following order: P on FAV, FAV on MJP, MIP + MJP on MD, FAV on P, MD on MIP + MJP, and MJP on FAV. For female subjects, the order of the strength of 'pull' scores was in a similar order: P on FAV, FAV on MJP, FAV on P, MD on MIP + MJP, MIP + MJP on MD, and MJP on FAV. As in other studies, parity was the most strongly used strategy (Sachdev & Bourhis, 1985, 1987, 1991).

Mathematically, the more extreme a 'pull' score is, the more compressed is the range of the obverse 'pull' calculations from the same matrix type. It is possible that obtained values of a 'pull' score are artifacts of compressed ranges due to the extreme obverse 'pull' score. To test for this, one can test for a negative correlation between the absolute mean value of the 'pull' score from matrix type A, for instance, and the standard deviation of the obverse 'pull' score of that same matrix type.

To test for artifactual dependence between pull scores calculated from the same matrix type, correlations were calculated between the absolute means and standard deviations of obverse pulls (see Turner, Brown & Tajfel, 1979). To avoid inflation of

TABLE 3.2

DISTRIBUTION OF COURSE CREDITS BY
SAME-SEX GROUP MEMBERS

Mean "Pulls" of Matrix Distribution Strategies:

Matrix Distribution Strategies	POWER OF SAME-SEX GROUPS											
	0%		30%		50%		70%		100%		Overall Means	
	M (n=32)	F (n=35)	M (n=33)	F (n=33)	M (n=37)	F (n=40)	M (n=33)	F (n=34)	M (n=34)	F (n=35)	M	F
P on FAV	6.31*	3.97*	4.24*	6.24*	5.95*	7.42*	4.76*	6.59*	5.71*	7.29*	5.39	6.30
FAV on P	-0.94	2.54‡	2.94†	2.91*	1.89	1.08	2.33‡	1.65	4.00*	2.46*	2.04	2.13
FAV on MJP	-0.47 <i>a</i>	1.34	2.46† <i>ab</i>	3.00*	2.22* <i>ab</i>	1.80*	3.79* <i>b</i>	2.71*	5.12* <i>b</i>	2.09*	2.59	2.19
MD on MIP & MJP	-0.44	0.89	2.45†	2.33†	1.73	1.68*	2.18‡	2.91*	2.59*	1.51	1.70	1.89
MIP & MJP on MD	2.94	1.31	1.06	0.82	2.59‡	1.88‡	2.97*	2.15†	2.18‡	2.89*	2.35	1.81
MJP on FAV	0.34	-0.31	0.97‡	0.21	0.11	0.35	1.18‡	0.76	0.24	0.94	0.57	0.39
Distribution on 100-Point Zero Sum Task:												
Points to Ingroup Member	48.56 <i>a</i>	52.66	60.00† <i>b</i>	59.82*	62.43* <i>b</i>	57.70*	64.97* <i>b</i>	63.85*	71.24* <i>b</i>	58.43*	61.44	58.49
Points to Outgroup Member	51.44	47.34	40.00	40.18	37.57	42.30	35.03 <i>b</i>	36.15	28.76	41.57	38.56	41.51

* $p < .01$, † $p < .02$, ‡ $p < .05$ (Wilcoxon Matched-Pairs Test, 2-tailed) *a* < *b*, $p < .05$ (Newman Keuls Multiple Comparison Test)

type I error, an *a priori* criterion for significance was set at .01. Two of six correlations were marginally significant: i) the absolute mean of P on FAV and the standard deviation of FAV on P, $r = -.68$, $t(8) = 2.62$, $p < .05$, and ii) the absolute mean of MD on MIP + MJP and the standard deviation of MIP + MJP on MD, $r = -.636$, $t(8) = 2.33$, $p < .05$. Given that no significant correlations were obtained, these results suggest that the obverse 'pulls' obtained from the same matrix type are not likely artifacts of compressed ranges.

Overall, the results for both males and females supported hypothesis 1 from which power was expected to have a systematic impact on intergroup behaviour. As in Sachdev and Bourhis (1985), and as can be seen in Table 3.2, ingroup favouritism was used by both female and male group members who had equal power, thus replicating the usual Minimal Group Paradigm, categorization effect. Wilcoxon-matched pairs analyses revealed that female group members with equal power employed the FAV on MJP ($M = 1.80$, $p < .01$) and MD on MIP + MJP ($M = 1.68$, $p < .01$) strategies. Use of the latter strategy indicates that group members chose to give fewer overall points to an ingroup member and even fewer points to an outgroup members in order to attain a credit advantage for ingroup members. Male group members with equal power similarly used the FAV on MJP strategy ($M = 2.27$, $p < .01$). In addition, dominant male group members (70% and 100% power) discriminated against outgroup members. Male group members with 70% power used FAV on MJP and tended to employ FAV on P and MD on MIP+MJP. Male group members with absolute power (100%) used all three available discriminatory strategies

to favour their own group (i.e., FAV on P, FAV on MJP, and MD on MIP + MJP). Female group members with 30% power made use of two of three discrimination strategies to favour the ingroup (FAV on P and FAV on MJP) and tended to use MD on MIP+MJP. Males with 30% power tended to discriminate on all three available measures. Note that these 'pulls' for low power males just missed significance. Another finding in common with the mixed-sex study by Sachdev and Bourhis (1985) was the absence of discrimination by group members without power, except for a single marginally significant instance of ingroup favouritism (i.e., FAV on P) shown by females.

Results of the Wilcoxon-matched pairs test obtained with the 100-point zero-sum task corroborated results obtained with the Tajfel matrices (see Table 3.2). First, the usual categorization effect was replicated in the equal power condition. Males allocated an average of 62.4 credits to an ingroup member and 37.6 to an outgroup member ($p < .01$). Likewise, female equal power group members favoured the ingroup by giving 57.7 to their own group but only 42.3 to the outgroup ($p < .01$). Second, all other male and female group members with power, except males with 30% power who only tended to discriminate on this measure, distributed more credits to their own group members than to members of the other group. Third, on the zero-sum task, male and female group members with no power did not favour the ingroup at all ($M = 48.6$ and $M = 52.7$, respectively) but instead distributed the points equally between ingroup and outgroup members.

It was interesting to note that the MIP + MJP on MD strategy was used by high power male group members and absolute power female group members and tended to be used by all other group members with equal, high, and absolute power (see Table 3.2). Because MJP was not used when pitted alone against FAV, subjects using this strategy were able to favour their own group members in the distribution of course credits (i.e., MIP) while still appearing to favour members of both groups. Employment of this strategy can be interpreted as a more indirect, subtle form of ingroup favouritism (Bourhis & Sachdev, 1986).

By inspection, the within treatment analyses suggest no obvious support for hypothesis 2 which predicted that males, being more agentic, would be more discriminatory: male and female group members did not appear to differ in their distribution of resources between ingroup and outgroup others in the experiment. Also, little support was found for hypothesis 3, as within treatment analyses showed that both male and female group members with power discriminated against outgroup members despite being members of the same sex category. Between treatment analyses were performed on the data to further test the hypotheses.

3.2 Between treatment analyses. To further test the three hypotheses, a power (five levels) by sex multivariate analysis of variance (MANOVA) was performed on the 'pull' scores. A 5 X 2 ANOVA was performed on the data of allocations to ingroup and outgroup others measured by the 100-point zero-sum task. Parametric analyses were used because there is no nonparametric equivalent to analysis of variance to statistically analyze the independent and combined effects of power and

sex. Even so, the F-test is robust to violations of homogeneity of variance and normality as long as sample sizes are relatively equal (Stevens, 1992; Tabachnick & Fidell, 1983). A multivariate analysis of variance tested whether the allocation of credits varied as a function of power and/or sex of subjects while adjusting for any intercorrelations among the dependent variables (Tabachnick & Fidell, 1983). The overall MANOVA revealed only a main effect for power, $F(24,1156) = 1.59, p < .05$. Univariate analyses ($\alpha' = .008$) indicated that the power main effect was due to the mean 'pulls' of FAV on MJP, $F(4,336) = 3.68, p = .006$.

A subsequent multiple comparison test (i.e., Newman Keuls, $p < .05$) was performed to examine which groups differed on the FAV on MJP strategy. For ease of description of the between treatment analyses, 'pulls' above a value of one for the discrimination measures (i.e., FAV on P, FAV on MJP, and MD on MIP+MJP) are assumed to indicate discrimination against the outgroup. In support of hypothesis 1, results showed that absolute (100%) and high power (70%) group members were more discriminatory than no power group members (see Table 3.2). However, no difference in discrimination between any of the power group was indicated.

As with the within treatment analyses, no support was found for hypothesis 2 as neither a multivariate main effect of sex, $F(24,1156) = 0.70, ns$, nor a power by sex interaction, $F(24,1156) = 0.87, ns$, was obtained for the strategies of the Tajfel matrices. Figure 3.1 presents the results obtained on the three discrimination measures collapsing across sex of subject.

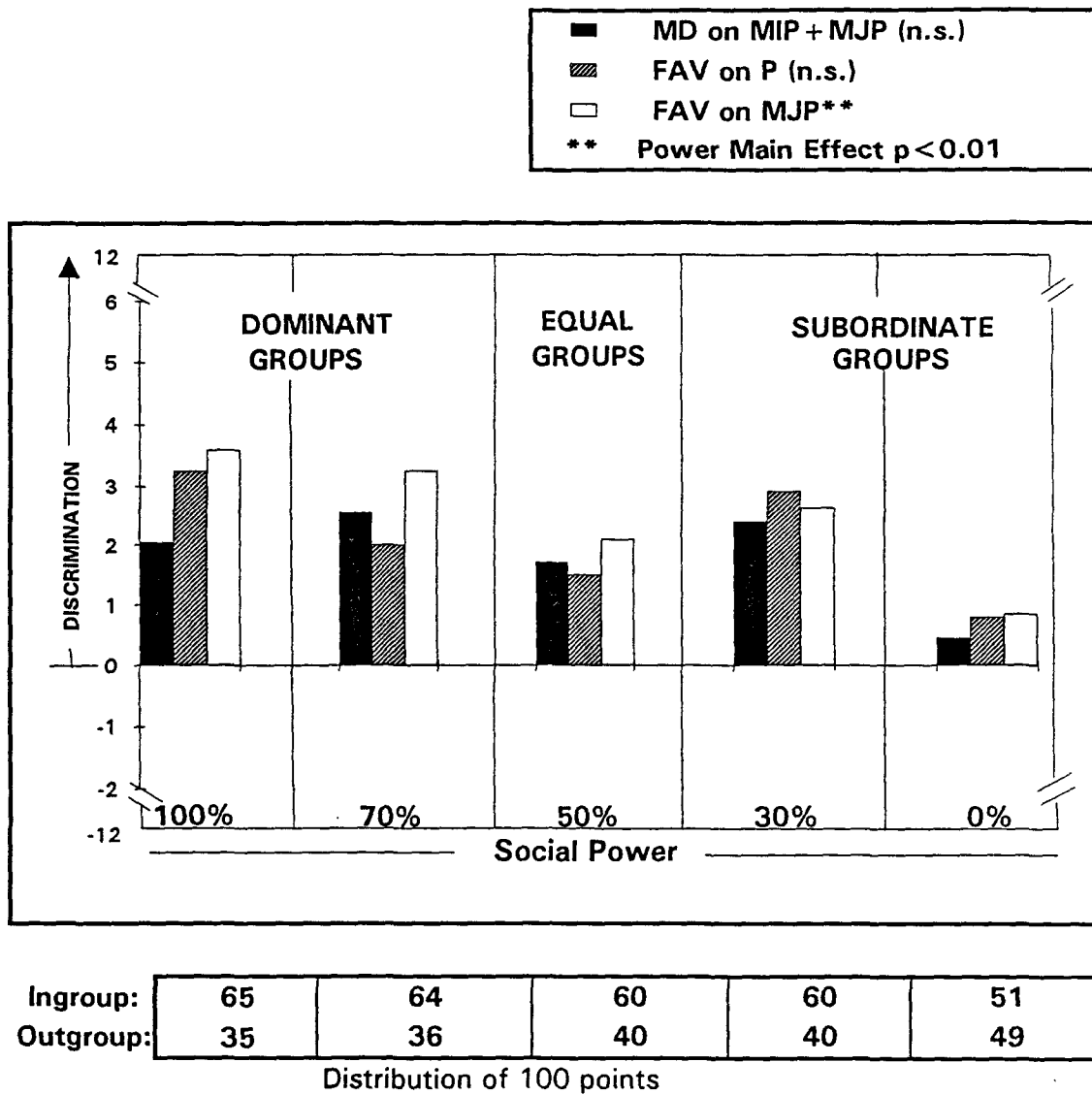


Figure 3.1 Combined means of distributions of course credits by males and females as members of same-sex groups: Mean 'pulls' of discrimination strategies (i.e., MD on MIP + MJP, FAV on P, and FAV on MJP) and allocations made on the 100-point zero-sum task.

With respect to hypothesis 3, if there is an effect of crossing categorizations, it is most likely to be demonstrated by group members in the equal power condition. From Doise's (1978) category differentiation theory, perceptions of similarity between the ingroup and outgroup would lead to a reduction in behavioural differentiation. Therefore, compared to an intergroup context in which power differentials exist, subjects would be expected to discriminate less in an equal power context. In the equal power condition, not only is gender shared across the *ad hoc* group categorization, but group power is bilateral and equal. Possibly, factors that may affect ingroup and outgroup members when power is distributed equally may not be evident in an unequal power setting because the effects of having gender in common between the groups could compete with the perception of power differentials. However, Newman Keuls analysis indicated that, contrary to hypothesis 3, group members who shared power equally across the ingroup/outgroup categorization discriminated just as much as did other power group members.

To further test hypothesis 3, overall levels of discrimination in the same-sex, crossed-categorized study should be compared with the levels of discrimination obtained in the mixed-sex study by Sachdev and Bourhis (1985). In the mixed-sex power study, ingroup and outgroup members did not share a common gender group membership.

Table 3.3 displays the grand mean 'pulls' of each discrimination strategy for the five power groups of the same-sex (collapsed across sex) and the mixed-sex study by Sachdev and Bourhis (1985). A one-way ANOVA with studies as a between-

TABLE 3.3
COMPARISON OF GRAND MEAN "PULLS" OF
INGROUP FAVOURITISM
FOR MIXED-SEX AND SAME-SEX POWER STUDIES

Ingroup Favouritism Strategy	Overall Means of Power Studies	
	Mixed Sex (N=200)	Same Sex (N=346)
FAV on P	2.96	2.10
FAV on MJP	2.86	2.39
MD on MIP & MJP	3.00 ^b	1.79 ^a

^a < ^b, $p < .05$ (Newman Keuls Multiple Comparison Test)

treatment variable (3 levels) was performed on the grand means of 'pull' scores for each of the ingroup favouritism strategies for the mixed-, same-, and opposite-sex studies (opposite-sex study to be presented in chapter 4). To avoid inflation of type I error, an *a priori* criterion of significance was set at .01. Some support was found for the crossed-categorization effect (hypothesis 3) on one of the three discrimination strategies (MD on MIP + MJP), $F(2,884) = 4.84, p < .01$: Newman Keuls analysis ($p < .05$) performed on the means for the three studies showed that the overall mean 'pulls' for MD on MIP + MJP differed in the predicted direction. Group members who shared gender across categorizations displayed less discrimination against outgroup members than did group members who were not of the same sex as outgroup members.

Analyses of Postsession Questionnaire

Data from the postsession questionnaire were entered into several MANOVA's. Univariate analyses and Newman Keuls analyses followed where appropriate. Results are presented in the same format as those of the survey in chapter two. An experiment-wise alpha was set at .05. For univariate analyses following each MANOVA, a Bonferroni correction factor was applied to obtain alpha'. 'Significant' (probabilities below alpha') and 'marginally significant' (probabilities between alpha and alpha') univariate F's for which Newman Keuls indicated a difference were reported for significant multivariate effects (probabilities below alpha).

3.3 Gender items. Five items about degree of identification with own and other sex, perceptions of the power and status of the male and female group, and

feelings of legitimacy of these positions were included in a power (5 levels) by sex by target sex repeated measure (5 X 2 X 2) MANOVA (see section 3.1 in Appendix E; for univariate analyses, $\alpha' = .007$). (Two other items pertained to feelings of satisfaction about the power and status positions of the male and female group. These items were included for exploratory purposes only and thus, the results for these items are presented in sections 3.2a & 3.2b in Appendix E.) Analyses revealed a multivariate effect of sex, $F(7,330) = 7.85, p < .0001$, and target sex, $F(7,330) = 76.63, p < .0001$, and a significant multivariate interaction of sex by target sex, $F(7,330) = 76.61, p < .0001$. The means for the degree to which subjects identified with their own sex are presented in Table 3.4. As shown, both male and female subjects strongly identified with their own gender group (grand $M = 6.04$). Although subjects did identify to some degree with the opposite sex (grand $M = 3.15$) a univariate sex by target sex interaction and a subsequent Newman Keuls test showed that subjects identified much more strongly with their own gender group, $F(1,336) = 501.76, p < .0001$.

Univariate analyses ($\alpha' = .007$) revealed a main effect for target sex for four items: a) perceptions of the power of the male and female group, $F(1,336) = 464.42, p < .0001$, b) perceptions of the status of the male and female group, $F(1,336) = 271.08, p < .0001$, c) feelings of legitimacy of the power positions of the male and female group, $F(1,336) = 47.29, p < .0001$, and d) feelings of legitimacy of the status positions of the male and female group, $F(1,336) = 77.38, p < .0001$. Subjects

TABLE 3.4

**SUBJECTS' IDENTIFICATION AND FEELINGS
ABOUT THEIR GENDER GROUP MEMBERSHIP**

	Male Subjects (n=169)	Female Subjects (n=177)	Sex Main Effect F (df=1,336)
Identification with own Gender Group:			
Single-item measure (7-point scale)	6.05*	6.04	ns
Brown et al. scale (Range 10 to 50)	41.28	40.40	ns
Feelings about Gender Group Membership (7-point scale):			
Positive	6.37	6.31	ns
Secure	6.41	6.12	5.54 (p < .02)†
Happy	6.47	6.40	ns
Liking being a member of gender group	6.49	6.42	ns
Sex-Role Ideology (AWS)			
(Range 0 to 75)	53.08	63.07	95.22 (p < .0001)
Classification of self as "Feminist"			
(7-point scale)	3.07	4.46	41.35 (p < .0001)

* The higher the mean on the 7-point scale, the higher the score on the item.

† probability > α'

perceived the male group to have more power ($M = 5.71$) than the female group ($M = 4.08$) and more status ($M = 5.62$) than the female group ($M = 4.40$). As well, subjects felt that the present positions of the power and status of the female group (power: $M = 3.56$; status: $M = 3.78$) were less legitimate than for those of the male group (power: $M = 4.06$; status: $M = 4.34$). Furthermore, a main effect for sex was obtained for perceptions of power, $F(1,336) = 12.03$, $p < .001$, and for feelings of legitimacy of the power, $F(1,336) = 7.70$, $p < .006$, and status of the male and female group, $F(1,336) = 13.79$, $p = .0002$. Female subjects gave higher estimates of power ($M = 5.04$) than did male subjects ($M = 4.74$). Female subjects also felt that the present power ($M = 3.60$) and status positions ($M = 3.79$) of the gender groups were less legitimate than did male subjects (power: $M = 4.04$; status: $M = 4.36$).

However, these effects for the legitimacy of the positions of the gender groups on the sociostructural hierarchy must be qualified by the significant univariate interactions of sex and target sex. Newman Keuls analysis showed that although female subjects reported lower estimates of legitimacy of the power of the male group ($M = 3.71$) than did male subjects ($M = 4.44$), male and female subjects felt equally strongly about the legitimacy of the power position of the female group (combined $M = 3.56$), $F(1,336) = 19.62$, $p < .0001$. In addition, the highest estimate of legitimacy of the status positions was reported for the male group by male subjects ($M = 4.76$) and the lowest estimate of legitimacy of status was reported for the female group by female subjects ($M = 3.64$). Estimates of the legitimacy of the status of the male group by female subjects and estimates of the legitimacy of the status of the female

group by male subjects were equivalent (combined $M = 3.94$), $F(1,336) = 17.31$, $p < .0001$.

Seventeen items were included in a power by sex (5 X 2) MANOVA (see section 3.3 in Appendix E; for univariate analyses, $\alpha' = .003$). Analyses revealed a multivariate main effect for power, $F(68,1258) = 3.85$, $p < .0001$, and sex, $F(17,320) = 7.30$, $p < .0001$, and a multivariate interaction of power and sex, $F(68,1258) = 1.60$, $p < .002$. Seven of the seventeen items included in this analysis referred to feelings and perceptions about subjects' gender group membership and are presented in Table 3.4. As observed for the perceptions of the power and status of the male and female group and the feelings of legitimacy about these positions, findings largely replicated those in chapter two (Cole and Bourhis, 1988).

First, results of a gender group identification scale derived from Brown et al. (1986) showed, as with the single-item measure of identification, that both male and female subjects identified strongly with their respective gender group (grand $M = 40.83$). The Cronbach alpha for this scale for this sample was satisfactory at .71. Another similarity between the findings of this same-sex study and the survey study was that both female and male subjects reported feeling highly positive (grand $M = 6.34$), secure (grand $M = 6.26$), and happy (grand $M = 6.43$) about their gender group membership. As well, both male and female subjects reported to like being a member of their gender group equally well (grand $M = 6.46$). Female subjects, however, tended to feel slightly less secure ($M = 6.12$) about their gender group membership than did male subjects ($M = 6.41$), $F(1,336) = 5.54$, $p < .02$).

The Attitudes toward Women Scale (Spence et al., 1973) is purported to measure ideologies about the roles of women and men in society: lower scores indicate a traditional or conservative ideology; higher scores, a liberal ideology. A third similarity between these findings and those of Cole and Bourhis (1988) was that female subjects ($M = 63.07$) had a more liberal sex-role ideology than did male subjects ($M = 53.08$). The Cronbach alpha for AWS for this sample of subjects was .90. Thus, as was found for the survey study, the inter-item reliability for this scale was quite satisfactory. As a fourth common finding with the survey study, female subjects classified themselves as a 'feminist' ($M = 4.46$) to a greater extent than did male subjects ($M = 3.07$). Thus, male subjects who took part in this study and the survey study did differ from female subjects in their sex-role ideology.

3.4 Manipulation Checks. Eight items referring to subjects' feelings about their power group membership and the power manipulations were included in this same power by sex (5 X 2) MANOVA (see section 3.3 in Appendix E; for univariate analyses, $\alpha' = .003$). Results showed that power manipulations were successful. First, overall, male and female power group members agreed with the toss of a coin as a procedure for categorizing individuals into their respective groups (grand $M = 5.48$). However, contributing to the multivariate interaction of power by sex on this 5 X 2 MANOVA, was a marginally significant univariate power by sex interaction for this item, $F(4,336) = 3.87, p < .005$. A subsequent Newman Keuls multiple comparison test on this measure did not identify the source of this marginal interaction. Newman Keuls analysis also indicated no difference between the means for an item that referred

to the legitimacy of the method for distributing power between the groups ($M = 4.86$), $F(4,336) = 3.60$, $p < .01$.

Second, power manipulations were successful because overall scores also indicated that subjects in all conditions felt that the toss of a coin to randomly ascribe power to the groups was fairly legitimate (grand $M = 4.87$). Third, contributing to the multivariate effect of power and as indicated by a subsequent Newman Keuls test, equal power group members felt that the power distribution between the groups was more legitimate ($M = 4.72$) than did members of the differential power groups (pooled $M = 2.90$), $F(4,336) = 13.35$, $p < .001$.

Interestingly, despite subjects' feelings in the unequal power condition about the legitimacy of the power distribution between groups, subjects nevertheless reported that if the experiment were run again they, as group members, would want to have more power for their own group (combined $M = 66\%$) than for the outgroup (combined $M = 44\%$). A univariate sex main effect on this item, $F(1,336) = 9.96$, $p = .002$, indicated that males desired even more of a power advantage for their own group ($M = 70\%$) than did female subjects ($M = 62\%$). A marginally significant interaction of power and sex for this item, $F(4,336) = 3.98$, $p < .005$, and Newman Keuls analysis indicated that females with 30% power tended to want less power for their own group ($M = 55.61$) than males with 50% power tended to want ($M = 75.03$). The meaning of this finding is unclear.

3.5 Perceptions of control. Ten items were included in a 5 X 2 X 2 MANOVA with two between factors, power and sex, and one repeated measure, group

(ingroup/outgroup) (see sections 3.4a & 3.4b in Appendix E). These items pertained to perceptions of control and group status, and self-reports and perceptions of strategies used on the matrices. The MANOVA analyses revealed a multivariate effect for power, $F(40,1242) = 6.87, p < .0001$, sex $F(10,327) = 3.10, p < .001$, group, $F(10,327) = 31.73, p < .0001$, and a multivariate interaction of power and group, $F(40,1242) = 10.57, p < .0001$. Univariate analyses followed ($\alpha' = .005$). As usual, multiple comparison tests (Newman Keuls, all p 's $< .05$) were performed on significant univariate effects that indicated a difference between more than two means.

In further validation of the effectiveness of our power manipulations, a univariate effect for power, $F(4,336) = 56.86, p < .0001$, and Newman Keuls analysis was performed on an item referring to subjects' perception of the control outgroup members had over the final distribution of course credits to subjects themselves and to members of the outgroup. Analyses demonstrated that no power group members reported the highest estimate of control for their outgroup ($M = 6.11$), low power group members reported a lower estimate ($M = 4.67$), high power group members reported an even lower estimate of control for the outgroup ($M = 3.56$), and absolute power group members reported the lowest estimate of control for the outgroup ($M = 2.19$). In addition, one item contributing to the multivariate repeated measure effect of group demonstrated that, as emphasized at the beginning of the experiment, subjects perceived themselves to have less control over the final distribution of credits to themselves ($M = 2.58$) than to other group members ($M = 3.97$), $F(1,336) = 116.65$,

$p < .0001$. Thus, as in other Minimal Group Paradigm studies, the main dependent measure was not related to subjects' self-interest.

Contributing to the significant multivariate interaction, a significant univariate power by group interaction, $F(4,336) = 8.43$, $p < .0001$, and follow-up Newman Keuls analysis for this item showed that, in general, the less power group members had, the less control they perceived themselves to have over the final distribution of credits to themselves (no power group members: $M = 1.82$, low power: $M = 2.38$, equal power: $M = 2.82$, high and absolute power group members: $M = 2.93$). These analyses also showed that no power group members reported the lowest estimate of control over credits to themselves. In line with our operationalization of power, subjects clearly perceived increases in group power to be concomitant with increases in control.

3.6 Perceptions of the intergroup structure. Subjects were also asked about their perceptions of the status of the power groups. This item and another pertaining to choice of group if the experiment were run again were included in this same (5 X 2 X 2) MANOVA (see sections 3.4a & 3.4b in Appendix E). Table 3.5 displays the means for these perceptions and the obtained power by repeated measure univariate interactions. Subjects in the equal power condition perceived no difference in status between their own and the other group. However, dominant group members perceived their own group to have more status (combined $M = 4.74$) than their respective subordinate outgroup. Similarly, subordinate group members perceived their own group to have less status (combined $M = 2.30$) than their respective dominant outgroups. Also consistent with the experimental design, the absolute power group

TABLE 3.5 **GROUP PREFERENCES AND ESTIMATES OF
STATUS OF POWER GROUPS**

	POWER					Power by Group
	0%	30%	50%	70%	100%	Interaction F (df = 4,336)
Perceived Status of:						
Ingroup	2.10 ^a	2.50 ^{ab}	3.44 ^d	4.68 ^e	4.80 ^e	117.08
Outgroup	5.10 ^f	4.41 ^e	3.26 ^{cd}	2.86 ^{bc}	2.26 ^a	(p < .0001)
Group Preference for:						
Ingroup	2.86 ^a	3.38 ^a	4.47 ^b	5.19 ^c	5.38 ^c	55.21
Outgroup	5.28 ^c	4.78 ^{bc}	4.20 ^b	2.96 ^a	2.92 ^a	(p < .0001)

$a < b < c < d < e < f$, $p < .05$ (Newman Keuls Multiple Comparison Test)

was perceived to have the most status; whereas, the no power group was perceived to have the least status. A marginally significant effect of sex for this item, $F(1,336) = 5.69$, $p < .02$, indicated that female subjects tended to report higher estimates of status ($M = 3.76$) than did male subjects ($M = 3.45$).

When asked to which group subjects would prefer to belong if the experiment were run again, Newman Keuls analysis showed that subjects displayed a preference to belong to the more powerful group (pooled $M = 5.16$ for desire to belong to dominant group; pooled $M = 3.03$ for desire to belong to the subordinate group). Thus, female, as much as male group members, preferred to be members of the dominant group. When group members had equal power, no such preference emerged. Group members with equal power indicated that if the experiment were run again, they would like to be a member of either equal power group. In this respect, power was apparently the pivotal factor influencing group preference if the experiment were run again. A marginally significant univariate effect of power for each of these two items is presented in sections 3.4a & 3.4b in Appendix E. The source of neither effect was identified by Newman Keuls analysis.

3.7 Degree of identification with power groups. A power by sex by repeated measure (5 X 2 X 3) MANOVA was performed on three questionnaire items about subjects' identifications and perceptions of liking by other ingroup and outgroup members (see section 3.5 in Appendix E). The repeated measure referred to self, other ingroup members, and members of the outgroup. Analyses revealed a multivariate main effect for sex, $F(3,334) = 5.60$, $p < .001$, and the repeated measure, $F(6,331) =$

47.93, $p < .0001$, and a significant multivariate interaction of power by the repeated measure, $F(24,1156) = 3.26$, $p < .0001$.

Table 3.6 shows the means for identification with own group and perceptions of other group members' identification ($\alpha' = .017$). A univariate main effect of the repeated measure for the identification item, $F(2,672) = 15.01$, $p < .0001$, and a subsequent Newman Keuls test demonstrated that subjects identified moderately with their own power group (grand $M = 4.21$) and perceived that other ingroup members and outgroup members (grand $M = 4.62$) would identify more strongly with their respective power group. Contributing to the multivariate interaction, a univariate power by repeated measure interaction for this item, $F(8,672) = 9.05$, $p < .0001$, and Newman Keuls analysis showed that low and high power group members identified more strongly with their own group than did no and equal power group members. Absolute power group members identified more strongly with their own group than did no power group members. Recall that analyses of subjects' distributions on the Tajfel matrices and the zero-sum task showed that high and absolute power group members also displayed more ingroup favouritism than did group members with no power. In the no, low, high, and absolute power groups, subjects perceived that other ingroup members would identify with the ingroup just as much as they did themselves. Equal power group members estimated that other ingroup members would identify more with the ingroup than they did themselves. Members in the no and low power groups perceived that members of the dominant outgroup would identify more strongly with their own group (combined $M = 5.22$) than they did and than other ingroup

TABLE 3.6 INGROUP IDENTIFICATION AND ESTIMATES OF OWN GROUP IDENTIFICATION OF OTHER GROUP MEMBERS

Identification	0%		30%		POWER 50%		70%		100%		Overall Mean of Repeated Measure
	M	F	M	F	M	F	M	F	M	F	
Self with Ingroup	3.84 (3.76) ^a	3.69	4.73 (4.42) ^c	4.12	4.16 (3.93) ^{ab}	3.70	4.76 (4.52) ^{cd}	4.29	4.82 (4.46) ^{bc}	4.09	4.21 ^l
Other Ingroup Member	4.28 (4.21) ^{ab}	4.14	5.06 (4.77) ^{cd}	4.48	4.38 (4.48) ^c	4.58	4.94 (4.80) ^{cd}	4.65	4.88 (4.60) ^{cd}	4.31	4.57 ^m
Out Group Members	5.60 (5.34) ^e	5.03	5.73 (5.09) ^{de}	4.45	4.19 (4.44) ^c	4.70	4.85 (4.69) ^{cd}	4.53	3.71 (3.88) ^a	4.06	4.68 ^m

$a < b < c < d$, $p < .05$

$l < m$, $p < .05$

members would. As noted, dominant group members did identify more strongly with their respective ingroup (combined $M = 4.49$) than did no power group members but identified as much with the ingroup as did low power group members. Absolute power group members accurately perceived that members in the no power group would identify less strongly with their own group than would other members of their own absolute power group.

Univariate analysis indicated that a marginally significant effect of sex for this identity measure, $F(1,336) = 4.53$, $p < .05$. This suggested that male subjects tended to identify more with their own group ($M = 4.65$) and, in general, tended to give higher identification estimates than did female subjects ($M = 4.32$).

3.8 Quality of identification with the power group. Table 3.7 presents the means and power main effects for items that assessed subjects' feelings of comfort, satisfaction, happiness, and degree of liking for their power group membership. These items were included in the previously described power by sex (5 X 2) MANOVA (see section 3.3 in Appendix E; $\alpha' = .003$). Univariate analyses and subsequent Newman Keuls multiple comparison tests for each item demonstrated that equal (50%), high (70%), and absolute power (100%) group members felt more comfortable, satisfied, and happy about their power group membership than did low (30%) and no power (0%) group members. Members of the equal (50%) and dominant groups (70% and 100%) (combined $M = 4.98$) also liked being members of their group more than did subordinate group members (0% and 30%) (combined $M = 3.42$). In turn,

TABLE 3.7 COMBINED MALE AND FEMALE FEELINGS ABOUT
THEIR POWER GROUP MEMBERSHIP

	POWER					Power Main Effect
	0% (n = 67)	30% (n = 66)	50% (n = 77)	70% (n = 67)	100% (n = 69)	F (df = 4,336)
Comfortable	3.16 ^a	3.58 ^a	5.06 ^b	5.31 ^b	5.36 ^b	25.81 (p < .0001)
Satisfied	2.49 ^a	3.20 ^b	5.08 ^c	5.39 ^c	5.14 ^c	46.26 (p < .0001)
Happy	2.57 ^a	3.27 ^b	4.87 ^c	5.24 ^c	5.06 ^c	37.44 (p < .0001)
Liking being a member of power group	3.15 ^a	3.68 ^b	4.75 ^c	5.22 ^c	4.99 ^c	27.13 (p < .0001)

$a < b < c$, $p < .05$ (Newman Keuls Multiple Comparison Test)

low power group members felt more satisfied, happy, and liked being a member of their group more than did group members with no power whatsoever. It is important to note that males and females did not differ in their feelings about their respective power group membership.

3.9 Ingroup/outgroup liking. One item referring to how much subjects liked members of their own and other group was included in the power by sex by group repeated measure (5 X 2 X 2) MANOVA (see sections 3.4a & 3.4b in Appendix E; for univariate analyses, $\alpha' = .005$). This particular univariate effect of sex, $F(1,336) = 15.62, p=.0001$, demonstrated that female subjects reported higher overall liking ratings for both ingroup and outgroup members ($M = 4.71$) than did male subjects ($M = 4.36$). Importantly, a univariate effect of the repeated measure for this item of liking for group members, $F(1,336) = 46.96, p<.0001$, also contributed to the multivariate effect for the repeated measure obtained by this 5 X 2 X 2 MANOVA: in replication of the usual categorization effect, subjects reported that they would like members of their own group ($M = 4.82$) more than they would like members of the other group ($M = 4.27$) (Sachdev & Bourhis, 1984, 1985, 1987, 1991).

Two other liking measures were included in the 5 X 2 X 3 MANOVA introduced earlier (see section 3.5 in Appendix E; for univariate analyses, $\alpha' = .017$). Univariate analysis showed that a significant univariate main effect of the repeated measure was obtained for subjects' perception of other ingroup members' liking, $F(2,672) = 95.43, p<.0001$. Newman Keuls analysis demonstrated that subjects felt that other ingroup members would like them and other members of the ingroup

more (combined $M = 4.88$) than they would like members of the outgroup ($M = 4.06$). A significant univariate effect for the repeated measure was also obtained for subjects' perception of the outgroup's liking, $F(2,672) = 174.42$, $p < .0001$. A Newman Keuls test showed that subjects estimated that outgroup members would like other members of their own group more ($M = 5.18$) than they would like subjects themselves or members in the subjects' group (combined $M = 4.04$). A univariate effect of sex was also obtained for perception of other group members' liking of other ingroup and outgroup members and subjects themselves, $F(1,336) = 10.46$, $p < .002$, contributing to the multivariate effect of sex obtained in this MANOVA. This effect showed that when subjects were asked to estimate how much members of their same-sex outgroup would like other ingroup and outgroup members, including themselves, female subjects gave higher liking ratings ($M = 4.56$) than did male subjects ($M = 4.27$).

3.10 Self-reports of strategies used. To assess whether subjects accurately reported the distribution strategies they used on the Tajfel matrices, five self-report measures were included in the power by sex by group repeated measure (5 X 2 X 2) MANOVA previously discussed (see sections 3.4a & 3.4b in Appendix E; for univariate analyses, $\alpha' = .005$). Analyses revealed univariate effects for the repeated measure on subjects' self-reports and perceptions of how equally credits were distributed, $F(1,336) = 44.04$, $p < .0001$, fairly, $F(1,336) = 61.60$, $p < .0001$, and favouring the ingroup, $F(1,336) = 88.41$, $p < .0001$. Typically, subjects reported that they, themselves, distributed credits more equally ($M = 4.24$) than did members of the outgroup ($M = 3.50$). Actually, there was no difference in the use of the parity

strategy between any of the groups. Similarly, subjects thought that they were more fair in distributing credits ($M = 4.49$) than were members of the outgroup ($M = 3.76$). These results confirm that parity rather than discrimination is the more socially desirable strategy for subjects in the Minimal Group Paradigm (Bourhis & Sachdev, 1986; Sachdev & Bourhis, 1984, 1985, 1987, 1991). Note that 'parity' and 'fairness' are not necessarily synonymous. For instance, subjects could conceivably interpret favouring their own group as being fair.

In a similar vein, overall, subjects perceived that they favoured the ingroup significantly less ($M = 4.10$) than did members of the outgroup ($M = 5.07$). However, a univariate power by repeated measure interaction and a subsequent Newman Keuls test indicated that this bias was not demonstrated by absolute power group members, $F(4,336) = 9.05, p < .0001$. Members of the absolute (100%) power group thought that they favoured their own group ($M = 4.20$) just as much as did members of the no power group ($M = 4.36$). In contrast, no power group members reported the greatest estimate of discrimination on the part of outgroup members who, in this case, had absolute power ($M = 5.78$).

For the outgroup favouritism measure, a similar interaction of power and the repeated measure, $F(4,336) = 7.62, p < .0001$, followed by Newman Keuls analysis, suggested that members in the no power group felt that they demonstrated more outgroup favouritism ($M = 3.29$) than did members of the absolute power outgroup ($M = 2.31$). Similarly, absolute power group members thought that members in the no power outgroup displayed more outgroup favouritism ($M = 3.18$) than did absolute

power group members themselves ($M = 2.46$). Three marginally significant effects of power are presented in section 3.4b in Appendix E. Note that Newman Keuls multiple comparison tests did not identify the source of these effects.

Marginally significant univariate effects of sex were revealed for estimates of personal and outgroup members' use of three "socially desirable" strategies: parity, $F(1,336) = 7.74, p < .01$, maximum joint profit, $F(1,336) = 5.11, p < .05$, and fairness $F(1,336) = 7.77, p < .01$. In all cases, female subjects tended to report higher estimates for self and same-sex outgroup members than did male subjects (female subjects: $M = 4.16$; male subjects: $M = 3.69$). Thus, in line with Williams' (1984) notion, women at least tended to perceive themselves as exhibiting more 'communal' behaviours than did men.

As can be seen in Table 3.8, Pearson product-moment correlations between self-reports of the use of strategies and actual behaviour were, in virtually every instance, positive and highly significant (the exception being maximum joint profit for females; $\alpha' = .01$). As in previous studies, these results confirm that subjects are aware of the discrimination and parity strategies they use on the Tajfel matrices (Sachdev and Bourhis, 1984, 1985, 1987, 1991). As such, these patterns confirm the ecological validity of the Tajfel matrices as a tool for monitoring the parity and discrimination behaviour of group members in intergroup studies.

Along with parity, maximum joint profit has been labelled as a "socially desirable strategy" (Bourhis & Sachdev, 1986, p. 8). Consistent with this notion,

TABLE 3.8 **CORRELATES BETWEEN SELF-REPORTS
OF USE OF STRATEGIES AND
ACTUAL BEHAVIOUR**

Matrix Strategy	Correlation	
	Males (n = 169)	Females (n = 177)
Parity: P on FAV	.476**	.428**
Ingroup Favouritism:		
FAV on P	.467**	.503**
FAV on MJP	.515**	.528**
MD on MIP & MJP	.418**	.556**
Maximum Joint Profit:		
MJP on FAV	.266*	.043

* p < .001

(Pearson Product-Moment Correlations)

** p < .0001

subjects reported that they used the MJP strategy to a moderate degree in the study (grand $M = 3.74$) though they actually only rarely used it (see Table 3.2).

It was interesting to note that subjects' self-reports of parity (grand $M = 4.24$), ingroup favouritism ($M = 4.10$), and maximum joint profit (grand $M = 3.74$) did not differ widely - despite obvious differences between the strength of 'pull' scores for these strategies. Nevertheless, it was clear that, except for members in the no power group, subjects tended to underestimate their personal employment of ingroup favouritism strategies while overestimating the use of this discriminatory strategy by members of the outgroup. No significant difference in actual displays of ingroup favouritism, however, was revealed between any of the groups that had power. Furthermore, in contrast to the repeated measure main effect obtained for the parity item in which subjects reported to use parity more than members of the outgroup, none of the five groups differed in displays of parity. Accordingly, subjects evidently overestimated their own use of parity and underestimated the use of this strategy by outgroup members. These results again confirm that parity is seen as a more socially desirable strategy than discrimination (Bourhis & Sachdev, 1986).

3.11 Multiple regression analyses: Basic SIT constructs Multiple regression analyses were performed on the data to ascertain whether degree of ingroup identification with the *ad hoc* power groups was related to displays of discrimination. It was also of interest to test whether identification with subjects' gender group accounted for a significant proportion of the variance in behavioural measures of discrimination and parity. The independent, predictor variables were degree of

identification with the power group and four measures of degree of identification with the gender groups (i.e., identification with the male and female group, scores on the Brown et al. identification scale, and identification of self as a 'feminist'). The discrimination strategies on the Tajfel matrices (MD on MIP & MJP, FAV on P, and FAV on MJP) and the 100-point zero-sum task were entered into separate regression analyses as dependent, predicted variables.

Results of the analyses showed that on all measures of subjects' resource allocations, degree of identification with the power group was positively related to displays of discrimination against outgroup members. For male subjects, degree of ingroup identification accounted for an average of 24% of the total variance in the behavioural measures of discrimination (for FAV on MJP: $t(163) = 7.45, p < .0001$; FAV on P: $t(163) = 7.30, p < .0001$; MD: $t(163) = 5.86, p < .0001$; zero-sum: $t(163) = 8.13, p < .0001$). For females, degree of ingroup identification accounted for an average of 11.25% of the variance in the discrimination strategies (for FAV on MJP: $t(171) = 4.45, p < .0001$; FAV on P: $t(171) = 5.40, p < .0001$; MD: $t(171) = 3.36, p < .01$; zero-sum: $t(171) = 5.55, p < .0001$). As would be predicted, a negative relationship held true for the measure of parity (P on FAV). Degree of identification accounted for 10% of the variance in parity for females and 8% of the variance for males on this measure. Thus, for both males and females, greater ingroup identification was associated with weaker displays of parity: for males, $t(163) = -3.88, p = .0001$; for females, $t(171) = -4.42, p < .0001$. In contrast, an effect for only one measure referring to subjects' gender group membership that just reached significance was indicated in the analyses:

the degree to which male subjects categorized themselves as a 'feminist' was positively related to displays of parity and tended to account for only 2% of the variance, $t(163) = 2.13, p < .05$. These findings are consistent with Sachdev's and Bourhis' (1985) study in which high power group members who identified most strongly with their own power group also displayed the greatest degree of discrimination. These results support a basic premise of SIT (Tajfel & Turner, 1986): the more group members identify with their own group, the more likely they are to discriminate against outgroup members.

From SIT, both power, as a basis for intergroup comparison, and discrimination would be related to the quality of group members' social identity. To assess whether power *per se* or discrimination alone contributed most to the quality of group members' social identity, multiple regression analyses were performed on the credit distribution data with quality of power group members' social identity as the predicted variable. Quality of identification was the combined score of comfort, happiness, satisfaction, and like for being a member of the power group. The predictor variables were scores on the Tajfel matrix strategies (i.e., discrimination and parity), the 100-point zero-sum task, and the amount of power ascribed to group members. Analyses revealed that only group power, and not discrimination, contributed to the positiveness of group members' social identity. Specifically, results showed that for male and female group members, power *per se* accounted for 25% of the variance in quality of identification, $t(340) = 10.79, p < .0001$. Thus, regardless of degree of discrimination, the more power group members had, the more happy, satisfied, and comfortable they

felt as group members and the more they liked being members of their own power group in the experiment.

Discussion

Overall, and in support of hypothesis 1, findings from the present same-sex power study largely replicated those of the mixed-sex power study (Sachdev and Bourhis, 1985). Discrimination and intergroup perceptions demonstrated that power was an important factor that affected the intergroup behaviour of men and women. In contrast, the sex of subjects had very little effect on the discriminatory behaviour of male and female group members. Specifically, the following was observed: i) in general, using the Tajfel matrices, male and female group members with power, including equal power group members, discriminated against outgroup members when distributing credits, and ii) group members without power (0% control) did not display ingroup favouritism at all. A similar pattern of results, and thus convergent validity, was obtained for the 100-point zero-sum task in each of the pertinent conditions. The only exception to this pattern of discrimination by power group members was with males with low power, who, on all available measures of discrimination, only tended to discriminate (see Table 3.2). Note, however that the 'pull' scores for each of these discrimination measures just missed significance.

These patterns of findings suggest that without power, group members cannot actualize their desire for a positive social identity. However, unlike the mixed-sex power study (Sachdev & Bourhis, 1985), no significant difference in levels of discrimination was obtained between group members who had power. This was

probably due to an effect of sex: sharing gender across experimentally imposed categorizations could have had an attenuating effect on levels of discrimination. Evidently, social power is the tool through which group members are enabled to display discrimination.

Postsession questionnaire results, in corroboration with those of the mixed-sex study (Sachdev & Bourhis, 1985), revealed a number of effects of power on sociopsychological variables central to SIT. First, power apparently contributed to the quality or positiveness of group members' social identity. Equal, high, and absolute power group members felt more comfortable, satisfied, happy, and liked being members of their respective power groups more than did low and no power group members (Table 3.7). In addition, low power group members were more satisfied, happy, and liked being members of their own power group more than did members of the totally powerless group.

Possibly, the similarities in group members' quality of social identity simply reflect the comparable displays of discrimination shown by the equal and dominant group members. This explanation, however, would not explain why low power group members felt less positive about their group membership than did the equal and dominant groups, even though members of all four of these power groups did not differ in degree of discrimination against the outgroup. With this in mind, it is unclear whether group power contributed directly or indirectly, through discrimination, to subjects' social identity. Did group members improve their social identity through discrimination which was possible because their own group had equal or greater power

than that of the outgroup? Or did group members improve the quality of their social identity through the process of social comparison. Perhaps both processes were at work.

Predictions can be made about three relationships between the following variables: a) power and quality of group members' social identity, b) discrimination and quality of social identity, and c) discrimination and degree of social identity. From SIT, an individual's social identity is directly affected by how the ingroup compares with the outgroup, through social comparison. Therefore, as one prediction, group power would be positively related to the quality of group members' social identity. Second, according to Lemyre and Smith (1985) and SIT, discrimination against outgroup members increases group members' self-esteem. Thus, discrimination would also be positively related to the quality of group members' social identity. Third, according to SIT, a positive relationship between degree of group members' social identity and differentiation through discrimination would be expected (Brown, Condor, Mathews, Wade & Williams, 1986, Condor, Brown & Williams, 1987; Kelly, 1988). The more group members identify with their own group, the more they would be motivated to achieve a positive identity through the creation or maintenance of a positive differentiation of their own group relative to the outgroup via discrimination.

Multiple regression analyses showed that, as predicted from SIT, ingroup identification accounted for a significant proportion of the variance in displays in discrimination: degree of identification with the power group was positively related to

discrimination (3.11). It is interesting to note that, from an SIT perspective, the weaker ingroup identification that was observed for no power group members may have served to alleviate some of the negative impact of the power imbalance on group members' social identity. As group members, they had a "need to achieve a positive group distinctiveness which in turn serves to protect,... a positive social identity" (Tajfel, 1982a, p.24). However, without usable power, these powerless group members could not use discrimination to achieve a more positive social identity (Ng, 1982; Sachdev & Bourhis, 1985). As previously articulated by Turner and Brown (1978), subjects, to some degree, seemed to have "dis-identified with the ingroup" (p. 204) in response to their unsatisfactory social identity. Furthermore, no power, as well as low power group members, indicated that they would indeed leave their group to become members of the more powerful outgroup if given the opportunity. Dis-identifying, dissociating, or physically leaving one's group are individualistic strategies to attain a more positive social identity, or, at least, to alleviate some of the negative impact of such unfavourable memberships (Tajfel, 1978; Tajfel & Turner, 1979; Turner & Brown, 1978).

Also, regression analyses demonstrated that group power, in contrast to discrimination, was positively related to quality of social identity (3.11). These results do not necessarily mean that discrimination does not contribute to a positive social identity as proposed from SIT. This fundamental premise of SIT was formulated to account for discrimination in classic Minimal Group Paradigm studies in which both groups had equal power in the experiment. In this classic Minimal Group setting,

discrimination contributes to a positive social identity because it is the only dimension on which subjects can differentiate their own group from the outgroup. In our power differential studies, power *per se* becomes another dimension of comparison on which group members can differentiate positively. Discrimination seems to be less necessary as a differentiation strategy because, in this case, the power advantage appears to contribute substantially to a more positive social identity.

In line with these findings, group members without power (i.e., 0% control) were left devoid of a valued dimension of comparison on which they could attain a positive social identity. They not only were deprived of power but, being so, were not able to actualize their motivations for attaining a positive social identity through discrimination. This reality helps account for the finding that no power group members generally had a less positive social identity than did low, equal, and dominant group members.

The effect of power on the quality of social identity is consistent with results presented in chapter two, in which it was found that both male and female undergraduates valued and desired more power and status. Similarly, group members in this same-sex study preferred to belong to a more powerful group (Table 3.5), ascribed more status to groups with greater power, and wanted their own group to have more power than the outgroup if the experiment were run again (3.4). Nevertheless, in spite of the desire subjects in this study had for power, they felt that a power imbalance between two groups was less legitimate than an equal, bilateral distribution of power.

Several findings demonstrated a replication of the usual social categorization effect. Subjects, themselves, clearly liked their own group members more than members of the other group (3.9). Moreover, subjects perceived that other ingroup and outgroup members would also like their own group members more than they would like members of the outgroup. These findings were obtained even though group members, who were arbitrarily assigned to groups, did not know specifically who was in their group, and had no within or between group interaction. These results corroborate intergroup findings obtained over the last two decades with both 'real-life' and *ad hoc* groups (Brewer, 1979; Brewer & Kramer, 1985; Levine & Campbell, 1972; Messick & Mackie, 1989; Sachdev & Bourhis, 1984, 1985, 1987, 1991). Our results show that this basic ingroup favouritism effect can also be obtained with members of same-sex groups. Because outgroup members were of the same sex, these observations are especially noteworthy. Although male and female group members identified strongly with their own gender group (Table 3.4), the experimentally imposed *ad hoc* categorization was sufficient to trigger an ingroup favouritism effect on the liking measures. Note also that this effect shown by members in each group may have been one way in which group members with no power were able to improve the quality of their social identity.

Overall, correlation results showed that subjects were accurate in reporting the discrimination and parity strategies that they actually used in the study (Table 3.8). However, parity and maximum joint profit were clearly seen as the socially desirable strategies to adopt while discrimination was perceived as the least socially desirable

strategy in the experiment (3.10). The usual exaggeration of reports of outgroup favouritism and attenuation of ingroup favouritism by self was not observed in the case of absolute power group members. Absolute power group members perceived powerless outgroup members to demonstrate a greater degree of outgroup favouritism than they did themselves. The converse was true for no power group members who tended to associate absolute power with minimal outgroup favouritism. Therefore, in corroboration with Ng's (1980, 1982) notion that group members without power will not discriminate, group members with absolute power did not display the usual exaggeration of discrimination on the part of outgroup members and, in addition, predicted that outgroup members with no power would display more outgroup favouritism than they did themselves. In further support of the notion of power as the tool to discriminate, group members without power gave the highest estimation of discrimination on the part of their outgroup members who had absolute power.

Results for the credit allocations revealed no support for hypothesis 2. Female and male group members were equally discriminatory. Similar findings were obtained even in a study in which subjects' agentic and communal orientations were measured: no relationship was found between ingroup favouritism and the degree to which subjects were agentic or communal in orientation (Condor, Brown & Williams, 1987). Minimal support was found for hypothesis 2 in responses to the postsession questionnaire. In partial support of hypothesis 2, female subjects tended to perceive themselves to be more fair, to distribute credits more equally, and to use maximum joint profit more than did male subjects (3.10). Female subjects also reported to like

members of the ingroup and outgroup more, and generally reported higher estimates of intergroup liking than did male subjects (3.9). These results suggest that women tend to perceive themselves according to the female stereotype of being nurturing, warm, and fair (Bakan, 1966; Eagly & Steffan, 1984; Spence & Helmreich, 1978; Williams & Best, 1986). Yet when empowered, women's discriminatory behaviour was equivalent to that of men (Aries, 1982; Klein & Willerman, 1979; Molm, 1985; Winter, 1988). Therefore, despite greater overall feelings of liking for ingroup and outgroup members, when acting as group members, women do not differ from men in their use of power to discriminate against the outgroup even when such others are members of their own sex category.

Postsession questionnaire findings, however, lent some support for the notion that men and women, as group members, have a different appreciation for, or perception of, power and status. Within this intergroup context, although both males and females wanted a power advantage if the experiment were run again, males desired a significantly greater power advantage than did females (3.4). In addition, although a marginally significant effect, male subjects tended to report stronger ingroup identifications and higher estimates of other ingroup and outgroup members' own group identifications than did female subjects (Table 3.6). Compared to female subjects, male subjects may have felt more at ease within the intergroup context as well as with the power structure created within the experiment.

A comparison of the overall levels of ingroup favouritism between the mixed-sex and the same-sex study lent some support for hypothesis 3. Degree of

discrimination through employment of the maximum differentiation strategy (i.e., MD on MIP + MJP) was less in this same-sex study than in the mixed-sex study by Sachdev & Bourhis (1985) (Table 3.3). Therefore, sharing sex across ingroup and outgroup delineations did, in part, appear to have an attenuating effect on the differential effects of power observed in the Sachdev and Bourhis (1985) study. This was a subtle effect of sex. These findings partly support Doise's (1978) category differentiation theory in which greater similarity between groups on a perceptual level (e.g., sharing gender across categorizations) leads to an attenuation of differentiation between groups on a behavioural level. Note however, that an absence of ingroup favouritism was expected if gender group membership was as relevant and meaningful to subjects as their power group membership (Brown & Turner, 1979; Deschamps & Doise, 1978; Tajfel, 1978). Subjects in this same-sex and in the mixed-sex study displayed equivalent levels of ingroup favouritism on two of the three discrimination strategies measured with the Tajfel matrices and discrimination was also clearly evident on the 100-point distribution task. Because ingroup members did favour their own group, unless they were without power, the arbitrarily created categorization appeared to have held more significance and was arguably more salient to distributions than their gender group membership within this experimental context.

As previously discussed, results of the postsession questionnaire indicated that as predicted from Doise's (1978) category differentiation theory, equal power group members identified less with their power group than did the low, and high power group members (Table 3.6). However, Doise (1978) would further predict an

association between category differences (i.e., perceptual differentiations), ingroup identification, and ingroup favouritism (i.e., behavioural differentiations). He asserts that "when there is a differentiation at one of these three levels (behavioural, evaluative, or representational) there is a tendency for corresponding differentiations to be made at the other levels" (p. 152). For instance, based on Doise's prediction, one would expect differences between the equal power group and the unequal power groups on identification, liking, perceptions of outgroup members' use of matrix strategies, and behavioural measures. But only ingroup identification measures appeared to be associated with ascribed power differences. This effect was not observed on any other perceptual or evaluative dimensions. Thus, little support was found for Doise's category differentiation theory even though, as in Cole and Bourhis (1988), subjects strongly identified with their gender group. In line with hypothesis 1, the power of group members had a stronger impact on subjects' perceptions, feelings, and behaviour than did the sex of subjects or the fact that ingroup and outgroup members shared a category membership based on sex.

In summary, the findings of the present study clearly and consistently support the tenets of Social Identity Theory. Results also indicate that other perspectives are not entirely without merit. No doubt, the topic of sex and power is multifaceted and complex. Not only should these variables be examined and interpreted within the context of an opposite-sex study but the matter of sex, power, and group relations should be investigated in a setting in which these variables occur naturally.

CHAPTER FOUR

The Effect of Power on the Intergroup Behaviour

of Male and Female Undergraduates as Members of Opposite-Sex Groups

Several reviewers of the social psychology literature on male-female relations have pointed to the need to investigate these relations from an intergroup perspective (Del Boca & Ashmore, 1986; Deaux, 1985; Williams & Giles, 1978). They emphasize that the dynamics of relations between men and women and the role that power differentials play should be studied using an intergroup perspective. As indicated by the survey findings in chapter two (Cole & Bourhis, 1988), power differentials of men and women are important to male and female undergraduates. The findings of the same-sex power study (Cole & Bourhis, 1990), presented in the previous chapter, further demonstrate that power has consistent effects on strength of ingroup identification, quality of social identity, and the behaviour of males and females as group members.

The present study is a further step in examining the intergroup behaviour of men and women and the role of power using Social Identity Theory as a theoretical framework. More specifically, the purpose of this study was to investigate the effects of power on the behaviour of male and female undergraduates as members of opposite-sex groups.⁵ As in the same-sex study (chapter 3), a variant of the Minimal

⁵ The use of the term 'opposite-sex' is not meant to imply that men and women have opposite characteristics psychologically or in any other manner. It simply refers to the fact that there are two sexes, male and female, and in this sense, one is typically, either one or the other.

Group Paradigm was used. Note, however, that the conditions of this study are not entirely 'minimal'. Contrary to the usual conditions of the Minimal Group Paradigm, subjects were categorized into opposite-sex groups which do have a history of relations. As well, by virtue of their sex category, subjects in this study could visually identify members of their own group and members of the other group. All other conditions of the Minimal Group Paradigm, however, were met. The main dependent measure was subjects' allocations of course credits to ingroup and outgroup members. Also included in the study was an extensive series of identification and intergroup perception measures as in the postsession questionnaire of the same-sex study.

The first perspective to be investigated, as in the same-sex power study, is structural in orientation. From this perspective, the relative power of the ingroup and the outgroup is a key component in the prediction of intergroup behaviour (Giles, Bourhis, & Taylor, 1977; Ng, 1980, 1982; Sachdev & Bourhis, 1985; Tajfel, 1982a). In particular, because power enables group members to actualize their motivations to achieve a positive social identity, increases in group power should lead to concomitant increases in discrimination against outgroup members (Ng, 1980, 1982; Sachdev & Bourhis, 1985). Furthermore, group members without usable power should not discriminate - regardless of their sex or the sex of the outgroup. From a structural perspective, it is power, as a sociostructural variable, that is important to the prediction of behaviour, not sex. The results of the present opposite-sex study will be compared to those obtained in the mixed-sex power study by Sachdev and Bourhis (1985) in

which sex was not salient as a categorization cue in the intergroup setting and to those obtained in the same-sex power study (chapter 3).

The findings obtained in the same-sex power study largely supported a structuralist view of intergroup behaviour. It was primarily group power that affected group members' behaviour. Group members with power generally discriminated against outgroup members; group members without power, did not. Thus as predicted by Ng (1982) and demonstrated by Sachdev and Bourhis (1985), power can be conceptualized as a tool by which group members are enabled to ameliorate the quality of their social identity. Without power, group members are deprived of improving the quality of their social identity through discrimination.

The amount of power group members had also affected their perceptions and feelings about their group membership and the intergroup setting. Within the experimental setting, dominant and equal power group members had a more positive social identity than did subordinate group members as they felt more comfortable, happy, satisfied, and liked being members of their own group more than did group members with comparatively less power. Furthermore, group power was important to undergraduates as dominant groups were perceived to have greater status than equal or subordinate groups. The perceived status of equal power groups was significantly greater than that of subordinate groups. Consistent with these perceptions of status of the power groups, members of dominant, equal, and subordinate groups preferred to be ascribed substantially more power for their own group than for the outgroup if the experiment were run again. In addition, and consistent with other Minimal Group

Paradigm studies, the usual social categorization effect was obtained as male and female group members liked their own group members more than they liked members of the outgroup - irrespective of the amount of power that group members had.

The findings of the same-sex power study contradicted Williams' (1984) notion that the sex of individuals is central to the ways in which they attempt to improve the quality of their social identity. As a whole, intergroup behaviours and feelings in the same-sex study did not vary between the sexes, even though male and female subjects did have different sex-role ideologies and identified strongly with their gender group. Sharing gender group membership across experimentally imposed group boundaries had only a minimal effect on levels of discrimination observed in the study. Even in this context in which ingroup and outgroup members were of the same sex, the social categorization effect on the liking measure was still obtained.

Despite evidence to the contrary in the context of same-sex groups in chapter three, Williams' (1984) notion was used as a basis for the second perspective examined in the context of opposite-sex groups. Williams (1984) suggested that SIT does not take into account the unique ways in which men and women ameliorate their social identity. She claimed that men, socialized in Western society, are more competitive and therefore more agentic in orientation than women. To the degree that discrimination is a social competition strategy, men would thus be expected to discriminate against outgroup members in order to improve or maintain the quality of their social identity. Women, on the other hand, according to Williams, are more concerned with between and within group affiliations because they have been

socialized to achieve a more communal orientation. Therefore, women would be expected to be more 'fair' and less discriminatory than men. This second perspective emphasizes sex as a major factor in the prediction of intergroup behaviour. In contrast to this view, the first perspective, emphasizes the role of power.

Also as part of this second perspective, recall from chapter two that Doise (1980) pointed out that it is imperative to assess the subjective representations of subjects who participate in a laboratory experiment. He asserted that the way in which subjects perceive their social environment will have an effect on their behaviour within the laboratory setting. Consequently, although power differentials between women and men can be defined, it was important to monitor how male and female undergraduates perceive the power relations between men and women as group members in a variety of settings.

This was one purpose of the survey study in chapter two. Generally, the following was found. First, both male and female undergraduates perceived men to have more power and status in society in general, in the workforce, and in the university setting. Second, female undergraduates felt that the present power of the male and female group is less legitimate than did male subjects. Third, undergraduates perceived these power differentials to be unstable in that men are losing power and women are gaining. Fourth, male undergraduates felt more threatened by these changes than did female undergraduates and female undergraduates tended to feel more strongly about the legitimacy of these changes in favour of women as a group than did male undergraduates. Fifth, although there was no difference in

how much the respondents themselves desired and valued power, undergraduates perceived power to be a more valued dimension of comparison for the male group than for the female group. These findings suggest that power relations between the sexes are important to male and female undergraduates. Importantly, undergraduates' perceptions and feelings about power and status differentials outside the laboratory were a matter of investigation themselves.

In view of the importance of power relations between women and men to undergraduates, it is possible that 'real-life' power differentials between the sexes would have a greater impact on subjects' behaviour than the temporary, experimental power manipulations imposed on male and female group members in the laboratory. Accordingly, male group members might be perceived as the dominant group regardless of the power ascribed to them in the experiment. From this same line of reasoning, female group members might be perceived as subordinate even if they were ascribed absolute, high, or equal power in the study.

Further to this second perspective, Holmes and Grant (1979) argued that "threat is potentially a motivational force which causes derogation of and hostility toward an outgroup" (Grant, 1992, p. 349). In turn, Holmes and Grant (1979) proposed that perceived threat is probably influenced by the relative power of the ingroup and the outgroup. In a recent laboratory study, Grant (1992) illustrated the relationship between threat and intergroup behaviour. He demonstrated that perceived threat to social identity and to valued resources increases ethnocentrism. More specifically, after discussing an issue, group members summarized their group's position on a

summary sheet. Threat from an outgroup was manipulated by providing false feedback to group members by reading a summary sheet from an outgroup that either supported (i.e., low threat) or refuted (i.e., high threat) their group's position (i.e., their values and beliefs). A group's values and beliefs were assumed to be closely related to group members' social identity. Accordingly, this condition assessed the effect of threat to social identity. Measures of ethnocentrism were evaluations of ingroup and outgroup members along a sex-role stereotype scale and an attitude scale on personality traits. Grant (1992) found that members in the high threat group differentiated themselves from outgroup members on all of these measures of ethnocentrism more than did members of the low threat group. Members of the high threat group also reported to like outgroup members less than did members of the low threat group.

These effects were also obtained in another condition in which subjects were told that their ratings of ingroup and outgroup members' summary sheets would be a factor in determining how much pay ingroup and outgroup members would receive for participating in the experiment. Thus, this condition investigated the effect of threat to valued resources. Threat to valued resources also increased differentiation between ingroup and outgroup members. Recall from chapter two that male undergraduates felt more threatened by the perceived changes in the power and status positions of the male and female group than did female undergraduates. In conjunction with Grant's (1992) finding that perceived threat increases intergroup differentiation, male group members, in the present study, could be more discriminatory than female group

members if the effects of changes in 'real-life' power ascriptions have a greater impact on intergroup behaviour than do the experimental manipulations of power. Although the present experimental setting was designed to be stable, it is nevertheless conceivable that feelings of threat on the part of male subjects could enter into an intersex setting in which the groups are differentiated in terms of power.

Also in line with this second perspective, when in the presence of the other sex, men and women are more inclined towards stereotypical behaviour than when in the presence of persons of the same sex (Fleischer & Chertkoff, 1986; Lockheed & Hall, 1976; Ruble & Higgins, 1976). In an intersex context, men tend to be more assertive and dominant; while women tend to be more submissive and subordinate. Others have noted that such stereotypical behaviour is observed only when the task or topic of discussion is masculine or sex-neutral (Dovidio et al, 1988a; Dovidio et al, 1988b). Conceivably, if men are perceived to be more dominant, and women, more subordinate, male subjects in this study, would be expected to behave as dominant group members and female group members, as subordinate group members. In Sachdev and Bourhis (1985), dominant group members, having more power, were more discriminatory than were subordinate group members. Similarly, dominant group members were more discriminatory than powerless group members as detailed in chapter three. As a consequence, because women are perceived to have some power but less than that of men (Cole & Bourhis, 1988, chapter 2), men would be expected to be more discriminatory and, women, more parity-oriented.

Considered together, the second hypothesis for this study, is founded on three bases: i) Williams' (1984) prediction that men and women ameliorate their social identity in different ways, ii) a greater effect of 'real-life' changes in ascriptions of power of men and women as group members than of the experimentally imposed manipulations of power, and iii) the notion that men and women behave in a more stereotypical manner in the presence of the other sex.

As an alternate, third perspective, Huston and Ashmore (1986) pointed out, in their review of the literature on heterosexual relationships, that attraction to the opposite sex has a significant effect on how women and men perceive and feel about each other. In particular, "men are highly attracted to beautiful women" (p. 189). They also noted that men perceive more sexual context in social interactions than do women. Physical attractiveness, however, is also important to women as they, too, are drawn to attractive partners (Berscheid, 1985). Huston and Ashmore (1986) further suggest that "individuals, ...the immediate interpersonal context..., and the broader societal context are all interconnected" (p. 203). In other words, variables involved in the dynamics of relations occurring at an interindividual level, such as interpersonal attraction, can enter into and play a role in intergroup behaviour. Note, however, that Tajfel (1978) cautioned against automatically extrapolating the relationship between variables at the interindividual level to the intergroup level. He asserted that researchers must make intergroup processes and behaviour a matter of investigation. It is nevertheless possible that if attraction to the opposite sex plays a role in interindividual behaviour, it might also play a role in an intergroup context - especially

in light of the fact that group members in this study can identify which subjects are in their own and other group. If this were so, we could expect subjects in the present study to be less discriminatory against opposite-sex outgroup members than were subjects in the mixed-sex power study by Sachdev and Bourhis (1985).

To summarize, the three hypotheses are as follows:

1) According to hypothesis 1, and consistent with the results of the same-sex power study, power within the present intergroup context, in contrast to sex, is viewed as the most important variable affecting intergroup behaviour.

Therefore, the results of the behavioural and perceptual measures are expected to replicate those of the mixed-sex power studies. In particular, group members with power would discriminate whereas group members without power would not. Also, dominant group members would have a more positive social identity with respect to their power group membership than would subordinate group members. The usual social categorization effect would also be expected in that subjects would like members of their own group more than they would like members of the outgroup.

2) Following Williams (1984), male subjects, being more agentic, would be expected to discriminate more against outgroup members than would female subjects. Conversely, female subjects would be expected to be more parity-oriented and less discriminatory given their communal orientation. According to survey findings in chapter two (Cole & Bourhis, 1988), 'real-life'

categorizations and power ascriptions may have a greater impact on intergroup behaviour than the *ad hoc* power ascriptions. Survey findings showed that undergraduates perceive men, as a group, to have more power than women, as a group, in a variety of settings, including the University campus.

Consequently, in this study, male group members would be perceived as the dominant group - irrespective of how much power they would be ascribed within the context of the laboratory. For the same reason, female group members would be perceived as the subordinate group - across experimental power manipulations. In line with Sachdev and Bourhis (1985), this argument implies that because male subjects would be perceived as having more power, they would be expected to discriminate more against outgroup members than would female group members who would be perceived as having less power. In addition, female group members, being perceived and behaving as subordinate group members, would be expected to display more parity toward outgroup male members than male group members would display toward them. As well, according to Grant (1992), male group members would be more discriminatory than would female group members in light of their feelings of threat about the relative changes in the power of men and women in society (chapter 2; Cole & Bourhis, 1988).

3) According to Huston and Ashmore (1986), one could expect an effect of attraction to opposite-sex group members as individuals. Therefore, compared

to subjects in the mixed-sex power study, male and female group members who, as individuals, may be sexually attracted to members of the outgroup, would be expected to be less discriminatory against opposite-sex outgroup members.

A variant of the Minimal Group Paradigm was used to investigate the effect of power and sex on the intergroup behaviour of males and females as members of opposite-sex groups.

Method

Subjects. Subjects were 165 male and 176 female students enrolled in an introductory psychology course. Subjects took part in the experiment for partial fulfillment of a course credit. All subjects were Canadian and had English as their first language. The mean age for both males and females was 19.80 years (for males: $sd = 2.78$; for females: $sd = 3.38$).

Design. Subjects were run in group sessions consisting of 10 to 15 male and 10 to 15 female subjects per session. Five levels of power crossed with sex yielded a 5 X 2 design. For each session, subjects were categorized into opposite-sex groups of unequal or equal power. One of the following three intergroup situations was determined randomly for each session until each group had 30 to 40 subjects: i) absolute (100%) power group vs. a powerless (0%) no power group, ii) a high (70%) power group vs. a low (30%) power group, or iii) two equal (50%) power groups.

Procedure. Because research has shown that the sex of the experimenter can have a differential impact on men's and women's behaviour (Eagly & Carli, 1981), the

sex of the main experimenter was male as for the same-sex and the mixed-sex power study. As in the same-sex study, the assistant was a female experimenter (myself). Subjects were recruited for the study in the same manner in which they were recruited for the same-sex study. The procedure, also, was the same as that in the same-sex power study, except that individuals were categorized into opposite-sex groups.

An English-speaking male experimenter introduced himself to the group and proceeded to deliver the instructional set which was similar to that in the same-sex study. However, in this study, subjects were told that in order to divide them into two groups for the experiment, for convenience, they would be categorized on the basis of their sex. Thus, females would be in one group, e.g., group W; whereas males in the room would belong to the other group, e.g., group X.

Dependent Measures

Credit distributions. As in the same-sex study, credits were distributed by subjects to ingroup and outgroup others through use of the Tajfel matrices (Bourhis & Sachdev, 1986; Bourhis et al., 1993) and the 100-point zero-sum task.

Postsession questionnaire. The postsession questionnaire was the same as in the same-sex study (see Appendix D). Subjects responded to questions on 7-point Likert scales with '1' indicating 'not at all' and '7' indicating 'very much'.

Results

Analyses of Course Credit Distributions

4.1 Within treatment analyses. Table 4.1 presents subjects' distributions of course credits through use of the Tajfel matrices and the 100-point zero-sum task.

TABLE 4.1

**DISTRIBUTION OF COURSE CREDITS BY
OPPOSITE-SEX GROUP MEMBERS**

Mean "Pulls" of Matrix Distribution Strategies:

		POWER OF OPPOSITE-SEX GROUPS											
		0%		30%		50%		70%		100%		Overall Means	
Matrix													
Distribution		M	F	M	F	M	F	M	F	M	F	M	F
Strategies		(n=34)	(n=30)	(n=33)	(n=39)	(n=35)	(n=39)	(n=32)	(n=30)	(n=31)	(n=38)		
P on FAV		5.62*	7.17*	5.70*	8.31*	6.40*	6.72*	6.59*	6.90*	6.35*	6.47*	6.13	7.11
FAV on P		-0.85 <i>a</i>	-1.63	0.79 <i>b</i>	1.38	1.49 <i>b</i>	1.74 [†]	-0.09 <i>b</i>	2.30 [†]	2.61 <i>b</i>	3.58*	0.79	1.47
FAV on MJP		0.00 <i>a</i>	-0.87	2.76 [†] <i>b</i>	0.87	1.11 <i>b</i>	2.10*	0.81 <i>b</i>	2.10 [†]	3.19* <i>b</i>	3.05*	1.57	1.45
MD on MIP & MJP		0.53	0.57	2.67 [†]	1.54 [‡]	0.77	1.26	1.69	2.77*	1.23	2.84 [†]	1.38	1.80
MIP & MJP on MD		2.53 [†]	2.83 [‡]	2.36*	3.03*	1.23	2.44 [†]	2.44*	3.77*	1.55	1.84 [†]	2.02	2.79
MJP on FAV		1.41 [‡]	-1.47	2.64*	0.15	0.20	0.10	0.25	0.10	0.94	0.16	1.09	-0.19
Distribution on 100-Point Zero Sum Task:													
Points to Ingroup Member		51.21 <i>a</i>	44.70	58.79 [†] <i>b</i>	56.0 [‡]	55.31 [‡] <i>b</i>	56.9 [†]	55.0 <i>b</i>	56.50 [†]	62.77* <i>c</i>	64.55*	56.62	55.73
Points to Outgroup Member		48.79	55.30	41.21	44.0	44.69	43.08	45.0	43.50	37.23	35.45	43.38	44.27

* $p < .01$, [†] $p < .02$, [‡] $p < .05$ (Wilcoxon Matched-Pairs Test, 2-tailed) $a < b < c$, $p < .05$ (Newman Keuls Multiple Comparison Test)

Wilcoxon-matched pairs tests were performed on the data for each group to assess the strength of the use of each of the six strategies. An *a priori* criterion of significance was set at .01 to avoid inflation of type I error. For male subjects, the strength of 'pulls' declined in magnitude in the order of P on FAV, MIP + MJP on MD, FAV on MJP, MD on MIP + MJP, MJP on FAV, and FAV on P. For females, the 'pull' scores declined in a similar order: P on FAV, MIP + MJP on MD, MD on MIP + MJP, FAV on P, FAV on MJP, and MJP on FAV. As usual, parity was the strongest strategy.

To test for artifactual dependence between any two 'pull' scores calculated from the same matrix type, correlations were computed between the absolute mean 'pull' scores of each strategy and the standard deviations of the means of the appropriate obverse 'pull'. To avoid inflation of type I error an *a priori* criterion of significance was set at .01. Only one of the six correlations was marginally significant: the absolute mean 'pull' scores of P on FAV were negatively correlated with variations of the means of FAV on P ($r = -.67$), $t(8) = -2.56$, $p < .05$. Therefore, the obverse 'pulls' obtained from the same matrix are not likely artifacts of compressed ranges.

From hypothesis 1, group members - irrespective of their sex - were expected to discriminate as power was predicted to be the main factor influencing intergroup behaviour. Results from low, equal, high, and absolute power female group members supported hypothesis 1. In the equal power condition, female subjects favoured the ingroup by employing FAV on MJP, thus replicating the usual Minimal Group

Paradigm effect. Females with high power used MD on MIP + MJP. They also tended to use the other two strategies FAV on P and FAV on MJP. Female group members with absolute power used two of three discrimination strategies: FAV on P and FAV on MJP. They also tended to use MD on MIP+MJP. Low power female group members tended to employ the MD on MIP + MJP strategy only. In view of these findings, and as in Sachdev and Bourhis (1985), equal, high, and absolute power group members appeared to favour their own group to a greater extent than did subordinate, low power group members. In further support of hypothesis 1, females with no power did not discriminate at all against the male outgroup.

Some support for hypothesis 1 was also found with male subjects. Group power did enable male group members to discriminate as males in the absolute power (100%) group discriminated against female outgroup members by employing FAV on MJP. A differential effect of power was indicated as males with low 30% power tended to employ both FAV on MJP and MD on MIP+MJP. These 'pulls' just missed significance. As observed for female group members, male group members without power did not discriminate at all against the female outgroup. Contrary to hypothesis 1, however, males with equal (50%) and high power (70%) did not display any direct forms of discrimination through use of the Tajfel matrices.

In general, the results obtained for the 100-point zero-sum task demonstrated a similar pattern of behaviour as that observed for the matrices for both male and female group members. (For ease of description, distributions of 55 or greater are assumed to indicate discrimination against the outgroup.) Female and male members of the low

power group tended to discriminate against the outgroup on the zero-sum task as they did on the matrices. Consistent with the matrices, absolute power male and female group members clearly favoured their own group on the zero-sum task. In line with the results on the matrices, males with 70% power did not display discrimination. Also consistent with the findings of the matrices group members without power did not favour their own group at all on the zero-sum task but rather distributed points equally between ingroup and outgroup members. However, female equal power group members who favoured their own group on the matrices only tended to discriminate on the zero-sum task as their distributions in favour of their own group just missed significance. Males with equal power also tended to favour their own group on the zero-sum task. On the matrices, they did not favour their own group at all. Distributions on the zero-sum task by females with 70% power just missed significance. They discriminated against the outgroup on the matrices. By inspection and in partial support of a differential effect of power, absolute power group members appeared to favour their own group more than did no, low, and equal power group members. Importantly, on this distribution measure and according to Ng (1980, 1982) and Sachdev and Bourhis (1985) without power, group members were not able to improve the quality of their social identity through discrimination.

Note also that although males in the high power group did not favour their own group directly on the matrices, they did use a more subtle, indirect form of discrimination by using the MIP + MJP on FAV strategy (Bourhis & Sachdev, 1986). Because high power males did not use the MJP strategy when it was pitted against

FAV, a significant 'pull' for MIP + MJP indicates that subjects were mainly favouring their own group by choosing an option which also gives both group members a maximum number of combined points. This argument applies as well to low power male and female group members with 30% power.

By inspection, results of the within treatment analyses do not appear to support hypothesis 2. Male subjects, proposed as being more agentic in orientation, did not seem to be more discriminatory than female subjects. Male subjects did not seem to use their power more than did female subjects. On the contrary, male group members with equal and high power generally did not tend to discriminate against female outgroup members. This suggests that, in contrast to hypothesis 2, female subjects may have displayed more discriminatory behaviour against their respective outgroups than did male subjects. However, the pattern of the employment of discrimination strategies lends some support for hypothesis 3. Male subjects may indeed have been attracted to female members of the opposite-sex outgroup group as members with 50% power only tended to give more points to their own group than to the outgroup on the zero-sum task and 70% power group members did not discriminate at all against female outgroup members. To further test the three hypotheses, between treatment analyses were performed on the data.

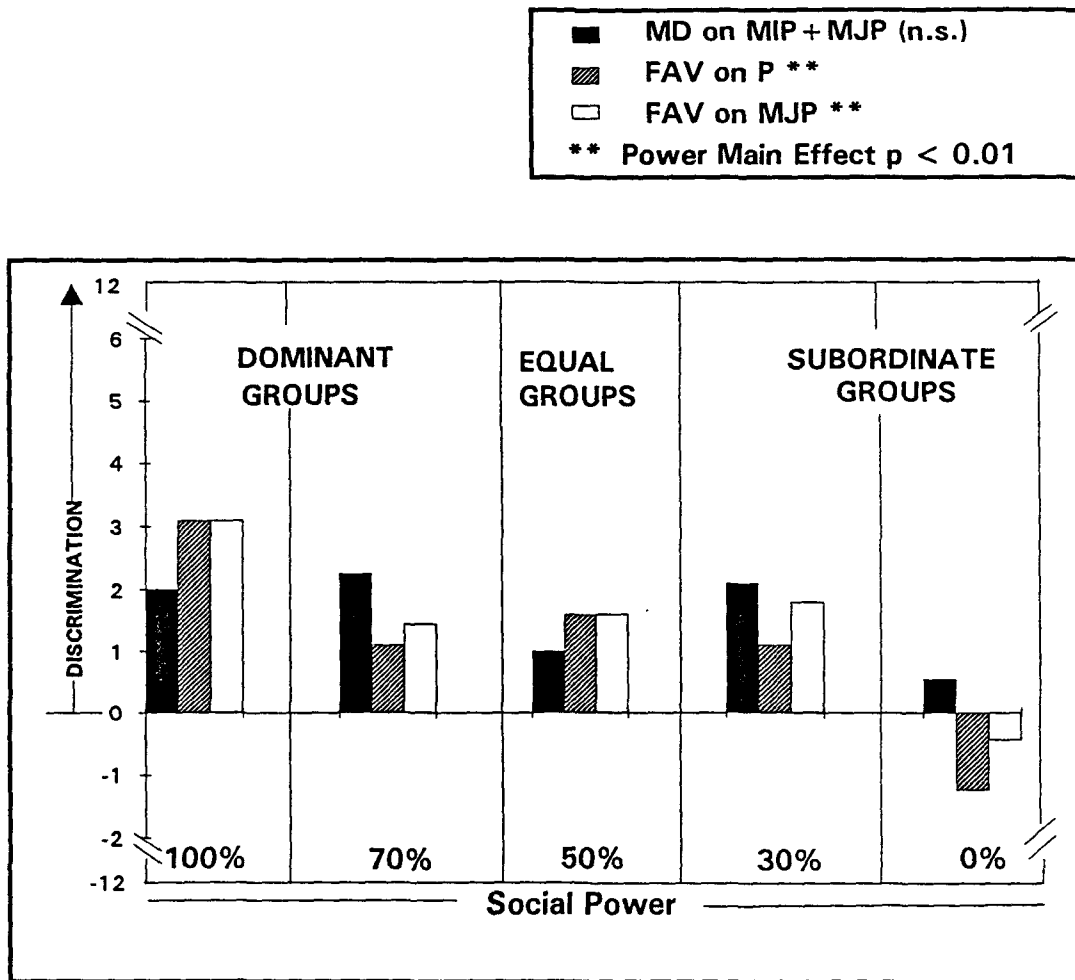
4.2 Between treatment analyses. A power (five levels) by sex multivariate analysis of variance (MANOVA) was performed on the data of 'pull' scores from the Tajfel matrices. In this analysis, a MANOVA tests whether the allocation of credits (i.e., 'pull' scores) measured by the Tajfel matrices, varied as a function of differential

power and/or the sex of subjects while adjusting for intercorrelations among the dependent variables (Tabachnick & Fidell, 1983).

The overall MANOVA revealed a main effect for power, $F(24,1138) = 1.74$, $p < .02$, and sex, $F(6,326) = 3.31$, $p < .01$. No multivariate interaction of power and sex was obtained, $F(24,1138) = 0.86$, ns. Univariate analyses ($\alpha' = .008$ obtained by a Bonferroni correction factor) indicated that the power main effect was due to two discrimination measures: the mean 'pulls' of FAV on MJP, $F(4,331) = 4.29$, $p < .003$, and FAV on P, $F(4,331) = 5.33$, $p < .0005$. The multivariate sex main effect was due to a univariate effect of MJP on FAV, $F(1,331) = 9.58$, $p < .003$.

Subsequent Newman Keuls multiple comparison tests were performed separately on each of the two discrimination measures contributing to the overall power effect (i.e., FAV on P and FAV on MJP). (For ease of description of the between treatment analyses on these measures, positive 'pulls' above a value of one are assumed to indicate discrimination against the outgroup.) As illustrated in Table 4.1, results showed that on both of these measures, members of the low, equal, high, and absolute power groups displayed equivalent to each other but greater levels of discrimination than did members of the no power group who did not discriminate at all in their resource allocations (all p 's $< .05$). Thus, low power group members, but not the powerless 0% power group tended to be just as discriminatory as were equal and dominant group members (see Figure 4.1).

In addition, a univariate main effect of power was obtained from a power by sex (5 X 2) ANOVA on the zero-sum allocations, $F(4,331) = 6.48$, $p < .0001$. A



Ingroup:	64	56	56	57	48
Outgroup:	36	44	44	43	52

Distribution of 100 points

Figure 4.1 Combined means of distributions of course credits by males and females as members of opposite-sex groups: Mean 'pulls' of discrimination strategies (i.e., MD on MIP + MJP, FAV on P, and FAV on MJP) and allocations made on the 100-point zero-sum task.

subsequent Newman Keuls analysis ($p < .05$) on the 100-point zero-sum task distributions demonstrated that not only were the means for the low, equal, high, and absolute power groups significantly higher than that for the no power group but absolute power group members were found to favour their own group more than low and equal power group members. This ANOVA revealed neither a sex effect, $F(1,331) = .21$, ns, nor a power by sex interaction, $F(4,331) = .70$, ns. These results, in part, support hypothesis 1 (see Figure 4.1).

No support was found for hypothesis 2. Males were not more discriminatory than female subjects. Also, female subjects were not more parity-oriented than male subjects. The only dependent measure that contributed to the overall sex main effect was the 'pull' scores of MJP on FAV. This finding indicated that, contrary to hypothesis 2, male subjects used this prosocial strategy more than did female subjects. Recall that significant use of this strategy indicates that group members chose options that gave members of both groups a substantial proportion of points. In other words, while male subjects ($M = 1.09$) allocated large proportions of credits to both ingroup and outgroup members, female subjects did not employ this strategy at all ($M = -0.19$). In partial support of hypothesis 3, these findings could be expected if male group members were attracted to members of the opposite-sex outgroup. However, MANOVA results indicated no consistent pattern of support for this hypothesis as no other univariate sex effects were obtained for any of the other strategies.

To further test hypothesis 3, separate analyses were performed across the mixed-, same-, and opposite-sex power studies on the grand mean 'pull' scores of each

of the three discrimination strategies of the Tajfel matrices (these analyses were partly presented in chapter 3). (The mixed-sex study did not include the 100-point zero-sum task as a dependent measure.) An *a priori* criterion of significance was set at .01 to avoid inflation of type I error. This allowed for the comparison of the grand means for the levels of discrimination in the Sachdev and Bourhis (1985) study in which sex was not salient to decisions about the outgroup with the two laboratory studies in the present thesis in which sex was a factor in the design. Significant effects were obtained for all three discrimination measures: i) FAV on MJP, $F(2,884) = 5.16$, $p < .01$, ii) FAV on P, $F(2,884) = 7.29$, $p < .01$, and iii) MD on MIP + MJP, $F(2,884) = 4.84$, $p < .01$. In Table 4.2 the grand means of 'pull' scores for each of the three ingroup favouritism strategies for subjects in the mixed-, same-, and opposite-sex studies are presented. Results from subsequent Newman Keuls analyses supported hypothesis 3: compared to the mixed-sex study, the levels of discrimination on all three discrimination strategies were significantly less in the opposite-sex study (FAV on MJP and FAV on P, $p < .01$; MD on MIP + MJP, $p < .05$). These findings clearly indicate that group members in the opposite-sex study may have been attracted to opposite-sex members of the outgroup, showing less discrimination than did group members in the mixed-sex power study in which the ingroup and the outgroup were not differentiated on the basis of sex. In addition, following the significant univariate analyses performed on the data for the three studies, these same Newman Keuls analyses also demonstrated that on two discrimination measures (i.e., FAV on P and FAV on MJP, p 's $< .05$), the overall levels of discrimination displayed by subjects in

TABLE 4.2 **COMPARISON OF GRAND MEAN "PULLS" OF**
INGROUP FAVOURITISM
FOR MIXED-SEX, SAME-SEX, OPPOSITE-SEX POWER STUDIES

Ingroup Favouritism Strategy	Overall Means of Power Studies		
	Mixed Sex (N=200)	Same Sex (N=346)	Oppos. Sex (N=341)
FAV on P	2.96 ^b	2.10 ^d	1.14 ^{ac}
FAV on MJP	2.86 ^b	2.39 ^d	1.51 ^{ac}
MD on MIP & MJP	3.00 ^d	1.79 ^c	1.59 ^c

$a < b$, $p < .01$

(Newman Keuls Multiple Comparison Test)

$c < d$, $p < .05$

the opposite-sex study were less than those demonstrated by subjects in the same-sex study. However, to evaluate whether attraction to the opposite sex was a plausible explanation for these differences in levels of discrimination, measures of the postsession questionnaire must be considered.

Analyses of the Postsession Questionnaire

Several MANOVA's were performed on the data of the postsession questionnaire. Univariate analyses followed significant multivariate effects. Also, Newman Keuls multiple comparison tests (all p 's < .05, unless otherwise stated) were performed on the data when univariate analyses indicated a difference between more than two means. Results will be presented in a similar format as those of the same-sex power study in the previous chapter. For multivariate, univariate, and *post hoc* comparison tests, an experiment-wise alpha was set at .05. For univariate analyses following MANOVA's, however, as a more conservative criterion, only probabilities below alpha' are designated as 'significant'. Those between alpha and alpha' are 'marginally significant'. Significant multivariate and significant and marginally significant univariate analyses that contribute to a significant multivariate effect and for which Newman Keuls analysis indicates a difference between the means are reported.

4.3 Gender items. Because of the manner in which subjects were recruited and due to the large sample sizes of the survey, same-sex, and the present opposite-sex study, it is highly likely that this sample and those of the survey (chapter 2) and the same-sex laboratory study (chapter 3) were drawn from the same population. To

substantiate this assumption, identical items were included in the questionnaires for the three studies. The postsession questionnaire for both laboratory studies was the same.

Five items about the degree of identification with own and other sex, perceptions of the power and status of the male and female group, and feelings of legitimacy of these positions were included in a power (5 levels) by sex by target sex repeated measure (5 X 2 X 2) MANOVA (see section 4.1 in Appendix F; for univariate analyses, $\alpha' = .007$). (Two other items pertained to feelings of satisfaction about the power and status positions of the male and female group. These items were included for exploratory reasons only and therefore the results for these items are presented in sections 4.2a & 4.2b in Appendix F.) Analyses revealed multivariate main effects for sex, $F(7,325) = 7.43, p < .0001$, target sex, $F(7,325) = 73.80, p < .0001$, and significant multivariate interactions for power and target sex, $F(28,1173) = 1.62, p < .025$, sex and target sex, $F(7,325) = 79.87, p < .0001$, and power, sex, and target sex, $F(28, 1173) = 2.07, p < .001$. The means for the degree to which subjects identified with their own sex are presented in Table 4.3. As indicated, both male and female subjects strongly identified with their own gender group (grand $M = 6.16$). Although subjects did identify to some degree with the opposite sex (grand $M = 3.60$) a univariate sex by target sex interaction and a subsequent Newman Keuls test showed that subjects identified much more strongly with their own gender group, $F(1,331) = 494.39, p < .0001$. A marginally significant univariate effect of sex obtained for this item, $F(1,331) = 6.37, p < .02$, indicated that, overall, female subjects tended to report stronger feelings of identification ($M = 5.01$) than did male subjects ($M = 4.74$).

TABLE 4.3

**SUBJECTS' IDENTIFICATION AND FEELINGS
ABOUT THEIR GENDER GROUP MEMBERSHIP**

	Male Subjects (n=165)	Female Subjects (n=176)	Sex Main Effect F (df= 1,331)
Identification with own Gender Group:			
Single-item measure (7 - point scale)	6.13*	6.19	ns
Brown et al. scale (Range 10 to 50)	41.95	42.60	ns
Feelings about Gender Group Membership (7-point scale):			
Positive	6.55	6.51	ns
Secure	6.46	6.23	3.84 (p < .06)
Happy	6.51	6.52	ns
Liking being a member of own gender group	6.56	6.56	ns
Sex-role Ideology (AWS)			
(Range 0 to 75)	54.90	62.00	55.55 (p < .0001)
Classification of self as "Feminist"			
(7-point scale)	2.94	4.27	37.43 (p < .0001)

* The higher the mean on the 7-point scale, the higher the score on the item.

Univariate analyses also revealed a main effect for target sex for four items: a) perceptions of the power of the male and female group, $F(1,331) = 475.89, p < .0001$, b) perceptions of the status of the male and female group, $F(1,331) = 254.13, p < .0001$, c) feelings of legitimacy of the power positions of the male and female group, $F(1,331) = 39.05, p < .0001$, and d) feelings of legitimacy of the status positions of the male and female group, $F(1,331) = 60.04, p < .0001$. The means for subjects' perceptions and feelings of legitimacy of the power of the male and female group are presented in Table 4.4. Subjects perceived the male group to have more power (combined $M = 5.76$) than the female group (combined $M = 4.15$) and more status (combined $M = 5.70$) than the female group (combined $M = 4.47$). As well, subjects felt that the present positions of the power and status of the female group (power: $M = 3.65$; status: $M = 3.94$) were less legitimate than those of the male group (power: $M = 4.07$; status: $M = 4.48$). Furthermore, a main effect for sex was obtained for feelings of legitimacy of the status of the male and female group, $F(1,331) = 19.19, p < .0001$. A marginal effect for sex was obtained for feelings of legitimacy of the power of the male and female group, $F(1,331) = 10.01, p < .01$. Female subjects felt that the present status position ($M = 3.88$) and tended to feel that the power position ($M = 3.61$) of the gender groups were less legitimate than did male subjects (status: $M = 4.56$; power: $M = 4.13$). It appears that female subjects felt more strongly about the discrepancies in status and tended to feel more strongly about the power discrepancies between the sexes than did male subjects.

TABLE 4.4 **SUBJECT'S PERCEPTIONS AND FEELINGS**
OF LEGITIMACY OF THE POWER OF THE MALE AND
FEMALE GROUP IN SOCIETY

	Male Subjects (n = 165)	Female Subjects (n = 176)	Sex Main Effect F (df = 1,331)	Target Sex Main Effect F (df = 1,331)
Perceptions of <u>Power</u> of:				
Male Group	5.76	5.74	ns	475.89 (p < .0001)
Female Group	4.00	4.30		
Feelings of <u>Legitimacy</u> of the Power Positions of:				
Male Group	4.41	3.77	10.01 (p < .01)	39.05 (p < .0001)
Female Group	3.84	3.46		

Only a marginally significant univariate interaction effect of sex by target sex was obtained for perceptions of power of the gender groups, $F(1,331) = 4.64$, $p < .05$ and for feelings of legitimacy of the status of the gender groups, $F(1,331) = 4.83$, $p < .05$. Follow-up Newman Keuls analyses showed that both male and female subjects tended to report the highest estimates of power for the male group (combined $M = 5.75$). Female subjects tended to report a lower estimate of power for the female group ($M = 4.30$) whereas male subjects tended to report an even lower estimate of power for the female group ($M = 4.00$). Multiple comparison analysis on the status item showed that the highest rating for legitimacy tended to be reported for the status of the male group by male subjects ($M = 4.92$). In contrast, the lowest rating of legitimacy tended to be reported by female subjects for the present status of the female group ($M = 3.70$). Ratings of the legitimacy of the status of the male group by female subjects and ratings of the legitimacy of the status of the female group by male subjects were equivalent (combined $M = 4.24$). Marginally significant interactions of power by sex by target sex were obtained for degree of identification, $F(4,331) = 3.27$, $p < .05$, legitimacy of the power, $F(4,331) = 3.34$, $p < .05$, and the status, $F(4,331) = 3.18$, $p < .05$, of the gender groups. The meaning of these marginally significant effects, however, is unclear. Overall, findings were similar to those obtained for both the survey and the same-sex laboratory study.

Seventeen items were included in a power by sex (5 X 2) MANOVA (see section 4.3 in Appendix F; for univariate analyses, $\alpha' = .003$). Analyses revealed multivariate main effects for power, $F(68,1238) = 4.71$, $p < .0001$, and sex, $F(17, 315) =$

5.76, $p < .0001$, and a significant multivariate interaction of power and sex, $F(68,1238) = 1.53$, $p < .01$. Seven of these items referred to feelings and perceptions about subjects' gender group membership and are presented in Table 4.3. The following findings were consistent with those of the same-sex and survey study. First, consistent with the single-item measure of gender group identification, results of responses for the identity scale adopted from Brown et al. (1986) showed that male and female subjects identified strongly with their respective gender group (combined $M = 42.28$). The Cronbach alpha for the identity scale by Brown et al. (1986) was .69 and thus, the inter-item reliability was satisfactory. Second, subjects also felt highly positive (combined $M = 6.53$), secure (combined $M = 6.34$), and happy (combined $M = 6.52$) about their respective gender-group membership. As well, both male and female subjects very much liked being members of their respective gender group (combined $M = 6.56$). Third, univariate analyses on the AWS item demonstrated that female subjects were more liberal in their attitudes toward the role of women in society ($M = 62.00$) than were male subjects ($M = 54.90$). The Cronbach alpha for AWS for this sample of subjects was .85. Finally, female subjects also thought of themselves as 'feminists' to a greater degree ($M = 4.27$) than did male subjects ($M = 2.94$). These results show that the male and female subjects who took part in this study do have different beliefs and ideologies concerning sex-roles in society.

4.4 Manipulation Checks. Eight items referring to subjects' feelings about their power group membership and to the power manipulations were included in this same power by sex (5 X 2) MANOVA (see section 4.3 in Appendix F). Analyses

demonstrated that our power manipulations were successful. Univariate analyses revealed that an item referring to feelings of legitimacy of the power distribution between the groups in each condition, $F(4,331) = 18.20$, $p < .0001$, contributed to the multivariate main effect of power. As would be expected, members of the equal power groups gave significantly higher ratings of legitimacy of the power distribution between the groups ($M = 4.95$) than did group members in the unequal power conditions (pooled $M = 2.80$) (Newman Keuls, $p < .01$). Also, dominant and subordinate group members felt equally strongly about the legitimacy of the ascribed power differentials in the study. When asked how much power they wanted their group to have if the experiment were run again, male and female group members wanted more power for their own group (grand $M = 60\%$) than for the outgroup (grand $M = 40\%$). Group power, then, was valued equally and highly by both male and female members of each of the five experimental groups.

It should also be pointed out that subjects appeared to agree with the manner in which they were allocated into groups, i.e., on the basis of sex (grand $M = 3.82$). Although univariate analysis revealed a marginally significant interaction effect of power and sex for this item, $F(4,331) = 3.42$, $p < .01$, Newman Keuls did not identify the source of this interaction. With respect to the manner in which power was allocated to groups, (i.e., by the toss of a coin), a marginally significant univariate interaction of power and sex and Newman Keuls analysis indicated that male group members with 100% power tended to feel that this method was slightly less legitimate ($M = 3.16$) than did female group members with 100% power ($M = 4.87$), $F(4,331) =$

3.49, $p < .01$. In every other condition, both male and female subjects felt that this method was fairly legitimate (pooled $M = 4.43$).

4.5 Perceptions of control. Ten items were included in a $5 \times 2 \times 2$ MANOVA with two between factors, power and sex, and group as a repeated measure (ingroup/outgroup) (see sections 4.4a & 4.4b in Appendix F; for univariate analyses, $\alpha' = .005$). These items referred to perceptions of control, group status, and self-reports and perceptions of strategies used in the matrices. Analysis revealed significant multivariate effects of power, $F(40,1223) = 4.81$, $p < .0001$, group, $F(10, 332) = 23.23$, $p < .0001$, and multivariate interactions of power and group, $F(40,1223) = 10.20$, $p < .0001$, sex and group, $F(10,322) = 2.40$, $p < .01$, and power and sex and group, $F(40,1223) = 1.61$, $p < .02$.

Contributing to the multivariate repeated measure main effect of group, univariate analysis indicated that subjects correctly perceived themselves to have less control over credits allocated to themselves (grand $M = 2.78$) than to members of the outgroup (grand $M = 4.01$), $F(1,331) = 92.57$, $p < .0001$. Recall that it was emphasized to subjects by the experimenter at the beginning of the study that they would not be allocating resources to themselves. However, a marginally significant interaction of power and group, $F(4,331) = 4.60$, $p < .01$, and a subsequent Newman Keuls test indicated that although no, low, and equal power group members perceived themselves to have more control over credits to outgroup members than to themselves, dominant group members tended to report themselves to have just as much control over credits to themselves as to members of the outgroup (pooled $M = 3.66$). A univariate power

main effect for perceptions of control of outgroup members indicated that subjects perceived that the final distribution of course credits to themselves and to members of the outgroup was closely related to the power of the outgroup, $F(4,331) = 29.14$, $p < .0001$. In line with the experimental manipulations, Newman Keuls analysis showed that subordinate group members gave higher estimates of control to their respective dominant outgroup members (combined $M = 5.25$) than equal and dominant group members estimated for their equal ($M = 4.24$) and subordinate outgroups (estimated control of low power group: $M = 3.65$). Absolute power group members reported the lowest estimates of control over the final distribution of credits on the part of their no power outgroup members ($M = 2.65$). Therefore, in corroboration with other evidence detailed previously, power manipulations were quite successful.

4.6 Perceptions of the intergroup structure. Table 4.5 presents results obtained with the following items: i) items referring to subjects' choice of group membership if the same experiment were to be run again and, ii) estimates of the status of the ingroup and outgroup. These items were also included in this $5 \times 2 \times 2$ MANOVA. Univariate analyses ($\alpha' = .005$) and subsequent Newman Keuls analysis showed that perceptions of group status varied closely with group power. Subjects perceived no and low power groups to have the least amount of status (pooled $M = 2.50$). Equal power group members perceived the ingroup and outgroup to have equal status (combined $M = 3.55$). Compared to equal power group members, dominant group members gave higher estimates of group status to their own groups (combined $M = 4.64$) and low estimates of status to their subordinate outgroups. Subordinate group

TABLE 4.5 **GROUP PREFERENCES AND ESTIMATES OF
STATUS OF POWER GROUPS**

	POWER					Power by
	0%	30%	50%	70%	100%	Group Interaction F
	(n=64)	(n=72)	(n=74)	(n=62)	(n=69)	(df = 4,331)
Perceived Status of:						
Ingroup	2.32 ^a	2.68 ^a	3.56 ^b	4.48 ^c	4.79 ^{cd}	113.69
Outgroup	5.32 ^d	5.08 ^d	3.54 ^b	2.66 ^a	2.32 ^a	(p < .0001)
Group Preference for:						
Ingroup	3.36 ^a	3.56 ^a	5.03 ^{bc}	5.29 ^{bc}	5.06 ^{bc}	25.53
Outgroup	4.57 ^b	4.94 ^c	3.69 ^a	2.86 ^a	3.04 ^a	(p < .0001)

$a < b < c < d$, $p < .05$ (Newman Keuls Multiple Comparison Test)

members ascribed high estimates of status to their dominant outgroups. Absolute power group members ascribed equally high status to their own group as did their no power outgroup (combined $M = 5.20$). A marginally significant univariate effect of group, $F(1,331) = 4.52, p < .05$, indicated that subjects tended to report slightly higher estimates of status for the other group ($M = 3.79$) than for their own group ($M = 3.56$).

A univariate effect of group for the item referring to group preference showed that, overall, subjects preferred to remain a member of their own sex group ($M = 4.46$) than to become a member of the other group ($M = 3.82$) if the experiment were run again, $F(1,331) = 16.18, p = .0001$. This item also contributed to the multivariate interaction of power by group. Subjects' preferences reflected the power ascription of the groups (see Table 4.5). Subordinate group members preferred to belong to the dominant opposite-sex outgroup if the study were run again, while dominant group members preferred to remain members of their own sex dominant groups. Equal power group members preferred to belong to their own sex group. In the same-sex study, group members in the equal power groups did not indicate such a preference for remaining in their group if the experiment were run again.

4.7 Degree of identification with power groups. A power by sex by repeated measure (5 X 2 X 3) MANOVA was performed on three items referring to degree of social identification, and perceptions of own and other group members' liking of group members (see section 4.5 in Appendix F). The repeated measure referred to self, other ingroup members, and to members of the other group. Multivariate analyses revealed

a significant main effect of the repeated measure, $F(6,326) = 22.57$, $p < .0001$, and significant interactions of the repeated measure with power, $F(24,1138) = 2.46$, $p = .0001$, and with sex, $F(6,326) = 3.51$, $p < .01$. One of the items referred to subjects' ingroup identification and their perceptions of ingroup identifications of other group members. These means are presented in Table 4.6. Univariate analyses ($\alpha' = .017$) showed that this particular item contributed to the multivariate repeated measure main effect, $F(2,662) = 33.15$, $p < .0001$, and to the power by repeated measure interaction, $F(8,662) = 5.46$, $p < .0001$. Newman Keuls analyses indicated that, overall, although subjects did identify with their respective power groups ($M = 4.56$), they perceived that other ingroup members would identify even more with their respective own group ($M = 4.99$). Further, subjects perceived that members of the outgroup would identify to an even greater extent with their respective own group ($M = 5.21$). As shown in Table 4.6, the power by repeated measure interaction and a Newman Keuls multiple comparison test of the means for this item demonstrated that this pattern depended on the power of the ingroup as well as the power of the outgroup. First, as the main effect would suggest, no power group members estimated that members of the absolute power (100%) outgroup would have stronger ingroup identifications ($M = 5.58$) than they would themselves or other members of the no power (0%) group (combined $M = 4.38$). Second, low and equal power group members estimated that although other ingroup members would identify just as much with their group as would members of the outgroup (combined $M = 5.16$), they perceived that outgroup members would still identify more with their respective

TABLE 4.6 INGROUP IDENTIFICATION AND ESTIMATES OF OWN GROUP IDENTIFICATION OF OTHER GROUP MEMBERS

Identification	0%		30%		POWER 50%		70%		100%		Overall Mean of Repeated Measure
	M	F	M	F	M	F	M	F	M	F	
Self with Ingroup	4.38 (4.18) ^a	3.97	4.85 (4.64) ^{abc}	4.44	4.17 (4.40) ^{ab}	4.62	4.84 (4.86) ^{bcde}	4.87	4.29 (4.74) ^{bc}	5.18	4.56 ^l
Other Ingroup Member	4.71 (4.59) ^{abc}	4.47	4.94 (5.00) ^{cde}	4.57	5.05 (4.84) ^{bcde}	5.10	5.12 (5.14) ^{cdef}	5.17	5.29 (5.37) ^{ef}	5.45	4.99 ^m
Out Group Members	5.53 (5.58) ^f	5.63	5.18 (5.32) ^{def}	5.46	4.74 (5.02) ^{cde}	5.31	5.47 (5.34) ^{def}	5.20	4.61 (4.80) ^{bcd}	5.00	5.21 ⁿ

$a < b < c < d < e < f$, $p < .05$ (Newman Keuls Multiple Comparison Test)

$l < m < n$, $p < .05$

owngroup than subjects did themselves ($M = 4.64$). Third, high power group members estimated that they, other ingroup members, as well as outgroup members would identify equally with their respective groups (pooled $M = 5.11$). Last, absolute power (100%) group members perceived that outgroup members would identify with their group just as much as they did themselves (combined $M = 4.77$). Other members of the absolute power group, however, were perceived to identify more strongly with the ingroup ($M = 5.37$). Taken together, these results are consistent with those of the same-sex power study and with those obtained by Sachdev and Bourhis (1985) with their mixed-sex groups of differential power.

4.8 Quality of identification with the power group. The means for subjects' feelings about belonging to their respective power groups are presented in Table 4.7. These four measures were included in the power by sex (5×2) MANOVA discussed earlier (see section 4.3 in Appendix F). Univariate analyses ($\alpha' = .003$) indicated that all four items contributed to the multivariate power main effect: a) the degree of comfort, b) satisfaction, c) happiness, and d) the degree of liking associated with being a member of their respective power group. The results of Newman Keuls analyses showed that equal, high, and absolute power group members felt more comfortable (pooled $M = 5.33$), satisfied (pooled $M = 5.20$), happy (pooled $M = 4.99$), and liked being members of their power groups (pooled $M = 5.20$) more than did low and no power group members (satisfaction: combined $M = 2.74$; happiness: combined $M = 2.84$; degree of like: combined $M = 4.06$). Low power group members, however, felt slightly more comfortable with their power group membership ($M = 3.61$) than did

TABLE 4.7 COMBINED MALE AND FEMALE FEELINGS ABOUT
POWER GROUP MEMBERSHIP

	POWER					Power Main
	0%	30%	50%	70%	100%	Effeect F
	(n = 64)	(n = 72)	(n = 74)	(n = 62)	(n = 69)	(df = 4,331)
Comfortable	3.03 ^a	3.61 ^b	5.64 ^c	5.24 ^c	5.12 ^c	30.13 (p < .0001)
Satisfied	2.55 ^a	2.92 ^a	5.30 ^b	5.21 ^b	5.09 ^b	48.94 (p < .0001)
Happy	2.62 ^a	3.06 ^a	5.26 ^b	4.90 ^b	4.80 ^b	40.53 (p < .0001)
Liking being a member of power group	4.05 ^a	4.06 ^a	5.08 ^b	5.31 ^b	5.22 ^b	10.94 (p < .0001)

^a < ^b < ^c, p < .05 (Newman Keuls Multiple Comparison Test)

group members with no power ($M = 3.03$). As in the same-sex study, these findings clearly and consistently illustrate that group power had a differential effect on the quality of subjects' social identity as group members. In general, the more group power, the more positive were group members' social identity.

4.9 Ingroup/outgroup liking. A measure of the social categorization effect is the degree to which subjects like ingroup and outgroup members. The greater the difference between feelings of like for own group members and outgroup members, the greater would be the social categorization effect. Subjects' feelings of liking for group members and estimates of liking of group members by other ingroup and outgroup members are presented in Table 4.8. The item pertaining to subjects' feelings of liking for ingroup and outgroup members was included in the power by sex by group repeated measure ($5 \times 2 \times 2$) MANOVA discussed earlier (see sections 4.4a & 4.4b in Appendix F; for univariate analyses, $\alpha' = .005$). A marginally significant univariate main effect for group, $F(1,331) = 7.78, p < .01$, indicated that subjects tended to like their own group members ($M = 5.12$) more than they liked members of the other group ($M = 4.95$). However, a subsequent Newman Keuls test following a significant interaction of sex by group further revealed that only female subjects demonstrated the social categorization effect: women clearly liked their own female group members ($M = 5.40$) more than they liked male members of the outgroup ($M = 4.93$). In contrast, male subjects reported that they liked female outgroup members just as much as they liked members of their own sex group (combined $M = 4.91$).

TABLE 4.8 **SUBJECTS' ESTIMATES OF LIKING OF GROUP MEMBERS**

	Males (n = 165)	Females (n = 176)	Sex by Repeated Measure Interaction F
Liking of:			
Own Group Members	4.87 ^a	5.40 ^b	17.82 (p < .0001) (df = 1,331)
Other Group Members	4.96 ^a	4.93 ^a	
Estimates of Other Own Group's Members' Liking of:			
Subject	5.05 ^{bc}	5.35 ^d	
Other Own Group Members	4.93 ^b	5.19 ^{cd}	11.13 (p < .0001) (df = 2,662)
Members of the Other Group	4.85 ^b	4.65 ^a	

$a < b < c < d$, $p < .05$ (Newman Keuls Multiple Comparison Test)

Mirroring these findings, a significant interaction of sex with the repeated measure was obtained for subjects' estimates of the degree to which other ingroup members would like them, other ingroup members, and members of the outgroup (see Table 4.8). This item was included in the power by sex by repeated measure (5 X 2 X 3) MANOVA introduced earlier (see section 4.5 in Appendix F; for univariate analyses, $\alpha' = .017$). Specifically, Newman Keuls analysis showed that female subjects thought that other ingroup members would like them and other ingroup members more (combined $M = 5.27$) than they would like members of the outgroup ($M = 4.65$). However, male subjects thought that other male members of their group would like female members of the outgroup just as much as they would like them and members of the male ingroup (pooled $M = 4.94$). Overall, the univariate main effect of the repeated measure on this measure and Newman Keuls analysis showed that subjects perceived that other ingroup members would like them most ($M = 5.20$), other ingroup members almost as much ($M = 5.06$), and outgroup members least ($M = 4.76$), $F(2,662) = 29.47$, $p < .0001$. Evidently, subjects had a bias in favour of self first and second, for other ingroup members on this liking measure.

The same bias toward self and other ingroup members was demonstrated on another item. This item, also included in this 5 X 2 X 3 MANOVA, referred to subjects' perception of outgroup members' liking of group members and it also contributed to the multivariate main effect of the repeated measure. It illustrated subjects' tendency to perceive, and perhaps present, themselves in a positive light. A Newman Keuls test showed that subjects perceived that although members of the

outgroup would like members of their own group more ($M = 5.25$) than they would like members of the subjects' own group, they estimated that outgroup members would like them more ($M = 4.94$) than they would like the other members of the subjects' group ($M = 4.73$), $F(2,662) = 28.85$, $p < .0001$. This latter tendency did not vary according to the sex of subjects.

4.10 Self-reports of matrix strategies used. Five measures enquiring about subjects' use of the matrix strategies were included in the previously mentioned power by sex by group repeated measure ($5 \times 2 \times 2$) MANOVA (see sections 4.4a & 4.4b in Appendix F; for univariate analyses, $\alpha' = .005$). Univariate analyses revealed that all of these measures, but one (i.e., self-report of use of the MJP strategy) and one for which a marginally significant effect was obtained, contributed to the multivariate main effect of group, the repeated measure. These main effects illuminated several tendencies on the part of the subjects. First, subjects felt that they distributed credits more equally ($M = 4.50$) than did members of the outgroup ($M = 3.91$), $F(1,331) = 32.48$, $p < .0001$. Second, they perceived that members of the outgroup displayed more ingroup favouritism ($M = 4.64$) than subjects did themselves ($M = 3.73$), $F(1,331) = 59.73$, $p < .0001$. Note, however, that subjects did claim to show some ingroup favouritism. Third, subjects felt that they were more 'fair' in distributing credits ($M = 4.88$) than were members of the outgroup ($M = 4.13$), $F(1,331) = 66.84$, $p < .0001$. A marginally significant third order interaction, $F(4,331) = 3.40$, $p < .01$, was also obtained for this item. The meaning of this interaction is unclear. A marginally significant effect of group for the outgroup favouritism item, $F(1,331) = 4.66$, $p < .05$,

was qualified by a significant univariate interaction of power by group, $F(4,331) = 7.34, p < .0001$. Newman Keuls analysis showed that although members of the no, low, equal, and high power groups estimated that they displayed just as much outgroup favouritism as did members of the outgroup (pooled $M = 2.83$), as observed in the same-sex study, absolute power group members estimated that no power outgroup members displayed more outgroup favouritism ($M = 3.54$) than they did themselves ($M = 2.24$). A marginally significant third order interaction of power, sex, and group, $F(4,331) = 2.91, p < .05$, was also obtained for this item. The meaning of this interaction, however, is unclear.

A marginally significant interaction effect of power by group and a subsequent Newman Keuls multiple comparison tests tended to show that the tendency to perceive oneself as using more of the parity strategy than outgroup members tended to be dependent on power. Equal ($M = 5.17$) and absolute power group members ($M = 4.32$) tended to perceive that they distributed credits more equally than did members of their respective outgroup (combined $M = 3.86$), $F(4,331) = 3.39, p < .01$. In reality, however, subjects actually used the parity strategy to the same extent. Accordingly, no, low, and high power group members were more accurate in their perceptions of displays of parity: they perceived that outgroup members displayed just as much parity as they did themselves (pooled $M = 4.12$). There was no effect of sex for this item, $F(1,331) = 0.01, ns$.

Second, a significant interaction of power and group obtained for the ingroup favouritism item, showed that only absolute power group members estimated that they

had shown as much ingroup favouritism as did no power outgroup members (combined $M = 3.91$), $F(4,331) = 9.33$, $p < .0001$. Members of the no, low, equal, and high power groups, however, estimated that outgroup members displayed more discrimination (pooled $M = 4.86$) than they did themselves (pooled $M = 3.64$). Recall, however, that according to the between treatment analysis there was no difference in displays of discrimination between low, equal, and high power group members.

Absolute power group members reported the lowest estimate of ingroup favouritism on the part of no power outgroup members. Although not significant, absolute values of the means indicated that no power group members tended to report the highest estimate of ingroup favouritism on the part of the absolute power outgroup members.

In the same-sex study, no power group members did report the highest estimate of ingroup favouritism on the part of their absolute power outgroup members.

Apparently, subjects seemed to associate absolute power with the greatest displays of discrimination.

Taken together, the general implications of these perceptions are clear.

Subjects overestimated their use of prosocial strategies and exaggerated outgroup members' use of the discrimination strategies. Conversely, subjects underestimated their own use of the discrimination strategies and minimized the use of the parity strategy by members of the outgroup. In summary, subjects saw themselves as being more fair than members of the outgroup, while overall, subjects perceived outgroup members to show more discrimination than they did themselves. A similar bias, in favour of self, was indicated by equal and absolute power group members who tended

to perceive that they showed more parity than did members of the outgroup.

Otherwise, subjects perceived that they used this particular strategy just as much as did outgroup members.

With an *a priori* criterion of significance of .01, the positive and highly significant Pearson product-moment correlations between subjects' self-reports and their actual use of the matrix strategies, presented in Table 4.9, showed that subjects have accurate perceptions of their resource distribution strategies. So even though discrimination is a socially undesirable behaviour, subjects nevertheless, acknowledged their use of such strategies as shown by the between treatment analyses. This demonstrates that subjects are conscious of their discriminatory choices when using the Tajfel matrices. This is further evidence of the validity of the Tajfel matrices. Moreover, use of the matrix strategies was generally corroborated by allocation choices made on the 100-point zero-sum task (Bourhis et al, 1993).

4.11 Multiple regression analyses: Basic SIT constructs. As in the same-sex study, to further examine the relationship between power, discrimination, and sociopsychological constructs central to SIT, a number of multiple regression analyses were performed on the data. Separate multiple regression analyses were performed on the data with discrimination strategies on the Tajfel matrices (FAV on MJP, FAV on P, and MD on MIP + MJP) and the 100-point zero-sum task as the dependent, predicted variable. For these analyses, the independent, predictor variables were degree of identification with the power group and four measures of degree of identification with the gender groups (i.e., identification with the male and female

TABLE 4.9 **CORRELATES BETWEEN SELF-REPORTS OF USE**
OF STRATEGIES AND ACTUAL BEHAVIOUR

Matrix Strategy	Correlation	
	Males (n = 165)	Females (n = 176)
Parity: P on FAV	.461**	.484**
Ingroup Favouritism:		
FAV on P	.428**	.449**
FAV on MJP	.506**	.497**
MD on MIP & MJP	.420**	.473**
Maximum Joint Profit:		
MJP on FAV	.173*	.157*

* $p < .001$

(Pearson Product-Moment Correlation)

** $p < .0001$

group, scores on the Brown et al. identification scale, and identification of self as a 'feminist'). For every discrimination strategy, including the zero-sum task, degree of identification with the power group accounted for a significant proportion of the variance in each of the dependent measures for both male and female subjects. For males, degree of identification with the power group accounted for an average of 9% of the variance on the discrimination measures (for FAV on MJP: $t(159) = 4.78$, $p < .0001$; FAV on P: $t(159) = 2.94$, $p < .01$; MD: $t(159) = 3.87$, $p < .001$; zero-sum: $t(159) = 4.18$, $p < .0001$). In contrast, an effect for one measure of identification with the gender groups that just reached significance (the degree to which male subjects identified with the male gender group) accounted for only 2% of the variance on one measure of discrimination (i.e., 100-point zero-sum task, $t(159) = -2.09$, $p < .05$). For female subjects, the degree of identification with the power group was the only measure to account for a significant proportion of the variance: an average of 9.6% of the variance in the discrimination measures was accounted for by the strength of female subjects' power group identification (for FAV on MJP: $t(170) = 4.52$, $p < .0001$; FAV on P: $t(170) = 4.00$, $p = .0001$; MD: $t(170) = 3.66$, $p < .001$; zero-sum: $t(170) = 5.30$, $p < .0001$). Therefore, greater ingroup identification was associated with greater discrimination.

It was also of theoretical interest to explore what measures contributed to variations in the quality of group members' social identity. The quality of subjects' social identity was included in multiple regression analyses as the dependent measure. The quality of identification measure included feelings of comfort, satisfaction, and

happiness about subjects' power group membership as well as degree of like for being a member of their power group. The amount of power *per se* ascribed to groups were included along with the discrimination strategies as independent variables. Group power alone accounted for a significant proportion of the variance in group members' feelings about their power group membership: 25% for males, $t(159) = 7.38$, $p < .0001$, and 16.5% for females, $t(170) = 6.13$, $p < .0001$. Thus, the more power group members had, the more positive was their social identity.

Discussion

Consistent with the same-sex power study, analyses of the distribution measures clearly supported hypothesis 1: power did affect intergroup behaviour. First, females in the equal power group favoured their own group members in the distribution of course credits, thus replicating the usual Minimal Group effect (Table 4.1). High power females and absolute power males and females also discriminated against the outgroup. Second, there was evidence of a differential effect of power: male and female group members with absolute power favoured their own group more than did members of the no, low, and equal power group members on the 100-point zero-sum task (between treatment analyses; Table 4.1). Third, as in the same-sex power study, group members without power did not discriminate at all against dominant outgroup members. Therefore, in support of the structuralist view, power was an important variable in the prediction of intergroup behaviour. These findings further substantiate Ng's (1980, 1982) proposal that power plays a pivotal role in intergroup relations. The results of the present study corroborate conclusions made by

Sachdev and Bourhis (1985) that "without power categorization does not lead to effective discrimination" (p. 415) and "power seems to be a necessary condition for effective discrimination" (p. 432).

The results of the postsession questionnaire also support hypothesis 1 and are largely consistent with the same-sex study. According to SIT, identification with the ingroup is essential for any displays of ingroup bias (Tajfel & Turner, 1986). Subjects in the present study, did identify with their *ad hoc* power groups (Table 4.6).

Members of the high and absolute power groups identified even more with their respective groups than did members of the no power group. Group members with power (i.e., low, equal, high, and absolute) identified equally with their respective groups. It should be pointed out, however, that although to a lesser extent than high and absolute power group members, even members of the no power group identified with their group. Their ratings of identification were no different than those given by members of the low or equal power groups.

A differential effect of power, however, was observed for the quality of subjects' group identification. Overall, equal, high, and absolute power group members felt more comfortable, satisfied, and happy about their power group membership than did subordinate group members (Table 4.7). Dominant and equal power group members also liked being members of their respective power groups more than did subordinate group members. These findings are consistent with group members' feelings about their power group membership in the same-sex power study and in the mixed-sex study conducted by Sachdev and Bourhis (1985).

No evidence was found for hypothesis 2 regarding sex differences on the distribution measures. Male subjects were not more discriminatory than female subjects (Table 4.1). Female subjects were not more parity-oriented than male subjects. In fact, males used the maximum joint profit strategy more than females did which along with parity, has been labelled a 'prosocial' strategy (Bourhis & Sachdev, 1986, p. 8). Given Williams' (1984) notion that women, being more communal, would be more concerned with between group affiliations, one would expect women to have made greater use of these prosocial social strategies. Furthermore, 'real-life' power ascriptions did not have a greater effect on subjects than did the *ad hoc* experimental power manipulations. Males, in spite of their more powerful position in society and on campus and their reported feelings of threat about the changes in the relative power of men and women (Cole & Bourhis, 1988), did not discriminate against outgroup members more than did females.

Neither was any support found for hypothesis 2 on the postsession questionnaire items. For example, a sex difference might have been expected for measures of self-reports of strategies used, according to hypothesis 2. If women are more communal than men, and men are more agentic, findings of the self-reports should have reflected these differences in orientation. Besides, the significant correlations between the actual behavioural measures and the self-reports of strategies used illustrate that subjects are fairly accurate about their use of behavioural strategies. In line with the behavioural measures, female subjects did not perceive themselves to be more 'fair' or to use parity or maximum joint profit more than males did (4.10).

Likewise, male subjects did not report favouring their ingroup more than did female subjects. Furthermore, contrary to the predictions of hypothesis 2, there was no sex difference in feelings of legitimacy of the power distribution between the ingroup and the outgroup (4.4) as was indicated by subjects on measures of perception of the male and female positions of power in society in the survey, same-sex, and the present opposite-sex study (Table 4.4).

Some support for a weaker version of hypothesis 3 was obtained. Although subjects in the opposite-sex study did favour their own group members, they nevertheless displayed less discrimination on all three discrimination strategies than did a comparable group of subjects divided into mixed-sex power groups (Table 4.2). Moreover, when compared to the same-sex power study (chapter 3), subjects in this study showed less discrimination on two of three discrimination strategies, FAV on P and FAV on MJP. The implication is that the sex of the outgroup has an attenuating effect on the degree of discrimination displayed by subjects. If we consider the findings of the mixed-sex power study by Sachdev and Bourhis (1985) to represent the baseline of the effect of power on intergroup behaviour, then the sex composition of the outgroup, when it is opposite to that of ingroup members, has a greater effect on the attenuation of discrimination than when ingroup members share gender group affiliation with members of the outgroup. Therefore, Doise's (1978) cross category effect does not have as strong an impact as does opposite-sex attraction. Although subjects still discriminated against members of the outgroup in both studies, they did

so to a lesser extent when members of the outgroup were opposite in sex than when they shared gender group membership with outgroup members.

Some additional support for hypothesis 3 was observed from the within treatment analyses: males with 50% and 70% power did not even tend to employ any of the discrimination strategies of the Tajfel matrices against female outgroup members (Table 4.1). (Recall that low power male and female group members tended to discriminate on both the matrices and the zero-sum task; for males this trend just missed significance. Reflective of their low power, even mixed-sex group members with 30% power displayed minimal levels of discrimination (Sachdev & Bourhis, 1985).) Consistent with these observations, the between treatment analyses showed that male group members used the maximum joint profit strategy more than did female group members (4.2). Conceivably, if group members felt attraction toward members of the outgroup they could be expected to employ prosocial strategies which benefit members of both groups. Maximum joint profit was displayed by male group members with 30% power.

Kahn, Nelson, and Gaeddert (1980) observed a similar tendency for men to allocate rewards equally between themselves and women. They investigated the effect of sex of subject on the allocation of rewards after individual subjects had worked together on a task of predicting the success of students in college on the basis of high-school academic indicators. Subjects were made to believe that some members of the group contributed more than others to the solving of the task. An equality norm of justice is indicated by an equal distribution of awards to group members, regardless of

how much each member contributes to the group effort. Equity is demonstrated when awards are allocated on the basis of each member's contribution to the final product of the group. They found that, in general, women distributed money on the basis of equality and men distributed money on the basis of the equity principle but that these sex differences were dependent on the strength of situational demands. The investigators claimed that sex differences were most likely when situational demands were weak. They observed that only males altered their allocations as a function of the sex of the low-input member of the group. Male subjects were more likely to distribute rewards equally when the low-input person was a female; however when the low-input person was a male, male subjects distributed according to the norm of equity.

Kahn et al. (1980) suggest that male subjects reacted to the sex of the low-input person more strongly than did female subjects because "the norm of male chivalry toward 'helpless' women becomes salient to male but not to female subjects" (p. 741). In this study, then, chivalry may partly explain the use of maximum joint profit and account for why males with 50% and 70% power did not favour their ingroup as is typically observed by subjects in a Minimal Group Paradigm setting. Consistent with this notion, in the conditions in which males clearly did not favour their own group, members of the female outgroup either had equal or less power than did the male members of the group.

With this in mind, however, and according to Kahn et al. (1980), males with 100% power should have used the maximum joint profit strategy and should not have

discriminated against the outgroup as the females in the outgroup were most 'helpless' having absolutely no power within the experimental setting. On the contrary, males with absolute power discriminated against powerless females on the Tajfel matrices as well as on the 100-point zero-sum distribution task (Table 4.1). Recall that, in the same-sex study and compared to the other group members, group members without power reported the highest estimate of discrimination on the part of their absolute power outgroup members. By inspection, this trend was evident in the present study as well. Consequently, absolute power may not only be perceived to be associated with strong displays of discrimination, but may, itself, lead to strong displays of discrimination. According to this argument, absolute power would have overridden the effects of the 'norm of male chivalry'. Possibly, absolute power does corrupt absolutely?

Another possible explanation for the behaviour of males in the equal and high power groups can be surmised from a study by Wagner, Lampen and Syllwasschy (1986). They gave a group of law students the opportunity to devalue a group of medical students (the second outgroup) after they had been made to believe that they, as a group, had compared negatively with students of economics (the first outgroup) on discussion ability. Contrary to their prediction, although these law students had devalued their own ability to discuss relative to a control group who had not been evaluated negatively or positively on discussion ability, they did not devalue the ability of medical students to discuss. Wagner et al. suggested that, "it might have been socially undesirable to devalue other students in an experiment. Perhaps the

strategy of devaluing out-groups to bolster one's social identity is taken extensively only when it coincides with a certain degree of acceptance of out-group devaluation in society" (p. 22).

If this explanation were applied to this opposite-sex power study, perhaps equal and high power males felt that it was inappropriate or unacceptable to discriminate against female outgroup members. It is true that society frowns upon discrimination against various groups. Ultimately, however, the explanation of men's purported tendency to be chivalrous toward women or society's condemnation of discrimination against women does not apparently extend to a setting in which women as a group have greater power. Society prescribes nothing about discriminating against a more powerful (70%) female group as men with 30% power tended to do. Interestingly, when group members have absolute power, neither liking for outgroup members nor society's mores against discrimination seem sufficient to prevent group members from discriminating against the powerless outgroup. It is important to keep in mind, however, that these different patterns of discrimination by male group members were revealed by within treatment analyses only.

Some additional support was found for hypothesis 3 on measures of perceptions of liking in the opposite-sex study. Female subjects liked members of their own group more than they liked members of the male outgroup (Table 4.8). Therefore, consistent with other Minimal Group studies, categorization was sufficient to trigger ingroup identification and more liking for ingroup members than for outgroup members. But unlike any other Minimal Group Paradigm study in our

laboratory (e.g., same-sex power study, Sachdev & Bourhis, 1984, 1985, 1987, 1991), members of the male group liked female members of the outgroup just as much as they liked members of their own sex group. Thus, the hitherto robust social categorization effect, as measured by ingroup/outgroup liking, was not obtained with males when outgroup members were female. This pattern was mirrored by subjects' perceptions of how other own group members would like members of the outgroup. Males thought that other males in their group would also like female outgroup members just as much as they would like members of their own male group. Females, consistent with their own group liking, perceived that females in their group would like members of their own group more than they would like male members of the outgroup.

Herein lies a plausible explanation for the ambivalent pattern of discrimination shown by male group members *vis a vis* female outgroup members. Simply put, male group members with 50% and 70% power may not have discriminated against female outgroup members with 50% and 30% power, respectively, because they liked female outgroup members just as much as they liked their own male group members. These feelings were strong enough to override the experimentally imposed categorization which, in the past, has reliably and consistently been sufficient to trigger greater ingroup than outgroup liking. Note, however, that males across the design liked female outgroup members as much as they liked their own male group members. But only male group members in the equal and high power groups did not even tend to discriminate on the matrices. Therefore, the unique finding obtained on the liking

measure is not entirely consistent with the pattern of discrimination displayed by males across the design. Interestingly, defining prejudice in terms of liking, not only may prejudice not always lead to discrimination (Sachdev & Bourhis, 1985), but discrimination may occur without being accompanied by prejudice.

In further corroboration of the difference in intergroup liking and discrimination by males and females, a similar effect of sex on liking of group members was reported by Hogg and Turner (1987). In their group condition, two males and two females discussed particular issues. Subjects were told that men and women typically differ in their opinions on these issues and that their speech styles were being observed. Hogg and Turner (1987) found that male subjects liked members of the opposite-sex outgroup significantly more than female subjects liked male members of the outgroup. Also, it was interesting to observe that compared to a condition in which subjects were put into same-sex dyads to discuss, males in the group condition did not favour their own group in the distribution of points when members of the outgroup were made up of females. In same-sex dyads, however, they did favour their own group. Females in the group condition, as in the present study, favoured their own sex group members, when members of the outgroup were male. Contrary to the same-sex power study results, however, females in same-sex dyads showed outgroup favouritism.

Hogg and Turner (1987) concluded that the expression of discrimination by females and the absence of such an orientation by males can be explained by "the sociocultural context of intersex relations" (p. 336). They claimed that males did not

favour their own group because they "feel in a position of relatively stable and legitimate higher status and prestige" (p.336). In essence, they suggested that male subjects, in an intersex context, already have an adequate self-esteem and therefore do not have a need to attempt to ameliorate it by discriminating. However, in the present opposite-sex study, no sex differences were observed for perceptions or feelings about power group membership between any of the power group members (4.4; 4.5; 4.6; Table 4.5). The feelings subjects had about their power group membership did not differ according to sex of subject - as one would expect if power ascriptions to the 'real-life' groups contributed to the positiveness of group members' social identity within the experimental setting. Furthermore, female subjects felt just as positive, secure, and happy about their gender group membership as did male subjects (Table 4.3). They also liked being members of their gender group as much as did male subjects.

In a study by Marshall & Heslin (1975) a similar effect of sex was obtained on measures of liking. Subjects in either same- or mixed-sex groups worked together with other group members to complete a task that involved combining phrases into paragraphs. The investigators manipulated the size of the experimental room (large vs. small) as well as the density of each experimental condition (uncrowded vs. crowded). There was no outgroup in this study: all subjects, within each experimental condition, were members of one group. On reports of liking of group members, they found that male subjects liked small groups to a greater extent than did female subjects when group members were made up of both males and females. Also, compared to being in

same-sex groups, male subjects liked large groups when in mixed-sex groups. For females, however, liking of group members was dependent upon other variables, such as group size and crowdedness. When in mixed-sex groups, both males and females liked the other group members more when crowded than when uncrowded. Marshall and Heslin (1975) surmised that females are more sensitive to environmental cues than men and that men are simply more positively affected by the opposite sex than are women. In the present opposite-sex study, however, there was no evidence to suggest a difference between male and female subjects in their sensitivity to experimental manipulations.

However, as suggested by Marshall and Heslin (1975), support has been found for the notion that men are more easily physically attracted to women than women are to men. Recent reviewers of heterosexual relationships (Huston & Ashmore 1986; Huston & Levinger, 1978; Peplau & Gordon, 1986) have concluded that men put a greater emphasis on physical or sexual attractiveness than women. In a study by Hudson and Henze (1969), a sample of college students from the United States and Canada were asked to list in order of importance a number of personal characteristics. They observed that men (n=133) ranked 'good looks' as 11th of 18 important personal characteristics in mate selection; whereas, women (n=229) ranked 'good looks' as 17th out of 18. Although Hudson and Henze (1969) did not statistically analyze these results, the findings clearly indicate that 'good looks' is more important to men than it is to women. In another study (Kephart, 1967) which investigated the romantic orientations of 1079 white college students, twice as many men reported to be "very

easily attracted" (p. 472) to the opposite sex than did women. In this opposite-sex study, it is likely that the finding that men liked women in the outgroup just as much as they liked male members of their own group stems from their attraction to opposite-sex members of the outgroup.

Overall, power had an effect on intergroup behaviour and on the perceptions of feelings of group members in the present study. Sex of subjects, in contrast, had minimal effects. Attraction to outgroup members by males, however, overrode only one bias measure: group liking. On other measures of bias, males as well as females, reported to want more power for their own group than the outgroup if the experiment were run again (4.4).

In particular to group members with no power, although they did not favour their own group by using any of the obvious ingroup favouritism strategies, they did show ingroup bias in a number of other ways. First, they, too, preferred more power than the outgroup if the experiment were run again. Second, females with no power reported to like members of their own group more than members of the male outgroup (Table 4.8). These females also perceived that members of their own group would like ingroup members more than they would like male outgroup members. Third, both male and female members with no power tended to employ a matrix strategy which allowed them to give a maximum number of credits to their own group while simultaneously giving maximum credits to both groups (i.e., MIP + MJP) (Table 4.1). These members, however, reported to want to be members of the dominant outgroup if the experiment were run again (Table 4.5). Even so, although not expressed in the

form of discrimination on the matrices, these group members were able to find alternative avenues for improving the quality of their social identity. These attempts by both male and female no power group members demonstrate their motivation to attain a more positive social identity through positive psychological differentiation.

As in chapter three, to further investigate basic tenets of SIT, multiple regression analyses were performed to investigate the relationship between degree of ingroup identification and discrimination, and the relationship between group power, discrimination and quality of social identity. Taken together, the pattern of results for the relationship between degree of identification and discrimination, and group power and the quality of identification were the same as those obtained in the same-sex power study. As predicted by SIT, the amount of discrimination displayed by subjects was positively related to the degree to which subjects identified with their power group. Moreover, and also consistent with SIT, social comparisons made by subjects on the power dimension, did appear to contribute to the quality of group members' social identity. Ingroup power was strongly and positively related to measures of group members' quality of social identity. The more power group members had, the more likely they were to report a more positive social identity. Therefore, findings of both laboratory studies of the thesis clearly support fundamental tenets of SIT.

The general finding that power had a greater influence on behaviour than sex, corroborates other studies in which individualistic power was manipulated. Dovidio et al. (1988a) manipulated power of person in opposite-sex dyads. Results demonstrated that both male and female undergraduates who were ascribed high power, displayed

more dominant visual behaviour, such as looking at the person while speaking to them, than did subjects low in power. However, in non-sex-typed, neutral situations in which no information about power of persons was provided, male subjects displayed more dominant visual patterns than their female partners.

Likewise, in another study, Dovidio et al. (1988b) varied the power of person (i.e., expertise power) in opposite-sex dyads and observed the effect of individualistic power on verbal and nonverbal behaviour. In general, male undergraduates showed more dominant verbal behaviour (e.g., initiation of speech and amount of speech) and nonverbal behaviour (e.g., looking while speaking) when discussing a masculine topic (i.e., oil changing) than their opposite-sex partners. In turn, female undergraduates displayed more dominant verbal and nonverbal behaviour when discussing a feminine topic (i.e., sewing). However, when subjects discussed a non-gender-linked topic, males were more dominant. The authors concluded that both power and sex, with greater emphasis on power, affect verbal and nonverbal displays of dominance. Similarly, other studies have demonstrated that the sex composition of the group (Aries, Gold & Weigel, 1983; Kahn, Nelson & Gaeddert, 1980) and the sex of the partners in a dyad (Fleischer & Chertkoff, 1986) also have an influence on the behaviour of men and women. Generally, men behave more dominantly than women in mixed-sex groups or dyads. In contrast, women tend to behave more dominantly in same-sex groups and dyads than in mixed-sex. There is some evidence, however, to suggest that even in mixed-sex groups, 'very bright', motivated women may not defer power to 'very bright', motivated men (Aries, 1982).

In conclusion, the findings of the same-sex study and the present opposite-sex power study demonstrate that Social Identity Theory is applicable to the intergroup behaviour, perceptions, and feelings of men and women. These laboratory studies are a response to calls by Williams and Giles (1978), Deaux (1984), and Ashmore and Del Boca (1986) to apply a theoretical framework to the intergroup behaviour of men and women as group members. Sociopsychological processes and their role in behaviour have been illustrated within the context of the structural hierarchy of power. Essentially, male and female undergraduates respond similarly to the imposed social categorization and power manipulations in the laboratory. In general, a number of consistent findings were obtained:

- 1) Power, as theorized, enabled male and female group members to actualize their motivations to ameliorate their social identity through discrimination. Group members with power generally used their power to discriminate against outgroup members. Without usable power, powerless group members did not discriminate against outgroup members at all.
- 2) Degree of identification with the ingroup contributed more to displays of discrimination than did identification with the gender group.
- 3) Through the process of social comparison, group power contributed positively to the quality of group members' social identity.

- 4) In general, regardless of the power that group members had, social categorization was sufficient to trigger more liking for ingroup than for outgroup members.
- 5) Power for the ingroup was a valued and important dimension of comparison on which group members desired to attain ascendancy.

Thus, in the context of same- and opposite-sex group members with differential power, intergroup behaviour can be understood by considering the interplay of sociopsychological constructs outlined in articulations of SIT along with the sociostructural constraints that define the group setting. With minimal effects of sex, social categorization, social comparison, social identity, and psychological differentiation interact with power to produce unique effects, similar for both men and women.

The field study discussed in the following chapter is a complementary study conducted in a 'real-life' setting in which the intergroup behaviour of men and women and the effect of power on these relations are investigated. This natural intergroup setting contrasts with the more controlled setting of the laboratory.

CHAPTER FIVE

The Intergroup Behaviour of Male and Female Members of Two Sex-Segregated Teachers' Federations: A Field Study*

The purpose of the field study was to further investigate the intergroup behaviour of men and women and the role of power in a natural setting. The survey study (chapter 2) showed that power and status are important to undergraduates as male and female group members. In addition, although power was perceived to be of value to both the male and the female group, undergraduates thought it was of even more value to the male group than to the female group. The findings of the laboratory studies (chapters 3 & 4) consistently demonstrated that power had a greater effect on the intergroup behaviour of both male and female undergraduates than did their sex. Moreover, power affected both the degree and quality of group members' social identity.

These findings are significant. However, additional aspects of Social Identity Theory relevant to the intergroup behaviour of men and women remain to be explored. For example, according to SIT, several strategies (outlined in chapter 1), both interindividual and intergroup, can be adopted to achieve or maintain a positive social identity. Given the contrived setting of the laboratory (chapters 3 & 4), group members are limited in the range of options to improve the quality of their social

* There is no intention of expressing preference or recommendation for either of the federations discussed in this chapter. The purpose is to comment on the behaviour of federation members within the intergroup setting from the perspective of Social Identity Theory. I sincerely appreciate and thank all teachers who volunteered to participate in this study.

identity. How would individuals who choose to implement individual strategies to ameliorate their social identity differ from those who choose group strategies?

Furthermore, how might group power be related to group members' behaviour and social identity in the richer, more complex setting of the field? These are only some of the issues to be explored in the present study.

In this field study, the intergroup perceptions, feelings, and behaviour of members of two sex-segregated federations of differential power were examined. As with the previous studies, Social Identity Theory was used as the conceptual framework from which to explore these issues. The findings of this study will be compared to those of the survey and laboratory studies to illustrate consistent patterns as well as identify exceptions to or limits of previous findings.

The field study is a classic method in social psychology. As one advantage of using this method, the variables under study are more realistic than those manipulated and measured in the laboratory. In the laboratory, the researcher endeavours to provide an environment that is a simplified reality where important features of everyday life are simulated and controlled. In the field, these variables already exist, naturally. However, while the setting and behaviours are indeed more realistic, control over extraneous variables and the variables under study is diminished. To compensate, at least in part, for this limitation, structured interviews were used in the present study.⁶ Note that the best methodological approach is to ask similar conceptual

⁶ Structured interviews included a set number of questions, worded and presented in such a manner as to minimize influencing subjects' responses. I practised the interview several times to members in the lab to develop an acceptably consistent and unbiased style of presentation. I also conducted a pilot study with three elementary public school teachers to change the wording of any questions that needed to be further clarified and to gain practice interviewing subjects.

questions using a variety of research methods (Alcock, Carment & Sadava, 1991). In this thesis, a triangular approach was taken by implementing survey, laboratory, and field methods. Thus, findings that reflect important social psychological principles can be further substantiated and a broader picture of these psychological processes can be gained.

This chapter includes a brief discussion of the structure of the groups to be studied, an overview of the history of relations between them, an outline of conceptual and empirical issues relevant to the investigation, and the presentation of the field study proper.

The following account has been drawn from a synthesis of the analysis of archival and qualitative material from a variety of sources: i) newspaper articles, ii) internal documents made available to federation members, such as newsletters, iii) attendance to an OPSTF annual conference in 1987, and iv) informal discussions and formal interviews with 'rank and file' and executive members that have remained anonymous.

The Structure of the Intergroup Setting

For the past 50 years, the umbrella organization of the Ontario Teachers' Federation (OTF) has represented five groups of teachers in Ontario: the Federation of Women Teachers' Associations of Ontario (FWTAO), the Ontario Public School Teachers' Federation (OPSTF), the Ontario Secondary School Teachers' Federation (OSSTF), the Ontario English Catholic Teachers' Association (OECTA), and L'Association des Enseignantes et des Enseignants Francophone-Ontariens (AEFO).

The latter three federations represent both male and female teachers. However, in the elementary public school system, women and men are segregated into two separate teachers' federations. Accordingly, male teachers belong to OPSTF and female teachers, to FWTAO. Under Bylaw I of OTF, the assignment of teachers to federations depends on one of three bases: language, religion, or the sex of teachers. Membership is not a matter of personal choice. It is this basis of membership that has become the main bone of contention between the men's and the women's elementary public school teachers' federations. For the purpose of this thesis, it is the relations between FWTAO and OPSTF that are of particular interest.

The Federation of Women Teachers Associations of Ontario (FWTAO) and the Ontario Public School Teachers Federation (OPSTF) represent the only two sex-segregated federations in North America (Marg Tomen, personal communication, August, 1987; Liz Barker, Annual FWTAO Conference, Toronto, April, 1989). Also important to the present investigation, group power differentiates these two federations. Presently, FWTAO has approximately 38,000 members and represents just under 3/4 of the elementary public school teachers. In contrast, the men's federation represents just over 1/4 of the elementary teachers, or approximately 14,600 statutory members. The women's federation, being the numerical majority federation, is generally perceived as the more powerful; the men's federation with less membership, the less powerful. Therefore, appropriate to this study, relations between these groups represent a field setting in which power differentials exist between opposite-sex groups.

Federation power can be described in the following manner. Greater membership translates into greater financial resources from annual membership dues. Greater financial resources, in turn, enable group members to implement more programs and engage in more activities, thereby, being perceived as more powerful. Consistent with this notion of power, one FWTAO executive explains, "FWTAO is perceived as the more powerful federation because it is much more active than OPSTF" (personal communication, June, 1990). In addition to providing services to members, its many activities include initiatives to change the *status quo* of the position of women "in the profession, the province, and the nation" (Staton & Light, 1987, p. 121). Also, as does OPSTF, the women's federation exerts considerable influence with the Provincial government (Cline, 1988).

Note also that power has been defined by Ng (1980, 1982) and Sachdev and Bourhis (1985) as the tool by which group members are enabled to improve or maintain the quality of their social identity - specifically, through displays of ingroup favouritism. In this sense, the women's federation has a greater capacity to implement programs and affect change in favour of women through education and by supporting other organizations financially. Because of these changes, women will compare more favourably than in the past with men in the school system and, ultimately, in society in general (Staton & Light, 1987). From SIT, the change promoted by such efforts reflects motivations to improve the quality of group members' social identity.

As a consequence, although FWTAO and OPSTF have equal voting power on matters of mutual concern under OTF, the greater membership and greater financial

resources of FWTAO suggest that, objectively, FWTAO does have greater power than OPSTF (Hopkins, 1969). Moreover, the women's federation clearly uses this power to fulfill its mandate which is determined by women themselves (Staton & Light, 1987). Therefore, compared to the previous same- and opposite-sex studies in which group members used their power to discriminate against the outgroup, it could be argued that FWTAO uses its power, not against other federations *per se*, but to change the quality of education, the ability for children to make the most of opportunities, and the position of women in the school system and in society at large - to favour their own gender group and other 'disadvantaged' groups (Report of the Board of Directors, FWTAO, 1988-1989; Staton & Light, 1987). From SIT, women of FWTAO are seeking to improve their group's position on various dimensions relative to the outgroup, i.e., men in general and men of OPSTF.

A third group of teachers was also included in the present investigation. These are women teachers who, because of their sex, are statutory members of FWTAO, yet have joined OPSTF as voluntary members. These voluntary members of OPSTF (VOP's) represent an intermediate group of approximately 2,600 members. Voluntary OPSTF members pay just \$25.00 annually for their affiliation with OPSTF yet can receive up to \$100.00 for conference fees each year. Apparently, the men's federation⁷ does not gain much financially, at least in the short term, from the inclusion of voluntary members. Furthermore, contrary to SIT predictions, these women are 'leaving' a more powerful group, FWTAO, to become affiliated with

⁷ Although women can become affiliated with OPSTF, under OTF, only male teachers can become statutory members. It is in this sense that OPSTF is referred to as 'the men's federation.'

OPSTF, a subordinate group. The capacity of OPSTF to attract women teachers to its ranks attests to the influence of OPSTF as a men's federation within OTF. In contrast to the men's federation, the women's federation has a standard policy that does not permit men to become members, in any capacity, of their women-only federation. A purpose of the present investigation was to identify reasons for these women's voluntary affiliation with OPSTF.

To more fully understand the mandate of each federation as well as the nature of relations between them, the following is a summary of the history of relations between OPSTF and FWTAO and a comparison of their policies and practices.

An Overview of the History of OPSTF and FWTAO

The Women's Federation (FWTAO) was established in 1918. The secondary school teachers' federation (OSSTF) was organized in 1919, and in 1920, the men's federation (OPSTF) was formed. Before the formation of FWTAO, women had no official representation. As individuals, women teachers had to fend for themselves, often, unsuccessfully. Historically, the average female salary was much less than that of her male counterpart (e.g., in 1861, 50% of the male salary in 1910, 48%). Similar to present times, positions of authority within the school system such as school principal and superintendent were predominantly occupied by men (Prentice, 1977; Staton & Light, 1987). Even when women did hold such positions, they received substantially less salary. It was primarily because of these reasons that FWTAO was formed (Cline, 1988).

As well, in some parts of Ontario, female and male teachers were required to board within the premises provided by their employers - what some have described as

a convenient way of monitoring the lifestyle of women teachers (Prentice, 1977; Staton & Light, 1987). Teachers could be dismissed for the least departure from the imposed strict rules of conduct or for refusing to board at a trustee's home. Women teachers were the target of many prejudicial attitudes:

Prejudice was caused by fear of female competition generally, or by the belief that women teachers, by accepting low salaries, degraded the profession and drove out men. It was caused by the genuine belief that women were constitutionally ill-adapted to the public classroom, either because of inferior mental aptitude or training, or more often, because the disciplinary and organizational demands of the public school were too great. Prejudice also arose from the belief that many women did not intend to make a life-time career of teaching. (Prentice, 1977, p. 64)

Male teachers also suffered because of a lack of organization and official representation (Hopkins, 1969; Prentice, 1977). For example, because new teachers received less pay than older more experienced teachers, senior male and female teachers were regularly dismissed only to be replaced by younger teachers freshly out of Normal Schools (the first organized institution to train and certify teachers; Hopkins, 1969). Moreover, two female teachers could be hired for the price of one male teacher. No teacher had any security of tenure (Prentice, 1977). A notice of one month, without reason, was sufficient for dismissal from a school or school board.

However, after the formation of FWTAO, OPSTF, as well as OSSTF, common problems and goals led teachers of the three organizations to work together. For example, due to the difficult years of the Depression in the 1930's, teachers suffered several cuts in pay and job losses. Together, the federations promoted the inauguration of an educational week (Hopkins, 1969). The goal was to enlighten the

general public of the problems teachers were facing and to rally the public to fight against the suppression of educational progress.

This eventually led to the formation of the Ontario Teachers' Federation (OTF) in 1944 which now includes ten board members from each of the five affiliates. Formation of OTF required the organization of AEFO and OECTA which had existed only informally since 1939 and 1943, respectively. The fifty board members vote on matters that affect all five subsidiary federations. Therefore, each affiliate has equal voting power under OTF - but only on matters of common concern. The Board of Governors of OTF hears complaints of teachers and takes any necessary cases to the Ontario Cabinet. Under the Teaching Profession Act of 1944 (i.e., Bill 100) the Ontario Teachers' Federation was officially recognized and represented all the teachers of Ontario (Hopkins, 1969; Staton & Light, 1987). In addition to having one representative body, the five federations could now pay one set of dues as one group under OTF to the Canadian Teachers' Federation.

The history of relations between the men's and the women's federation has indeed been dotted with cooperation. The federations not only combined their efforts to enact the Teaching Profession Act in 1944 but more recently, OPSTF and FWTAO have worked to ensure that the school boards devise a pay equity plan to meet the requirements of the Pay Equity Act passed by the Ontario government in 1987. The thrust of this act centres on the advocacy of equal pay for work of equal value: "FWTAO and OPSTF believe that all elementary teachers comprise a single bargaining unit agent for the purpose of the Pay Equity Act" (Posthaste, FWTAO, No. 19, 1989).

Accordingly, FWTAO and OPSTF claim to represent a joint bargaining unit that stands to be successful in their complaint that pre-degree elementary school teachers (of whom approx. 95% are women) are paid substantially less than pre-degree secondary school teachers (of whom approx. 80% are men) for work of equal value. When comparing maximum annual salaries of the four salary categories for non-degree teachers in the secondary public school system, the difference in favour of secondary teachers is as much as \$16,000 (Posthaste, FWTAO, No. 8, Dec. 1990).

The men of OPSTF aver that their efforts to get school boards to meet the requirements of the Pay Equity Act exemplify their concern for issues particular to women.

The Federation supports many issues of particular concern to women. It was the first OTF affiliate to take a position in support of pay equity by supporting the removal of non-degree categories from the salary grids in collective agreements. The Federation has been an active participant in pay equity forums and in negotiating pay equity plans. (Markle, 1989, p. 32)

Members of FWTAO also claim to be very active in Pay Equity pursuits:

FWTAO has a long history of involvement with pay equity. For more than ten years the federation has been a member organization of the Equal Pay Coalition, contributing staff time (and some money) to the Coalition which has been and is the leading advocacy group for pay equity in Ontario. (Posthaste, FWTAO, No. 11, 1989)

Despite such instances of cooperation, conflict and competition also characterize relations between the two federations (Hopkins, 1969; Staton & Light, 1987). For example, in the mid- to late-1950's, efforts to establish a common salary

scale for men and women teachers were met by strong warnings to the men in

OPSTF:

Do we want to go hand in hand with the women on salaries? Beware of putting up your hands to say 'yes' when you mean 'no'. Do not vote affirmatively here and grumble negatively in the corridor afterwards....we should make up our minds whether we are professional men teachers. School boards are forcing us to discuss salaries in conjunction with women. This should not be so. (Beckett, cf Hopkins, 1969, pp. 208-209)

This quote reflects the general impression of the day that women teachers "naturally expected to leave teaching for matrimony" (Hopkins, 1969, p. 61). It was assumed that entering into an agreement regarding a salary scale with women, would mean that men teachers would have to settle for lower salaries because women's primary interests were presumed to be marriage and child-bearing (Tadman & Redford, cf. Hopkins, 1969).

The eventual establishment of one salary grid has enabled teachers to benefit from one of the highest female/male earnings' ratio in Ontario. According to these scales, teachers - irrespective of their sex - are paid on the basis of experience and education or credentials. In 1987, women teachers earned on average of 78% of men's salary, which was better than the 63% of men's salary earned by women in Canada as a whole (Statistics Canada, 1988). Today, there still exists, however, a discrepancy in the proportion of men and women in positions of added responsibility. Nevertheless, substantial gains have been made in the last ten years: in 1989, 21% of elementary principals and 39% of vice-principals were women (The Status of Women and Affirmative Action, Report to the Legislature by the Minister of Education, 1990).

Swiderski (1988) suggests that there are a number of reasons for these discrepancies in salary and position. Among them are obstacles in the entry, survival, and advancement processes among men and women within the school administration across Ontario. First, entry barriers include sex-role stereotyping, discrimination, and the observation that women teachers themselves generally do not apply for administrative positions. One explanation is that "women have very negative self-perceptions and lack confidence in their qualifications and experience. They have low expectations of success that create genuine psychological barriers" (Swiderski, 1988, p. 26).

Second, obstacles women face in their endeavour to survive in an administrative position largely involve preconceived notions that both men and women have about a female administrator. These ideas are summed up well by the following:

He is aggressive. She is pushy.

He's a stern taskmaster. She's hard to work for.

He is good on details. She's picky.

He worked very hard. She slept her way through grad school.

He loses his temper because he's so involved in his job. She's bitchy.

He gets angry. She is emotional.

He's closed-mouthed. She's secretive.

When he's depressed (or hungover), everyone tiptoes past his office. She's moody, so it must be her time of the month.

He exercises authority diligently. She's power mad.

He follows through. She doesn't know when to quit.

He drinks because of excessive job pressure. She's a lush.

He's confident. She's conceited.

He stands firm. She's hard.

He has good judgment. She has women's intuition.

(Ontario Confederation of Universities and Faculty Associations, 1989, p. 2)

Third, Swiderski (1988) proposes that the main barrier women face in advancing in administrative positions stems from the finding that women's advancement is more dependent on sponsors than men's. They must break into male-dominated spheres where men are the "gatekeepers controlling access" (p. 30).

The women's federation recognizes these problems and since 1980 one of its goals has been to achieve affirmative action policies and programmes in every school board jurisdiction. "FWTAO has maintained, from the beginning...discussions with the Ministry of Education and school boards, that one of the key elements of an affirmative action programme is the development of numerical goals and timetables" (Report of the Board of Directors, FWTAO, 1988-1989, p. 8). Statements by Ministers of Education over the years attest to continued success by FWTAO in fulfilling these expectations:

...school boards should plan to...adopt...the aim of raising the number and diversifying the occupational distribution of women to a minimum of 30 per cent in all occupational categories by the year 2000. (Sean Conway, Minister of Education, 1986, cf Affirmative Action Report, 1987, p. 1)

In the FWTAO Report of the Board of Directors (1988-1989, p. 8), Chris Ward as Minister of Education increased the target for the representation of women from 30% to 50%. However, FWTAO's target "is that women should be represented in positions of additional responsibility in the same percentage which they hold in the teaching force - seventy percent" (p. 10). The men's federation also claims to have "strong policies on equal opportunity, sexual discrimination, affirmative action and sexual harassment" (Messages from McMahon, OPSTF, 1989, p. 3). However,

OPSTF has opposed FWTAO's affirmative action plans because OPSTF is opposed to any quota system (Handbook, OPSTF, 1989-1990, p. 39).

Another conflict between the men's and the women's federation centres on the matter of amalgamation of the two federations. Amalgamation has been debated since the inception of the federations in the early 1920's (Hopkins, 1969; Staton & Light, 1987). More recently, this has likely been the most contentious conflict to develop between the federations since 1962 when OPSTF made its first attempt to amalgamate with FWTAO (Membership Matters, FWTAO Newsletter, No. 1, 1989). The struggle over amalgamation has increased in intensity since Marg Tomen, a voluntary OPSTF member (VOP), filed a complaint with the Ontario Human Rights Commission in August, 1985. Her complaint was that Bylaw I of OTF violates her right to join the federation of her choice. Although Ms. Tomen has full rights as a voluntary member of the men's federation, she also wishes her union dues to go to OPSTF (M. Tomen, personal communication, August, 1987).

Ms. Tomen, a principal in Southern Ontario, also submitted an application to the Supreme Court of Ontario regarding this matter where her case was heard in July of 1986. In 1987, the Court dismissed the application, ruling that the structure of OTF is an internal matter and is therefore not governed by the Canadian Charter of Rights and Freedoms. The men's federation and OSSTF, the mixed-sex secondary school teachers' federation, filed an appeal of the ruling that same year (Membership Matters, FWTAO, No. 4, January, 1990). In 1989, the Ontario Court of Appeal upheld the previous decision unanimously and awarded costs to OTF and FWTAO who were

united in opposition. Upon appeal, the final hearing on the issue of court costs was heard during the Ontario Supreme Court hearings in November, 1991. The ruling confirmed that OPSTF must pay for the costs incurred for the Ontario Supreme Court case decided in the summer of 1987.

Ms. Tomen was joined in her challenge by Linda Logan-Smith who filed a complaint with the Ontario Human Rights Commission in 1988. The court fees of both women are being paid by OPSTF, the men's federation (OPSTF executive member, October, 1990). In the same year, the Minister of Citizenship appointed a Board of Inquiry to look into the complaints of Tomen and Logan-Smith. Dr. D. Baum was appointed chair of the Board of Inquiry. If the Board rules that FWTAO constitutes a special programme under the Ontario Human Rights Code, the present structure of OTF may remain as it is. However, if Dr. Baum concludes otherwise, OTF may be asked to change Bylaw I such that women can become full, paying members of OPSTF.

The policy of OPSTF is aptly stated by one of their public relations representatives: "Our desire is to have one unified elementary group - this is our philosophical direction" (OPSTF executive member, personal communication, February 14th, 1990). The same sentiments were emphasized by a regional president:

The battle to have a united teachers' federation in Ontario has continued on many fronts throughout the 1980's. OPSTF adopted Objective No. 9 in 1983 which set the long term goal of unification of all teachers without affiliates...OPSTF believes that "a teacher is a teacher". Issues that are identified as "women's issues" are, in reality, "family issues." ...Nowhere else in society but in teaching do women operate in isolation. A society in

which all people participate equally would seem to be a basic tenet in 1989. Teachers, because of their influential position in the development of attitudes, should pursue a leadership role in opposing discrimination. Let us begin with our own house. (Lincolnnews, OPSTF, May, 1989)

It is apparently the belief of members of the men's federation that although OPSTF and FWTAO have worked in concert on some issues, "one united group would provide a far more powerful response mechanism..." (Lincolnnews, OPSTF, May, 1989).

Members of the women's federation, however, feel that a mixed-sex union would result in a loss of power and control over concerns particular to women. They maintain the following:

FWTAO was founded to promote and protect the interests of elementary women teachers...Women still need their own organization ...for what there is still to achieve.... OTF speaks on behalf of all Ontario teachers. OTF supports our position. The current structure allows the affiliates to cooperate as a whole while representing the distinct and different needs of their members. FWTAO has always cooperated with OPSTF in areas of mutual interest - salary negotiations for example. We stop short of amalgamation - the interest is not mutual. (Membership Matters, FWTAO, No. 1, 1989)

Evidence from the social psychology literature supports the basic premise of FWTAO's position. In a review of the small group literature, Bartol and Martin (1986) concluded that in mixed-sex leaderless groups, women are inclined to take a passive role and to engage in more socioemotional behaviour rather than instrumental or task behaviours than men (Fleischer & Chertkoff, 1986). In contrast, in same-sex leaderless groups, women tend to be more active in engaging in leadership behaviours.

Tentative speech has been characterized as one form of subordinate, verbal behaviour. In a recent study by Carli (1990), women were observed to speak more tentatively than men in mixed-sex dyads. In same-sex dyads, women and men did not differ in amount of tentative speech exhibited. However, Dovidio et al. (1988a, 1988b) showed that such stereotypic effects are limited to settings in which the experimental task is either 'masculine' or neutral. Dovidio et al. (1988a, 1988b) suggest that social expectations best account for the pattern of findings. On 'masculine' or neutral tasks, men are expected to be more competent and thus display more dominant behaviours than do women; on a 'feminine' task, women behave more dominantly because, about such tasks, they are expected to be more knowledgeable. Note, also, that Aries (1982) found that "very bright, motivated women" do not defer to "very bright, motivated men" (Aries, 1982). However, although Aries (1982) observed no differences between men and women on the verbal behaviour measures in her study, interaction styles and nonverbal behaviours were, nevertheless, more stereotypic in mixed-sex groups.

Men tend to resist the leadership of women in designated-leader settings as well as in unstructured leaderless groups. Women's behaviour, however, seems to perpetuate these patterns: in mixed-sex groups, women are often reluctant to assume leadership positions and if they are in such positions, tend to need to have their leadership position legitimized before engaging in leadership behaviour (Fleischer & Chertkoff, 1986; Nyquist & Spence, 1986). Interestingly, some research suggests that females may be more active in displaying leadership behaviour when they are in the majority within a mixed-sex group (Bartol & Martin, 1986). It should be noted,

however, that although women are in the majority in the teaching profession in the elementary public school system, men have traditionally, and still do, hold the majority of leadership and administrative positions within the elementary school system.

Dimensions of Comparison for FWTAO and OPSTF

The services or activities of a federation are an indication of its priorities. In the Report of the Board of Directors (1988-1989) of FWTAO, the following were some of the headings and subheadings of programmes implemented by the women's federation:

- i) Affirmative Action
- ii) Status (of Women): e.g., workshops on inclusionary language, women's networks, family violence, balancing home and career, and career awareness programmes for female students
(Financial assistance is available to status conveners)
- iii) Professional Growth Programmes: e.g., Conferences, Curriculum Workshop Programme, Summer Short Courses, Co-operative Professional Development Programmes, Computer Literacy Programme, General Leadership Development, Positions of Added Responsibility, and Publications, Curriculum Materials, and Library Services
- iv) Protective Services
- v) Organizational Activities: e.g., New Teachers, Communications, and Political Action
- vi) Professional Assistance: e.g., Awards Programme, Goodwill Programme, Native Educational Assistance, Overseas Scholarships
- vii) The Wider Society: e.g., assistance to hearing impaired students in Niger, funding of a school in Grenada, scholarship for women in developing countries, support to the United Farm Workers and the Canadian Alliance in Solidarity with Native Peoples, and participation in an anti-poverty rally

- viii) Staff
- ix) Statistics

In contrast, the following are the headings and some of the subheadings observed in the booklet, There When It Really Counts <no date>, which is distributed to new male and female members of OPSTF:

- i) Protecting Members' Rights: e.g., legal assistance, personal liability, job protection
- ii) Safeguarding and Improving Members' Economic Welfare: e.g., pensions, educational funding
- iii) Promoting Better Working Conditions: e.g., physical working conditions, personnel policies, research
- iv) Keeping the Members Informed
- v) Enhancing Professional Development: e.g., professional growth opportunities, Kids & Curriculum Conference, Positions of Added Responsibility (PAR) Conference, Principals' and Vice-Principals Council, federation leadership opportunities, leadership training, OPSTF Leadership Course, OPSTF Leadership Academy, International Assistance
- vi) Reaching the Public
- vii) Maintaining a Strong Political Voice
- viii) The OPSTF Family

Taken together, it could be argued that the women's federation differs from the men's in that members of FWTAO are more 'global' in their perspective and focus on issues particular to women and society: they promote social change. For example, in endeavouring to continue the fight against poverty and family violence, FWTAO members believe that any factor that affects a child's overall welfare will ultimately

affect the child's performance in school. Moreover, although the federation offers leadership and professional development programmes, the emphasis of many of these professional development programmes is on the needs and interests of the primary school teacher of whom the vast majority is female. The women's organization explains differences in priorities set by OPSTF and FWTAO in the following manner:

There is a remarkable lack of duplication, largely because the needs of the two groups are quite different, in P.D. [i.e., Professional Development] and publications because grade levels are different; in counselling because of problems of part-time work, maternity leave, family responsibilities; in collective bargaining because women's priorities are often different from men's. (FWTAO Leaflet, Why Do We have Our Own Organization, 1986)

In contrast to the 'global' concerns of the women's federation, the men of OPSTF tend to emphasize more 'specific' programmes and services aimed at protecting their members and developing their administrative, leadership skills. The focus of OPSTF appears to be the maintenance of the *status quo* in the school system. As noted, most of those in administrative positions are men and many of the programmes of the men's federation are designed to hone leadership skills.

Overall, the positions of FWTAO and OPSTF can be compared on the following three dimensions: a) social issues, b) professional development, and c) pay equity. It would appear that FWTAO is more extensively involved in social issues and social change than is OPSTF. In contrast, OPSTF seems to have a variety of professional development programs tailored to the needs of those who are either in or interested in administrative positions. The women's federation does not emphasize such programmes. Thus, OPSTF probably compares favourably with FWTAO on this

dimension of comparison. The relative positions of the federations on the pay equity dimension, however, is more ambiguous. On the one hand, the federations have accomplished much by working together. On the other hand, the beneficiaries of any pay equity plan would be mainly women. Therefore, it could be argued that FWTAO directs more of its resources into negotiating pay equity plans with the school boards because their members have a greater vested interest.

Conceptual and Empirical Issues

Social Identity Theory is applicable to an intergroup analysis of the relations between FWTAO and OPSTF for a number of reasons. First, group members are categorized on the basis of their sex into two distinct federations. As such, an intergroup categorization exists. Furthermore, conflicts of interest and competition clearly exist between FWTAO and OPSTF. From a Realistic Conflict of Interest perspective (Sherif, 1966), the 'amalgamation war' between OPSTF and FWTAO can be viewed as a case in which objective conflicts of interest are at stake. From a Social Identity Theory perspective (Tajfel & Turner, 1986), one can propose that intergroup conflict is a result of social competition over the 'group distinctiveness' of the women only federation that is being challenged not only by male OPSTF members but also by some women who have become voluntary members of the men's federation (i.e., VOP's): as told to FWTAO members in a recent newsletter, "The membership case is really about your right as an FWTAO member to have your own organization" (FWTAO Newsletter, June, 1993, p. 11). Social Identity Theory is

especially relevant to the behaviour of groups in conflict (Tajfel & Turner, 1979, 1986).

Intergroup conflict has important implications for the development of intergroup behaviour:

...the more intense is an intergroup conflict, the more likely it is that the individuals who are members of the opposing groups will behave toward each other as a function of their respective group memberships,...(Tajfel & Turner, 1979, p.34)

Therefore, an increase in the intensity of intergroup conflict tends to increase the extent to which individuals behave as group members. At the same time, the increased intensity of the conflict between the federations may make it even more difficult for group members to leave the group. Tajfel and Turner (1979) describe such intergroup situations as follows:

This is precisely the situation in an intense intergroup conflict of interests, in which it is extremely difficult for an individual to conceive of the possibility of "betraying" his or her opposing group. Although this does happen on occasion, sanctions for such a move are, on the whole, powerful, and the value systems...are in flagrant opposition to it. (pp. 35, 36)

However, despite the pressure to remain in one's group, since 1972 when OPSTF opened its doors to those wishing to attain voluntary membership, about 7% of FWTAO members have become voluntary members with all the rights and privileges of the men's federation except participation in arbitration. Note, however, that under Bylaw I, 'passing' entirely into the men's federation is not permitted under the structure of OTF. These women, who have become voluntary members of OPSTF at a

minimal monetary cost are still statutory members of FWTAO. However, as pointed out by Tajfel and Turner (1979) and Williams and Giles (1978), although the financial cost to these members attaining passage has been minimized by OPSTF, emotional or psychological forms of cost may exist - especially in a conflictive intergroup context.

From SIT, intergroup conflict influences the extent to which individuals behave as group members: the more intense intergroup conflicts are, the more members will act as part of the group. Also, in addition to conflict, the belief system group members have about the permeability of boundaries between groups within an intergroup context affects the degree to which individuals will engage in intergroup or interindividual behaviour to ameliorate the quality of their social identity. These belief systems are represented at opposite ends of a continuum (Tajfel, 1978; Tajfel & Turner, 1979). At the interindividual end of the continuum, is the social mobility belief system. Group members who hold this belief perceive the social structure to have permeable group boundaries. Individuals can freely move from one group or position in a sociostructural hierarchy to another. Acting as individuals, attempts will be made to 'pass' into the group that would contribute more positively to the quality of the individual's social identity.

In contrast, at the other end of the continuum is the social change belief system. Group members who hold this belief perceive the intergroup setting or social structure to be one in which the boundaries between groups are extremely difficult to cross e.g., skin colour, sex, age, or ethnicity. Acting as group members, collective strategies would be implemented to improve their social identity. It should be noted,

however, that the belief system held by members in a society does not necessarily mirror the objective, social reality, or the actual degree of permeability between groups. On the contrary, it is the interaction of the objective relations between the groups and the belief system held by group members that have a combined effect on the extent to which individuals act as group members.

Importantly, identification with the ingroup is essential for group behaviour (Tajfel & Turner, 1986). Moreover, the quality of group members' social identity will be affected by the relative positions of the ingroup and a relevant outgroup on consensually valued dimensions of comparison (chapters 3 & 4). A favourable intergroup comparison leads to a more positive social identity; an unfavourable comparison, to a less positive or negative social identity. Group members are motivated to seek a positive social identity either through individualistic or collective means (Tajfel & Turner, 1986).

In the present context, and in view of FWTAO's superior power position it is intriguing that some women are seeking to 'pass' into a less powerful, minority federation, OPSTF. Thus, in this study, in addition to investigating belief systems and degree and quality of identification with the federations, reasons for VOP's 'passing' behaviour will be explored. As well, perceptions and feelings about the intergroup setting will be examined. For instance, would members of the dominant group discriminate more than subordinate group members? Also, as shown in the laboratory (chapters 3 & 4), would dominant group members have a more positive social identity? In addition, Social Identity Theory is especially appropriate for this natural

setting because it clarifies strategies that group members use to affect change. By examining intergroup relations between FWTAO and OPSTF from the perspective of SIT, the applicability of SIT across intergroup contexts can be explored.

Also pertinent to this intergroup context, items referring to the sex-role ideology and the gender group membership of teachers were included in the interview and postinterview questionnaire. As noted, under Bylaw I of OTF, male elementary public school teachers are members of OPSTF; female teachers, are statutory members of FWTAO. However, VOP's share their female sex category with members of FWTAO only. Possibly, these women identify less with the female gender group and more with the male gender group than do statutory FWTAO members who have not become voluntary members of the men's federation.

Another dependent measure, the resource distribution measure, was subjects' allocations of funds between FWTAO and OPSTF using the Tajfel matrices and the 100-point zero-sum task. Money can be a symbol that defines groups' relative positions on an intergroup hierarchy and thereby contribute to the quality of group members' social identity (Brown, 1978; Turner, 1975). Use of the Tajfel matrices and the zero-sum task allows a direct comparison of the allocation strategies used by dominant and subordinate group members in the laboratory studies (chapters 3 & 4) with those used by groups in this field study.

Given the present field setting in which FWTAO and OPSTF have been described as having differential power, the findings of the previous opposite-sex power study (chapter 4) may be relevant for allocations made on the matrices as well as for

the degree and quality of group members' social identity. Several important findings were obtained. Briefly, power had a greater effect on the intergroup behaviour of male and female undergraduates than did their sex or the sex of members of the outgroup. First, both male and female group members identified with their respective power groups. Second, females with high power (70%) discriminated against the subordinate male outgroup with 30% power. As well, males with 30% power tended to discriminate against the dominant female outgroup. Third, as was the general case for dominant and subordinate group members, members of the dominant female group had a more positive social identity than did their subordinate counterpart. Fourth, female group members displayed the usual social categorization effect reporting to like female ingroup members more than they liked male outgroup members. However, unlike any other Minimal Group Paradigm study in our laboratory, male group members liked female outgroup members just as much as their own male ingroup members. Finally, with respect to gender group membership, both dominant female group members and subordinate male group members strongly identified with their own gender group - as did members of the other groups.

However, the natural intergroup setting of the field is different from the 'minimal' conditions of the laboratory. Most 'real-life' intergroup relations involve minority and majority groups which differ in terms of their relative power and status within the intergroup structure (Giles, Bourhis & Taylor, 1977; Sachdev & Bourhis, 1990). To address this, Sachdev and Bourhis (1991) conducted a laboratory study designed to explore the effects of power and status differentials on the discriminatory

behaviour of minority and majority group members in a stable and legitimate intergroup setting. In this study group power was defined as the degree of control one group has over its own fate and that of outgroup members (Jones, 1972). Following Tajfel and Turner (1986), group status was defined as the relative position of groups on valued dimensions of comparison such as occupational status, wealth, and educational achievement. Minorities and majorities were strictly defined in terms of the relative numerical composition of the groups within the particular intergroup setting.

To investigate the combined effect of power (dominant or subordinate), status (high or low), and group numbers (majority or minority) on intergroup behaviour, Sachdev and Bourhis (1991) used a variant of the Minimal Group Paradigm. Subjects were categorized into eight groups producing a 2 X 2 X 2 experimental design. Subjects were to allocate course credits to ingroup and outgroup members through use of the Tajfel matrices based on their evaluations of the creativity of other ingroup and outgroup members' products. In addition, group members either belonged to a group that had been ostensibly declared to be superior or inferior on the creativity (i.e., status) dimension.

Sachdev and Bourhis (1991) observed that dominant, high status, majority group members favoured their own group in the allocation of course credits. Moreover, subordinate, low status, minority group members were exceptional in showing significant outgroup favouritism, giving more credits to members of the dominant high status, majority outgroup than to members of their own group. In

addition, it was found that members of both of these groups demonstrated significant and strong displays of parity. Results also showed that high status group members felt more comfortable, satisfied, and happy with their group membership than did low status group members. Status ascription contributed directly to the quality of group members' social identity. However, power position was more predictive of actual discriminatory behaviour than was social status. Taken together, several hypotheses can be formulated for the present study.

Hypotheses for OPSTF and FWTAO group members' behaviour and feelings about their federation membership will be presented prior to hypotheses for VOP's.

Hypotheses for FWTAO and OPSTF Members

1) If power is the main factor influencing intergroup behaviour, we would expect replication of the mixed-sex power study results. According to Sachdev and Bourhis (1985), if group members perceive an unequal distribution of power between the federations in favour of FWTAO, the dominant group would be more discriminatory and less parity-oriented than would subordinate group members. Moreover, dominant group members would have a more positive social identity and would identify more with their federation than would subordinate group members. However, members of both dominant and subordinate groups would display the usual social categorization effect, liking ingroup members more than outgroup members.

2) If, however, in addition to the effect of power, sex has a subtle effect on intergroup behaviour as observed in the opposite-sex power study, we would expect replication of the relevant findings of the laboratory study presented in chapter four. If respondents perceived OPSTF to have less power than FWTAO, replication of the pattern of results of the condition in which males had 30% power and females had 70% power could be expected. In this case, female, high power group members favoured their own group as male group members with low power tended to do. Also, dominant female group members would be expected to have a more positive social identity than would subordinate male group members although both subordinate and dominant group members would identify equally with their respective groups.

3) Based on the results of the Sachdev and Bourhis (1991) study, if FWTAO is perceived as the more powerful, high status, majority federation, and OPSTF is perceived as the less powerful, low status, minority federation, it would be predicted that FWTAO women⁸ would favour their own group in the distribution of funds. In contrast, the men of OPSTF would be expected to show outgroup favouritism distributing more funds to FWTAO than to their own federation. Members of both groups would be expected to display parity.

⁸ The term 'FWTAO women' or 'women of FWTAO' literally includes women who have become voluntary members of OPSTF (i.e., VOP's) because these women are statutory members of FWTAO. However, in this chapter, this term refers to those women included in the field study who have not acquired voluntary membership to the men's federation. Thus, there are two groups of women: i) 'FWTAO women' or 'women of FWTAO' who are statutory members of FWTAO, and ii) 'voluntary OPSTF members' (VOP's) who are statutory members of FWTAO and voluntary members of OPSTF.

In addition, women of FWTAO would have a more positive social identity than would OPSTF members. Alternatively, if the federations are perceived otherwise in terms of their sociostructural position, behaviour and feelings about their federation membership would be expected to be in line with the appropriate groups of Sachdev and Bourhis (1991).

Hypotheses for VOP's

Voluntary OPSTF members have power according to both their statutory membership to the women's federation and their voluntary association with the men's. Nevertheless, they, arguably, maintain a stronger allegiance with the men's federation. According to SIT, these women are attempting to 'leave' FWTAO to become members of OPSTF because they feel that membership to the men's federation would contribute more positively to their social identity than does their statutory membership to FWTAO. This argument implies that VOP's would identify more with OPSTF than with FWTAO. Therefore, in line with the positive relationship between degree of identification and discrimination observed in chapter three and four, these teachers would be expected to favour the men's federation in the distribution of funds - especially in light of the fact that some women have initiated court action to have their union dues allocated to OPSTF.

According to Tajfel (1978), 'passing' is an individualistic strategy that allows group members to join a group which provides them with a more positive, satisfactory social identity. So from SIT, the following would also be expected for VOP's who have taken the initial step of 'passing' into the men's federation:

- i) A belief that the federation structure, under OTF, should be one of social mobility, having permeable group boundaries between the federations.
- ii) Although FWTAO may be perceived as having more group power than OPSTF, the men's federation may derive influence from the fact that those in administrative positions are predominantly men. Thus, as individuals, men have more personal power. If this were so, high group power would not be sufficient to provide a satisfactory social identity for VOP's. On the contrary, personal status and personal power would be more important to members of this group who themselves may wish to attain such positions.
- iii) In view of VOP's apparent endeavour to 'pass' into the men's federation despite group pressure from FWTAO not to do so, it would be predicted that VOP's would identify less with their own gender group and more with the male group than would FWTAO members. These women would also be expected to identify more with OPSTF than with FWTAO. As well, these women are expected to have a more positive social identity with respect to their voluntary affiliation with OPSTF than with respect to their statutory membership to FWTAO.
- iv) Voluntary OPSTF members would be expected to perceive a conflict of values with members of FWTAO (Tajfel, 1978). The values of VOP's would be more in line with those of OPSTF members.

Method

Subjects and Procedure. Subjects were 79 elementary school teachers who included seven principals, ten vice-principals, 56 classroom teachers, and six teachers in other positions such as resource teacher and librarian (see Table 5.1). Twenty-six FWTAO members, 26 OPSTF members, and 27 VOP's took part in the study. Subjects were interviewed by the author, a female graduate student. Subjects were recruited through the 'snowball' technique and were told that the interview was about teachers' perceptions and feelings about their federation membership. Interviews lasted approximately 25 to 35 minutes. Out of 81 teachers asked to take part in the study, only two women from one school refused to participate. At the conclusion of the interview, subjects were given a questionnaire to complete at their earliest convenience. The questionnaire was to be returned by mail. Eighty-nine percent of the questionnaires were returned: 92% from FWTAO members, 89% from VOP's, and 85% from members of OPSTF. As shown in Table 5.2, the mean age for the entire sample was 42 years (*sd* for FWTAO = 1.45; *sd* for VOP's = 1.29; *sd* for OPSTF = 1.22). There was no difference in mean age between the three groups, $F(2,76) = .20$, ns. All subjects lived and worked in Southern Ontario. Subjects were from Fort Erie (1), St. Catharines (23), Beamsville (4), Grimsby (3), Hamilton (10), Hanover (9), Cobourg (12), and Peterborough (17). The sample included teachers from 29 different schools, one regional president of FWTAO, and one regional president of OPSTF.

TABLE 5.1 PRESENT POSITION IN SCHOOL

	FWTAO Members (n=26)	Voluntary OPSTF Members (n=27)	OPSTF Members (n=26)
Classroom Teacher	23	19	14
Vice-Principal	2	5	3
Principal	0	2	5
Other	1	1	4

TABLE 5.2 INFORMATION ABOUT SUBJECTS

	FWTAO Members (n=26)	Voluntary OPSTF Members (n=27)	OPSTF Members (n=26)
Age	41.23	42.30	42.23
No. of years in present position	10.88	13.07	12.04
No. of years in Elementary School System	14.62	19.37	17.54
No. of years in Federation	14.04 ^b	3.48 ^a	17.04 ^b
Self-report of participation in Activities of own Federation	3.08*	3.19	2.96
Classification of self as an activist within own Federation	2.46	2.44	2.58
Classification of self as a "Feminist"	4.04 ^b	3.15 ^a	3.04 ^a

^a < ^b, $p < .05$ (Newman Keuls Multiple Comparison Test)

* The higher the mean rating on the 5-point scale, the higher the score on the item.

The background of the respondents reflected provincial statistics. There were more OPSTF members, compared to VOP's and FWTAO members as a single group, in positions of added responsibility (e.g., principal or vice-principal), $X^2(1, N = 79) = 5.68, p < .02$ (see Table 5.1). Similarly, the men were, on the whole, more highly educated than were the women as a single group, $X^2(1, N = 79) = 9.63, p < .005$ (see Table 5.3) (overall analysis for the three groups: $X^2(2, N = 79) = 9.80, p < .01$). Although there was no difference in the proportions of men and women who held an undergraduate degree, 21% of the women teaching had not yet attained a degree (undergraduate or graduate) whereas all the men in the sample had. As well, 42% of the men held a graduate degree compared to 26% of the women. However, it was interesting to note that more VOP's desired to become principals in the future than did members of FWTAO, $X^2(1, N = 79) = 4.73, p < .05$ (overall analysis for the three groups: $X^2(2, N = 79) = 8.59, p < .025$).

As seen in Table 5.2, members of the three groups had been in the elementary school system for approximately the same amount of time (grand M = 17.18 years), $F(2,76) = 2.34, ns$. Note that for VOP's, questions including the phrase "your federation" referred to their voluntary affiliation, i.e., OPSTF. There was no difference in the extent to which subjects reported to participate actively within their own federation (grand M = 3.08), $F(2,76) = .17, ns$, and no difference in the extent to which subjects considered themselves an activist within their federation (grand M = 2.49), $F(2,76) = .07, ns$. As could be expected, Newman Keuls analyses showed that VOP's reported to belong to their federation (i.e., OPSTF) for substantially fewer

TABLE 5.3 EDUCATION ATTAINED BY TEACHERS

	FWTAO Members (n=26)	Voluntary OPSTF Members (n=27)	OPSTF Members (n=26)
Teacher's Certificate (without a degree)	6	5	0
Bachelor's Degree	15	13	15
Master's Degree	5	9	11
Doctorate	0	0	0

TABLE 5.4 NUMBER OF TEACHERS AS "RANK AND FILE" OR EXECUTIVE MEMBERS OF THEIR OWN FEDERATION

	FWTAO Members (n=26)	Voluntary OPSTF Members (n=27)	OPSTF Members (n=26)
"Rank and File"	15	18	11
Executive (at any time)	11	9	15

years ($M = 3.48$) than had either FWTAO or OPSTF members (combined $M = 15.54$), $F(2,76) = 24.29$, $p < .0001$. Members of OPSTF initiated voluntary membership in 1972 and extended practically full rights and privileges to these members in 1974. However, although VOP's were affiliated with OPSTF for comparatively less time, about half of the members in each of the three groups were 'rank and file' members within their federation (see Table 5.4). The other half, either presently, or in the past, held a position of greater responsibility within the federation, $X^2(2, N = 79) = 3.27$, ns.

Dependent Measures

Structured interview and questionnaire. The interview and survey questionnaire (see appendix G) monitored the following issues and themes:

1. Background information on the respondents including age, education, occupational position, years of service in the primary school system, self-ratings as a 'feminist', and scores on the Attitude toward Women scale (AWS, Spence, Helmreich & Stapp, 1973).
2. Perception of the intergroup situation including the relative power, status, numerical proportions of the two federations, and the perceived permeability, stability, and legitimacy of the relationship between the two federations.
3. Degree of identification with respondents' own federation and with the male and female gender group.
4. Quality of ingroup identification to their federation. This measure included how comfortable, positive, secure, and satisfied respondents felt about their federation and how much they liked being members.

5. Amount of contact and degree of liking for ingroup and outgroup federation members.
6. Evaluative ratings of a number of important comparison dimensions such as efforts regarding pay equity, professional development, and social issues.
7. Resource allocation behaviour to the ingroup and outgroup using the Tajfel matrices and the 100-point zero-sum task.

Subjects responded to questions on 5-point Likert scales with '1' indicating 'not at all' and '5' indicating 'very much'.

Distribution of funds. Following the interview, subjects were handed their matrices booklet and were given these instructions: "Imagine that the government were giving funds to be distributed between FWTAO and OPSTF. Imagine also that these funds were to be used at the discretion of each federation. Please indicate on the following pages how you would like to see these funds distributed." After an explanation of how to use the matrices, subjects allocated funds to FWTAO and to OPSTF on the dependent measures using the Tajfel matrices and the 100-point zero-sum task. Three types of matrices were used in the matrices booklet as in the laboratory studies (chapters 3 & 4): Parity (P) was pitted against ingroup favouritism (FAV = MIP + MD), ingroup favouritism was also pitted against maximum joint profit (MJP), and maximum ingroup differentiation (MD) was pitted against the combined strategies of maximum ingroup profit and maximum joint profit. Six matrices were yielded by inverting and reversing each matrix. Each matrix contained seven boxes from which respondents could choose. In turn, note that 'pull' scores, ranged from -6

to 6, instead of -12 to 12 as in the laboratory studies presented in chapters three and four. The matrices were scored in the same manner as for the same- and opposite-sex laboratory studies (Bourhis et al, 1993; see Appendix C).

Results

Analyses of Interview and Questionnaire Items

Because an 89% return rate was achieved for the questionnaire, it can be assumed that the results of the analyses on the items of the questionnaire returned can at least be generalized to the full sample of teachers recruited for the field study (Judd, Smith, & Kidder, 1991).

Results of the field study will be presented as the items relate to the main tenets of SIT. A number of MANOVA's were performed on the data. Items were entered according to design, and interview and postinterview questionnaire items were entered into separate MANOVA's. For example, particular items from the interview were entered into a one-way MANOVA with group as a between factor while other items from the postinterview questionnaire were entered into a separate one-way MANOVA with group as a between factor. As usual univariate analyses followed. Newman Keuls multiple comparison tests were performed following significant univariate effects that indicated a difference between more than two means ($p < .05$, unless otherwise stated). Results are presented in the same manner as in the previous chapters. Multivariate and univariate effects for these analyses are presented in Appendix H.

A MANOVA with group as a between factor was performed on twenty-five items from the interview that referred to background information, and subjects' perceptions and feelings about their gender group membership and about the relations between the men's and the women's federation (see section 5.1 in Appendix H). Analyses revealed a significant multivariate effect for group, $F(50,104) = 5.52$, $p < .0001$. Additional univariate analyses ($\alpha' = .002$) indicated that a number of variables contributed to this multivariate effect. Four of these univariate effects were presented previously in the subjects' section of this chapter. Others are presented in the following sections. (Three items were inappropriately included in this analysis: present position, desired position, and education. These were properly analyzed using chi square tests. Univariate analyses indicated marginally significant effects of group for present position, $F(2,76) = 4.16$, $p < .02$, and education, $F(2,76) = 3.47$, $p < .05$. These are the means for the items: i) present position, (FWTAO members: $M = 1.23$; VOP's: $M = 1.52$; OPSTF members: $M = 1.96$), ii) desired position (FWTAO members: $M = 1.77$; VOP's: $M = 2.00$; OPSTF members: $M = 2.38$), and iii) education (FWTAO members: $M = 1.96$; VOP's: $M = 2.15$; OPSTF members: $M = 2.42$). Note that for present and desired position, '1' represented classroom teacher, '2' represented vice-principal, '3' represented principal, and '4' represented other. For education, '1' represented attainment of a teacher's certificate, '2' represented a bachelor's degree, '3' represented a master's degree, and '4' represented a doctorate.)

5.1 Gender items. Table 5.5 presents the means for teachers' identifications and feelings about the female and male gender group. A group by target sex (3 X 2)

TABLE 5.5 **TEACHERS' IDENTIFICATIONS AND FEELINGS**
ABOUT GENDER GROUP MEMBERSHIP

	FWTAO Members	Voluntary OPSTF Members	OPSTF Members
Degree of Identification with:			
Male Group	2.96 ^a	3.85 ^{bc}	3.50 ^{ab}
Female Group	4.42 ^c	4.07 ^{bc}	3.23 ^{ab}
Sex-Role Ideology (AWS)			
(Range 0 to 75)	66.38	68.29	65.86
Classification of Self			
as "Feminist"	4.04 ^b	3.15 ^a	3.04 ^a

a < *b* < *c*, *p* < .05 (Newman Keuls Multiple Comparison Test)

ANOVA revealed a main effect for target sex, $F(1,76) = 8.83$, $p < .01$, and a significant interaction, $F(2,76) = 9.82$, $p < .001$ (section 5.6 in Appendix H). Newman Keuls analysis for an effect of group, $F(2,76) = 4.42$, $p < .02$, did not identify the source of this effect. The main effect for target sex indicated that higher ratings were obtained for identification with the female group than for the male group. Following the interaction, Newman Keuls analysis demonstrated that FWTAO members identified more with their own sex than with the male gender group. However, OPSTF members identified as much with the female group as they did with the male group. Furthermore, although VOP's identified just as much with the female gender group as did FWTAO members, they nevertheless, identified equally with the male group. In fact, they identified just as much with the male group as did the men of OPSTF. Members of OPSTF, however, did not identify as much with the female group as did either VOP's or FWTAO members.

Another MANOVA with group as a between factor was performed on nineteen items from the postinterview questionnaire (see section 5.2 in Appendix H). Analyses revealed a multivariate main effect of group, $F(38,98) = 1.92$, $p < .01$. Univariate analysis ($\alpha' = .0026$) indicated that members of all three groups had equally liberal attitudes toward the roles of women in society (grand $M = 66.84$), $F(2,67) = 0.74$, ns, (see Table 5.5). (Cronbach alpha for AWS was .84.) A final gender item referred to the extent to which subjects considered themselves to be a 'feminist' - however they defined the term. This item was included in the one-way MANOVA performed on items from the interview (see section 5.1 in Appendix H; $\alpha' = .002$). Univariate

analysis revealed a marginally significant effect for this item, $F(2,76) = 4.69$, $p < .02$.

A Newman Keuls test indicated that FWTAO members tended to perceive themselves more as a 'feminist' ($M = 4.04$) than did either OPSTF members or VOP's (combined $M = 3.10$). (Eight items were included for exploratory reasons only and thus the means for these items are presented in section 5.3 in Appendix H.)

5.2 Degree and quality of identification with federation. Other items also included in this same MANOVA referred to subjects' quality of identification or feelings about their federation membership and are listed in Table 5.6. As mentioned, VOP's were asked these questions with respect to their voluntary affiliation. First, with respect to degree of identification with the teachers' federation, members of all three groups identified moderately, and equally, with their respective federations (grand $M = 3.45$). Overall, group members also felt quite comfortable, positive, secure, and satisfied about their respective federation membership. Teachers also reported to like being members of their federation.

However, significant univariate effects for the positiveness, $F(2,76) = 6.87$, $p < .002$, satisfaction, $F(2,76) = 8.62$, $p < .0005$, a marginally significant effect for degree to which subjects liked being a federation member, $F(2,76) = 3.93$, $p < .025$, and subsequent Newman Keuls analyses indicated that VOP's had a more positive social identity with respect to their voluntary membership to OPSTF ($M = 4.60$) than did members of either FWTAO and OPSTF (combined $M = 3.84$). Further note that VOP's also tended to like being members of OPSTF ($M = 4.22$) more than statutory members of OPSTF did themselves ($M = 3.38$). Moreover, VOP's and FWTAO

TABLE 5.6 **DEGREE AND QUALITY OF IDENTIFICATION WITH
FEDERATIONS**

	FWTAO Members with FWTAO	Voluntary OPSTF Members with FWTAO	OPSTF	OPSTF Members with OPSTF
<u>Degree of</u> Identification:	3.50	3.60	3.41	3.45
<u>Quality of Identification:</u>				
Comfortable	3.81	3.75	4.25	4.15
Positive	3.96 ^a	3.50 ^l	4.60 ^{bm}	3.73 ^a
Secure	4.15	4.10	4.58	4.12
Satisfied	3.81 ^b	3.30 ^l	4.36 ^{bm}	3.15 ^a
Like being Member of own Federation	3.69 ^{ab}	3.55 ^l	4.26 ^{bm}	3.38 ^a

Separate Newman Keuls: $a < b$ ($p < .05$) and $l < m$ ($p < .01$)

members felt more satisfied about their federation affiliation (combined $M = 4.07$) than did OPSTF members ($M = 3.15$). Group members, however, felt equally comfortable, $F(2,76) = 0.97$, ns, and secure, $F(2,76) = 2.20$, ns, about their membership to their federation. Two other items included in this analysis enquired about how satisfied subjects felt about the relative power and status of FWTAO and OPSTF. Members of the three groups felt equally satisfied about the relative power (grand $M = 3.20$), $F(2,76) = 2.58$, ns, and the relative status (grand $M = 3.28$), $F(2,76) = 0.98$, ns, of the federations.

A repeated measure MANOVA with federation (OPSTF/FWTAO) as the repeated measure was performed on six items pertaining to the degree and quality of identification for VOP's (section 5.7 in Appendix H). Analyses revealed a multivariate effect for federation, $F(6,14) = 12.25$, $p = .0001$ (for univariate analyses, $\alpha' = .008$). Interestingly, a comparison of the degree and quality of identification with both federations for VOP's revealed that VOP's identified as much with their statutory affiliation as they did with their voluntary affiliation (combined $M = 3.48$), $F(1,19) = 0.19$, ns. They also felt equally comfortable (combined $M = 3.95$) and secure (combined $M = 4.34$) with being a member of each federation. However, as can be seen in Table 5.6, VOP's felt more positive, $F(1,19) = 11.00$, $p < .005$, and satisfied, $F(1,19) = 12.16$, $p < .005$, about their voluntary membership to OPSTF than they did about their statutory membership to FWTAO. They also tended to like being members of the men's federation more than they liked being members of the women's federation, $F(1,19) = 8.30$, $p < .01$.

5.3 Perceptions and feelings regarding the intergroup structure. Eight items from the interview referring to perceptions and feelings about the federations were included in a 3 X 2 repeated measure MANOVA with group as a between factor and federation as a within (see section 5.4 in Appendix H). Analyses revealed a multivariate main effect for group, $F(16,138) = 2.37, p < .01$, federation, $F(8,69) = 20.08, p < .0001$, and a significant multivariate interaction, $F(16,138) = 2.63, p < .01$. Two of the measures contributing to the federation main effect were the perceived power, $F(1,76) = 12.84, p < .0001$, and status, $F(1,76) = 14.66, p < .001$, of the federations ($\alpha' = .0062$). As shown in Table 5.7, members of all three groups perceived the women's federation to have more power (grand $M = 4.08$) and status (grand $M = 3.99$) than the men's federation (grand $M = 3.62$ and 3.58 , respectively). Interestingly, a main effect for group on the perception of power measure, $F(2,76) = 11.99, p < .0001$, and a Newman Keuls test showed that, overall, OPSTF members gave lower estimates of power for either federation ($M = 3.31$) than did either VOP's or FWTAO members (combined $M = 4.12$).

Items referring to the perceived legitimacy of these sociostructural variables, also included in this analysis, indicated that members of all three groups perceived the power (grand $M = 3.75$), $F(2,76) = 0.59, ns$, and status differential (grand $M = 3.78$), $F(2,76) = 3.40, p < .05$, in favour of the women's federation to be fairly legitimate (Newman Keuls analysis did not identify the source of this effect on the status item). However, when asked how much power and status the federations should have,

TABLE 5.7 TEACHERS' PERCEPTIONS AND FEELINGS OF LEGITIMACY OF THE POWER, STATUS AND MEMBERSHIP OF THE FEDERATIONS AND THE IMPORTANCE OF THESE TO THE FEDERATIONS

	FWTAO Members Rating		Voluntary OPSTF Members Rating		OFSTF Members Rating		Overall Means	
	FWTAO	OPSTF	FWTAO	OPSTF	FWTAO	OPSTF	FWTAO	OPSTF
<u>Perceptions of:</u>								
Power	4.15	3.81	4.48	4.04	3.62	3.00	4.08	3.62
Status	4.12	3.73	4.04	3.85	3.81	3.15	3.99	3.58
Membership %	71.00	29.00	68.00	32.00	72.00	28.00	70.33	29.67
<u>Legitimacy of the Federations':</u>								
Power	3.81	3.69	3.81	4.04	3.46	3.69	3.69	3.81
Status	4.12	3.73	4.04	3.85	3.81	3.15	3.99	3.58
Sex as a basis for Membership		2.19		1.59		1.12		1.63
<u>Importance of these Variables to the Federations</u>								
Power	4.83	4.62	4.75	4.50	4.27	4.05	4.63	4.40
Status	4.75	4.50	4.79	4.46	4.50	4.05	4.69	4.34
Membership Increase	4.08 ^a	4.42 ^a	3.74 ^a	4.92 ^b	3.77 ^a	4.23 ^a	3.87	4.53

^a < ^b, p < .05 (Newman Keuls Multiple Comparison Test)

members of the three groups reported that, ideally, the federations should have high, but equal, power (grand $M = 4.09$) and status (grand $M = 4.19$).

A group by time context repeated measure (3 X 3) MANOVA was performed on four questionnaire items about the perceived power and status of the federations in the past (5 years ago), present, and future (5 years from now) (section 5.8 in Appendix H). Analyses revealed multivariate main effects for group, $F(8,128) = 2.25$, $p < .05$, and time context, $F(8,60) = 3.37$, $p < .01$. Newman Keuls analyses revealed only two trends ($\alpha' = .0125$). First, members of all three groups tended to perceive the power of FWTAO to be slightly more now ($M = 4.00$) than in the past ($M = 3.70$) or future ($M = 3.80$), $F(2,134) = 3.29$, $p < .05$. Second, the same trend was obtained for status, $F(2,134) = 3.78$, $p < .05$. The status of FWTAO tended to be perceived as slightly more now ($M = 3.99$) than it was in the past ($M = 3.63$) or will be in the future ($M = 3.84$). Overall, the three groups perceived the status and power relationship between the two federations to be stable and legitimate. Newman Keuls analyses did not identify the source of any other univariate effect shown in section 5.8.

A similar group by time context repeated measure (3 X 3) MANOVA was performed on two demographic questionnaire items pertaining to perceptions of the percentage of membership of the total number of elementary public school teachers for each federation in the past, present, and future (section 5.9 in Appendix H). The overall means are presented in Table 5.7. Analyses revealed only a multivariate main effect for the repeated measure, time context, $F(4,64) = 3.23$, $p < .02$. A significant univariate effect ($\alpha' = .025$) for time context, $F(2,134) = 7.84$, $p < .001$, and a

subsequent Newman Keuls test showed that group members perceived that FWTAO's membership would decrease only very slightly from 70% to 68% over the next five years. Results of a Newman Keuls test demonstrated that the membership of OPSTF would be slightly more in the future (32%) but is the same now as in the past (30%), $F(2,134) = 7.74, p < .001$. This suggests that teachers perceived that either more statutory members of FWTAO would become voluntary members of OPSTF or that more men, or fewer women, would enter the teaching profession. Overall, members of all three groups perceived FWTAO to represent just over 2/3 (i.e., 70%) of the teachers; OPSTF was perceived to represent just under 1/3 (i.e., 30%). These perceptions are in line with the actual membership of the two federations. Taken together, FWTAO was perceived as the dominant, high status, majority federation and OPSTF was perceived as the subordinate low status, minority federation.

The results of a group by bases of categorization repeated measure (3 x 3) ANOVA (section 5.10 in Appendix H) indicated that teachers did not think that sex was a very legitimate basis for federation membership (grand M = 1.63). Neither were religion (grand M = 1.59) or language (grand M = 2.11) considered to be very legitimate bases of categorization. However, of the three, language was perceived to be the most legitimate, $F(2,152) = 9.13, p < .001$ (Newman Keuls: $p < .01$). Newman Keuls did not identify the source of the group main effect, $F(2,76) = 3.92, p < .025$.

5.4 Valued dimensions of comparison. Table 5.7 also presents teachers' ratings of the importance of power, status and of increasing membership to the federations. These three postinterview questionnaire items were included in a group

by federation (3 X 2) MANOVA performed on ten questionnaire items (see section 5.5 in Appendix H). Analyses revealed a significant multivariate effect for federation, $F(10,58) = 12.51, p < .0001$, and a significant multivariate interaction, $F(20,116) = 2.51, p < .01$. Two measures about the perceived importance of sociostructural variables contributed to the effect of federation: status, $F(1,67) = 15.03, p < .0005$, and membership increase, $F(1,67) = 20.68, p < .0001$ ($\alpha' = .005$). Univariate analyses indicated a marginal effect of power, $F(1,67) = 6.06, p < .02$. In the case of power, members of all three groups tended to perceive that power was slightly more important to FWTAO (grand $M = 4.63$) than it was to OPSTF (grand $M = 4.40$). Status was perceived to be more important to FWTAO (grand $M = 4.69$) than to OPSTF (grand $M = 4.34$). A subsequent Newman Keuls multiple comparison test on the interaction effect of the membership item showed that only VOP's tended to perceive an increase in membership to be more important to OPSTF ($M = 4.92$) than to FWTAO (3.75), $F(2,67) = 3.36, p < .05$. However, the significant main effect of federation for this item, $F(1,67) = 20.68, p < .0001$, demonstrated that an increase in membership was perceived to be more important to OPSTF than to FWTAO.

Other items contributing to this multivariate effect of federation and the interaction are listed in Table 5.8. This table presents teachers' ratings of the federations on a number of dimensions of comparison and the perceived importance of these dimensions to the federations. Overall, FWTAO was rated as doing better than OPSTF with respect to their efforts toward pay equity plans in the school boards,

TABLE 5.8 RATINGS OF FEDERATIONS ON SEVERAL DIMENSIONS OF COMPARISON AND THE IMPORTANCE OF THESE TO THE FEDERATIONS

	FWTAO Members Rating		Voluntary OPSTF Members Rating		OFSTF Members Rating		Overall Means	
	FWTAO	OPSTF	FWTAO	OPSTF	FWTAO	OPSTF	FWTAO	OPSTF
Pay Equity:	4.38 ^c	3.25 ^a	4.25 ^c	3.92 ^{bc}	4.41 ^c	3.59 ^{ab}	4.34	3.59
Professional Development	4.58 ^b	3.58 ^a	4.54 ^b	4.42 ^b	4.41 ^b	4.05 ^b	4.51	4.01
Social Issues	4.08 ^d	3.12 ^{ab}	4.04 ^d	3.54 ^c	3.36 ^{abc}	3.50 ^a	3.84	3.24
Importance of Dimensions to the Federations:								
Pay Equity	4.79 ^c	3.42 ^a	4.67 ^c	3.96 ^b	4.55 ^c	3.95 ^b	4.67	3.77
Professional Development	4.79 ^b	3.88 ^a	4.83 ^b	4.62 ^b	4.68 ^b	4.41 ^b	4.77	4.30
Social Issues	4.54 ^{cd}	3.33 ^a	4.29 ^{bcd}	4.00 ^{bc}	3.91 ^b	3.41 ^a	4.26	3.59

$a < b < c < d$, $p < .05$ (Newman Keuls Multiple Comparison Test)

$F(1,67) = 35.84, p < .0001$. However, a marginally significant interaction for this item, $F(2,67) = 3.40, p < .05$, and Newman Keuls analysis further indicated that although statutory members of FWTAO and OPSTF tended to perceive this to be so, VOP's tended to perceive that the federations were doing equally well on this dimension.

A significant univariate main effect for another dimension of comparison, professional development programs, in favour of the women's federation, was obtained, $F(1,67) = 17.54, p = .0001$. Yet a marginally significant interaction, $F(2,67) = 4.99, p < .01$, and Newman Keuls analysis, revealed that only FWTAO members tended to give higher ratings to FWTAO than to OPSTF. Members of OPSTF and VOP's reported that both federations were doing equally well in terms of professional development programs.

A third dimension of comparison referred to how much the federations were doing with respect to social issues such as poverty, racism, and Native issues. Again, although a significant main effect was observed in favour of FWTAO, $F(1,67) = 39.34, p < .0001$, a marginally significant interaction effect, $F(2,67) = 4.07, p < .025$, and Newman Keuls analysis indicated that, contrary to FWTAO members and VOP's, OPSTF members tended to feel that the men's federation was doing as much as the women's federation with regard to these matters. The multiple comparison test also showed that although VOP's tended to perceive FWTAO to be doing comparatively more about social issues than OPSTF, they tended to give higher ratings to OPSTF than did FWTAO members.

Table 5.8 presents group members' ratings of the importance of these three dimensions of comparison to the federations. With respect to pay equity, members of the three groups acknowledged that this issue was more important to the women's federation than to the men's, $F(1,67) = 49.02$, $p < .0001$. However, a marginally significant interaction effect, $F(2,67) = 3.71$, $p < .05$, and Newman Keuls analysis indicated that FWTAO members tended to perceive pay equity to be even less important to OPSTF than statutory and voluntary members of OPSTF tended to perceive. Alternatively, VOP's and members of OPSTF could have reported higher ratings of the importance of pay equity to the men's federation than did FWTAO members.

Consistent with the pattern of ratings of the professional development programs of the federations, Newman Keuls analysis indicated that FWTAO members tended to perceive that these programs were more important to their own federation $F(2,67) = 4.20$, $p < .02$. Members of OPSTF and VOP's felt that professional development programs were equally important to both federations. The third dimension of comparison, social issues, was thought to be more important to the women's federation as indicated by the significant main effect, $F(1,67) = 44.83$, $p < .0001$. Following a univariate interaction, $F(2,67) = 7.96$, $p < .001$, Newman Keuls analysis showed that in contrast to the perceptions of FWTAO and OPSTF members, who perceived social issues to be more important to FWTAO, voluntary OPSTF members felt that this issue was equally important to the two federations - even though they rated the women's federation as doing more in this domain.

It is important to note that the previous questions referred to teachers' perceptions of the importance of these dimensions of comparison to the federations. These are group dimensions that are likely associated with the quality of group members' social identity (Tajfel, 1978). Also worth noting is how important it is to teachers themselves for their federation to rate well on these dimensions. Conceivably, if one's federation compares poorly on a particular dimension of comparison that is not important to group members themselves, the effect on group members' social identity would be minimal. Alternatively, group members may demonstrate bias for the ingroup only on those dimensions of comparison that they themselves hold to be important (Mummendey & Simon, 1989). Accordingly, teachers were asked how important it was to them that their federation do well on each dimension of comparison included in this study.

These questionnaire items were included in the MANOVA with group as a between factor (see section 5.2 in Appendix H; for univariate analyses, $\alpha' = .0026$) and are presented in Table 5.9. One item contributed to the multivariate effect of group, $F(38,98) = 1.92, p < .01$: the importance of status, $F(2,67) = 9.89, p < .0005$, to subjects. Univariate analysis indicated a marginal effect of the importance of power, $F(2,67) = 5.56, p < .006$. Newman Keuls analysis indicated that power for the federation tended to be more important to FWTAO members and VOP's (combined $M = 4.64$) than it was to OPSTF members ($M = 4.04$). For status, it was more important to FWTAO members and to VOP's (combined $M = 4.56$) for their federation to have status than it was to members of OPSTF. In contrast, it was equally important to

TABLE 5.9

**IMPORTANCE TO TEACHERS THAT THEIR
FEDERATIONS DO WELL ON A NUMBER OF
DIMENSIONS OF COMPARISON**

	FWTAO Members (n = 24)	Voluntary OPSTF Members (n = 24)	OPSTF Members (n = 22)
Pay Equity	4.46	4.58	4.55
Professional Development	4.38	4.88	4.55
Social Issues	4.54	4.29	4.41
Power	4.50 ^b	4.79 ^b	4.04 ^a
Status	4.33 ^b	4.79 ^b	3.64 ^a
Increase in Membership	3.50	3.96	4.00

^a < ^b, p < .05 (Newman Keuls Multiple Comparison Test)

members of all three groups that their federation be concerned about pay equity (grand M = 4.53), professional development programs (grand M = 4.57), and social issues (grand M = 4.41). Overall, the absolute values of each of these means suggest that these dimensions of comparison are very important to teachers. It was equally important to group members that their federation have an increase in membership (grand M = 3.82).

By inspection, compared to these ratings, group members appeared to give lower ratings of how much they valued and desired power and status as individuals. (These four items were included in this same MANOVA.) However, the absolute values of these ratings suggest that individual power (value of: grand M = 3.63; desire for: grand M = 3.24) and individual status (value of: grand M = 3.71; desire for: grand M = 3.62) are not unimportant to teachers.

Two of eight items included in a group by target sex repeated measure (3 X 2) MANOVA referred to perceptions of the value of power and status to the male and female group (section 5.11 in Appendix H). The other six items referred to perceptions of the percentage of men and women in various positions within the school system. Analyses revealed a multivariate main effect for target sex, $F(8,60) = 57.97, p < .001$, and a significant multivariate interaction of group and target sex, $F(16,120) = 2.52, p < .01$. No multivariate main effect of group was obtained, $F(8,128) = 0.97, ns$. Univariate analysis ($\alpha' = .0062$) showed that, contributing to the multivariate effect of target sex, teachers perceived power to be more highly valued by the male group in society (grand M = 4.48) than by the female group (grand M =

3.81), $F(1,67) = 21.24, p < .0001$. Status was perceived to be equally valued by both the male and the female group in society (grand $M = 4.24$).

Also included in this 3 X 2 repeated measure MANOVA were six items referring to the perceptions of the percentage of men and women in the position of classroom teacher, vice-principal, and principal. These items are presented in Table 5.10. Perceptions of the percentage of men and women in the position of classroom teacher, vice-principal, principal, and the percentage that should be in the classroom all contributed to the multivariate effect of target sex. Group members correctly perceived that about 72% of classroom teachers were women and, 28%, men. In contrast, approximately 71% of the vice-principals were perceived to be men; but only 29%, women. Similarly, group members perceived that 79% of those in a principalship position in the school system were men, compared to 21%, women. These perceptions are in line with the actual proportion of men and women in these respective positions within the elementary public school system in Ontario where 21% of the principals and 39% of the vice-principals are women.

However, a univariate interaction effect demonstrated that the men of OPSTF perceived less of a differential in favour of men in the principalship position: they perceived that 69% in this position were men, and 31%, women. In contrast, members of FWTAO perceived there to be a greater differential in favour of men: they perceived that about 88% of those in these positions were men and 12%, women. These perceptions suggest that group members were engaging in social competition to

TABLE 5.10

**ESTIMATES OF THE PROPORTIONS OF MEN AND WOMEN
PRESENTLY IN AND THAT SHOULD BE IN SCHOOL POSITIONS**

	FWTAO Members' Estimates of		Voluntary OPSTF Members' Estimates of		OPSTF Members' Estimates of		Sex Main Effect	Group by Sex Interaction
	Men	Women	Men	Women	Men	Women	F (df = 1,67)	F (df = 2,67)
Percentage as:								
Classroom Teachers	24.21	75.96	27.67	72.33	32.77	66.32	195.55(p < .0001)	ns
Vice-Principals	75.42 ^b	24.58 ^a	71.67 ^b	28.33 ^a	64.55 ^b	35.45 ^a	156.66(p < .0001)	3.69 (p < .05)
Principals	87.83 ^d	12.17 ^a	78.96 ^{cd}	21.04 ^{ab}	69.09 ^c	30.91 ^b	290.69(p < .0001)	10.23 (p = .0001)
Percentage that <u>should</u> be:								
Classroom Teachers	45.46	54.54	47.33	52.67	48.82	51.41	17.36 (p = .0001)	ns
Vice-Principals	50.46	49.54	50.36	49.62	47.73	52.27	ns	ns
Principals	50.46	49.54	51.67	48.33	47.73	52.27	ns	ns

$a < b < c < d$, $p < .05$ (Newman Keuls Multiple Comparison Test)

justify either the maintenance or increase of the proportion of women in administrative positions (Bourhis & Hill, 1982). In line with their own group's interests, men teachers overestimated the actual proportion of women in these positions, whereas, women teachers underestimated these proportions.

Furthermore, although group members felt that the proportion of men and women in administrative positions should be equal (i.e., 50% representation of both), they felt that slightly more women (53%) than men (47%) should be classroom teachers. A few respondents commented that they felt that sex should not be an issue at all in the consideration of administrative positions. Rather, they believed that the only important consideration should be, whoever is "the best candidate for the job".

5.5 Perceptions and feelings about intergroup 'passing'. A number of items in the interview enquired about teachers' perceptions and feelings about 'passing' and amalgamation (see Table 5.11). Seven of these interview items were included in the MANOVA with group as a between factor (see section 5.1 in Appendix H). A multivariate main effect for group was obtained, $F(50,104) = 5.52, p < .0001$. Univariate ($\alpha' = .002$) and Newman Keuls analyses showed that members of OPSTF and VOP's felt that it should be very easy (combined $M = 4.82$) for teachers of either sex to become a member of either the men's or the women's federation, $F(2,76) = 7.08, p < .002$. Although members of the women's federation felt less strongly about the degree to which this should be made easy, they did indicate that it should be fairly easy ($M = 3.88$).

TABLE 5.11 **TEACHERS' PERCEPTIONS AND FEELINGS ABOUT
"PASSING" AND AMALGAMATION**

	FWTAO Members (n = 26)		Voluntary OPSTF Members (n = 27)		OPSTF Members (n = 26)	
How easy it should be for teachers to be a member of either Federation	3.88 ^a		4.79 ^b		4.85 ^b	
How much FWTAO members want to become members of OPSTF	2.00		2.33		2.42	
How much OPSTF members want to become members of FWTAO	2.15 ^b		1.37 ^a		1.77 ^{ab}	
How many FWTAO members are becoming voluntary OPSTF members	1.96		2.04		2.04	
Desire to be a statutory member of the other Federation	2.42 ^a		3.56 ^b		2.38 ^a	
How likely it is that FWTAO & OPSTF will remain as two Federations	3.77		4.22		3.62	
Feelings of threat if Federations amalgamate	2.31 ^b		1.26 ^a		1.12 ^a	
	<u>FWTAO</u>	<u>OPSTF</u>	<u>FWTAO</u>	<u>OPSTF</u>	<u>FWTAO</u>	<u>OPSTF</u>
Effort put into recruiting members	1.73 ^b	3.12 ^c	1.15 ^a	3.96 ^d	1.77 ^{ab}	3.31 ^c
Effort put into keeping members	4.08 ^c	3.54 ^b	4.37 ^c	4.63 ^c	4.19 ^c	3.08 ^a

$a < b < c < d$, $p < .05$ (Newman Keuls Multiple Comparison Test)

Group members perceived that very few FWTAO (grand $M = 2.25$) and OPSTF members (grand $M = 1.76$) want to become members of the other federation. However, in comparison with the estimation given by FWTAO members ($M = 2.15$), Newman Keuls analysis indicated that VOP's tended to think that even fewer men wish to become members of the women's federation ($M = 1.37$), $F(2,76) = 3.35$, $p < .05$. Estimates reported by OPSTF members did not differ from estimates reported by either FWTAO members or VOP's for this item. Overall, the number of FWTAO women perceived to be becoming voluntary members of OPSTF was small (grand $M = 2.01$). Group members did not differ in their estimates for this item, $F(2,76) = 0.23$, ns. As might be expected, Newman Keuls analysis showed that VOP's reported to want to become members of the other federation (OPSTF, in this case) more ($M = 3.56$) than did members of either FWTAO or OPSTF (combined $M = 2.40$), $F(2,76) = 5.12$, $p < .001$. However, the absolute values of these means suggest that there does appear to be at least some interest in becoming a member of the other federation on the part of statutory members of both federations.

Teachers were asked directly if they would actually like to become a member of the other federation, 'yes' or 'no'. Non-parametric analysis corroborated the previous finding that although there were some FWTAO and OPSTF members who would choose to become members of the other federation (27% and 35%, respectively), compared to FWTAO and OPSTF members as a single group, a greater proportion of VOP's gave an affirmative answer to this question (63%), $X^2(1, N = 79) = 7.58$, $p < .01$. Importantly, the remaining 37% of VOP's said that they would not

become a full member of the men's federation if it meant relinquishing their affiliation with the women's federation.

As can also be seen in Table 5.11, group members felt that it was fairly likely that the women's and men's federation would continue as two separate federations - at least while they themselves were involved in the school system. But not surprisingly, members of FWTAO reported greater feelings of threat than did VOP's and members of OPSTF if the federations were to amalgamate, $F(2,76) = 9.40, p < .0005$. As discussed in the introduction of this chapter, FWTAO members argue that they would have much to lose if amalgamation should take place (Staton & Light, 1987).

Finally, the remaining two items in Table 5.11 were included in the previously introduced group by federation repeated measure (3 X 2) MANOVA performed on eight interview items (see section 5.4 in Appendix H; for univariate analyses, $\alpha' = .0062$). As can be seen from Table 5.11, and contributing to the multivariate effect of federation, members of all three groups perceived OPSTF to be putting more effort than FWTAO into recruiting members to their respective federation, $F(1,76) = 140.13, p < .0001$. Newman Keuls analysis, however, showed that VOP's reported that OPSTF members put substantially more effort into recruiting new members than do FWTAO members, $F(2,76) = 7.97, p < .001$. Conversely, both OPSTF and FWTAO members perceived the women's federation to be putting more effort than the men's federation into keeping its members, $F(1,76) = 14.69, p < .001$. However, a significant interaction, $F(2,76) = 10.89, p = .0001$, and a Newman Keuls test indicated that members of OPSTF perceived OPSTF to be extending the least effort ($M = 3.08$), FWTAO members

perceived OPSTF to be putting in slightly more ($M = 3.54$), and VOP's felt that OPSTF was putting as much effort as FWTAO into keeping its members ($M = 4.63$). A significant effect of group for this item, $F(2,76) = 6.92$, $p < .002$, and a subsequent Newman Keuls test demonstrated that OPSTF members gave lower ratings overall ($M = 3.63$) than did VOP's ($M = 4.50$).

5.6 Contact and ingroup/outgroup liking. A group by repeated measure (3 X 3) MANOVA was performed on two interview items that referred to group members' degree of intergroup contact and liking (section 5.12 in Appendix H). The repeated measure referred to FWTAO members, OPSTF members, and VOP's. Analyses revealed multivariate main effects for group, $F(4,150) = 4.66$, $p < .01$, and the repeated measure, $F(4,73) = 33.98$, $p < .0001$, and a multivariate effect of group by the repeated measure, $F(8,146) = 5.82$, $p < .0001$. A univariate effect for amount of contact contributed to the multivariate main effect for group, $F(2,76) = 9.29$, $p < .001$, and the repeated measure, $F(4,152) = 84.34$, $p < .0001$ ($\alpha' = .025$). However, as a qualification of these effects, univariate analyses on the amount of contact group members reported to have with the members of FWTAO, OPSTF, and VOP's, $F(4,152) = 13.27$, $p < .0001$, and the degree to which group members liked members of the groups, $F(4,152) = 3.85$, $p < .01$, both contributed to the obtained multivariate interaction effect.

Table 5.12 presents teachers' perceptions of the amount of contact they have with members of the three groups. Newman Keuls analysis demonstrated that first,

TABLE 5.12 **TEACHERS' PERCEPTIONS OF AMOUNT OF CONTACT AND FEELINGS OF LIKE FOR FWTAO, OPSTF, AND VOLUNTARY OPSTF MEMBERS**

	FWTAO Members			Voluntary OPSTF Members			OPSTF Members		
	Rating			Rating			Rating		
	FWTAO Members	Vol. OPSTF Members	OPSTF Members	FWTAO Members	Vol. OPSTF Members	OPSTF Members	FWTAO Members	Vol. OPSTF Members	OPSTF Members
Amount of Contact	4.58 ^c	1.65 ^a	2.92 ^b	4.33 ^c	3.67 ^c	4.04 ^c	4.58 ^c	2.77 ^b	4.35 ^c
Degree of Ingroup/ Outgroup Liking	4.42 ^b	4.04 ^a	4.04 ^a	4.19 ^{ab}	4.59 ^b	4.44 ^{ab}	4.58 ^b	4.58 ^b	4.54 ^b

$a < b < c$, $p < .05$ (Newman Keuls Multiple Comparison Test)

FWTAO members reported to have the most contact with members of their own group, less contact with OPSTF members, and least with VOP's. Voluntary members of OPSTF reported to have much and equal contact with members of all three subgroups (pooled $M = 4.01$). Members of OPSTF reported to have plenty of contact with both OPSTF and FWTAO members (combined $M = 4.46$), but somewhat less contact with VOP's ($M = 2.77$). As would be expected, comparing the amount of contact group members had with VOP's, FWTAO members reported to have the least contact with VOP's, OPSTF members reported to have slightly more, and VOP's reported to have the most contact with other VOP's. Also, indicated by the actual proportions of men and women in the teaching profession, members of all three groups reported to have a lot of contact with FWTAO members.

Also in Table 5.12, are the means for teachers' reported degree of liking for ingroup and outgroup members. Following the interaction, Newman Keuls analysis indicated that FWTAO members liked members of their own group ($M = 4.42$) more than they liked either statutory or voluntary members of OPSTF (combined $M = 4.04$). Conversely, OPSTF members and VOP's reported to like members of the three groups equally well (pooled $M = 4.49$).

A similar group by repeated measure (3 X 3) MANOVA was performed on two questionnaire items: i) degree to which these group members have values in common, and ii) the extent to which the Ontario Supreme Court ruling (i.e., the structure of OTF is an internal matter not governed by the Canadian Charter of Rights and Freedoms) is advantageous to members of the three groups. The repeated measure

referred to FWTAO members, OPSTF members, and VOP's. Analyses revealed multivariate main effects for group, $F(4,132) = 3.56, p < .01$, and the repeated measure, $F(4,64) = 30.34, p < .0001$, and a multivariate interaction of group and the repeated measure, $F(8,128) = 3.68, p < .001$.

Univariate analysis ($\alpha' = .025$) on the item enquiring about the degree to which group members held values in common with each of these subgroups, $F(4,134) = 6.95, p < .0001$, contributed to the multivariate interaction ($\alpha' = .025$). Newman Keuls analysis showed that although FWTAO members ($M = 3.32$) and VOP's ($M = 3.71$) felt that all three groups (i.e., members of FWTAO and OPSTF and VOP's) held common values, OPSTF members felt that the values of FWTAO members were different ($M = 2.50$) from their own and those of VOP's (combined $M = 3.54$). For the other item about how advantageous the Supreme court ruling is for each group, a significant univariate interaction of group by subgroup, $F(4,134) = 5.34, p < .0001$, and Newman Keuls analysis, showed that, compared to members of FWTAO and OPSTF (combined $M = 3.78$), VOP's reported the highest estimate ($M = 4.62$) for FWTAO members. Members of FWTAO reported higher estimates for OPSTF members ($M = 2.46$) and VOP's ($M = 2.71$) than did OPSTF members and VOP's (for OPSTF members: combined $M = 1.52$; for VOP's: combined $M = 1.76$). Overall, the univariate main effect for the repeated measure and a subsequent Newman Keuls test demonstrated that members of all three groups felt that FWTAO members ($M = 4.07$) benefitted more than VOP's and members of OPSTF (combined $M = 1.96$) $F(2,134) = 87.26, p < .0001$. A Newman Keuls test following a univariate effect of group for this

item, $F(2,67) = 4.11$, $p < .025$, did not identify the source of this effect. A univariate effect ($\alpha' = .005$) for federation, $F(1,67) = 16.68$, $p = .0001$, for a final item included in the group by federation repeated measure (3 X 2) MANOVA on ten questionnaire items (see section 5.5 in Appendix H) also showed that members of the three groups felt that the Ontario Supreme Court ruling was fairer for FWTAO (grand $M = 2.77$) than for OPSTF (grand $M = 2.11$). Newman Keuls analysis did not identify the source of the marginal effect of group for this item, $F(2,67) = 4.04$, $p < .025$.

5.7 Relevance of OTF federations as comparison groups. One item about teachers' perception of the relevance of other federations under the Ontario Teachers' Federation to their own was included in a 3 X 4 (group by federation) ANOVA (section 5.14 in Appendix H). A significant interaction, $F(4,228) = 2.77$, $p < .02$, for the analysis and a subsequent Newman Keuls test revealed that only VOP's felt that OSSTF and FWTAO were more relevant as a comparison group to OPSTF than were either AEFO or OECTA (Newman Keuls: $p < .01$). In contrast, FWTAO and OPSTF members reported that each of the other four federation affiliates was equally relevant as a comparison group to their own federation. The federation main effect, $F(2,228) = 14.18$, $p < .0001$, simply showed that overall, OPSTF/FWTAO and OSSTF were perceived as being more relevant comparison groups to subjects' own federation than were either AEFO or OECTA. Newman Keuls analysis did not identify the source of the effect of group, $F(2,76) = 8.08$, $p < .001$.

Analyses of Teachers' Resource Distributions

5.8 Within treatment analyses. Table 5.13 displays the resource distribution strategies of FWTAO, OPSTF, and Voluntary OPSTF members. Recall that 'pull' scores for the field study ranged from -6 to 6 instead of -12 to 12 as they did for the same- and opposite-sex power studies presented in chapters three and four. For members of FWTAO, the strength of 'pulls' declined in magnitude in this order: P on FAV, MD on MIP+MJP, FAV on P, FAV on MJP, MIP+MJP on MD, and MJP on FAV. The order of magnitude of 'pull' scores for voluntary OPSTF members was identical. For OPSTF members, the order was similar: P on FAV, MD on MIP+MJP, FAV on MJP, FAV on P, MIP+MJP on MD, and MJP on FAV. As usual, parity was the strategy most strongly used by subjects. To control for type 1 error, an *a priori* level of significance was set at .01 for the Wilcoxon-matched pairs tests performed on the 'pull' scores.

As can be seen in Figure 5.1, these analyses demonstrate that FWTAO members consistently discriminated against the outgroup by favouring their own group in the distribution of funds on the three available discrimination strategies: FAV on P, FAV on MJP, and MD on MIP + MJP. In contrast, members of OPSTF displayed significant outgroup favouritism on MD on MIP+MJP. They also tended to favour the outgroup on the remaining two measures (FAV on P & FAV on MJP). This pattern of results was corroborated on the 100-point zero-sum task. On this measure, as well,

TABLE 5.13 **TEACHERS' DISTRIBUTION OF FUNDS BETWEEN
FWTAO AND OPSTF**

Mean "Pulls" of Matrix Distribution Strategies

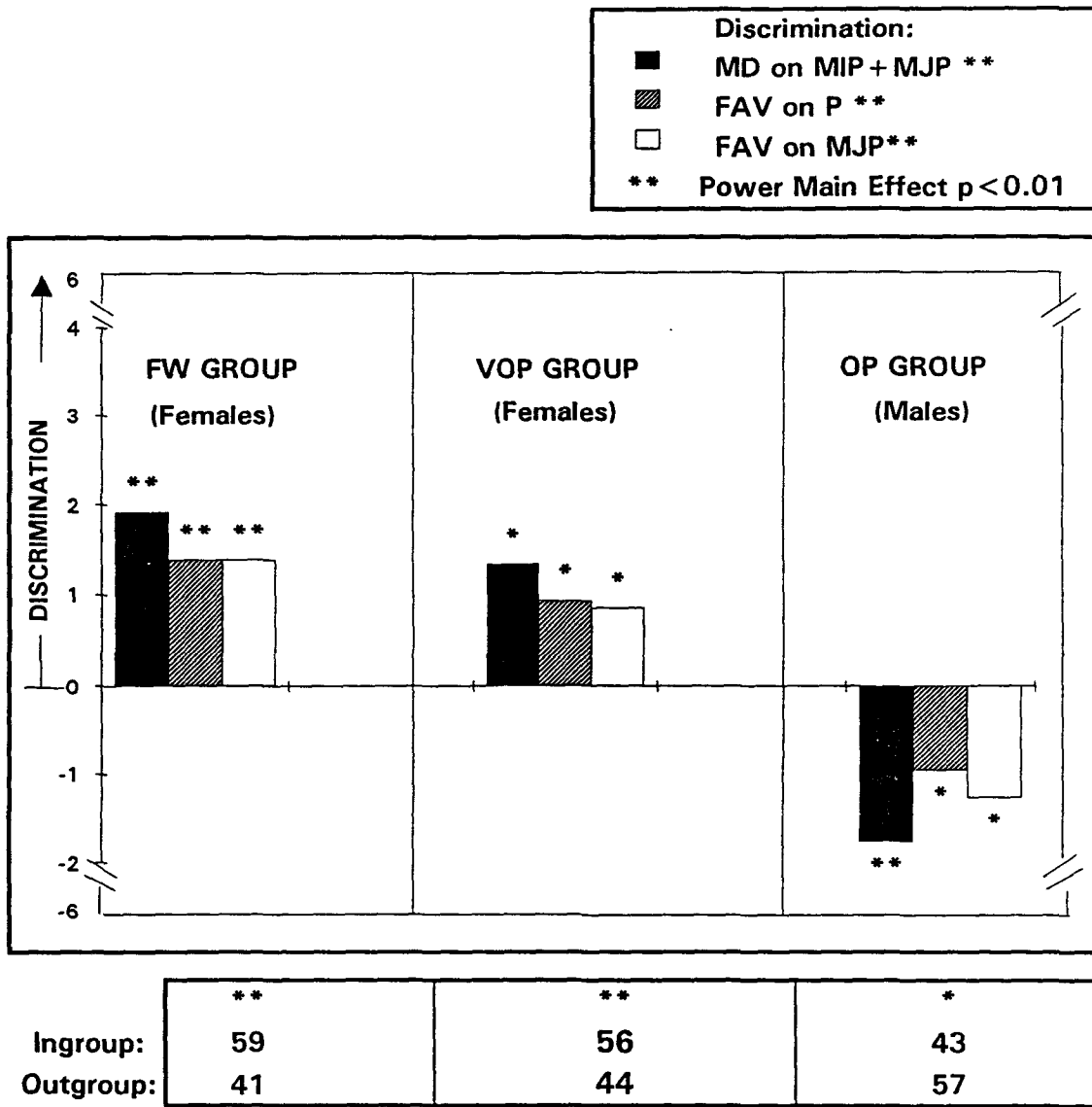
Matrix Distribution Strategy	FWTAO Members (n = 26)	Voluntary OPSTF Members (n = 27)	OPSTF Members (n = 26)
P on FAV	4.35*	4.52*	4.65*
FAV on P	^b 1.38*	^b 0.93 [†]	^a -0.96 [‡]
FAV on MJP	^b 1.38*	^b 0.85 [‡]	^a -1.27 [†]
MD on MIP & MJP	^b 1.92*	^b 1.33 [†]	^a -1.77*
MIP & MJP on MD	0.38	0.30	0.54*
MJP on FAV	0.38	0.19	0.35
100 Point Zero Sum Task:			
Funds to Ingroup	^b 59.00*	^b 55.93*	^a 43.12 [†]
Funds to Outgroup	41.00	44.07	56.88

* $p < .01$

[†] $p < .02$ (Wilcoxon Matched Pairs Test, 2 tailed)

[‡] $p < .05$

^a < ^b, $p < .05$ (Newman Keuls Multiple Comparison Test)



Distribution of 100 points

* $p \leq 0.05$ ** $p \leq 0.01$ (Wilcoxin Matched Pairs Test)

Figure 5.1 Discrimination between male and female members of sex-segregated labour federations in Ontario Distribution of resources on Tajfel matrices and 100-point zero-sum task. (Cole & Bourhis, 1991)

members of FWTAO favoured their own group giving 59/100 points to FWTAO.

Members of OPSTF, on the other hand, tended to show outgroup favouritism toward FWTAO, allotting 57/100 points to the women's federation.

Voluntary OPSTF members did not favour the federation into which they were 'passing'. Instead, VOP's tended to favour FWTAO on all available distribution strategies (FAV on P, FAV on MJP, and MD on MIP + MJP). These group members did favour FWTAO on the 100-point zero-sum task giving 56/100 points to FWTAO.

5.9 Between treatment analyses. A MANOVA with group (three levels) as a between factor was performed on the 'pull' scores and on allocations to FWTAO and OPSTF on the 100-point zero-sum task. The overall MANOVA revealed a main effect for group, $F(14,140) = 2.57, p < .01$. Univariate analyses indicated that the group main effect was due to the discrimination strategies, FAV on P, $F(2,76) = 10.18, p = .0001$; FAV on MJP, $F(2,76) = 13.25, p < .0001$; MD on MIP+MJP, $F(2,76) = 13.39, p < .0001$; and the 100-point zero sum task, $F(2,76) = 18.05, p < .0001$. Subsequent Newman Keuls multiple comparison tests were performed to define which groups differed on these measures (see Table 5.13). (For ease of description, 'pulls' greater than .50 are assumed to indicate discrimination; 'pulls' below -.50 are assumed to indicate outgroup favouritism.) As could be anticipated from the results of the within treatment analyses, between treatment analyses confirmed the pattern of discrimination shown by FWTAO members and VOP's, and the outgroup favouritism shown by OPSTF members on the matrices (all p 's $< .01$). The same pattern of findings was also obtained for the 100-point zero-sum task.

Discussion

The discussion addresses five important themes presented in the following order:

- i) perceptions and behaviour of FWTAO members,
- ii) perceptions and behaviour of OPSTF members,
- iii) perceptions and behaviour of VOP's and a discussion of the hypotheses particular to these group members,
- iv) a discussion of the general hypotheses for FWTAO and OPSTF members, and
- v) an outline of differentiation strategies used by federation members in this 'real-life' intergroup context from anecdotal and historical data.

Perceptions and Behaviour of Members of FWTAO

Importantly, FWTAO was perceived to have more power and more status than OPSTF by members of all three groups (Table 5.7). Members of the three groups also perceived that FWTAO represented a majority of the elementary public school teachers (70%). Thus, on all three sociostructural dimensions of comparison of power, status, and group numbers, the women's federation was perceived as comparatively superior. Accordingly, FWTAO was perceived as the dominant, high status, majority group. The women's federation thus offers women a rare occasion to be members of a powerful group in control of both the content and structure of their own-sex organization. Given the uniqueness of this situation, it is no wonder that these women identified with their federation and that the quality of their social identity was quite positive, satisfying and secure (Table 5.6). Women of FWTAO also liked members of

their own group more than members of the outgroup (Table 5.12) and tended to evaluate their own group performance more favourably than that of OPSTF on each of the three salient dimensions of comparison (Table 5.8): efforts in matters of pay equity, professional development, and social issues. In line with these perceptions and feelings, FWTAO women also discriminated against OPSTF on each of the Tajfel discrimination measures (Table 5.13). As well, they favoured their own group in their distributions on the zero-sum resource allocation task. Overall, these patterns of perceptions and behaviours are in line with the results obtained with dominant female group members in the same- and opposite-sex laboratory studies described in chapters three and four.

Nevertheless, although FWTAO members favoured their own group in the resource allocations, one could argue that such distributions more likely reflect the application of an equity principle in which the 70% strong FWTAO members deserved the majority of the total resources. The strength of this argument, however, is weakened by the observation that FWTAO women only awarded 59% of the resources to their own group rather than the 70% that they could otherwise have claimed on the basis of their numerical strength within the labour federation structure. This equity analysis nevertheless raises the point that women teachers in FWTAO may in fact have deprived their own group from its rightful share of the resources on the zero-sum distribution measure. Related to this, Major, Bylsma, and Cozzarelli (1989) observed that in work domains women are more benevolent in their distribution of rewards than are men. It should nevertheless be noted that FWTAO members did not appear to

'short-change' their group on other dimensions of comparison as they tended to favour their own group on the evaluative measures of pay equity, professional development, and social issues.

Perceptions and Behaviour of Members of OPSTF

The men's federation was perceived as the subordinate, low status, minority group by members of all three groups (Table 5.7). In line with Sachdev and Bourhis (1991) who investigated the combined effects of power, status, and group numbers in the laboratory, these low power, low status, minority group members did not discriminate against the female outgroup on the Tajfel matrices or the zero-sum task, but instead showed outgroup favouritism towards the dominant, high status, majority group, FWTAO (Table 5.13). A number of investigators have suggested that such displays of outgroup favouritism by subordinate low status minorities demonstrate that these group members have internalized their 'inferiority' on specific dimensions of comparison within a stable, stratified intergroup structure (Brand, Ruiz & Padilla, 1974; Lambert, 1970; Sachdev & Bourhis, 1991; Vaughan, 1978).

Consistent with the sociostructural position of their federation, OPSTF members felt less satisfied with their federation membership than did FWTAO members. However, despite OPSTF's low power, low status, minority position, male group members had a moderately positive and secure social identity (Table 5.6). Also, these men liked outgroup women of FWTAO as much as members of their own federation (Table 5.12). These latter findings do not appear to be in line with SIT predictions. Subordinate, low status, minorities are expected to have a negative social

identity especially when comparisons with the dominant, high status, majority group are salient within the intergroup setting.

How can one reconcile OPSTF members' outgroup favouritism on the allocation measures with their positive social identity? Displays of outgroup favouritism are expected by group members who have internalized negatively discrepant comparisons between their own and another group. Such group members have a negative social identity. Three *post hoc* explanations of these results are proposed.

A) Sociostructural constraints on the quest for group distinctiveness. It may be that OPSTF members favoured the women's federation not because they had internalized feelings of inferiority regarding the social structural hierarchies but simply because FWTAO constitutes the numerical majority of 70% in the labour structure and as such, FWTAO should be granted the major share of the financial resources available for distribution. However, this analysis, based on the equity principle, is not entirely applicable because male OPSTF members allocated only 57% of the resources to FWTAO rather than 70% as would have been expected on the basis of the demographic weight of the membership of the women's federation.

B) Importance of intergroup dimensions of comparison. Another reason why OPSTF members may have managed to have had nearly as positive a social identity as did FWTAO members is that although OPSTF members admitted that power and status was as important to their federation as it was to FWTAO (Table 5.7), their responses indicated that it was less important to them personally that their federation

have status compared to estimations given by members of FWTAO and VOP's (Table 5.9). Likewise, power for their federation tended to be less important to them. This is in direct contrast to reports by female and male undergraduates (chapter 2) as well as teachers themselves that suggest that power in society is more highly valued by the male group than by the female group. Compared to these findings, it appears that OPSTF members devalued the importance of power and status to themselves, thereby protecting their social identity from the consequences of negatively discrepant intergroup comparisons (Wagner, Lampen & Syllwasschy 1986).

A study by Wagner, Lampen, and Syllwasschy (1986) demonstrated that the more inferior the ingroup is on a particular dimension of comparison, the more those group members are motivated to change the importance of this dimension. These efforts are described as 'reactions' to restore a positive social identity. Members of OPSTF claimed that an increase in membership number was equally important to both federations (Table 5.7). Yet VOP's reported that an increase in membership tended to be, on the contrary, more important to OPSTF than it was to FWTAO. Because VOP's are members of both federations, they have a vantage point that members of either of the other groups do not. Perhaps, estimations given by VOP's on this matter are more objective because of this vantage point. Recall also that VOP's reported that OPSTF members put more effort into recruiting members than do FWTAO members. Thus, as was argued for the importance of federation power and federation status, OPSTF members may have been downrating the importance of a very central dimension of comparison between the men's and the women's federation, viz. group

numbers, to protect the effect that this negative comparison would have on the quality of their social identity.

In addition, OPSTF members might feel positive and secure as group members because they already compare favourably with women given that men as a group in society, still command more wealth, power, and status than women. Recall from chapter two, three, and four that men as a group are perceived to have more power and status than are women in a variety of settings. Men of OPSTF would also have greater power and status because of the greater proportion of men than women who are in administrative and authoritative positions within the school system. In the school environment, these men function daily as high power, high status individuals with women teachers. The prevalence of men in vice-principalship and principalship positions within the elementary school system may contribute to the overall positive and secure social identity of OPSTF members (Table 5.10). Taken together, despite their structurally lower power, lower status, minority position within the labour structure, OPSTF men may nevertheless enjoy a positive social identity because of their status as men in society and the fact that, as individuals, they occupy higher power positions within the Ontario public elementary school system. It is on these latter 'more important' dimensions of comparison that OPSTF members may be able to maintain a positive social identity even when comparing their own federation with a dominant, majority outgroup. Thus, OPSTF members may be able to afford outgroup favouritism on a dimension of comparison that they consider to be less important, namely, the distribution of financial resources to the ingroup and outgroup.

Following this line of reasoning, members of OPSTF might have indicated a more negative social identity if they had been asked how they felt about their federation membership with respect to specific dimensions of comparison such as the sociostructural dimensions of power, status, and membership. Tajfel and Turner (1979) pointed out that only specific aspects of the self-concept are related to the reference group and its relative positions within an intergroup context. However, as Hinkle and Brown (1990) proposed, this analysis remains problematic for SIT because the theory does not clearly specify which dimension of comparison is more likely to gain salience for the anchoring of a positive social identity amongst group members in a given intergroup situation.

C) Positive social identity and intergroup conflict. Male OPSTF members may also have a positive social identity because they are engaged in competition with the outgroup. As with discrimination, Tajfel (1978) proposed that intergroup conflict can contribute positively to group members' social identity. As noted earlier, it is members of OPSTF that have launched the 'amalgamation war' against FWTAO in the Ontario Court system. Over the last few years, OPSTF has spent at least 30% of its budget supporting VOP women in their sex discrimination charge against FWTAO and OTF (OPSTF executive, personal communication, October, 1990). These court challenges have put FWTAO on the defensive given the sacrosanct status of the Human Rights Charters of Freedom which forbids discrimination on the basis of sex. Thus, members of OPSTF were on the offensive when this study was conducted. If OPSTF is successful in the courts, OPSTF stands to gain in group membership, power,

and status relative to FWTAO. Thus, intergroup conflict can destabilise the intergroup structure and offers subordinate group members a chance to improve their comparative position within the intergroup hierarchy (Sherif, 1966). Thus, conflict *per se* may contribute to a positive social identity of OPSTF members.

As a point of interest, when asked to what extent OPSTF members want to become members of the women's federation, OPSTF members reported very low estimates and VOP's tended to report even lower estimates (Table 5.11). Furthermore, OPSTF members felt that they had values in common with FWTAO members to a lesser extent than they did with either OPSTF or with VOP's (5.6). It is noteworthy to find that OPSTF members want to amalgamate with a federation that they, in general, do not want to join and with whom they do not share many common values. Yet at the same time, it should be noted that OPSTF members not only identified as much with the female group in general as they did with the male group (Table 5.5), but they had as liberal a sex-role ideology as did both groups of women. Williams and Giles (1978), however, warn that the relationship between ideology and practical egalitarianism is nebulous (p. 444). Perhaps, on a more optimistic note, an equally liberal sex-role ideology is an indication that male and female teachers share a fundamental belief system about the roles of men and women in society.

Perceptions and Behaviour of VOP's

A number of SIT predictions about the intergroup perceptions and feelings of VOP's were confirmed. A fundamental premise of SIT is that individuals prefer to be members of groups that give them a positive social identity rather than to belong to

groups that give them a negative social identity (Tajfel, 1978; Tajfel & Turner, 1986).

The intergroup 'passing' behaviour of women teachers who become voluntary members of the subordinate minority federation of OPSTF seems to contradict this basic premise of SIT.

At stake in the competition between OPSTF and FWTAO is the permeability of the group boundaries between the two federations as a way for women members to retain full control of the destiny of their own group while ensuring the numerical and financial strength of their own federation. In contrast, men of OPSTF struggle to establish permeable boundaries between the groups. Permeable intergroup boundaries would allow OPSTF men to recruit women into their own federation thus improving its demographic and financial position as well as its own power and status within the labour structure.

In support of the first SIT prediction for VOP's and reflective of a social mobility belief system, VOP's felt more strongly than women of FWTAO that the intergroup boundaries should permit teachers to become a member of either federation (Table 5.11). Granted, there are a number of advantages to becoming a voluntary member of the men's federation. For instance, one VOP claimed that "there may be a proportionally higher number of women in administrative positions who have become voluntary members of OPSTF". Thus, women who are already in administrative positions, might choose to affiliate with OPSTF which has, as members, a number of individuals in administrative positions. Similarly, another stated the following:

In a situation in which a man and a woman are being interviewed for a principal's position, the man would

know the other male interviewers but the woman would not. If I go to an OP dinner, there are principals, including female principals, and board members. If I go to an FW meeting, there will be one or two principals, and very many people, therefore, I will not make contacts. If one wants to apply for a principals' job, one must make contacts.

Women who choose to become members of the men's federation may be seeking this form of personal power and status. As well, one VOP commented that she wishes to leave the women's federation because of the "little control" she had in the county meetings. She asserted that in OPSTF she is "respected and heard" - "it is very democratic". Possibly, OPSTF confers a different sort of status than that accorded to the women's federation. They are, after all, a group of men and thus are accorded higher status as well as power in general (Cole & Bourhis, 1988, chapter 2). Furthermore, a substantial proportion of these men are imbued with personal power and personal status as administrators within the school system. This same VOP viewed the status of OPSTF this way: "The professional development programs offered by OPSTF are very top notch. It is a top drawer, first class organization. They look at teachers as professionals".

Consistent with these views, and in support of the second SIT prediction, substantially more VOP's than FWTAO members desired to become principals in the future. Undoubtedly, the position of principalship confers greater personal power and status to those who hold it. Thus, voluntary membership into the men's federation can be seen as one of the stepping stones necessary to improve individual career prospects within the school system.

Regarding their gender group membership, VOP's tended to perceive themselves less in terms of being a 'feminist' than did FWTAO members (Table 5.5). This finding is especially important in light of the notion that feminists have long advocated the importance of acting collectively to change the *status quo*. Therefore, because VOP's appear to have put individual goals over ingroup or FWTAO goals, they are more individualistic in orientation than are FWTAO members, who appear to have collectivistic orientations (Triandis, Bontempo, Villareal, Asai & Lucca, 1988). With this in mind, VOP's sex-role ideology, although still liberal, may be different from that of FWTAO members in terms of beliefs about strategies to redress inequalities between men and women: The AWS scale was devised to measure attitudes about equal roles of men and women in political, economic, and social spheres of society. However, beliefs about the kind of action that women should take if equality is not attained is probably a different matter. Accordingly, this aspect of one's belief system is not tapped by AWS. One VOP summarized her argument as follows:

I cannot believe that in a union composed of 2/3 women and 1/3 men, women would not be heard. Anyway, most women in primary school are quite content with their positions and don't wish to advance into 'higher' positions. So there is a question of how many women teachers want higher positions. The majority of high status/high power positions are occupied by men is a society problem. That is the way it has always been throughout history. The affirmative action policy will not change it and it will not make this change within five years - The root of this fact stems from society.

Thus, women who have 'passed' into OPSTF probably share a social mobility orientation rather than one of social change. Consequently, their behaviour is more individualistic than collective (Tajfel, 1978). Taken together, VOP women can be situated on the 'individualistic' and 'social mobility' poles of Tajfel's (1978) behaviour and belief system continua. To the degree that OPSTF is seen as an organization that values an individualistic upward mobility orientation, it may be the federation of choice for women teachers who have a more individualistic upward mobility orientation.

The third SIT prediction for VOP's was partly supported. Although VOP's identified more with the male group in general than did FWTAO members, they nevertheless, identified just as much with the female group as did the women of FWTAO (Table 5.5). Contrary to prediction, they identified as much with the women's federation as they did with the men's (Table 5.6). These findings are in contrast to those of another field study which showed that polytechnics who wished to 'pass' into the higher status group of university lecturers, did not identify as much with the ingroup as did other polytechnics who did not wish to become a university lecturer (Bourhis & Hill, 1982). Sharing gender with FWTAO members and identifying just as much with the female gender group as with the male group may be related to the degree to which VOP's identified with the women's federation.

For VOP's, membership in both federations may be useful for the achievement or maintenance of a positive social identity. These women not only identified as much with FWTAO as they did with OPSTF but they also reported to like members of

FWTAO as much as members of OPSTF (Table 5.12). Nevertheless, as predicted from SIT, VOP's joined a group that gave them a more positive social identity as they felt more positive and satisfied about their voluntary affiliation than their statutory membership and also tended to like being members of OPSTF more than FWTAO (Table 5.6).

Interestingly, and contrary to the fourth SIT prediction for VOP's, these women did not report a conflict of values with FWTAO. Voluntary OPSTF members felt that their values were as consistent with FWTAO as they were with OPSTF (5.6). Possibly, because the term 'values' was not specified in the item, group members could have interpreted values as those particular to the profession of teaching and therefore did not perceive a substantive difference in this respect between themselves and other teachers. Note, however, that OPSTF members did perceive a difference in values between themselves and members of FWTAO.

Given VOP's dual federation and gender group identification, as well as their claims of having common values with both federations, one could have expected VOP's not to have discriminated against either federation. Or, as originally predicted, VOP's would favour OPSTF in the distribution of rewards given their attempts to 'pass' into that federation. However, it was observed that VOP women discriminated against OPSTF on the zero-sum task and tended to favour FWTAO on all available measures on the matrices (Table 5.13). This was especially interesting given the finding that two thirds of these women would relinquish their statutory membership to FWTAO to become full, paying members of OPSTF (5.5).

Even so, it is possible that resource allocations are not a true reflection of discrimination against OPSTF. Rather, these responses may reflect the impact of demographic factors which govern relations between the two groups. Voluntary OPSTF members might have favoured FWTAO because this group represents the 70% numerical majority in the labour structure of the elementary school system, and therefore should be granted their proportional share of the financial resources. However, this equity explanation is not entirely valid since VOP's only allocated 56% of the resources to the women's federation rather than the 70% allocation expected on the basis of the demographic strength of FWTAO.

Evidence for Hypotheses for FWTAO and OPSTF Members

From hypothesis 1, it was expected that if power was the main factor influencing intergroup behaviour, members of both the dominant group, FWTAO, and the subordinate group, OPSTF, would discriminate. Further, FWTAO members, being the dominant group, would display more discrimination than would members of the subordinate OPSTF group. Dominant group members were also expected to identify more with their group and feel more positive about their group membership than subordinate group members. Hypothesis 1 was partially supported. Dominant FWTAO members did discriminate against subordinate OPSTF members (Table 5.13). In addition, OPSTF members, being perceived as the subordinate group, did have a less positive social identity on the satisfaction measure (Table 5.6). However, OPSTF members did not discriminate. Instead, they displayed outgroup favouritism on every available distribution measure. These members also had just as positive a social

identity as did dominant FWTAO members in that they had an equally comfortable, positive, and secure social identity. Subordinate OPSTF members also liked being members of their own federation as much as dominant FWTAO members. As well, members of FWTAO and OPSTF identified equally with their federations.

Hypothesis 2 was based on the results of the opposite-sex power study (chapter 4). In this case, both power and sex were expected to have an effect on discrimination. Reflective of their low power, group members of OPSTF were expected to display a tendency toward discrimination. Also, both subordinate and dominant power group members would identify equally with their federation. However, because of their greater power, members of FWTAO were expected to have a more positive social identity. In partial support of hypothesis 2, FWTAO members did display significant ingroup favouritism on all available measures and felt more satisfied about their federation membership than did low power OPSTF members. Also, in support of hypothesis 2, high and low power federation members identified equally with their own group. Contrary to hypothesis 2, low power group members displayed outgroup favouritism and felt as positive as did high power FWTAO members on all affective dimensions, except satisfaction.

Alternatively, and in support of hypothesis 3, the pattern of results for FWTAO and OPSTF on the matrices and the 100-point zero-sum task can be explained if we consider the federations' positions on the three sociostructural dimensions of comparison: power, status, and group numbers. As members of the high power, high status, majority group, women teachers of FWTAO did discriminate against OPSTF.

Conversely, and consistent with hypothesis 3, low power, low status, minority group members of OPSTF displayed outgroup favouritism towards the high power, high status, majority women's federation. This pattern of discriminatory behaviour was observed in the study by Sachdev and Bourhis (1991) in which power, status, and group numbers were manipulated in the laboratory with mixed-sex groups.

Also, consistent with Sachdev and Bourhis (1991) and in support of hypothesis 3, dominant, high status, majority group members of FWTAO, having a more positive social identity, felt more satisfied about their federation membership than did subordinate, low status, minority group members of OPSTF. However, contrary to this hypothesis, OPSTF members felt equally comfortable, positive, secure, and liked being members of their own federation equally well. Dominant, high status, majority group members did not identify more with their group than did subordinate, low status, minority group members: both men of OPSTF and women of FWTAO identified equally with their federation.

Overall, in support of hypothesis 3, the results on the distribution measure and one measure of quality of social identity were consistent with those of the laboratory study by Sachdev and Bourhis (1991). Generally, however, men of OPSTF had a more positive social identity than would be expected from their position on the sociostructural hierarchy. The importance they ascribed to dimensions of comparison and the fact that their federation is engaging in social conflict were proposed as *post hoc* explanations for this finding.

It should be noted, however, that the pattern of results obtained by Sachdev and Bourhis (1991) for the groups in the other conditions of their study demonstrate that variation on just one sociostructural variable results in the use of different allocation strategies by subjects. Thus, each one of the sociostructural manipulations had, in combination with the other manipulations, unique effects on discriminatory behaviour. Accordingly, OPSTF members might not have shown outgroup favouritism if their federation had been perceived to be either dominant or to have higher status than FWTAO. As well, OPSTF members might have discriminated against the outgroup had the matrices represented a valuable resource that could not be directly related to any of the sociostructural variables upon which one group compares favourably. For example, the results may have been different if group members distributed 'bargaining power' between FWTAO and OPSTF. Under the existing structure of OTF, both federations have equal voting power.

Social competition on other, evaluative, measures, however, tended to be exhibited by members of all three groups. For instance, members of FWTAO favoured their own group on all three dimensions of comparison: pay equity, professional development, and social issues (Table 5.8). In contrast, OPSTF members, tended to acknowledge the superiority of FWTAO on the pay equity dimension of comparison and tended to rate the performance of their federation as equal to that of FWTAO in the areas of professional development and social issues. Voluntary OPSTF members, who identified with both federations, tended to acknowledge the superiority of FWTAO on the social issues dimension and tended to rate OPSTF and

FWTAO equally on the pay equity and professional development dimensions of comparison. Interestingly, group members felt that it was important for their federation to compare well on all three of these dimensions. This pattern of ratings by VOP's and OPSTF members contradicts the findings of Mummendey and Simon (1989) in which outgroup favouritism was granted only on those dimensions that were rated as low in importance to ingroup members.

Conceivably, if group members perceive the outgroup to be superior on a dimension that outgroup members themselves also perceive to be in favour of their own group, the differential probably exists in reality. Thus, FWTAO likely does compare favourably with OPSTF with respect to pay equity and social issues. Furthermore, because VOP's and OPSTF members tended to claim that OPSTF and FWTAO performed equally well on the pay equity and social issues dimensions, respectively, these group members were likely engaging in social competition as one way of improving their social identity (Bourhis & Hill, 1982).

Furthermore, FWTAO members appear to have engaged in social competition on the professional development dimension on which they claimed superiority for their federation. Here, both VOP's and OPSTF members tended to report FWTAO and OPSTF to be doing equally well. Members of OPSTF and VOP's may have considered that the two federations provide different, but equally beneficial programs. For example, FWTAO may emphasize professional development programs for primary school teachers, but OPSTF offers a variety of leadership and professional development programs, a number of which are tailored to the interests and needs of

those in administrative positions. On the other hand, because of the greater financial resources of FWTAO, the women's federation may offer a greater variety of professional development programs. Perhaps, FWTAO members claimed ascendancy on this basis.

Female group members in the opposite-sex study (chapter 4) demonstrated the usual categorization effect by liking ingroup female members more than outgroup male members. In this field study, as well, women of FWTAO liked their own group members more than they liked either members of OPSTF or VOP's. Also, the unique effect shown by men in the opposite-sex study was replicated here: men of OPSTF liked FWTAO members as much as they liked VOP's and other members of OPSTF.

It is noteworthy that as shown in previously presented laboratory studies (chapters 3 & 4), male and female individuals categorized as members of distinct labour federations behaved very much as group members rather than as gender-stereotyped individuals. Women teachers were not particularly 'communal' in behaviour or orientation and men teachers were not particularly 'agentic'. Even as individuals, and consistent with previous results of this thesis (chapter 2) and the findings of another study (Winter, 1988), female teachers valued and desired power and status as much as did male teachers. However, in light of the finding that only 7% of female school teachers had chosen to become VOP's at the time of this study, and as initially argued by Tajfel (1978) and subsequently elaborated within Turner's (1987) Self-Categorization Theory, individuals may be more likely to act as group members in a setting in which rivalries between members of contrasting groups

become more intense. However, a contrasting case with which to compare precludes this as a conclusion.

Strategies Used to Maintain or Attain a Positive Social Identity

Williams and Giles (1978) described how women, as subordinate, low status group members, have used each of the individual and group strategies outlined in articulations of Social Identity Theory (Tajfel, 1978, 1982b; Tajfel & Turner, 1979, 1986). As will be illustrated, FWTAO members have also implemented a number of these behaviours to change the *status quo*. OPSTF is perceived as a subordinate, low status, minority group in this intergroup context, and as such, its members have used these strategies as well. The following are examples of how FWTAO and OPSTF members implement individual and group strategies to redress perceived inequalities to ameliorate the quality of their social identity. In another 'real-life' intergroup context, in Britain, university and polytechnic professors in Bourhis and Hill (1982) also used the full range of differentiation strategies proposed by Tajfel.

Individualistic Strategy

'Passing'. When faced with a negative social identity, individuals may strive to achieve a positive social identity by attempting to 'pass' into a higher status group, for example. Such attempts would only be successful if the social structure is permeable, to permit passage of individuals from one group to another, and second, if they are accepted by members of the group into which they wish to pass. If possible, group members will attempt this strategy first (Taylor et al, 1987; Wright, Taylor & Moghaddam, 1990). Evidently, VOP's fall into this category. Williams' and Giles'

(1978) description of women attempting to 'leave' the female group psychologically seems fitting for VOP's: "This is a woman concerned with personal success who strives to be a 'superwoman' in a male-dominated activity...her male colleagues become her reference group...." (p. 436). Notably, these women teachers are not only being welcomed into the men's federation but are actively being recruited (Table 5.11). Even though, the social structure is not completely permeable, these group members are endeavouring to make it so. For men teachers, such an individualistic strategy is not an option as the women's federation does not permit men to become voluntary members.

Collective Strategies

A) Creating a new dimension of comparison. Others will choose to engage in collective, group strategies to change the position of the group on the social hierarchy. This occurs when the social structure is perceived to be one of social change in which it is very difficult for individuals to pass from one group to another as in the case of sex categorization. One of these group strategies is to create new dimensions of comparison on which group members will compare favourably with a relevant outgroup, e.g., men in the teaching profession. As an example of this strategy, the women's federation is very active in the areas of poverty, race relations, environmental issues, family violence, and numerous concerns and activities particular to women, such as the Women's History Conference in September, 1989.

Similarly, men of OPSTF have created a new dimension of comparison on which they compare favourably: they have consistently emphasized professional

development programs that teach administrative and leadership skills. In contrast, women of FWTAO emphasize programs for primary school teachers.

B) Redefining old dimensions of comparison. As a second collective strategy, group members can redefine old dimensions of comparison in a way that would favour the ingroup, instead of the outgroup. The men of OPSTF have adopted an argument traditionally used by women to promote intragroup goals. In objective no. 9, adopted in 1983, OPSTF made unification of all teachers a long term goal:

A society in which all teachers participate equally would seem to be a basic tenet of 1989. Teachers, because of their influential position in the development of attitudes, should pursue a leadership role in opposing discrimination. Let us begin with our own house (Lincolnnews, May, 1989).

But as long as there are teachers in this province who feel discriminated against on the basis of their sex, we will continue to fight the issue. When all teachers are treated equally, we will be able to progress on other issues of importance to teachers....

Right now the goal is freedom of association - many women find it offensive that they are assigned to a federation on the basis of their sex.... Nowhere else is one's bargaining agent determined on the basis of their sex. (Information Concerning Voluntary Membership in the Ontario Public School Teachers' Federation, <no date>)

In addition, men of OPSTF have redefined 'women's issues' as 'family issues':

"Issues that are identified as 'women's issues' are, in reality, 'family issues'. All of your needs are addressed by OPSTF" (Information Concerning Voluntary Membership in OPSTF). Also, perhaps by making amalgamation a top priority, OPSTF members have redefined the need for a women's federation altogether. Both of these examples

have the additional effect of denigrating the outgroup and denying the 'distinctiveness' of FWTAO - perhaps reflecting social competition amongst the groups on the 'group distinctiveness' dimension (Giles, Bourhis & Taylor, 1977).

For members of FWTAO, an example of their use of this collective strategy is their continued efforts to change the way in which females are sometimes portrayed in children's reading materials. In a report commissioned by FWTAO, the authors concluded,

...while formats, illustrations and some stories had changed, The Old Metaphor of a world created and controlled by men, for men was still the foundation of most stories (The More Things Change...the More They Stay the Same, FWTAO, 1987)

A second way in which FWTAO women can be described as striving to redefine the way in which women have traditionally been defined is in the very language that teachers use. In a pamphlet distributed to teachers, teachers are encouraged to combat sexism by using inclusionary language. In this pamphlet, FWTAO describe the issue, the problem, why change, how to change, and what to change: "to ensure that the language we use and model for students is an accurate reflection of today's reality so that the 'representation of the world' developed by young people and portrayed by the educational system is appropriate" (Inclusionary Language: A sex equity issue, FWTAO).

As another way in which FWTAO is redefining old definitions, FWTAO has recently won a "judicial review concerning the rights of occasional teachers to purchase credit under the Teachers' Pension Act" (Posthaste, FWTAO, No. 15, April,

1991). This changes the way the teaching service of occasional teachers, of whom the vast majority are women, has been defined. Previously, occasional teachers were prohibited from purchasing credited services after an absence from teaching that followed a period of occasional teaching. Members of FWTAO felt that this was discriminatory. Now this absence is termed a 'break in service'. This allows teachers to purchase the time back toward their pension and early retirement if they so desire. Interestingly, although FWTAO won this battle for occasional teachers, they are actually officially represented by OPSTF.

C) Comparing with another outgroup. A third collective strategy that can be implemented by group members to improve their social identity is to change the outgroup to which they compare to one with whom the ingroup would compare favourably. For federation members in this study, FWTAO and OPSTF members tended to believe that either the women's or the men's federation was a relevant comparison group. Moreover, compared to FWTAO, VOP's identified the secondary school teachers' federation (OSSTF) as equally relevant as FWTAO as a comparison group to OPSTF. Because OSSTF represents both men and women teachers in the secondary public school system, VOP's may have exaggerated the relevance of this federation in an attempt to justify their claims that a mixed-sex federation should also represent teachers in the elementary school system. Comparing the ingroup to OSSTF could be an upward mobility strategy in which groups compare themselves with another that compares favourably on an important dimension of comparison to justify

demands for change and improvements in their material circumstances (Bourhis & Hill, 1982).

D) Intergroup competition. A final group strategy articulated by Tajfel and Turner (1979, 1986) is for group members to engage in direct intergroup competition over important dimensions of comparison. In addition to an elaboration of how group members competed on evaluative measures included in the study, the formation of the women's federation, itself, is an example of women acting collectively to redress some of the historic disadvantages women teachers have faced. Since then, FWTAO has tackled numerous inequities. Furthermore, FWTAO is now offering more professional development courses for teachers in or interested in the positions of vice-principal (Posthaste, FWTAO, No. 2, Sept. 1990) and principal (Posthaste, FWTAO, No. 15, April, 1991). Traditionally, OPSTF has offered courses suited particularly to administrators' needs.

With respect to OPSTF, their efforts with regard to pay equity and social issues may be a form of social competition. Recently, OPSTF ran an article on Native education (OPSTF, Vol. 5, No. 4, April, 1991) - an avenue of concern addressed by FWTAO for many years. Furthermore, OPSTF appears to directly compete with FWTAO by minimizing their successes: "FWTAO takes considerable credit for bringing in reform. In actuality, this is a change throughout society. Proportionately, the mixed-sex federations have made as much progress as has FWTAO" (Information Concerning Voluntary Membership in OPSTF, <no date>).

In conclusion, SIT is clearly applicable to not only the series of laboratory studies investigating the role of power and sex on the intergroup behaviour of undergraduates (chapters 3 & 4) but it also provides an explanation for the intergroup behaviour and feelings of women and men in a 'real-life' intergroup setting. For example, members of both the women's and the men's federation utilize a number of strategies outlined by Tajfel to ameliorate the quality of their social identity. Social Identity Theory, furthermore, helps to illuminate the meaning and function of sociopsychological variables within a unique intergroup context. In doing so, the dynamics of the relations between the women's and the men's federation are further clarified. And, if understanding is an initial step toward harmonious group relations, this chapter may be viewed as contributing to that process.

CHAPTER SIX

Concluding Discussion

As an investigation of the perceptions, feelings, and behaviour of men and women as group members and the role of power in intergroup behaviour, the thesis demonstrated a number of important findings. Findings from the survey (chapter 2) showed that subjective representations of the power and status of men and women reflect their objectively defined positions: the male group was seen to have more power and status than the female group. The relative positions of the male and female group on the power and status hierarchies were also perceived to be changing in favour of women. However, male and female undergraduates felt differently about these changes. Men, who presently have more power and status, felt more threatened by the changing intergroup situation. Other key survey results showed that power was important to both male and female undergraduates. But, despite the power discrepancies between men and women, both male and female undergraduates identified strongly with their gender group and had a very positive gender social identity.

Results from the laboratory studies (chapters 3 & 4) demonstrated that power affects intergroup behaviour. Group power enabled members of same- and opposite-sex groups to discriminate. Power also contributed to a positive social identity. Consistent with this, a power advantage over the outgroup was desirable to both male and female undergraduates. Furthermore, although both powerful and

powerless group members identified with their group, degree of identification with the power group was positively related to displays of discrimination against the outgroup.

In the field setting with elementary school teachers, findings indicated that federation members engaged in social competition and utilized a variety of strategies that, as has been argued, leads to a more positive social identity. In further support of SIT, VOP's did have a more positive social identity with respect to the federation into which they were 'passing'. As in Sachdev and Bourhis (1991) who investigated the combined effects of power, status, and group numbers on intergroup behaviour, dominant, high status, majority FWTAO members discriminated against OPSTF members while subordinate, low status, minority OPSTF members displayed outgroup favouritism toward the women's federation. As expected, FWTAO members did have a more positive social identity on the satisfaction measure than did members of OPSTF. Illustrative of the richness of the 'real-life' intergroup setting, several reasons were put forth to explain how OPSTF could have as positive a social identity as FWTAO members on the other measures of quality of social identity. In contrast to undergraduates, the degree to which teachers identified themselves as a 'feminist' did not vary according to the sex of subjects. One group of female teachers, FWTAO members, tended to identify more strongly with the term 'feminist' than did VOP's, another group of female teachers. It was suggested that reflective of these trends of identification,

FWTAO members chose collective, group action to redress their concerns regarding power and status of women while VOP's chose an individualistic strategy or, specifically, to 'pass' into the men's federation to improve their personal status and power.

Overall, the sex of group members was not a key factor in accounting for the intergroup behaviour and perceptions of males and females in the four studies. However, variables such as group power (chapters 3 & 4) and identification with the power group (chapters 3 & 4) were stronger factors influencing intergroup behaviour. In addition, group power clearly affected feelings about belonging to one's group. The functional relationship between social categorization, social comparison, and social identity and their effect on intergroup behaviour, as articulated in Social Identity Theory, provided a useful framework for understanding the patterns of findings obtained in this thesis.

The remaining part of this chapter is divided into four main sections: a discussion of conceptual issues, methodological issues, practical applications, and suggestions for future research.

Conceptual Issues

The four main themes that I will address in this section are issues related to power, sex, social identity, and other issues related to Social Identity Theory.

Power

The effect of power on discrimination. The laboratory studies showed that group power enabled group members to discriminate and improve the quality of their social identity. Without power, group members did not discriminate. These findings support Ng's (1980, 1982) proposition that power is the tool by which group members are enabled to discriminate. The effect of power on intergroup discrimination shown in chapters 3 and 4 also corroborates earlier findings by Sachdev and Bourhis (1985) in which group members without power did not discriminate at all against outgroup members while both dominant and subordinate group members did display discrimination. Ng (1980, 1982) further proposed that group power enables group members to attain a positive social identity through discrimination. However, group power contributed more directly towards a positive social identity than did discrimination. Perhaps, in this case, discrimination enabled group members to maintain a positive social identity.

Different roles of power: Maintenance vs. attainment. As federation members as a whole, the function of power itself appeared to differ for FWTAO and OPSTF. Consistent with SIT, it could be argued that women of FWTAO want to maintain control over their own federation to achieve their own mandate. They, therefore, want to maintain the power of their own group. Their mandate, however, includes changing what they consider to be inequitable power and status

relations between men and women in the school system and in society in general (Staton & Light, 1987). They advocate equality.

But consider also that some women may actually desire a power advantage over men - perhaps to solidify any newly attained positions. For example, in positions of added responsibility, such as principal and vice-principal, members of FWTAO have advocated that 70% should be women and 30% should be men. These proportions parallel the actual distribution of men and women in the elementary school system. Such a stance by FWTAO members, however, may not take into account differences in academic qualifications between men and women teachers, some of which were observed in the sample of teachers for the field study. For instance, men teachers were more highly educated than women teachers. Differences such as level of education would likely have an effect on the proportion of women and men teachers in principalship and vice-principalship positions.

A number of findings obtained in the present thesis support these notions of FWTAO's use of power to maintain control to achieve its mandate and to strive for at least equal, perhaps greater, positions of power and status than those of men. First, with respect to the role of power, women as a group were perceived by undergraduates and teachers not to value power as much as men. However, female undergraduates felt it is just as important for women to have group power as it is for men. This is consistent with FWTAO women wanting power for the

ingroup to maintain control over its own fate and to achieve their own mandate. Power, it could be said, is viewed by these women as 'a means to an end.' Second, and overall, undergraduates in the same- and opposite-sex study desired greater power than that of the outgroup. Thus, it is conceivable that women may actually want more power than men. Female undergraduates perceived women as a group to have slightly more power in 10 years than men as a group (chapter 2). Also, when asked how much more power men and women should have, female undergraduates gave higher estimates for women and lower estimates for men than did male undergraduates (perhaps to attain equal proportions of men and women in power positions).

In contrast to women wanting to maintain power over its own federation, it could be argued that men of OPSTF want to attain power over the outgroup, the women's federation, to maintain the *status quo*. After all, the men's federation already has equal power and representation in the Ontario Teachers' Federation on the Board of Governors over matters relevant to its own federation. Possibly, they want to gain power over FWTAO as a means of preventing FWTAO women from achieving their own mandate. From SIT, the men would want to maintain their higher power, higher status positions within the school system and in society in general to maintain a positive social identity. The dominant high status group, when met with attempts by the subordinate, low status group to change the *status quo* will compete to maintain its advantageous position (Tajfel, 1978; Tajfel &

Turner, 1979). FWTAO may be a high power, high status, majority federation (chapter 5), but women themselves, as individuals within the school system, are not (chapter 2). In speculation, power over the fate of its own group and that of the outgroup (Ng, 1980, 1982; Sachdev & Bourhis, 1985) is a worthy end in itself, and perhaps for OPSTF, 'the end justifies the means'.

Consistent with this argument, men as a group were perceived by undergraduates to value power more than women, and male undergraduates perceived power to be more important to the male group than to the female group (chapter 2). Male undergraduates also felt that the present power advantage of the male group is more legitimate than did female undergraduates and felt more threatened by the perceived increase in power of the female group and decrease in power of the male group. They also gave higher estimates, compared to their female counterpart, for how much more power men should have and lower estimates of how much more power for women (perhaps to maintain their power advantage). Also note that in the same-sex laboratory study, male undergraduates wanted a significantly higher proportion of power for their own group than did female undergraduates if the experiment were run again. Taken together, findings from the survey, laboratory, and field studies clearly demonstrate that power is highly valued by undergraduates as well as federation members.

Sex

Minimal Group Paradigm: A minimal effect of sex. The conditions of the Minimal Group Paradigm were designed to create a neutral intergroup context in which to study the effect of social categorization on group behaviour. Even under such minimal conditions of categorization, group members still discriminate against the outgroup. One boundary condition for this effect was illustrated by Sachdev and Bourhis (1985) and replicated here in both same- and opposite-sex contexts (chapter 3 & 4): without power, group members do not discriminate against outgroup members.

In this thesis, overall levels of discrimination were compared across studies in which sex was not salient to allocations made by subjects (Sachdev & Bourhis, 1985) and the same- and opposite-sex studies in which sex was salient (chapters 3 & 4). Compared to the mixed-sex power study, group members in the same-sex study discriminated less against outgroup members on one of three discrimination strategies. Group members in the opposite-sex study displayed less discrimination on all three available discrimination strategies compared to the mixed-sex study. Apparently, sex had a 'watering down' or attenuating effect on discrimination when ingroup and outgroup members were of the opposite sex and, in part, when ingroup and outgroup members shared the same sex category.

Therefore, while not entirely eliminating discrimination across power manipulations, sex does reduce displays of discrimination. In the same-sex power

study, group members shared gender group membership across *ad hoc*, arbitrary, categorizations. Importantly, group members identified strongly with their own gender group and felt very positive about their gender group membership.

Accordingly, ties with the gender group were strong. Therefore, a 'bond' in the form of ingroup loyalty seemed to exist between the experimentally created groups. The 'real-life' affiliation between the groups competes with the *ad hoc* group membership created in the experiment.

In the context of opposite-sex groups, where displays of discrimination were further reduced, an attraction for outgroup female members was indicated by men in the study. Although women liked own-sex ingroup members more than outgroup male members it could be argued that because there is no closer relationship than between men and women (Abrams, 1989), a bond or affiliation for male outgroup members could also have existed on the part of female group members for male outgroup members as well. By inspection, the absolute values for ratings of liking for ingroup and outgroup members reported by both male and female group members were higher in the opposite-sex study than in the same-sex (chapter 3) and mixed-sex study (Sachdev & Bourhis, 1985). Therefore, a bond of loyalty with own gender group members or of attraction to opposite-sex group members seemed to exist between the groups in the Minimal Group context attenuating displays of discrimination. Could other 'real-life' bases of categorization when shared between two 'minimal' groups (such as family

members, friends, coworkers, classmates, team-mates etc.) also lead to reduced discrimination?

Note, however, that even under conditions in which group members identified strongly and felt very positive about their gender group membership shared across categorizations, or in which group members liked opposite-sex outgroup members as much as those in their own group, subjects still displayed significant levels of discrimination against outgroup members. Consequently, unless group members are without power, discrimination will generally be exhibited.

Social Identity

Degree of social identification. Undergraduates strongly identified with their respective gender groups. As well, women teachers of FWTAO and VOP's identified strongly with the female gender group. Men of OPSTF, however, identified moderately with the male gender group. It was also observed that although undergraduates and women teachers of FWTAO identified more strongly with their own gender group than with the other gender group, VOP's and OPSTF members identified equally with both gender groups. What accounts for these differences among teachers? Further, what accounts for the similarities and differences between degree of identification with the gender group of undergraduates and teachers? As proposed in chapter five, FWTAO members, self-categorizing themselves as 'feminists', held more strongly to a belief in

collective group strategies than did VOP's or men of OPSTF. In contrast, VOP's and men of OPSTF adhered to a social mobility belief system more than did FWTAO women. Members of OPSTF and VOP's who identify equally with both gender groups also have greater contact with teachers of the opposite sex than do FWTAO members. Thus, for these groups of teachers, there appears to be consistency between degree of identification with the other gender group and between-gender group contact and sex-role ideology. For undergraduates, however, stronger own-sex than opposite-sex identification was related to a liberal sex-role ideology for females and a traditional ideology for males despite daily contact with members of the other gender group.

In future studies, it would be interesting to clarify how identification with the other gender group relates to sex-role ideology of group members as well as how it relates to amount of contact with members of the other sex. Individuals may identify more with members of the other gender with whom they share a similar ideology. Stronger identification with the opposite sex may also be associated with greater contact with members of the other sex. For example, those who identify with the other gender group may seek to associate more often with members of the other gender group than those who do not identify as strongly.

Polarization of gender group identification of undergraduates was observed for FWTAO members but not for the gender group identification of VOP's and OPSTF members. What intergroup perceptions and beliefs differentiate these

groups? What factors contribute to an accentuation or an attenuation of identification with the other gender group? In part, contact with the other sex may contribute to an attenuation of the difference between own- and other-sex group identification: male teachers in this sample, who are in the minority (30%), have worked daily with women teachers for an average of 17 years. In corroboration, Abrams (1989) suggests that,

Although there appear to be few data available it seems likely that male sex group identification is greatest among those holding a traditional sex-role ideology, as it is the males spending time in groups who hold the most traditional attitudes....In contrast, a radical sex-role ideology may entail some degree of disidentification since it implies a belief in the loss of status and security of the position of the ingroup. It also tends to be associated with greater personal commitment to non-masculine activities such as housework...(p. 75).

In this respect, one could propose that male elementary school teachers work in a setting which is sex-typed more as female than as male. It is in such a work setting that male elementary school teachers may be most likely to acquire a less sex-typed sex-role ideology and gender group identification.

The relative effect of power and discrimination on the quality of social identity. The findings of the same- and opposite-sex laboratory studies showed that power contributed to the quality of group members' social identity. Displays of discrimination, however, did not correlate with quality of social identity. This is in contrast to the study by Lemyre and Smith (1985) in which 'minimal' groups

implicitly had equal power, status, and number of group members and discrimination was observed to be positively related to subjects' social identity. The present findings are, nonetheless, consistent with predictions of SIT. According to SIT, intergroup comparisons affect group members' social identity. In the present laboratory studies, manipulations of power were quite salient and had high experimental realism (i.e., impact on subjects). Therefore, although power was used as a tool to discriminate against the outgroup to attain positive psychological differentiation (i.e., without power, group members did not discriminate), it also affected group members' social identity through the process of social comparison. Power differentials, then, had an impact on group members' quality of social identity; the amount of discrimination they displayed did not.

It is not known whether these same patterns would have been obtained by Sachdev and Bourhis (1985) in their power study in which subjects were categorized into mixed-sex groups of unequal or equal power. The investigators did not analyze the relative contribution of group power and discrimination to group members' quality of social identity. In future studies that include groups differing on important dimensions of comparison, such as power, the relative effects of the social comparison of important dimensions on the quality of group members' social identity should be differentiated from the effect of actual behaviour on members' social identity. Consequently, the relative effects of cognitive comparisons and behaviour could be clarified. For instance, is it

important that group members merely compare favourably or must they engage in behaviour that favours their own group to cement favourable cognitive comparisons and to maintain a positive social identity? In either case, as predicted from SIT, it is the existence or creation of positive psychological differentiation (i.e., through positive social comparisons or discriminatory behaviour) that ameliorates group members' social identity (chapter 3 & 4). Often, action must be taken at some point to maintain positive group comparisons.

Quality of social identity: General vs. specific measures. Generally, women reported a very positive social identity with respect to their gender group membership (chapters 2, 3, 4 & 5). Women in these studies seemed able to achieve positive feelings about their gender group membership on the basis of variables other than a comparison of the present power and status positions of their gender group with those of the male group. Alternatively, perceived and anticipated increases in power and status of women as a group may have contributed to a more positive social identity for women. In contrast, men could have maintained a positive gender identity based on the present power and status differentials working in their favour as group members. From SIT, group members are motivated to achieve a positive social identity and will engage in individualistic or group strategies to do so. More specifically, group members may focus on dimensions of comparison that favour the ingroup - whether it be

present or future comparisons or changes in the *status quo* that are in their own group's favour.

It would be interesting to identify what variables in particular contribute positively or negatively to women's and to men's social identity, and to what extent. Condor et al. (1986) pointed out that various subgroups of women identify with the female group for different reasons. Baker (1989), for example, found that first-time mothers identified with mothers as a group because of the salience of maternal activities and concerns. She concluded from her sample of mothers, that the positivity of social identity was dependent on the continuity of social relationships in the transition to motherhood rather than the relative status of mothers as an ingroup. Skevington and Baker (1989) emphasize that, "...there is not a single social identity of women but many" (p. 195). Regarding the present series of studies, variables such as group power (chapters 3 & 4), changes in the *status quo* in favour of the ingroup (chapter 2), personal power and status of being an elementary school principal (VOP's, chapter 5), and collectively acting as a group to redress social inequities (FWTAO women, chapter 5) could all contribute to a positive social identity.

Condor (1986) showed that 'traditional' women identify strongly with the female gender group but do not necessarily conceptualize their group in terms of intergroup comparisons with male outgroups. In the present series of studies, women had a liberal sex-role ideology. Would predictions of SIT hold true for

more traditional women? Because SIT centres on social categorization, social identity, and social comparison, SIT could apply to women with a traditional sex-role ideology if they compare themselves with other groups of women, instead of men.

In the survey study, male undergraduates reported feeling more threatened by the perceived increase in power and status of women as a group in society and by the perceived decrease in the position of the male group in the future (chapter 2). However, feeling threatened by a particular change in the relative positions of their own group and that of a relevant outgroup does not necessarily mean that these group members will have an insecure or negative social identity. Male undergraduates felt quite secure about being a member of their gender group in general - despite the anticipated decline in power and status of the male group relative to the female group, in particular. Therefore, if asked about feelings of security about their gender group with respect to these specific changes, men may have reported a less secure gender identity, indeed, they felt more threatened. From SIT, men could therefore be expected to put intense efforts into protecting their power and status positions although they still feel very secure about their gender group membership in general (Grant, 1992). Therefore, to appreciate the extent of the effect of change and the effect of intergroup comparisons on the quality of social identity, it is important to enquire about feelings associated with

group membership in general and with respect to more specific dimensions of comparison.

Cognitive alternatives and strategies to improve the quality of social identity. Tajfel and his colleagues stipulated that the belief system of the structure of the intergroup setting has a causal role in the extent to which group members will act as part of a group or as individuals. In addition to perceptions of the permeability of the intergroup structure predicted from SIT, findings of the field study showed that feelings of how the social structure should be, differed between women teachers who had chosen to join OPSTF and those who had not.

Compared to female members of FWTAO, female voluntary members of OPSTF felt it should be easier for a teacher to become a member of either federation. Voluntary OPSTF members by their mere association with OPSTF were more likely to engage in 'passing' behaviour, an individualistic strategy, to improve the quality of their social identity than were FWTAO members. Importantly, when there is little ambiguity about the degree of permeability between groups in a setting, beliefs about the legitimacy of the bases of group membership (Tajfel, 1978) or how permeable the intergroup structure should be can indicate the degree to which individualistic or collective strategies will be adopted to ameliorate individuals' social identity.

Findings of the survey study showed that the Attitudes toward Women Scale (AWS), a measure of sex-role ideology, tapped feelings of legitimacy of the

power positions of men and women. Thus, according to SIT, because feelings of legitimacy have an impact on the degree to which group members will engage in social creativity or social competition to improve their social identity, the sex-role ideology of group members could predict the militancy of group members. This notion is in line with Allard's and Landry's (1986) suggestion that 'should' items in a questionnaire (such as those in AWS) are better predictors of actual behaviour than are items that enquire about beliefs or perceptions of present intergroup comparisons. Furthermore, in line with undergraduates' strength of identification with their own gender group, the finding that both AWS and the Condor et al. (1986) scales, used as exploratory measures of sex-role ideology, tap feelings of legitimacy demonstrates that these scales appear to be good measures of sex-role ideology. The internal consistency with other related items in the survey, laboratory, and field studies further substantiate the validity of these measures.

Interestingly, no difference in overall scores on AWS was obtained between members of FWTAO and VOP's. These groups of women had similar beliefs about the roles that women should have in society economically, politically, and socially. However, they appeared to differ in terms of how women should redress inequities between the sexes (chapter 5): VOP's preferring to engage in 'passing', individualistic, behaviour; FWTAO members preferring to engage in collective strategies. Nonetheless, because AWS taps feelings of legitimacy about comparisons between the sexes (chapter 2) both VOP's and women of FWTAO

would be expected to engage in behaviour, whether individualistic or collective, to change their position within the sociostructural hierarchy. Through further research, other factors that differentiate women who choose collective vs. individual strategies to improve their social identity could be identified. Gurin and Markus (1989), for example, found that women who had a sense of common fate with other women were more supportive of collective action.

Other Social Identity Theory Issues

Social categorization effect. It is significant to note that in every case, except for men in the opposite-sex study (chapter 4), a minimal basis of categorization was sufficient to elicit more ingroup than outgroup liking - despite ingroup and outgroup members being the same age, sex (chapter 3), and in similar educational circumstances (i.e., students). Additional studies could clarify the extent of this social categorization effect. For instance, would undergraduates exhibit prejudice on other measures as well, such as evaluation of competence, intelligence, character, or personality (Brewer, 1979; Brewer & Kramer, 1985)?

The interplay of social categorization, social identity, and social comparison in a field setting. Evidence from the field study indicated that federation members engaged in social competition in perceptions of favourable intergroup comparisons on relevant and important dimensions of comparison (e.g., perception of proportion of men and women in principalship positions). However, any effect that intergroup comparisons have on the quality of teachers' social identity could be as

much subjective as objective (Tajfel, 1978). To illustrate, VOP's had a more positive social identity with respect to their voluntary affiliation with OPSTF than did OPSTF members themselves.

Several reasons for this difference in the quality of social identity among members of the same federation are possible. First, women's actual experience within OPSTF may be different from that of men. For instance, a comparatively higher proportion of VOP's, presently or in the past, have held executive positions within OPSTF than have men. Also, perhaps these voluntary women members are actually treated better than the average male member by other OPSTF members. As reported in chapter 5, OPSTF puts much effort into recruiting new members. Consistent with this notion, and as reported by VOP's themselves, OPSTF also puts much effort into keeping its members. Alternatively, as a second possible explanation for the comparatively higher positive social identity of VOP's compared to OPSTF members, simply being part of a 'men's' group with its associated personal power and status may be sufficient to contribute positively to the quality of their social identity. From SIT, VOP's are 'passing' into OPSTF because this group would contribute more positively to their social identity than does their statutory membership to FWTAO. Evidently, and as elaborated by Condor (1986), investigating the existence and meaning of group members' social identity is essential.

Group vs. individual levels of analyses. As expressed by Tajfel (1978), aspects of behaviour cannot be directly extrapolated from one level to another. Rather, social behaviour is best represented on a continuum because individuals, even throughout the course of a normal day, can behave both as individuals and as group members (chapter 2). The results of the survey study showed that men and women differ in the extent to which they treat others as group members and tended to differ in the extent to which they behave as group members: men do so to a greater degree. Could men function to a greater extent on an intergroup level than do women?

Deaux's (1985) distinction between what women can and what women actually do is important: women may behave and treat others more as individuals than as group members (chapter 2) but as group members, they may use power as effectively and to the same extent as do men as a group (chapters 3 & 4). As shown, group power has similar effects on the social identity of male and female group members (chapter 3 & 4). Certainly, both intergroup and interindividual perspectives are important for an understanding of relations between the sexes (Ashmore & Del Boca, 1986; Tajfel, 1978). "Concepts of power may in fact provide an important bridge between the more macro-level concerns of sociologists and the more micro-analyses of psychologists" (Deaux, 1985, p. 72). The present thesis represents a preliminary step in this research direction.

Multiple-group membership. Tajfel (1978, 1982a) claimed that we are members of a number of groups and that each of these group memberships contributes to the quality of our social identity. To elaborate, although one group membership may be more relevant in a particular situation, individuals can conceptualize and monitor their feelings associated with a number of group memberships (e.g., power group membership and gender group membership, chapter 3 & 4). In the laboratory studies, subordinate group members, whether male or female, reported that they did not have a very positive social identity. However, these same group members felt very positive with respect to their gender group membership. Given the paucity of experimental research on multiple group memberships (Wong-Reiger & Taylor, 1981), it would be interesting to investigate whether we have an overall social identity which is made up of multiple social identities, each associated with a different group membership. If so, the relative effect of each of these 'components' on the composite social identity could be explored. Furthermore, could the quality of social identity associated with one group membership affect the quality of another?

In conclusion, this thesis contributes much to the understanding of the intergroup behaviour of men and women and the implicit role of power in these relations. Social Identity Theory provides a theoretical framework which contributes to a better understanding of these relations. Findings from the survey, the behaviour observed in the laboratory in the context of same- and opposite-sex

groups, and from the 'real-life' setting of the field can be interpreted using SIT. Women and men categorize others on the basis of their sex, behave and treat others as group members, and perceive the power differentials between them. Group members with power were enabled to discriminate. Without power, group members did not discriminate. Importantly, power enabled group members to ameliorate the quality of their social identity. Discrimination probably enables group members to maintain a positive social identity. Degree of ingroup identification of power group members was related to the extent to which undergraduates discriminate against members of an outgroup. Social Identity Theory, then, a theory of the processes of social change which revolves around the vortices of sociopsychological and sociostructural variables, provides social psychologists with a foundation from which to understand the intergroup behaviour of men and women.

Methodological Issues

Resource allocation measures. The matrices are especially useful for monitoring subtle strategies used by group members (Bourhis & Sachdev, 1986; Bourhis et al., 1993). For instance, when subjects do not use the maximum joint profit strategy when presented alone (MJP on FAV), employment of MJP+MJP on MD indicates that subjects are indirectly displaying discrimination toward outgroup members. In the laboratory and field studies of this thesis (chapters 3, 4 & 5), group members used parity in conjunction with discrimination. Therefore, by

using the Tajfel matrices, discriminatory allocation behaviour can be measured independent of other more socially desirable strategies such as parity or maximum joint profit. Also, with the matrices, a broad choice of allocation strategies is available to subjects. This is particularly useful because subjects tend to "compromise between different social orientations rather than opt for a single orientation strategy" (Bourhis et al., 1993, p. 11). From other distribution measures, like the zero-sum task, an overall indication of allocation behaviour is obtained (Major & Deaux, 1982). However, if discrimination is a major strategy used by subjects, discrimination should be observed not only on the Tajfel matrices measures but also on the zero-sum distribution task included in the laboratory and field studies. Therefore, using both allocation measures allows for convergent validity. Convergent validity was obtained for the matrices and the 100-point zero sum task in each of the studies described in chapters three, four, and five.

In both laboratory studies (chapters 3 & 4), correlations were high between self-reports of strategies used and discriminatory behaviour. This demonstrates that the matrices have high construct validity. In addition, undergraduates overestimated the use of parity and maximum joint profit that they used themselves and underestimated their use by members of the outgroup. This suggests that parity and MJP are social desirable strategies. The converse was true

for the discrimination strategies. Nevertheless, both male and female undergraduates with group power employed these discriminatory strategies.

Generalizability. Undergraduates enrolled in an Introductory Psychology course who took part in the survey and laboratory studies are likely representative of the undergraduate university population at McMaster. Introductory Psychology is a required course for a number of academic programs at the university (e.g., gerontology, social work and nursing) and is used as an elective by many students in science programs (e.g., chemistry, biology, and physics). Therefore, because nearly 1000 students participated in these studies, these samples are probably representative of the McMaster undergraduate student population.

Note also that similar intergroup research on the effects of categorization conducted in the United States show similar patterns of discriminatory behaviour (Brewer, 1979; Brewer & Kramer, 1985). Studies employing the Minimal Group Paradigm have been conducted in settings throughout Europe as well (Tajfel, 1978; Tajfel, 1982a, 1982b). Results obtained from studies in the United States and Europe corroborate the effect of social categorization on intergroup discrimination (Billig, 1976; Brewer, 1979; Brewer & Kramer, 1985; Messick & Mackie, 1989; Tajfel, 1978; Tajfel 1982a, 1982b). Given the similar trends in these studies, the findings obtained in the laboratory studies can likely be generalized to other groups in American and European intergroup settings. Moreover, children, as well as adults, have also been consistently shown to favour their own group members in

the distribution of rewards (Wetherell, 1982; Tajfel, 1978, 1982b). However, although social categorization has led to ingroup favouritism with children, do children have a similar concept of power as do adults? Would children perceive group power as control over the fate of the ingroup and the outgroup? Future research could focus on developmentally exploring the use of power or control. At what developmental period would children perceive power and control as do adults?

As well, note that the studies in this thesis focussed on men and women as group members. Decades of research on the intergroup behaviour of ethnolinguistic groups (Bourhis & Giles, 1976; Bourhis, Giles & Lambert, 1975; Giles, Bourhis & Taylor, 1977; Ryan, Giles & Sebastian, 1982) demonstrates that people also categorize themselves and others as group members on the basis of language spoken or speech style. For instance, nationalistic groups in Quebec continue to advocate separation of Quebec from the rest of Canada because of ideological and other ethnolinguistic differences. Even Ontario teachers are categorized into teaching federations not only on the basis of sex but also on the basis of language as well. Thus, the effect of categorization and of sociostructural variables such as power, status, and group numbers could probably be generalized across bases of categorization, be it sex or language.

Compared to undergraduates, the field study showed that teachers as older adults and as professionals behaved similarly to undergraduates in a laboratory

setting in which power, status, and group numbers were manipulated (Sachdev & Bourhis, 1991). This suggests that the main findings of the thesis could probably be generalized to adult professional populations. In this case, the major findings of the thesis would be general findings because similar patterns of findings were obtained first in the mixed-sex (Sachdev & Bourhis, 1985), same-sex, and opposite-sex power studies (Cole & Bourhis, 1990), and second in the mixed-sex study on power, status, and group numbers (Sachdev & Bourhis, 1991) and the field study (Cole & Bourhis, 1991). It would be useful to test the generalizability of these findings across occupation (if being a student is classified as an occupation) and age (younger and middle-aged adults). Furthermore, how do senior adults conceptualize power? Evidence suggests that power is still important to seniors as they continue to mobilize as action groups such as 'grey power' (Today's Seniors, June 1993, p. 5). Members of the senior population probably use power as effectively as do younger adults (Ryan & Cole, 1990).

Evidence suggests the results of this thesis could be generalized across measurement techniques as well. In the laboratory (chapters 3 & 4) and field study (chapter 5) the same pattern of distribution behaviour was generally observed on the Tajfel matrices and the zero-sum task. In other studies the effect of categorization on discriminatory behaviour was demonstrated as the Minimal Group effect has been obtained with other measures such as free choice (Ng, 1981; Wetherell, 1982), binary (Bornstein, Crum, Wittenbraker, Herring, Inske, &

Thibaut, 1983) and multiple allocation matrices (Brewer & Silver, 1978). Thus, it could be argued that the present findings are robust and not particular to a measurement technique.

A potential limitation in generalizing findings from the survey and lab samples to the undergraduate population at McMaster centres around sampling issues. For example, some people who do not identify comfortably with their gender group might choose not to participate in the lab studies. However, it should be pointed out that the study was presented as an investigation of group decision-making. Nowhere on the sign up sheet was there any mention of the study being about gender issues. Also, subjects in the survey study were obtained differently from subjects in the lab studies yet similar findings were obtained on measures of perception of the power and status of the male and female group, feelings of legitimacy of these positions, beliefs about the role of women in society (i.e., AWS), and the degree and quality of gender social identity. For the survey study, students were told during class time that I was administering a questionnaire about relations between men and women and that the questionnaire was anonymous. They were told that they were free to leave if they did not want to fill out the questionnaire. Not one student left, all filled out the questionnaire. Therefore, although subjects in the lab studies chose to participate, those in the survey included entire classes and similar findings were obtained. It could therefore be argued that subjects in the survey and lab were drawn from the same

population and findings can likely be generalized to the McMaster undergraduate population.

For the field study, subjects were obtained through the 'snowball' technique and were thus recommended by other subjects. Because subjects were not randomly selected from the population of elementary public school teachers, I cannot guarantee that results are generalizable from this sample to the population. However, statistics on measures such as education and proportion of men and women as principals reflect provincial (i.e., population) statistics. Therefore, evidence indicates that these findings may not be from a highly selected group.

Practical Applications

Reduction of intergroup discrimination. Contact with outgroup members has been proposed as one method by which intergroup hostilities could be reduced. Although evidence has been contradictory (Hewstone & Brown, 1986; Messick & Mackie, 1989), Wilder (1984) has demonstrated that the representativeness or typicality of a member of an outgroup to that group is an important factor in producing favourable evaluations of an outgroup. More specifically, he found that more favourable evaluations of another college only occurred when female college students engaged in pleasant contact with a typical (vs. atypical) outgroup member of another college. Therefore, it was not only important that the interaction be positive, but that the interaction be with an outgroup member who was

representative of the outgroup in order for positive evaluations of an outgroup member to generalize to evaluations of the outgroup.

Likely, no other group members have greater and more intimate contact than do men and women (Abrams, 1989). Yet members of these groups in 'real-life' and in the laboratory (chapter 4) engage in direct intergroup conflict over mutually valued resources. Furthermore, male and female teachers are in daily contact with typical and atypical members of the other gender group. Yet these group members continue to use a number of intergroup differentiation strategies as they strive for social change and the amelioration of their social identity (chapter 5; Williams & Giles, 1978; Tajfel, 1978). Unpleasant interaction with atypical and typical members probably counter any positive effect pleasant interaction with a typical member might have. Perhaps, as diverse as humans are, differences between them must be acknowledged (Brown, 1988). However, the emergence of more harmonious interindividual and intergroup relations could result by educating and encouraging individuals to accept and appreciate intergroup differences, where they do exist (Hewstone & Brown, 1986). At the same time, the insignificance of some differences used as a basis of categorization which, ultimately, leads to intergroup hostility must be recognized.

In this thesis, group identification contributed to the degree to which group members favoured their own group. Social categorization led to ingroup identification. Put simply, if group members had not been categorized, they would

not have identified with their group and would, then, not have discriminated. Of course, there would be no outgroup against which to discriminate. Taken to a logical conclusion, if individuals within a society did not categorize themselves and others, intergroup discrimination would cease to occur. This has been suggested by others as a way to eliminate intergroup conflict (Miller & Brewer, 1986). But is it possible not to categorize others? Likely not. It was noted in the first chapter that people tend to categorize objects, events, and people to help make sense of the diversity in their environment to reduce the cognitive effort that would otherwise be necessary. Categorization, social categorization, gives our world order and frees our cognitive energies for other functions.

Alternatively, if social categorization is a passive cognitive process necessary for daily functioning, perhaps the tendency to favour one's own group in order to ameliorate one's social identity could be attenuated in other ways. Could increased intergroup liking reduce discrimination? Recall that even though male group members in the opposite-sex study liked female outgroup members as much as they liked their own group members, the amount of discrimination that they displayed against female outgroup members did not differ from the amount of discrimination female group members displayed toward the male outgroup (between treatment analysis) - whom female group members reported to like significantly less than their own female group members. These data suggest that liking of outgroup members alone would not eliminate discrimination.

Cooperation with outgroup members has been proposed as another strategy to reduce intergroup bias. Worchel (1979) proposed that cooperation reduces intergroup conflict because it attenuates distinctions between groups through superordinate goals. Group members would, in this case, focus on the task to be accomplished. Sherif (1966) showed that when boys in the summer camp worked together to achieve a superordinate goal, overt intergroup hostilities ceased. However, as Worchel (1979) pointed out, if group members are aware that they will once again become members of their erstwhile group after cooperation, the effect on reduction of intergroup discrimination will be diminished. Also, if the groups are differentiated on the power dimension, intergroup discrimination will not be substantially reduced (Worchel, 1979).

Several arguments can be made to counter the notion that cooperation reduces discrimination between groups with equal power. First, many groups have cooperated, yet remain divisive. Clearly, FWTAO and OPSTF members work toward the superordinate goal of educating students and have cooperated on a number of occasions over matters of mutual concern in the past, and continue to do so. Relations between these federations, however, are not conflict-free. Second, regarding equal power between groups, the present laboratory studies clearly show that when group members have equal power, they still discriminate. These groups did not cooperate to achieve some superordinate goal. But it should be noted that even though it was in the interest of ingroup and outgroup members

to gain as many points as possible, group members still chose a strategy in which fewer points were given to ingroup members so that ingroup members would receive relatively more points than outgroup members (i.e., maximum differentiation). Even though subjects had options available to them, such as maximum joint profit in which both groups are allocated a 'greater piece of the pie', this strategy was rarely used. Moreover, it is rare that 'real-life' groups have equal power (Ng, 1980; Sachdev & Bourhis, 1985).

Taken together, it would appear too great a task for any of these strategies in isolation to eliminate intergroup discrimination. However, in conjunction, perhaps real reductions in intergroup hostility would be observed. As well, emphasizing an individual's multiple group memberships (i.e., common categorizations between 'group' members) and teaching people how to work together to achieve group interests could help in the process of increasing intergroup harmony.

Suggestions for Future Research

This thesis project raises a number of possibilities for future research. First, to test for generalizability, the survey study could be replicated in other parts of Canada, including Quebec. For example, in other university settings, would men and women in fact identify as strongly and feel as positively about their gender group membership? The survey could also be administered to the general public and to graduate students. Taken further, the generalizability of the questionnaire

could be further tested by administering it to various groups in other countries. As pointed out by Condor (1989), "...the changing status of women in society should be regarded as historically and culturally specific" (p. 16).

In this thesis, undergraduates were found to identify strongly and felt positively about their gender group membership and were observed to display slightly less discrimination against same-sex outgroup members than did a similar group of undergraduates categorized into mixed-sex groups. What role does degree and quality of gender group identification, shared across experimentally imposed categories, have in amount of discrimination displayed? Identification with the gender group had very little influence on allocation behaviour in this series of studies (chapters 3 & 4). However, it would be interesting to compare the relative effects of degree and quality of identification with the gender group of subjects who identify strongly and have a very positive social identity with those who identify weakly and have a less positive social identity. The former group may be observed to be less discriminatory against outgroup members of the same sex than the latter group.

For the opposite-sex power study, attraction to opposite-sex group members was proposed as a reason for decreased levels of discrimination against outgroup members. Another similar study could be conducted, except with only highly attractive female and male group members. Would a further attenuation of discrimination be observed? Furthermore, would males more than females be

affected by this variation in physical appearance of outgroup members (Huston & Levinger, 1978)? Would middle-aged adults be as influenced by attractiveness of opposite-sex outgroup members as are undergraduates? Would middle-aged women allocate to younger, attractive group members of the opposite-sex differently than middle-aged men?

For a field study, another investigation, as mentioned previously in this chapter, could be conducted in a hospital setting where doctors, generally male, have more power than nurses, who are generally female (Dunn, 1987). As the ratio of female to male doctors continues to increase, the inclusion of female doctors and male nurses in the sample would be especially interesting. Therefore, to investigate the effect of sex and power/status position (high vs. low) on intergroup behaviour, the study would include four groups: male doctors (high power males), female doctors (high power females), male nurses (low power males), and female nurses (low power females). Would female doctors have as strong an allegiance with the female group in general as would female nurses? Similarly, would male nurses identify less with the male group than would male doctors? Possibly, female doctors and male nurses would identify equally with either gender group (e.g., VOP's, chapter 5). How might gender group identification influence distributions of these group members? How might 'real-life' power and status positions of these group members (i.e., based on gender group or occupation) affect allocations of rewards to outgroup members?

It may be that the present series of investigations on the intergroup behaviour of men and women and the role of power raises more questions than it was originally designed to answer. No doubt, such is the makings of a fruitful future in the discipline of social psychological research.

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Anonymous Questionnaire

We are interested in how individuals in everyday life feel about being part of various social groups. Please answer the following questions truthfully and candidly. There are no right or wrong answers: we are interested in your feelings and opinions only.

1. How much do you identify yourself as a member of the:

male group

not at all ___:___:___:___:___:___:___ very much

female group

not at all ___:___:___:___:___:___:___ very much

Comments:

2. Using the scales below please indicate your feelings and thoughts about being a member of your gender group:

a) very negative ___:___:___:___:___:___:___ very positive

b) very insecure ___:___:___:___:___:___:___ very secure

c) very unhappy ___:___:___:___:___:___:___ very happy

* * *

3. Generally speaking, how much power do you think members of the male group have today?

not at all ___:___:___:___:___:___:___ very much

4. How much do you think the power of the male group has changed during the past 10 years?

not at all ___:___:___:___:___:___:___ very much

5. During the past 10 years, did the power of the male group:
(Please choose only one of the following: a, b, or c)
- a) ___ DECREASE? Do you find this decrease legitimate (i.e., proper or fitting)?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this decrease in power of the male group?
- not at all ___:___:___:___:___:___ very much
- b) ___ REMAIN THE SAME? Do you find this lack of change legitimate (i.e., proper or fitting)?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this lack of change in power of the male group?
- not at all ___:___:___:___:___:___ very much
- c) ___ INCREASE? Do you find this increase legitimate (i.e., proper or fitting)?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this increase in power of the male group?
- not at all ___:___:___:___:___:___ very much
6. Please list the areas in which these changes, or lack of them, have been most important and comment on your feelings about the situation as you see it.
- 1.
 - 2.
 - 3.
8. How much do you think the power of the male group will change in the next 10 years?
- not at all ___:___:___:___:___:___ very much

9. During the next 10 years, will the power of the male group:
(Please choose only one of the following: a, b, or c)
- a) ___ DECREASE? Do you find this decrease legitimate (i.e., proper or fitting)?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this decrease in power of the male group?
- not at all ___:___:___:___:___:___ very much
- b) ___ REMAIN THE SAME? Do you find this lack of change legitimate (i.e., proper or fitting)?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this lack of change in power of the male group?
- not at all ___:___:___:___:___:___ very much
- c) ___ INCREASE? Do you find this increase legitimate (i.e., proper or fitting)?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this increase in power of the male group?
- not at all ___:___:___:___:___:___ very much
10. Please list the areas in which these changes, or lack of them, will be most important and comment on your feelings about this situation as you see it in the future.
- 1.
 - 2.
 - 3.

* * *

12. Generally speaking, how much power do you think members of the female group have today?
- none at all ___:___:___:___:___:___ very much
13. How much do you think the power of the female group has changed during the past 10 years?
- not at all ___:___:___:___:___:___ very much

14. During the past 10 years, did the power of the female group:
(Please choose only one of the following, a, b, or c)
- a) ___ DECREASE? Do you find this decrease legitimate?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this decrease in power of
the female group?
- not at all ___:___:___:___:___:___ very much
- b) ___ REMAIN THE SAME? Do you find this lack of change legitimate?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this lack of
change in power of the female group?
- not at all ___:___:___:___:___:___ very much
- c) ___ INCREASE? Do you find this increase legitimate?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this increase in power of
the female group?
- not at all ___:___:___:___:___:___ very much
15. Please list the areas in which these changes, or lack of them, have
been most important and comment on your feelings about this situation
as you see it in the future.
- 1.
- 2.
- 3.
17. How much do you think the power of the female group will change in the
next 10 years?
- not at all ___:___:___:___:___:___ very much

18. During the next 10 years, will the power of the female group:
(Please choose only one of the following, a, b, or c)

a) ___ DECREASE? Do you find this decrease legitimate?

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this decrease in power of
the female group?

not at all ___:___:___:___:___:___ very much

b) ___ REMAIN THE SAME? Do you find this lack of change legitimate

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this lack of
change in power of the female group?

not at all ___:___:___:___:___:___ very much

c) ___ INCREASE? Do you find this increase legitimate?

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this increase in power of
the female group?

not at all ___:___:___:___:___:___ very much

19. Please list the areas in which these changes, or lack of them, will be most important and comment on your feelings about this situation as you see it in the future.

1.

2.

3.

- - - - -

21. Generally speaking, how much power do you think the male group:

had 10 years ago

none at all ___:___:___:___:___:___:___ very much

has today

none at all ___:___:___:___:___:___:___ very much

will have 10 years from now

none at all ___:___:___:___:___:___:___ very much

22. Generally speaking, how much power do you think the female group:

had 10 years ago

none at all ___:___:___:___:___:___:___ very much

has today

none at all ___:___:___:___:___:___:___ very much

will have 10 years from now

none at all ___:___:___:___:___:___:___ very much

23. How legitimate (i.e., proper or fitting) is the power position of the:

male group today

not at all ___:___:___:___:___:___:___ very much

female group today

not at all ___:___:___:___:___:___:___ very much

24. How legitimate (i.e., proper or fitting) was the power position of the:

male group 10 years ago

not at all ___:___:___:___:___:___:___ very much

female group 10 years ago

not at all ___:___:___:___:___:___:___ very much

25. How much power do you think the following groups should have 10 years from now:

the male group

none at all ___:___:___:___:___:___ very much

the female group

none at all ___:___:___:___:___:___ very much

Please comment on your answer:

26. How much power do you think the following groups have at McMaster University today:

male undergraduates

none at all ___:___:___:___:___:___ very much

female undergraduates

none at all ___:___:___:___:___:___ very much

male graduates

none at all ___:___:___:___:___:___ very much

female graduates

none at all ___:___:___:___:___:___ very much

27. How much power do you think the following groups have in the workforce today:

males

none at all ___:___:___:___:___:___ very much

females

none at all ___:___:___:___:___:___ very much

Please comment on your answer:

* * *

1. Generally speaking, how much status do you think members of the male group have today?

not at all ___:___:___:___:___:___ very much

2. How much do you think the status of the male group has changed during the past 10 years?

not at all ___:___:___:___:___:___ very much

3. During the past 10 years, did the status of the male group:
(Please choose only one of the following: a, b, or c)

- a) ___ DECREASE? Do you find this decrease legitimate (i.e., proper or fitting)?

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this decrease in status of the male group?

not at all ___:___:___:___:___:___ very much

- b) ___ REMAIN THE SAME? Do you find this lack of change legitimate (i.e., proper or fitting)?

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this lack of change in status of the male group?

not at all ___:___:___:___:___:___ very much

- c) ___ INCREASE? Do you find this increase legitimate (i.e., proper or fitting)?

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this increase in status of the male group?

not at all ___:___:___:___:___:___ very much

4. Please list the areas on which these changes, or lack of them, have been most important and comment on your feelings about this situation as you see it.

1.

2.

3.

5. How much do you think the status of the male group will change in the next 10 years?

not at all ___:___:___:___:___:___ very much

6. During the next 10 years, will the status of the male group:
(Please choose only one of the following: a, b, or c)
- a) ___ DECREASE? Do you find this decrease legitimate (i.e., proper or fitting)?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this decrease in status of the male group?
- not at all ___:___:___:___:___:___ very much
- b) ___ REMAIN THE SAME? Do you find this lack of change legitimate (i.e., proper or fitting)?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this lack of change in status of the male group?
- not at all ___:___:___:___:___:___ very much
- c) ___ INCREASE? Do you find this increase legitimate (i.e., proper or fitting)?
- not at all ___:___:___:___:___:___ very much
- Do you feel threatened by this increase in status of the male group?
- not at all ___:___:___:___:___:___ very much
7. Please list the areas in which these changes, or lack of them, will be most important and comment on your feelings about this situation as you see it in the future.
- 1.
 - 2.
 - 3.

* * *

8. Generally speaking, how much status do you think members of the female group have today?
- none at all ___:___:___:___:___:___ very much
9. How much do you think the status of the female group has changed during the past 10 years?
- not at all ___:___:___:___:___:___ very much

10. During the past 10 years, did the status of the female group:
(Please choose only one of the following, a, b, or c)

a) ___ DECREASE? Do you find this decrease legitimate?

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this decrease in status of
the female group?

not at all ___:___:___:___:___:___ very much

b) ___ REMAIN THE SAME? Do you find this lack of change legitimate

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this lack of
change in status of the female group?

not at all ___:___:___:___:___:___ very much

c) ___ INCREASE? Do you find this increase legitimate?

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this increase in status of
the female group?

not at all ___:___:___:___:___:___ very much

11. Please list the areas in which these changes, or lack of them, have
been most important and comment on your feelings about this situation
as you see it.

1.

2.

3.

12. How much do you think the status of the female group will change in
the next 10 years?

not at all ___:___:___:___:___:___ very much

13. During the next 10 years, will the status of the female group:
 (Please choose only one of the following, a, b, or c)

a) ___ DECREASE? Do you find this decrease legitimate?

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this decrease in status of
 the female group?

not at all ___:___:___:___:___:___ very much

b) ___ REMAIN THE SAME? Do you find this lack of change legitimate

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this lack of
 change in status of the female group?

not at all ___:___:___:___:___:___ very much

c) ___ INCREASE? Do you find this increase legitimate?

not at all ___:___:___:___:___:___ very much

Do you feel threatened by this increase in status of
 the female group?

not at all ___:___:___:___:___:___ very much

14. Please list the areas in which these changes, or lack of them, will be
 most important and comment on your feelings about this situation as
 you see it in the future.

- 1.
- 2.
- 3.

15. Generally speaking, how much status do you think the male group:

had 10 years ago

none at all ___:___:___:___:___:___ very much

has today

none at all ___:___:___:___:___:___ very much

will have 10 years from now

none at all ___:___:___:___:___:___ very much

16. Generally speaking, how much status do you think the female group:

had 10 years ago

none at all ___:___:___:___:___:___:___ very much

has today

none at all ___:___:___:___:___:___:___ very much

will have 10 years from now

none at all ___:___:___:___:___:___:___ very much

17. How legitimate is the status position of the:

male group today

not at all ___:___:___:___:___:___:___ very much

female group today

not at all ___:___:___:___:___:___:___ very much

18. How legitimate was the status position of the:

male group 10 years ago

not at all ___:___:___:___:___:___:___ very much

female group 10 years ago

not at all ___:___:___:___:___:___:___ very much

19. How much status do you think the following groups should have 10 years from now:

the male group

none at all ___:___:___:___:___:___:___ very much

the female group

none at all ___:___:___:___:___:___:___ very much

Please comment on your answer:

20. How much status do you think the following groups have at McMaster University today:

male undergraduates

none at all ___:___:___:___:___:___ very much

female undergraduates

none at all ___:___:___:___:___:___ very much

male graduates

none at all ___:___:___:___:___:___ very much

female graduates

none at all ___:___:___:___:___:___ very much

21. How much status do you think the following groups have in the workforce today:

males

none at all ___:___:___:___:___:___ very much

females

none at all ___:___:___:___:___:___ very much

22. If you feel there is a difference in the amount of status males and females have, in general, please list, in order of importance, the kind of status you feel is involved in relations between the sexes.

- 1.
- 2.
- 3.

* * *

1. Dealing specifically with men and women as groups in society, how important do you think it is for:

men to have power

not at all ___:___:___:___:___:___ very important

women to have power

not at all ___:___:___:___:___:___ very important

2. Dealing specifically with men and women as groups in society, how important do you think it is for:

men to have status

not at all ___:___:___:___:___:___:___ very important

women to have status

not at all ___:___:___:___:___:___:___ very important

3. Again, dealing with men and women in society, do you think women should have more power than they presently do?

definitely not ___:___:___:___:___:___:___ definitely

4. Do you think men should have more power than they presently do in society?

definitely not ___:___:___:___:___:___:___ definitely

5. Do you think women should have more status than they presently do in society?

definitely not ___:___:___:___:___:___:___ definitely

6. Do you think men should have more status than they presently do in society?

definitely not ___:___:___:___:___:___:___ definitely

Now please think specifically about the situation of women and men in the workforce and state your opinions about the following.

7. Do you think women should have more status in the workforce than they presently do?

definitely not ___:___:___:___:___:___:___ definitely

8. Do you think men should have more status in the workforce than they presently do?

definitely not ___:___:___:___:___:___:___ definitely

9. Do you think women should have more power in the workforce than they presently do?

definitely not ___:___:___:___:___:___:___ definitely

10. Do you think men should have more power in the workforce than they presently do?

definitely not ___:___:___:___:___:___:___ definitely

11. How much do you think males value power?

not at all ___:___:___:___:___:___:___ very much

12. How much do you think females value power?
 not at all ___:___:___:___:___:___ very much
13. How much do you think males value status?
 not at all ___:___:___:___:___:___ very much
14. How much do you think females value status?
 not at all ___:___:___:___:___:___ very much
15. How much do you, as an individual, value power?
 not at all ___:___:___:___:___:___ very much
16. How much do you, as an individual, value status?
 not at all ___:___:___:___:___:___ very much
17. Do you as an individual desire more status than you presently have?
 definitely not ___:___:___:___:___:___ definitely
18. Do you as an individual desire more power than you presently have?
 definitely not ___:___:___:___:___:___ definitely
19. In what areas and in what ways do you think women have power?
 1.
 2.
 3.
20. In what areas and in what ways do you think men have power?
 1.
 2.
 3.
21. In what areas and in what ways do you think women have status?
 1.
 2.
 3.

22. In what areas and in what ways do you think men have status?
- 1.
 - 2.
 - 3.

23. In general, do you think a person (male or female) can have status and no power?

definitely not ___:___:___:___:___:___:___ definitely

24. In general, do you think a person (male or female) can have power and no status?

definitely not ___:___:___:___:___:___:___ definitely

* * *

25. Within the course of a normal day, how much do you behave:

as a member of your gender group

never ___:___:___:___:___:___:___ always

as an individual

never ___:___:___:___:___:___:___ always

26. Within the course of a normal day, how much are you treated:

as a member of your gender group

never ___:___:___:___:___:___:___ always

as an individual

never ___:___:___:___:___:___:___ always

27. Within the course of a normal day, how much do you treat men:

as members of their gender group

never ___:___:___:___:___:___:___ always

as individuals

never ___:___:___:___:___:___:___ always

28. Within the course of a normal day, how much do you treat women:

as members of their gender group

never ___:___:___:___:___:___:___ always

as individuals

never ___:___:___:___:___:___:___ always

* * *

29. How much do you consider yourself to be a member of a 'powerful' group in Canada?

not at all ___:___:___:___:___:___ very much

List aspects of your group which make you feel you are a member of a 'powerful' group.

- 1.
- 2.
- 3.

30. How much do you consider yourself to be a member of a 'powerless' group in Canada?

not at all ___:___:___:___:___:___ very much

List aspects of your group which make you feel you are a member of a 'powerless' group.

- 1.
- 2.
- 3.

31. How much do you consider yourself to be a member of a 'high status' group in Canada?

not at all ___:___:___:___:___:___ very much

List aspects of your group which make you feel you are a member of a 'high status' group.

- 1.
- 2.
- 3.

32. How much do you consider yourself to be a member of a 'low status' group in Canada?

not at all ___:___:___:___:___:___ very much

List aspects of your group which make you feel you are a member of a 'low status' group.

- 1.
- 2.
- 3.

Attitudes toward the Roles of Women: Part 1

The statements listed below describe attitudes toward the roles of women in society which different people have. You are asked to express your feelings about each statement by indicating whether you (A) agree strongly, (B) agree mildly, (C) disagree mildly, or (D) disagree strongly. There are no right or wrong answers, we are only interested in your opinions and feelings. Please make sure to read every statement very carefully.

1. Swearing and obscenity are more repulsive in the speech of a woman than of a man.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

2. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

3. Both husband and wife should be allowed the same grounds for divorce.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

4. Telling dirty jokes should be mostly a masculine prerogative.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

5. Intoxication among women is worse than intoxication among men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

6. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

7. It is insulting to women to have the "obey" clause remain in the marriage service.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

8. There should be a strict merit system in job appointment and promotion without regard to sex.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

9. A woman should be as free as a man to propose marriage.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

10. Women should worry less about their rights and more about becoming good wives and mothers.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

11. Women earning as much as their dates should bear equally the expense when they go out together.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

12. Women should assume their rightful place in business and all the professions along with men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

13. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

14. Sons in a family should be given more encouragement to go to college than daughters.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

15. It is ridiculous for a woman to run a locomotive and for a man to darn socks.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

16. In general, the father should have greater authority than the mother in the bringing up of children.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

17. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

18. The husband should not be favoured by law over the wife in the disposal of family property or income.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

19. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

20. The intellectual leadership of a community should be largely in the hands of men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

21. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

22. On the average, women should be regarded as less capable of contributing to economic production than are men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

23. There are many jobs in which men should be given preference over women in being hired or promoted.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

24. Women should be given equal opportunity with men for apprenticeship in the various trades.

A	B	C	D
agree strongly	agree mildly	disagree mildly	disagree strongly

25. The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy.

A	B	C	D
agree strongly	agree mildly	disagree mildly	disagree strongly

Attitudes toward the Roles of Women: Part 2

Here is another series of statements describing attitudes toward the roles of women in society. Please indicate how much you agree or disagree with each statement. There are no right or wrong answers, we are only interested in your opinions and feelings. Make sure you read every statement very carefully.

1. Motherhood is the greatest source of satisfaction that a woman can have.
disagree strongly ___:___:___:___:___:___:___ agree strongly
2. Marriage and children should not have to interfere with a woman's career any more than they do with a man's.
disagree strongly ___:___:___:___:___:___:___ agree strongly
3. Woman's role of wife and mother is so different from man's role of breadwinner that it is meaningless to compare them.
disagree strongly ___:___:___:___:___:___:___ agree strongly
4. There is an urgent need for a change in the position of men and women in our society.
disagree strongly ___:___:___:___:___:___:___ agree strongly
5. Men and women should feel equally responsible for housework.
disagree strongly ___:___:___:___:___:___:___ agree strongly
6. It is not right that men should open doors and stand up in buses for women.
disagree strongly ___:___:___:___:___:___:___ agree strongly

7. Women should be content with their special gifts, talents and abilities and should stop complaining about the things which they have not got.

disagree strongly ___:___:___:___:___:___ agree strongly

8. Generally speaking, women have too little status in Canada.

disagree strongly ___:___:___:___:___:___ agree strongly

9. The ideal relationship between husband and wife is one of interdependence, in which the man provides his wife with economic support and she fulfills his emotional and domestic needs.

disagree strongly ___:___:___:___:___:___ agree strongly

10. The roles of men and women cannot really be changed to any great extent.

disagree strongly ___:___:___:___:___:___ agree strongly

11. A woman should be able to have an abortion simply because she feels that a baby would interfere with her lifestyle.

disagree strongly ___:___:___:___:___:___ agree strongly

12. Although some women enjoy going out to work, it should ultimately be the responsibility of the man to provide financial support for his family.

disagree strongly ___:___:___:___:___:___ agree strongly

13. For many women, the joys of motherhood cannot make up for the sacrifices.

disagree strongly ___:___:___:___:___:___ agree strongly

14. In an ideal world, men and women would take equal shares in the raising of children.

disagree strongly ___:___:___:___:___:___ agree strongly

15. A woman should be appreciative of the admiring looks she receives as she walks down the street.

disagree strongly ___:___:___:___:___:___ agree strongly

16. It is better that a woman should attempt to achieve security by encouraging her husband in his work rather than by 'pushing herself forward' in her own job.

disagree strongly ___:___:___:___:___:___ agree strongly

17. It is degrading for a woman if a man pays for her when they are out together.
- disagree strongly ___:___:___:___:___:___ agree strongly
18. It is only natural that men and women should perform different tasks.
- disagree strongly ___:___:___:___:___:___ agree strongly
19. Woman will not be respected as members of society until they gain complete economic independence from men.
- disagree strongly ___:___:___:___:___:___ agree strongly
20. There is still far too much discrimination against women in Canada.
- disagree strongly ___:___:___:___:___:___ agree strongly
21. If a child is ill and both parents are working, it should usually be the mother who takes time off work to look after it.
- disagree strongly ___:___:___:___:___:___ agree strongly
22. It would be a bad thing for society as a whole if the roles of men and women were radically altered.
- disagree strongly ___:___:___:___:___:___ agree strongly

Demographic Information

Your first name: _____ Sex: _____ Age: _____

1. Language(s) spoken by yourself at home:

(a) _____ (b) _____ (c) _____

2. Where were you born and how long have you lived in Canada?
-
- _____

3. Where were your parents born and how long have they lived in Canada?
-
- _____

4. Please describe your occupation: _____
-
- _____

Please describe your mother's occupation: _____
_____Please describe your father's occupation: _____

5. Have you ever participated in any group or organization dealing with issues of concern relating to males and females.

Yes: _____ No: _____

If yes, please state briefly in which organization you were or are involved and what position you held:

6. How do you define the term "feminist"?
-
- _____
-
- _____

According to your definition, do you classify yourself as a feminist?

very much ___:___:___:___:___:___ not at all

7. How do you think of yourself using these terms (check only one).

(a) as a Canadian _____ (b) as an English Canadian _____
(c) other _____-Canadian (d) other (Please specify) _____

8. How Canadian do you feel?

very much ___:___:___:___:___:___ not at all

Section 2.1 Sex by Target Sex Repeated Measure (2 x 2) MANOVA

Multivariate Main Effect of:

- i) Sex: $F(19,190) = 4.81, p < .0001$
 - ii) Target Sex: $F(19,190) = 52.21, p < .0001$
- Multivariate Interaction of:
- iii) Sex x Target Sex: $F(19,190) = 60.23, p < .0001$
($\alpha' = .0026$)

	Sex Effect F (df=1,208)	Target Sex Effect F (df=1,208)	Sex x Target Sex Interaction F (df=1,208)
Identification with gender group	2.29 ns	1.31 ns	1067.40 (p < .0001)
Power today	1.72 ns	175.59 (p < .0001)	0.88 ns
Power change in past 10 years	1.07 ns	54.30 (p < .0001)	0.49 ns
Power change in next 10 years	1.32 ns	51.45 (p < .0001)	1.36 ns
Legitimacy of power today	17.63 (p < .0001)	19.10 (p < .0001)	6.20 (p < .02)
Legitimacy of power in past	25.64 (p < .0001)	73.31 (p < .0001)	0.00 ns
Power groups should have in society	0.37 ns	7.82 (p = .006)	22.75 (p < .0001)
Power of undergraduates	0.03 ns	53.96 (p < .0001)	0.93 ns
Power of graduate students	0.66 ns	93.88 (p < .0001)	1.78 ns
Power in the workforce	15.15 (p = .0001)	586.50 (p < .0001)	0.03 ns
Status today	0.12 ns	150.73 (p < .0001)	0.33 ns
Status change in past 10 years	1.47 ns	119.88 (p < .0001)	0.01 ns
Status change in next 10 years	1.87 ns	96.85 (p < .0001)	0.89 ns
Legitimacy of status today	19.91 (p < .0001)	54.61 (p < .0001)	2.72 ns
Legitimacy of status in past	22.18 (p < .0001)	105.30 (p < .0001)	1.94 ns
Status groups should have in society	0.00 ns	6.17 (p < .02)	2.83 (p < .10)
Status of undergraduates	0.39 ns	46.35 (p < .0001)	0.01 ns
Status of graduate students	0.67 ns	69.03 (p < .0001)	7.99 (p < .006)
Status in workforce	6.03 (p < .02)	444.03 (p < .0001)	3.80 (p < .06)

Section 2.2 MANOVA with Sex as a Between Factor

Multivariate effect of sex: $F(19,190) = 4.28, p < .0001$
($\alpha' = .0026$)

	Sex Main Effect F (df = 1,208)
Value power as an individual	1.29 ns
Value status as an individual	1.41 ns
Desire more status as an individual	3.01 ns
Desire more power as an individual	0.11 ns
Person with status and no power	0.94 ns
Person with power and no status	3.83 ($p < .06$)
Self as a member of a powerful group	17.16 ($p < .0001$)
Self as a member of a powerless group	3.71 ($p < .06$)
Self as a member of a high status group	2.14 ns
Self as a member of a low status group	2.65 ns
AWS	36.20 ($p < .0001$)
Condor et al. Scale	32.17 ($p < .0001$)
Self as a 'feminist'	24.04 ($p < .0001$)
Age	0.00 ns
Feeling Canadian	0.29 ns
Positive feelings about gender group membership	2.33 ns
Secure feelings about gender group membership	5.92 ($p < .02$)
Happy feelings about gender group membership	4.00 ($p < .05$)

Section 2.3 Series of MANOVA's with Sex as a Between Factor

- i) Multivariate main effect of sex: $F(2,149) = 9.45, p = .0001$
 ii) Multivariate main effect of sex: $F(2,125) = 15.90, p < .0001$
 iii) Multivariate main effect of sex: $F(2,122) = 7.18, p < .002$
 iv) Multivariate main effect of sex: $F(2,101) = 9.94, p = .0001$
 v) Multivariate main effect of sex: $F(2,196) = 12.68, p < .0001$
 vi) Multivariate main effect of sex: $F(2,168) = 11.33, p < .0001$
 vii) Multivariate main effect of sex: $F(2,192) = 7.95, p = .0005$
 viii) Multivariate main effect of sex: $F(2,171) = 16.97, p < .0001$
 ($\alpha' = .003$)

	Sex Main Effect
i) Power decrease of male group in past: Legitimacy Feelings of threat	$F(1,150) = 1.08, ns$ $F(1,150) = 18.57, p < .0001$
ii) Power decrease of male group in future: Legitimacy Feelings of threat	$F(1,128) = 6.11, p < .02$ $F(1,128) = 31.00, p < .0001$
iii) Status decrease of male group in past: Legitimacy Feelings of threat	$F(1,123) = 5.21, p < .025$ $F(1,123) = 10.79, p < .001$
iv) Status decrease of male group in future: Legitimacy Feelings of threat	$F(1,102) = 4.98, p < .03$ $F(1,102) = 17.15, p = .0001$
v) Power increase of female group in past: Legitimacy Feelings of threat	$F(1,197) = 5.74, p < .02$ $F(1,197) = 24.31, p < .0001$
vi) Power increase of female group in future: Legitimacy Feelings of threat	$F(1,169) = 11.76, p < .001$ $F(1,169) = 17.69, p < .0001$
vii) Status increase of female group in past: Legitimacy Feelings of threat	$F(1,193) = 6.88, p < .01$ $F(1,193) = 13.80, p < .001$
viii) Status increase of female group in future: Legitimacy Feelings of threat	$F(1,172) = 8.47, p < .01$ $F(1,172) = 30.85, p < .0001$

1) Multivariate Main Effect of Order: $F(19,190)=6.75, p < .0001$

2) Multivariate Order x Target Sex Interaction: $F(19,190)=3.87, p < .0001$

	Power Items First Ratings for		Status Items First Ratings for		Order x Target Sex Interaction F (df=1,208)
	Male Group	Female Group	Male Group	Female Group	
Power Now	5.43 ^c	4.42 ^b	5.99 ^d	4.00 ^a	21.22 (p < .0001)
Power changed in past	5.04 ^b	5.71 ^c	3.82 ^a	5.10 ^b	5.76 (p < .02)
Power will change in Future	4.26 ^b	4.77 ^c	3.82 ^a	4.86 ^c	6.38 (p < .02)

$p < .05, a < b < c < d$ (Newman Keuls Multiple Comparison Test)

Section 2.5 Sex x Target Sex x Time Context (2 x 2 x 3) ANOVA

	Sex Effect F (df= 1,208)	Target Sex Effect F (df= 1,208)	Time Context Effect F (df=2,416)	Sex x Target Sex Interaction F (df= 1,208)	Sex x Time Context Interaction F (df=2,416)	Target Sex x Time Context Interaction F (df=2,416)	Sex x Target Sex x Time Context Interaction F (df=2,416)
Power	0.02 ns	486.44 (p<.0001)	65.14 (p<.0001)	0.16 ns	2.37 ns	940.99 (p<.0001)	6.11 (p<.005)

Section 2.6 Sex x Target Sex x Time Context (2 x 2 x 3) ANOVA

	Sex Effect F (df= 1,208)	Target Sex Effect F (df= 1,208)	Time Context Effect F (df=2,416)	Sex x Target Sex Interaction F (df= 1,208)	Sex x Time Context Interaction F (df=2,416)	Target Sex x Time Context Interaction F (df=2,416)	Sex x Target Sex x Time Context Interaction F (df=2,416)
Status	0.44 ns	494.65 (p<.0001)	60.37 (p<.0001)	4.04 (p<.05)	1.92 ns	694.55 (p<.0001)	1.66 ns

Section 2.7 Sex x Target Sex Repeated Measure (2 x 2) MANOVA

Multivariate Main Effect of:

i) Target Sex: $F(8,201) = 93.09, p < .0001$

Marginal Effect of:

Sex: $F(8,201) = 1.84, p < .10$

Multivariate Interaction of:

ii) Sex x Target Sex: $F(8,201) = 13.92, p < .0001$

($\alpha' = .006$)

	Sex Effect F (df=1,208)	Target Sex Effect F (df=1,208)	Sex x Target Sex Interaction F (df=1,208)
Importance of power	0.38 ns	24.53 ($p < .0001$)	17.27 ($p < .0001$)
Importance of status	2.34 ns	17.66 ($p < .0001$)	7.72 ($p = .006$)
Value of power	12.49 ($p = .0005$)	224.15 ($p < .0001$)	1.78 ns
Value of status	5.77 ($p < .02$)	67.88 ($p < .0001$)	0.79 ns
More power in society	0.01 ns	351.19 ($p < .0001$)	58.64 ($p < .0001$)
More status in society	0.19 ns	410.42 ($p < .0001$)	70.06 ($p < .0001$)
More power in workforce	0.28 ns	498.93 ($p < .0001$)	105.79 ($p < .0001$)
More status in workforce	0.35 ns	393.26 ($p < .0001$)	82.73 ($p < .0001$)

Section 2.8 Sex x Repeated Measure (i.e., gender group member/individual) (2 x 2) MANOVA

Multivariate Main Effect of :

i) Repeated Measure: $F(4,205) = 9.28, p < .0001$

Multivariate Interaction of:

ii) Sex x Repeated Measure: $F(4,205) = 6.06, p = .0001$

Marginal Multivariate Effect of:

iii) Repeated Measure: $F(4,205) = 2.06, p < .10$

($\alpha' = .0125$)

	Sex Main Effect F (df= 1,208)	Repeated Measure Main Effect F (df= 1,208)	Sex x Repeated Measure Interaction F (df= 1,208)
Behave as...	0.05 ns	6.57 (p=.011)	3.90 (p<.05)
Treated as..	1.33 ns	14.57 (p=.0002)	0.93 ns
Treat men as...	0.16 ns	0.93 ns	10.34 (p<.002)
Treat women as...	4.93 (p<.05)	7.24 (p<.01)	22.96 (p<.0001)

The Tajfel Allocation Matrices**Matrix Type A:**

19 18 17 16 15 14 13 12 11 10 9 8 7
1 3 5 7 9 11 13 15 17 19 21 23 25

Matrix Type B:

19 18 17 16 15 14 13 12 11 10 9 8 7
25 23 21 19 17 15 13 11 9 7 5 3 1

Matrix Type C:

16 17 18 19 20 21 22 23 24 25 26 27 28
16 15 14 13 12 11 10 9 8 7 6 5 4

Procedures for Calculating a 'Pull' Score*

To illustrate how 'pull' scores are calculated, matrix type A will be used as an example. The 'pull' of FAV on MJP and the 'pull' of MJP on FAV are calculated from the two versions of matrix type A. Consider the two versions of matrices from matrix type A: version 1 and version 2. Version 2 is obtained by inverting and reversing each row of numbers from version 1.

Matrix Type A:

Version 1 - Strategies Opposed

Member a of group X: 19 18 17 16 15 14 13 12 11 10 9 8 7

Member d of group W: 1 3 5 7 9 11 13 15 17 19 21 23 25

Version 2 - Strategies Together

Member c of group X: 25 23 21 19 17 15 13 11 9 7 5 3 1

Member g of group W: 7 8 9 10 11 12 13 14 15 16 17 18 19

For illustration, a member of group X would circle one of the 13 boxes in each matrix. Let us say, for instance, that for version 1, the subject chose the box with the numbers 15/9. This means that the subject has allocated 15 points to member a of group X and 9 points to member d of group W. Note that the choice that best represents the strategies being measured by this matrix are at opposite poles. That is,

the maximum choice of FAV (i.e., $MIP + MD$), is at the left end; whereas, the maximum choice of MJP is at the right end (i.e., $7 + 25 = 32$). Thus, this matrix is referred to as strategies opposed. In contrast, the maximum choice for FAV and MJP are at the same end in version 2. Accordingly, this version of matrix A is referred to as strategies together. Let us suppose that on this second matrix, version 2, the subject, who is a member of group X, chose the box with the numbers 19/10. This means that the subject would be allocating 19 points to member c of group X and 10 points to member g of group W.

To calculate the 'pull' score of MJP on FAV and the 'pull' score of FAV on MJP follow these steps.

1. Locate the maximum value of the variable on which you are measuring the 'pull'. The maximum choice for MJP on version 1 of matrix type A is the box 7/25 ($7 + 25 = 32$). Therefore, to calculate the 'pull' of FAV on MJP, this box will be the zero point (box 7/25).
2. Count the number of boxes away from box 7/25, the zero point, beginning with zero to the box the subject has chosen (i.e., box 15/9). Following this illustration, the number of ranks, therefore, is 8. Thus, the rank score of the strategies opposed version of matrix A is 8.
3. Because the maximum choice for both FAV and MJP are at the same end of version 2 of matrix type A, this is the zero point from which the rank score for the strategies together version of matrix type A is obtained.

4. Count the number of boxes from this zero point to the box the subject circled (i.e., box 19/10). Therefore, the rank score of the strategies together version of matrix type A is 3.
 5. The 'pull' of FAV on MJP is calculated by subtracting the rank score for the strategies together (T) version from the rank score for the strategies opposed (O) version of matrix type A: $O - T = 8 - 3 = 5$
 6. To calculate the obverse 'pull' i.e., the 'pull' of MJP on FAV use the following formula: $(12 - O) - T$. So in our example, the 'pull' of MJP on FAV is $(12 - 8) - 3 = 4 - 3 = 1$.
 7. Using these same procedures, the strategies together and the strategies opposed versions of matrix type B are used to calculate the 'pull' of MD on MIP+MJP and the 'pull' of MIP+MJP on MD.
 8. Finally, the strategies together and the strategies opposed versions of matrix type C are used to calculate the 'pull' of P on FAV and the 'pull' of FAV on P.
- * These procedures were adapted from Bourhis, R., Sachdev, I, and Gagnon, A. (1993). Conducting intergroup research with the Tajfel matrices: Some methodological notes. In M. Zanna and J. Olson (Eds.), The psychology of prejudice: The Ontario symposium on personality and social psychology. Hillsdale, New Jersey: Erlbaum_

POSTSESSION QUESTIONNAIRE

Name: _____

Student# _____

Part 1

What group were you in? _____

How much control (%) does YOUR group have in determining the credit totals? _____%

How much control (%) does the OTHER group have in determining the credit totals? _____%

1. How much did you identify as a member of YOUR OWN GROUP?

not at all ___: ___: ___: ___: ___: ___: ___: very much

2. How much do you think other members of YOUR OWN GROUP identified with YOUR OWN GROUP?

not at all ___: ___: ___: ___: ___: ___: ___: very much

3. How much do you think members of the other group identified as members of THEIR OWN GROUP?

not at all ___: ___: ___: ___: ___: ___: ___: very much

4. Supposing you were to find out which persons were in YOUR GROUP and which persons were in the OTHER GROUP. How much do you think you would like:

a) members of YOUR OWN GROUP?

not at all ___: ___: ___: ___: ___: ___: ___: very much

b) members of the OTHER GROUP?

not at all ___: ___: ___: ___: ___: ___: ___: very much

5. How much do you think members of YOUR GROUP would like:

a) YOU?

not at all ___: ___: ___: ___: ___: ___: ___: very much

b) other members of YOUR GROUP?

not at all ___: ___: ___: ___: ___: ___: ___: very much

c) members of the OTHER GROUP?

not at all ___: ___: ___: ___: ___: ___: ___: very much

6. How much do you think members of the OTHER GROUP would like:
- a) YOU?
not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) other members of YOUR GROUP?
not at all ___: ___: ___: ___: ___: ___: ___: very much
- c) members of THEIR OWN GROUP?
not at all ___: ___: ___: ___: ___: ___: ___: very much
- 7.a) To what extent did you distribute the credits equally between the two groups?
not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?
- 8.a) To what extent do you think members of the OTHER GROUP distributed the credits equally between both groups?
not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?
- 9.a) How much did you favour YOUR OWN GROUP in distributing the credits?
not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?
- 10.a) How much do you think the OTHER GROUP members favoured THEIR OWN GROUP in distributing the credits?
not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?
- 11.a) How much did you favour the OTHER GROUP in distributing the credits?
not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?

- 12.a) How much do you think the OTHER GROUP members favoured YOUR GROUP in distributing the credits?
- not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?
- 13.a) How much did you try to get the maximum number of credits for BOTH groups?
- not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?
- 14.a) How much do you think the OTHER GROUP members tried to get the maximum number of credits for BOTH groups?
- not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?
- 15.a) How fair were you in distributing the credits?
- not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?
- 16.a) How fair do you think members of the OTHER GROUP were in distributing the credits?
- not at all ___: ___: ___: ___: ___: ___: ___: very much
- b) Why?
17. How much CONTROL do you feel YOU have in determining the total number of credits that:
- a) You get for participating in this experiment?
- none at all ___: ___: ___: ___: ___: ___: ___: very much
- b) members of the OTHER GROUP get for participating in this experiment?
- none at all ___: ___: ___: ___: ___: ___: ___: very much

18. How much CONTROL do you feel members of the OTHER GROUP have in determining the total number of credits for:
- a) YOU?
- none at all ___: ___: ___: ___: ___: ___: ___: very much
- b) members of THEIR OWN GROUP?
- none at all ___: ___: ___: ___: ___: ___: ___: very much
19. If this experiment were run again, what percentage of power (anywhere from 0% to 100%) would you like your OWN group to have?
- % of power to my OWN group ___ %
- Please give reasons for your answer.
20. Again, if this experiment were run again, what percentage of power (anywhere from 0% to 100%) would you like the OTHER group to have?
- % power to the OTHER group ___ %
- Please give reasons for your answer.

Name _____

Student # _____

Part 2

1. How comfortable were you as a member of the High Power GP ___/Low Power GP ___? (Please circle the group to which you belong.)
not at all ___: ___: ___: ___: ___: ___: ___: very much
2. How satisfied were you as a member of the High Power GP ___/Low Power GP ___? (Please circle the group to which you belong.)
not at all ___: ___: ___: ___: ___: ___: ___: very much
3. How happy do you feel about being a member of the High Power GP ___/Low Power GP ___? (Circle the group to which you belong.)
not at all ___: ___: ___: ___: ___: ___: ___: very much
4. How much did you like being a member of YOUR group?
not at all ___: ___: ___: ___: ___: ___: ___: very much
5. How much status do you feel there was in being a member of the:

High Power Group

 none at all ___: ___: ___: ___: ___: ___: ___: very much

Low Power Group

 none at all ___: ___: ___: ___: ___: ___: ___: very much
6. How much do you agree with the way individuals were assigned to groups (i.e., on the basis of the coin toss)?
not at all ___: ___: ___: ___: ___: ___: ___: very much
7. How legitimate (i.e., proper or fitting) do you feel the toss of a coin was in determining which group had more power?
not at all ___: ___: ___: ___: ___: ___: ___: very much
8. How legitimate was the power distribution between group X and group W for determining the number of credits you receive for participating in this experiment?
not at all ___: ___: ___: ___: ___: ___: ___: very much
Please give reasons for your answer.

9. If this experiment were run again in exactly the same way, how much would you like to be a member of:

Group X

not at all ___: ___: ___: ___: ___: ___: ___: very much

Group W

not at all ___: ___: ___: ___: ___: ___: ___: very much

* * * * *

10. As an individual in today's society how satisfied do you feel about your own personal status when you compare yourself with females in general?

not at all ___: ___: ___: ___: ___: ___: ___: completely
satisfied satisfied

11. As an individual in today's society how satisfied do you feel about your own personal status when you compare yourself with males in general?

not at all ___: ___: ___: ___: ___: ___: ___: completely
satisfied satisfied

12. As an individual in today's society how satisfied do you feel about your own personal power when you compare yourself with females in general?

not at all ___: ___: ___: ___: ___: ___: ___: completely
satisfied satisfied

13. As an individual in today's society how satisfied do you feel about your own personal power when you compare yourself with males in general?

not at all ___: ___: ___: ___: ___: ___: ___: completely
satisfied satisfied

14. Generally speaking, how much power do you think males as a group have today in society?

none at all ___: ___: ___: ___: ___: ___: ___: very much

15. Generally speaking, how much power do you think females as a group have today in society?

none at all ___: ___: ___: ___: ___: ___: ___: very much

16. How legitimate (i.e. proper or fitting) is the power position of the:

male group in society

not at all ___: ___: ___: ___: ___: ___: ___: very much

female group in society

not at all ___: ___: ___: ___: ___: ___: ___: very much

17. Generally speaking, how much status do you think males as a group have today in society?

none at all ___: ___: ___: ___: ___: ___: ___: very much

18. Generally speaking, how much status do you think females as a group have today in society?

none at all ___: ___: ___: ___: ___: ___: ___: very much

19. How legitimate (ie., proper or fitting) is the status position of the:

male group in society

not at all ___: ___: ___: ___: ___: ___: ___: very much

female group in society

not at all ___: ___: ___: ___: ___: ___: ___: very much

Part 3

1. How much do you identify as a member of the:

male group

not at all ___: ___: ___: ___: ___: ___: ___: very much

female group

not at all ___: ___: ___: ___: ___: ___: ___: very much
2. How positive do you feel about being a member of your gender group?

not at all ___: ___: ___: ___: ___: ___: ___: very much
3. How secure do you feel about being a member of your gender group?

not at all ___: ___: ___: ___: ___: ___: ___: very much
4. How happy do you feel about being a member of your gender group?

not at all ___: ___: ___: ___: ___: ___: ___: very much
5. How much do you like being a member of your gender group?

not at all ___: ___: ___: ___: ___: ___: ___: very much

Group Identification Scale

Please fill in the following blanks using either the term "male" or "female" and circle the appropriate response to each question.

1. I am a person who feels strong ties with the _____ group.
Never Seldom Sometimes Often Very Often
2. I am a person who identifies with the _____ group.
Never Seldom Sometimes Often Very Often
3. I am a person who criticizes the _____ group.
Never Seldom Sometimes Often Very Often
4. I am a person who makes excuses for belonging to the _____ group.
Never Seldom Sometimes Often Very Often
5. I am a person who considers the _____ group important.
Never Seldom Sometimes Often Very Often
6. I am a person who is annoyed to say I'm a member of the _____ group.
Never Seldom Sometimes Often Very Often
7. I am a person who is glad to belong to the _____ group.
Never Seldom Sometimes Often Very Often
8. I am a person who sees myself as belonging to the _____ group.
Never Seldom Sometimes Often Very Often
9. I am a person who feels held back by the _____ group.
Never Seldom Sometimes Often Very Often
10. I am a person who tries to hide belonging to the _____ group.
Never Seldom Sometimes Often Very Often

Attitudes toward the Roles of Women

The statements listed below describe attitudes toward the roles of women in society which different people have. You are asked to express your feelings about each statement by indicating whether you (A) agree strongly, (B) agree mildly, (C) disagree mildly, or (D) disagree strongly. There are no right or wrong answers, we are only interested in your opinions and feelings. Please make sure to read every statement very carefully.

1. Swearing and obscenity are more repulsive in the speech of a woman than of a man.

A	B	C	D
agree strongly	agree mildly	disagree mildly	disagree strongly

2. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.

A	B	C	D
agree strongly	agree mildly	disagree mildly	disagree strongly

3. Both husband and wife should be allowed the same grounds for divorce.

A	B	C	D
agree strongly	agree mildly	disagree mildly	disagree strongly

4. Telling dirty jokes should be mostly a masculine prerogative.

A	B	C	D
agree strongly	agree mildly	disagree mildly	disagree strongly

5. Intoxication among women is worse than intoxication among men.

A	B	C	D
agree strongly	agree mildly	disagree mildly	disagree strongly

6. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

7. It is insulting to women to have the "obey" clause remain in the marriage service.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

8. There should be a strict merit system in job appointment and promotion without regard to sex.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

9. A woman should be as free as a man to propose marriage.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

10. Women should worry less about their rights and more about becoming good wives and mothers.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

11. Women earning as much as their dates should bear equally the expense when they go out together.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

12. Women should assume their rightful place in business and all the professions along with men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

13. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

14. Sons in a family should be given more encouragement to go to college than daughters.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

15. It is ridiculous for a woman to run a locomotive and for a man to darn socks.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

16. In general, the father should have greater authority than the mother in the bringing up of children.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

17. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

18. The husband should not be favoured by law over the wife in the disposal of family property or income.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

19. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

20. The intellectual leadership of a community should be largely in the hands of men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

21. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

22. On the average, women should be regarded as less capable of contributing to economic production than are men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

23. There are many jobs in which men should be given preference over women in being hired or promoted.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

24. Women should be given equal opportunity with men for apprenticeship in the various trades.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

25. The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

Demographic Information

Name: _____ Sex: _____ Age: _____

1. Language(s) spoken by yourself at home:

(a) _____ (b) _____ (c) _____

2. Where were you born and how long have you lived in Canada?
-
- _____

3. Where were your parents born and how long have they lived in Canada?
-
- _____

4. Please describe your occupation: _____
-
- _____

Please describe your mother's occupation: _____
_____Please describe your father's occupation: _____

5. Have you ever participated in any group or organization dealing with issues of concern relating to males and females?

Yes: _____ No: _____

If yes, please state briefly in which organization you were or are involved and what position you held:

6. How do you define the term "feminist"?
-
- _____
-
- _____

According to your definition, do you classify yourself as a feminist?

not at all ___:___:___:___:___:___:___ very much

7. How do you think of yourself using these terms (check only one).

(a) as a Canadian _____ (b) as an English Canadian _____
(c) other _____-Canadian (d) other (Please specify) _____

8. How Canadian do you feel?

not at all ___:___:___:___:___:___:___ very much

Section 3.1 Power x Sex x Target Sex Repeated Measure (5 x 2 x 2) MANOVA

Multivariate Main Effect of:

- i) Sex: $F(7,330) = 7.85, p < .0001$
 ii) Target Sex: $F(7,330) = 76.63, p < .0001$

Multivariate Interaction of:

- iii) Sex x Target Sex: $F(7,330) = 76.61, p < .0001$

No Effect of:

- Power: $F(28,1191) = 0.90, ns$
 Power x Sex: $F(28,1191) = 0.97, ns$
 Power x Target Sex: $F(28,1191) = 0.85, ns$
 Power x Sex x Target Sex: $F(28,1191) = 1.37, ns$

(alpha' = .007)

	Power Main Effect F (df=4,336)	Sex Main Effect F (df=1,336)	Target Sex Main Effect F (df=1,336)	Power x Sex Interaction F (df=4,336)	Power x Target Sex Interaction F (df=4,336)	Sex x Target Sex Interaction F (df=1,336)	Power x Sex x Target Sex Interaction F (df=4,336)
Identification with gender groups	1.65 ns	0.02 ns	0.00 ns	0.71 ns	1.09 ns	501.76 (p < .0001)	1.27 ns
Power of gender groups	0.08 ns	12.03 (p < .001)	464.42 (p < .0001)	1.55 ns	2.28 ns	2.77 ns	3.05 (p < .05)
Status of gender groups	1.44 ns	1.47 ns	271.08 (p < .0001)	0.63 ns	0.77 ns	1.95 ns	0.57 ns
Legitimacy of power	0.18 ns	7.70 (p < .006)	47.29 (p < .0001)	1.28 ns	0.58 ns	19.62 (p < .0001)	1.30 ns
Legitimacy of status	0.63 ns	13.79 (p = .0002)	77.38 (p < .0001)	1.89 ns	1.08 ns	17.31 (p < .0001)	2.15 ns

Section 3.2a

Power

	0%		30%		50%		70%		100%	
	Males (n=32)	Females (n=35)	Males (n=33)	Females (n=33)	Males (n=37)	Females (n=40)	Males (n=33)	Females (n=34)	Males (n=34)	Females (n=35)
Feelings of Satisfaction of Personal Power Compared to:										
Males	5.28*	4.74	5.67	4.91	5.76	4.28	5.42	4.62	5.50	4.54
Females	5.34	5.49	5.61	5.55	5.62	5.00	5.45	5.62	5.53	5.26
Feelings of Satisfaction of Personal Status Compared to:										
Males	5.50	5.23	5.91	5.76	5.92	5.02	5.64	5.18	5.53	4.91
Females	5.31	5.83	5.88	5.82	5.86	5.45	5.67	5.53	5.65	5.46

* The higher the mean on the 7-point scale, the higher the score on the item.

Section 3.2b

	Power Main Effect	Sex Main Effect	Gender Main Effect	Power x Sex Interaction	Power x Gender Interaction	Sex x Gender Interaction	Power x Gender Interaction
	F (4,336)	F (1,336)	F (1,336)	F (4,336)	F (4,336)	F (1,336)	F (4,336)
Feelings of Satisfaction of Personal Power Compared to:							
Males	0.52 ns	15.88	31.39	1.40 ns	0.38 ns	33.90	0.19 ns
Females		(p = .0001)	(p < .0001)			(p < .0001)	
Feelings of Satisfaction of Personal Status Compared to:							
Males	1.48 ns	4.54	9.97	1.13 ns	0.71 ns	12.81	0.89 ns
Females		(p < .05)	(p < .002)			(p < .001)	

Section 3.3 Power x Sex (5 x 2) MANOVA

Multivariate Main Effect of:

i) Power: $F(68,1258) = 3.85, p < .0001$, ii) Sex: $F(17,320) = 7.37, p < .0001$ Multivariate Interaction of: iii) Power x Sex: $F(68,1258) = 1.60, p < .01$ $(\alpha' = .003)$

	Power Main Effect F (df=4,336)	Sex Main Effect F (df=1,336)	Power x Sex Interaction F (df=4,336)
Self as a 'feminist'	1.13 ns	41.35 ($p < .0001$)	0.31 ns
Brown et al. Identification Scale	1.09 ns	3.23 ns	1.54 ns
AWS	0.93 ns	95.22 ($p < .0001$)	0.53 ns
Age	0.71 ns	0.07 ns	2.30 ns
Feeling Canadian	0.50 ns	0.13 ns	2.04 ns
Positive about gender group	0.40 ns	0.18 ns	1.12 ns
Secure about gender group	0.96 ns	5.54 ($p < .02$)	0.82 ns
Happy about gender group	2.65 ($p < .05$)	0.43 ns	0.77 ns
Like being in gender group	1.71 ns	0.38 ns	0.51 ns
Agreement with coin toss to assign subjects to groups	0.33 ns	0.92 ns	3.87 ($p < .005$)
Legitimacy of coin toss to assign power to groups	0.23 ns	0.04 ns	3.60 ($p < .01$)
Legitimacy of power distribution	13.35 ($p < .001$)	0.06 ns	2.33 ns
Power for own group	0.94 ns	9.96 ($p = .002$)	3.98 ($p < .005$)
Comfortable about power group	25.81 ($p < .0001$)	1.55 ns	2.98 ns
Satisfied about power group	46.26 ($p < .0001$)	0.77 ns	0.60 ns
Happy about power group	37.44 ($p < .0001$)	0.41 ns	2.02 ns
Like being in power group	27.13 ($p < .0001$)	0.42 ns	1.78 ns

Section 3.4a Power x Sex x Group Repeated Measure (5 x 2 x 2) MANOVA

Multivariate Main Effect of:

- i) Power: $F(40,1242) = 6.87, p < .0001$
- ii) Sex: $F(10,327) = 3.10, p < .001$
- iii) Group: $F(10,327) = 31.73, p < .0001$

Multivariate Interaction of:

- iv) Power x Group: $F(40,1242) = 10.57, p < .0001$

Marginal Effect of:

Power x Sex: $F(40,1242) = 1.35, p < .10$

Power x Sex x Group: $F(40,1242) = 1.32, p < .10$

No Effect of:

Sex x Group: $F(10,327) = 1.19, ns$

(alpha' = .005)

	Power Main Effect F (df=4,336)	Sex Main Effect F (df=1,336)	Group Main Effect F (df=1,336)	Power x Sex Interaction F (df=4,336)	Power x Group Interaction F (df=4,336)	Sex x Group Interaction F (df=1,336)	Power x Sex x Group Interaction F (df=4,336)
Like members	1.71 ns	15.62 (p=.0001)	46.96 (p<.0001)	0.81 ns	0.60 ns	0.89 ns	0.66 ns
Your control of credits	0.18 ns	0.20 ns	116.65 (p<.0001)	1.22 ns	8.43 (p<.0001)	0.00 ns	0.51 ns
Outgroup's control of credits	56.86 (p<.0001)	0.09 ns	0.80 ns	1.30 ns	1.89 ns	0.36 ns	1.04 ns
Status of group	2.53 (p<.05)	5.69 (p<.02)	3.56 ns	2.35 ns	117.08 (p<.0001)	1.35 ns	1.71 ns
Group preference	2.54 (p<.05)	2.60 ns	3.17 ns	2.14 ns	55.21 (p<.0001)	0.00 ns	0.60 ns

Section 3.4b

415

(alpha' = .005)

	Power Main Effect F (df=4,336)	Sex Main Effect F (df=1,336)	Group Main Effect F (df=1,336)	Power x Sex Interaction F (df=4,336)	Power x Group Interaction F (df=4,336)	Sex x Group Interaction F (df=1,336)	Power x Sex x Group Interaction F (df=4,336)
Distributed equally	2.95 (p<.05)	7.74 (p<.01)	44.04 (p<.0001)	1.00 ns	0.54 ns	2.66 ns	0.44 ns
Distributed favouring own group	1.98 ns	0.19 ns	88.41 (p<.0001)	1.43 ns	9.05 (p<.0001)	2.04 ns	2.61 (p<.05)
Distributed favouring outgroup	0.99 ns	0.03 ns	0.03 ns	0.78 ns	7.62 (p<.0001)	3.99 (p<.05)	1.32 ns
Distributed to get maximum	3.07 (p<.02)	5.11 (p<.05)	1.11 ns	2.57 (p<.05)	1.81 ns	0.90 ns	1.60 ns
Distributed fairly	3.46 (p<.01)	7.77 (p<.01)	61.60 (p<.0001)	1.25 ns	1.38 ns	0.01 ns	1.60 ns

Section 3.5 Power x Sex x Repeated Measure (i.e., self/owngroup members/outgroup members (5 x 2 x 3) MANOVA

Multivariate Main Effect of:

- i) Sex: $F(3,334) = 5.60, p < .001$
 ii) Repeated Measure: $F(6,331) = 47.93, p < .0001$

Multivariate Interaction of:

- iii) Power x Repeated measure: $F(24,1156) = 3.26, p < .0001$

No Effect of:

- Power: $F(12,884) = 1.19, ns$
 Power x Sex: $F(12,884) = 0.66, ns$
 Sex x Repeated Measure: $F(6,331) = 1.07, ns$
 Power x Sex x Repeated Measure: $F(24,1156) = 1.37, ns$

($\alpha' = .017$)

	Power Main Effect F (df=4,336)	Sex Main Effect F (df=1,336)	Repeated Measure Effect F (df=2,672)	Power x Sex Interaction F (df=4,336)	Power x Repeated Measure Interaction F (df=8,672)	Sex x Repeated Measure Interaction F (df=2,672)	Power x Sex x Repeated Measure Interaction F (df=8,672)
Identification with power group	1.41 ns	4.53 (p < .05)	15.01 (p < .0001)	0.80 ns	9.05 (p < .0001)	0.94 ns	2.39 (p < .05)
Own group's Liking of	0.80 ns	3.08 ns	95.43 (p < .0001)	0.74 ns	0.68 ns	0.62 ns	0.37 ns
Outgroup's liking of	1.69 ns	10.46 (p < .002)	174.42 (p < .0001)	0.31 ns	2.04 ns	0.44 ns	1.92 ns

Section 4.1 Power x Sex x Target Sex Repeated Measure (5 x 2 x 2) MANOVA

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Multivariate Main Effect of:

- i) Sex: $F(7,325) = 7.43, p < .0001$
- ii) Target Sex: $F(7,325) = 73.80, p < .0001$

Multivariate Interaction of:

- iii) Power x Target Sex: $F(28,1173) = 1.62, p < .025$
- iv) Sex x Target Sex: $F(7,325) = 79.87, p < .0001$
- v) Power x Sex x Target Sex: $F(28,1173) = 2.07, p < .001$
($\alpha' = .007$)

No Effect of:

- Power: $F(28,1173) = 1.11, ns$
- Power x Sex: $F(28,1173) = 1.40, ns$

APPENDIX F

	Power Main Effect F (df=4,331)	Sex Main Effect F (df=1,331)	Target Sex Main Effect F (df=1,331)	Power x Sex Interaction F (df=4,331)	Power x Target Sex Interaction F (df=4,331)	Sex x Target Sex Interaction F (df=1,331)	Power x Sex x Target Sex Interaction F (df=4,331)
Identification with gender groups	1.95 ns	6.37 (p < .02)	3.53 ns	1.07 ns	2.31 ns	494.39 (p < .0001)	3.27 (p < .05)
Power of gender groups	0.68 ns	2.40 ns	475.89 (p < .0001)	0.96 ns	1.11 ns	4.64 (p < .05)	1.25 ns
Status of gender groups	0.42 ns	1.61 ns	254.13 (p < .0001)	0.40 ns	1.21 ns	0.01 ns	0.22 ns
Legitimacy of power	1.31 ns	10.01 (p < .01)	39.05 (p < .0001)	0.63 ns	1.62 ns	3.27 ns	3.34 (p < .05)
Legitimacy of status	0.52 ns	19.19 (p < .0001)	60.04 (p < .0001)	0.16 ns	0.73 ns	4.83 (p < .05)	3.18 (p < .05)

Section 4.2a

Power

	0%		30%		50%		70%		100%	
	Males (n=34)	Females (n=30)	Males (n=33)	Females (n=39)	Males (n=35)	Females (n=39)	Males (n=32)	Females (n=30)	Males (n=31)	Females (n=38)
Feelings of Satisfaction of Personal Power Compared to:										
Males	5.94*	4.17	5.73	4.95	5.34	4.87	5.62	4.83	5.74	4.39
Females	6.00	5.77	5.91	5.87	5.34	5.77	5.47	5.73	5.61	5.29
Feelings of Satisfaction of Personal Status compared to:										
Males	6.26	5.20	6.12	5.44	5.83	5.05	5.62	5.73	5.81	4.79
Females	6.26	5.93	6.06	6.05	5.91	5.69	5.62	6.20	5.65	5.92

* The higher the mean on the 7-point scale, the higher the score on the item.

Section 4.2b

	Power Main Effect	Sex Main Effect	Target Sex Main Effect	Power x Sex Interaction	Power x Target Sex	Sex x Target Sex Interaction	Power x Sex x Target Sex
	F (4,331)	F (1,331)	F (1,331)	F (4,331)	F (4,331)	F (1,331)	F (4,331)
Feelings of Satisfaction of Personal Power Compared to:							
Males	0.84 ns	14.04	57.89	1.81 ns	1.47 ns	59.91	0.96 ns
Females		(p < .0005)	(p < .0001)			(p < .0001)	
Feelings of Satisfaction of Personal Status Compared to:							
Males	1.60 ns	6.63	26.93	1.92 ns	0.42 ns	31.35	1.18 ns
Females		(p < .02)	(p < .0001)			(p < .0001)	

Section 4.3 Power x Sex (5 x 2) MANOVA

Multivariate Main Effect of:

i) Power: $F(68,1238) = 4.71, p < .0001$, ii) Sex: $F(17,315) = 5.76, p < .0001$ Multivariate Interaction of: iii) Power x Sex: $F(68,1238) = 1.53, p < .01$
($\alpha' = .003$)

	Power Main Effect F (df=4,331)	Sex Main Effect F (df=1,331)	Power x Sex Interaction F (df=4,331)
Self as a 'feminist'	1.60 ns	37.43 ($p < .0001$)	0.92 ns
Brown et al Identification Scale	2.05 ns	2.73 ns	0.79 ns
AWS	0.33 ns	55.55 ($p < .0001$)	1.69 ns
Age	0.13 ns	0.00 ns	1.45 ns
Feeling Canadian	0.87 ns	0.37 ns	1.02 ns
Positive about gender group	0.44 ns	0.30 ns	1.84 ns
Secure about gender group	0.50 ns	3.84 ($p < .06$)	1.92 ns
Happy about gender group	0.29 ns	0.00 ns	2.14 ns
Like being in gender group	1.53 ns	0.01 ns	1.74 ns
Agreement with coin toss to assign subjects to groups	0.73 ns	0.44 ns	3.42 ($p < .01$)
Legitimacy of coin toss to assign power to groups	1.42 ns	1.59 ns	3.49 ($p < .01$)
Legitimacy of power distribution	18.20 ($p < .0001$)	0.82 ns	2.17 ns
Power for own group	0.67 ns	0.14 ns	0.42 ns
Comfortable about power group	30.13 ($p < .0001$)	0.18 ns	2.28 ns
Satisfied about power group	48.94 ($p < .0001$)	0.00 ns	1.15 ns
Happy about power group	40.53 ($p < .0001$)	0.18 ns	0.39 ns
Like being in power group	10.94 ($p < .0001$)	1.08 ns	1.64 ns

Section 4.4a Power x Sex x Group Repeated Measure (5 x 2 x 2) MANOVA

Multivariate Main Effect of:

i) Power: $F(40,1123) = 4.81, p < .0001$

ii) Group: $F(10,322) = 23.23, p < .001$

Multivariate Interaction of:

iii) Power x Group: $F(40,1123) = 10.20, p < .0001$

iv) Sex x Group: $F(10,322) = 2.40, p < .01$

v) Power x Sex x Group: $F(40,1223) = 1.61, p = .01$

Marginal Effect of:

Sex: $F(10,332) = 1.72, p < .10$

No Effect of:

Power x Sex: $F(40,1223) = 1.02, ns$

(alpha' = .005)

	Power Main Effect F (df=4,331)	Sex Main Effect F (df=1,331)	Group Main Effect F (df=1,331)	Power x Sex Interaction F (df=4,331)	Power x Group Interaction F (df=4,331)	Sex x Group Interaction F (df=1,331)	Power x Sex x Group Interaction F (df=4,331)
Like members	1.69 ns	5.32 (p < .05)	7.78 (p < .01)	1.66 ns	1.52 ns	17.82 (p < .0001)	1.94 ns
Your control of credits	1.72 ns	0.01 ns	92.57 (p < .0001)	0.36 ns	4.60 (p < .01)	0.03 ns	1.50 ns
Outgroup's control of credits	29.14 (p < .0001)	3.63 ns	2.59 ns	0.27 ns	0.88 ns	0.01 ns	1.82 ns
Status of group	1.17 ns	2.05 ns	4.52 (p < .05)	1.09 ns	113.69 (p < .0001)	2.83 ns	1.37 ns
Group preference	2.60 (p < .05)	1.48 ns	16.18 (p = .0001)	1.40 ns	25.53 (p < .0001)	0.06 ns	0.82 ns

Section 4.4b

(alpha' = .005)

	Power Main Effect F (df=4,331)	Sex Main Effect F (df=1,331)	Group Main Effect F (df=1,331)	Power x Sex Interaction F (df=4,331)	Power x Group Interaction F (df=4,331)	Sex x Group Interaction F (df=1,331)	Power x Sex x Group Interaction F (df=4,331)
Distributed equally	1.65 ns	0.01 ns	32.48 (p<.0001)	0.51 ns	3.39 (p<.01)	1.60 ns	0.46 ns
Distributed favouring own group	0.91 ns	1.86 ns	59.73 (p<.0001)	0.84 ns	9.33 (p<.0001)	0.76 ns	3.40 (p<.01)
Distributed favouring outgroup	0.28 ns	0.09 ns	4.66 (p<.05)	0.45 ns	7.34 (p<.0001)	0.29 ns	2.91 (p<.05)
Distributed to get maximum	1.07 ns	1.60 ns	1.29 ns	0.26 ns	0.48 ns	0.81 ns	0.62 ns
Distributed fairly	1.55 ns	0.77 ns	66.84 (p<.0001)	0.63 ns	0.07 ns	1.77 ns	0.95 ns

Section 4.5 Power x Sex x Repeated Measure (i.e., self/owngroup members/outgroup members (5 x 2 x 3) MANOVA

Multivariate Main Effect of:

i) Repeated Measure: $F(6,326) = 22.57, p < .0001$

Multivariate Interaction of:

ii) Power x Repeated measure: $F(24,1138) = 2.46, p < .0001$

iii) Sex x Repeated Measure: $F(6,326) = 3.51, p < .01$

No Effect of:

Power: $F(12,871) = 1.24, ns$

Sex: $F(3,329) = 0.66, ns$

Power x Sex: $F(12,871) = 1.33, ns$

Power x Sex X Repeated Measure: $F(24,1138) = 1.14, ns$

(alpha' = .017)

	Power Main Effect F (df=4,331)	Sex Main Effect F (df=1,331)	Repeated Measure Effect F (df=2,662)	Power x Sex Interaction F (df=4,331)	Power x Repeated Measure Interaction F (df=8,662)	Sex x Repeated Measure Interaction F (df=2,662)	Power x Sex x Repeated Measure Interaction F (df=8,662)
Identification with power group	0.71 ns	0.85 ns	33.15 (p < .0001)	0.85 ns	5.46 (p < .0001)	0.25 ns	1.36 ns
Own group's Liking of	1.39 ns	1.58 ns	29.97 (p < .0001)	1.59 ns	1.57 ns	11.13 (p < .0001)	0.92 ns
Outgroup's liking of	2.00 ns	1.14 ns	28.85 (p < .0001)	0.54 ns	0.58 ns	2.13 ns	0.57 ns

Code # _____

INTERVIEW STRUCTURE FOR FIELD STUDY

1. To which federation do you belong ? FWTAO_____ / OPSTF_____ /
 Voluntary member of OPSTF_____

2. How much do you identify as a member of your federation ?
 Not at all ___:___:___:___:___ Very much

3. How much do you like being a member of your federation ?
 Not at all ___:___:___:___:___ Very much

4. How do you feel about being a member of your federation on the following dimensions ?
 - comfortable
 Not at all ___:___:___:___:___ Very much
 - positive
 Not at all ___:___:___:___:___ Very much
 - secure
 Not at all ___:___:___:___:___ Very much
 - satisfied
 Not at all ___:___:___:___:___ Very much

5. How legitimate (i.e., proper or fitting) do you think the following bases for union affiliation are under OTF ?

Religion

Not at all ____:____:____:____:____ Very much

Language

Not at all ____:____:____:____:____ Very much

Sex

Not at all ____:____:____:____:____ Very much

6. Of the five federations under the Ontario Teachers' Federation, how relevant do you think each of the following is as a comparison group to the federation to which you belong?

AEFO

Not at all ____:____:____:____:____ Very much

OSSTF

Not at all ____:____:____:____:____ Very much

OECTA

Not at all ____:____:____:____:____ Very much

OPSTF / FWTAO

Not at all ____:____:____:____:____ Very much

(If the subject does not give highest score to either FWTAO or OPSTF, it will be stated that, "Through our research, it seems that OPSTF/FWTAO is most comparable to your federation because both federations are of the elementary school system - (i.e., both use English as the language of instruction, both are in the elementary school system, and neither are affiliated with any particular religion) - So the following questions centre on this comparison.")

7. Generally speaking, how much power do the following federations have today ?

FWTAO

None at all ___:___:___:___:___ Very much

OPSTF

None at all ___:___:___:___:___ Very much

8. How legitimate (i.e., proper or fitting) is the present power of the federations ?

FWTAO

Not at all ___:___:___:___:___ Very much

OPSTF

Not at all ___:___:___:___:___ Very much

9. How satisfied do you feel about the power of FWTAO compared to OPSTF ?

Not at all ___:___:___:___:___ Very much

10. How much power should the federations have ?

FWTAO

None at all ___:___:___:___:___ Very much

OPSTF

None at all ___:___:___:___:___ Very much

11. Generally speaking, how much status (i.e., prestige) do the following federations have today ?

FWTAO

None at all ____:____:____:____:____ Very much

OPSTF

None at all ____:____:____:____:____ Very much

12. How legitimate (i.e., proper or fitting) is the present status of the following federations ?

FWTAO

Not at all ____:____:____:____:____ Very much

OPSTF

Not at all ____:____:____:____:____ Very much

13. How satisfied do you feel about the status of FWTAO compared to OPSTF ?

Not at all ____:____:____:____:____ Very much

14. How much status should the following federations have ?

FWTAO

None at all ____:____:____:____:____ Very much

OPSTF

None at all ____:____:____:____:____ Very much

The issue of passing from one federation to another has become important to elementary school teachers in Ontario.

15. How easy do you think it should be for an elementary school teacher, regardless of their sex, to become a member of either federation ?

Not at all ____:____:____:____:____ Very much

16. How much contact do you have with members of ... ?

FWTAO

None at all ____:____:____:____:____ Very much

OPSTF

None at all ____:____:____:____:____ Very much

Voluntary members of OPSTF

None at all ____:____:____:____:____ Very Much

17. How much do you like members of these groups ?

FWTAO

Not at all ____:____:____:____:____ Very much

OPSTF

Not at all ____:____:____:____:____ Very much

Voluntary members of OPSTF

Not at all ____:____:____:____:____ Very much

18. How much would you like to become a statutory member of OPSTF / FWTAO?

Not at all ____:____:____:____:____ Very much

b) Does that mean you would like to be a member of this federation or not?

Yes____ or No____ ?

19. How much do you think members of FWTAO wish to become members of OPSTF ?

Not at all ____:____:____:____:____ Very much

20. How much do you think members of OPSTF wish to become members of FWTAO ?

Not at all ____:____:____:____:____ Very much

21. How much effort do you think the following federations put into recruiting new members to their federation ?

FWTAO

None at all ____:____:____:____:____ Very much

OPSTF

None at all ____:____:____:____:____ Very much

22. How much effort do you think the following federation puts into keeping its members ?

FWTAO

None at all ___:___:___:___:___ Very much

OPSTF

None at all ___:___:___:___:___ Very much

23. How many FWTAO members do you think become voluntary members of OPSTF ?

None at all ___:___:___:___:___ Very many

24. How likely do you think it is that FWTAO and OPSTF will continue as two separate federations in the future ?

Not at all likely ___:___:___:___:___ Very likely

25. As a federation member, how threatened would you feel by an amalgamation of OPSTF and FWTAO ?

Not at all ___:___:___:___:___ Very much

26. **Tajfel Matrices - Distribution of Financial Resources**

Code # _____

Demographics

1. Age ____ Sex ____
2. What is your present position in this school ?
 - i) classroom-teacher ____
 - ii) vice-principal ____
 - iii) principal ____For how long have you been in this position ? _____
3. What position do you personally wish to attain within the school system in the future ?
 - i) classroom-teacher ____
 - ii) vice-principal ____
 - iii) principal ____
4. How long have you been in the elementary school system ?

5. What level of education do you have ?
 - i) no college or university degree (i.e., letter of standing) ____
 - ii) B.A. / B.Sc. ____
 - iii) M.A. ____
 - iv) Ph.D. ____

6. How long have you been a member of your federation ?

7a) How much do you participate in the federations' activities or programmes ?

Not at all ___:___:___:___:___ Very much

b) If you do, please name just a few activities including any positions held presently or in the past.

c) How much do you consider yourself as an activist within your federation ?

Not at all ___:___:___:___:___ Very Much

8. In general, how much do you identify with the following gender groups ?

Male group

Not at all ___:___:___:___:___ Very Much

Female group

Not at all ___:___:___:___:___ Very Much

9. How much do you consider yourself as a 'feminist' (however you define it) ?

Not at all ___:___:___:___:___ Very much

ANONYMOUS QUESTIONNAIRE

Code # _____

1. How much power do you think FWTAO
 had 5 years ago
 None at all ____:____:____:____:____ Very much
 has today
 None at all ____:____:____:____:____ Very much
 will have 5 years from now
 None at all ____:____:____:____:____ Very much
2. How much power do you think OPSTF
 had 5 years ago
 None at all ____:____:____:____:____ Very much
 has today
 None at all ____:____:____:____:____ Very much
 will have 5 years from now
 None at all ____:____:____:____:____ Very much
3. How important is power to the following federations ?
 FWTAO
 Not at all ____:____:____:____:____ Very much
 OPSTF
 Not at all ____:____:____:____:____ Very much
4. Personally, how important do you feel it is for your federation to have power ?
 Not at all ____:____:____:____:____ Very much

5. How much status do you think FWTAO

had 5 years ago

None at all ___:___:___:___:___ Very much

has today

None at all ___:___:___:___:___ Very much

will have 5 years from now

None at all ___:___:___:___:___ Very much

6. How much status do you think OPSTF

had 5 years ago

None at all ___:___:___:___:___ Very much

has today

None at all ___:___:___:___:___ Very much

will have 5 years from now

None at all ___:___:___:___:___ Very much

7. How important is status to the following federations ?

FWTAO

Not at all ___:___:___:___:___ Very much

OPSTF

Not at all ___:___:___:___:___ Very much

8. Personally, how important do you feel it is for your federation to have status ?

Not at all ___:___:___:___:___ Very much

9. Please estimate the membership number of FWTAO and OPSTF as a percentage of the total number of elementary school teachers in Ontario ?

<u>Membership % 5 years ago</u>	<u>Membership % today</u>	<u>Membership % 5 years in the future</u>
FWTAO: _____ %	FWTAO: _____ %	FWTAO: _____ %
OPSTF: _____ %	OPSTF: _____ %	OPSTF: _____ %
100 %	100 %	100 %

10. How important is an increase in membership number to the following ?

FWTAO

Not at all ____:____:____:____:____ Very much

OPSTF

Not at all ____:____:____:____:____ Very much

11. Personally, how important do you feel it is for your federation to have an increase in membership number ?

Not at all ____:____:____:____:____ Very much

12. How much do you think the federations are doing with respect to meeting the requirements of the Pay Equity Act ?

FWTAO

Nothing at all ___:___:___:___:___ Very much

OPSTF

Nothing at all ___:___:___:___:___ Very much

13. How important is meeting the requirements of the Pay Equity Act for the following federations ?

FWTAO

Not at all ___:___:___:___:___ Very much

OPSTF

Not at all ___:___:___:___:___ Very much

14. Personally, how important do you feel it is for your federation to meet the requirements of the Pay Equity Act ?

Not at all ___:___:___:___:___ Very much

15. How much do you think the federations are doing with respect to Professional Development (i.e., PAR) ?

FWTAO

Nothing at all ___:___:___:___:___ Very much

OPSTF

Nothing at all ___:___:___:___:___ Very much

16. How important is Professional Development to the following federations ?

FWTAO

Not at all ___:___:___:___:___ Very much

OPSTF

Not at all ___:___:___:___:___ Very much

17. Personally, how important do you feel it is for your federation to have Professional Development Programs ?

Not at all ___:___:___:___:___ Very much

18. How much do you think the unions are doing with respect to social issues (i.e., poverty, racism, Native issues) ?

FWTAO

Nothing at all ___:___:___:___:___ Very much

OPSTF

Nothing at all ___:___:___:___:___ Very much

19. How important are social issues to the following federations ?

FWTAO

Not at all ___:___:___:___:___ Very much

OPSTF

Not at all ___:___:___:___:___ Very much

20. Personally, how important do you feel it is for your federation to be involved in social issues ?

Not at all ___:___:___:___:___ Very much

21. What proportion of men and women do you perceive to be in the following positions ?

<u>Positions</u>	<u>Percentage of</u> <u>Males / Females</u>
Classroom teachers	_____ % _____% = 100 %
Vice-principals	_____ % _____% = 100 %
Principals	_____ % _____% = 100 %

22. What proportion of men and women do you think should be in the following positions ?

<u>Positions</u>	<u>Percentage of</u> <u>Males / Females</u>
Classroom teachers	_____ % _____% = 100 %
Vice-principals	_____ % _____% = 100 %
Principals	_____ % _____% = 100 %

23. In general, how much do you think males, as a group, value power ?
Not at all ___:___:___:___:___ Very much
24. In general, how much do you think females, as a group, value power ?
Not at all ___:___:___:___:___ Very much
25. In general, how much do you think males, as a group, value status ?
Not at all ___:___:___:___:___ Very much
26. In general, How much do you think females, as a group, value status ?
Not at all ___:___:___:___:___ Very much
27. As an individual, how much do you value power ?
Not at all ___:___:___:___:___ Very much
28. As an individual, how much do you value status ?
Not at all ___:___:___:___:___ Very much
29. As an individual, how much do you desire power ?
Not at all ___:___:___:___:___ Very much
30. As an individual, how much do you desire status ?
Not at all ___:___:___:___:___ Very much

Recently, the Ontario Supreme Court ruled that the Ontario Teachers' Federation (OTF) has a right to categorize teachers into respective federations according to their sex.

31. How fair do you feel this ruling is for the following federations ?

FWTAO

Not at all ___:___:___:___:___ Very much

OPSTF

Not at all ___:___:___:___:___ Very much

32. How advantageous is the Ontario Supreme court ruling for the following groups?

FWTAO

Not at all ___:___:___:___:___ Very much

OPSTF

Not at all ___:___:___:___:___ Very much

Voluntary members of OPSTF

Not at all ___:___:___:___:___ Very much

33. As a member of your federation, how threatened do you feel as a result of this ruling ?

Not at all ___:___:___:___:___ Very much

In Ontario, the issue of passing from one federation to the other has become important for elementary school teachers.

34. Can you think of some advantages of switching from FWTAO to OPSTF ?

i) _____

ii) _____

iii) _____

35. Can you think of some disadvantages of switching from FWTAO to OPSTF ?

i) _____

ii) _____

iii) _____

36. In general, how much do your values coincide with those of the following groups ?

FWTAO

Not at all ____:____:____:____:____ Very much

OPSTF

Not at all ____:____:____:____:____ Very much

Voluntary members of OPSTF

Not at all ____:____:____:____:____ Very much

37. To what degree do the every day interests of FWTAO and OPSTF conflict ?

Not at all ___:___:___:___:___ Very much

38. To what extent does attainment of the other federation's goals damage goal attainment of your own federation ?

Not at all ___:___:___:___:___ Very much

39. To what extent do the every day interests of FWTAO and OPSTF coincide ?

Not at all ___:___:___:___:___ Very much

40. To what extent do you feel your federation has reached its goals concerning relations between FWTAO and OPSTF ?

Achieved no goals ___:___:___:___:___ Achieved all goals

41. To what extent do you feel the other federation has reached its goals concerning relations between FWTAO and OPSTF ?

Achieved no goals ___:___:___:___:___ Achieved all goals

42. To what extent do you feel you have reached your personal goals concerning relations between FWTAO and OPSTF ?

Achieved no goals ___:___:___:___:___ Achieved all goals

43. As a member of your federation, how frustrated do you feel about the relations that exist between FWTAO and OPSTF ?

Not at all ___:___:___:___:___ Very much

Attitudes toward the Roles of Women

The statements listed below describe attitudes toward the roles of women in society which different people have. You are asked to express your feelings about each statement by indicating whether you (A) agree strongly, (B) agree mildly, (C) disagree mildly, or (D) disagree strongly. There are no right or wrong answers, we are only interested in your opinions and feelings. Please make sure to read every statement very carefully.

1. Swearing and obscenity are more repulsive in the speech of a woman than of a man.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

2. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

3. Both husband and wife should be allowed the same grounds for divorce.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

4. Telling dirty jokes should be mostly a masculine prerogative.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

5. Intoxication among women is worse than intoxication among men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

6. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

7. It is insulting to women to have the "obey" clause remain in the marriage service.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

8. There should be a strict merit system in job appointment and promotion without regard to sex.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

9. A woman should be as free as a man to propose marriage.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

10. Women should worry less about their rights and more about becoming good wives and mothers.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

11. Women earning as much as their dates should bear equally the expense when they go out together.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

12. Women should assume their rightful place in business and all the professions along with men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

13. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

14. Sons in a family should be given more encouragement to go to college than daughters.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

15. It is ridiculous for a woman to run a locomotive and for a man to darn socks.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

16. In general, the father should have greater authority than the mother in the bringing up of children.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

17. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

18. The husband should not be favoured by law over the wife in the disposal of family property or income.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

19. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

20. The intellectual leadership of a community should be largely in the hands of men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

21. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

22. On the average, women should be regarded as less capable of contributing to economic production than are men.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

23. There are many jobs in which men should be given preference over women in being hired or promoted.

A	B	C	D
<u>agree</u> strongly	<u>agree</u> mildly	<u>disagree</u> mildly	<u>disagree</u> strongly

24. Women should be given equal opportunity with men for apprenticeship in the various trades.

A	B	C	D
<u>agree</u>	<u>agree</u>	<u>disagree</u>	<u>disagree</u>
strongly	mildly	mildly	strongly

25. The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy.

A	B	C	D
<u>agree</u>	<u>agree</u>	<u>disagree</u>	<u>disagree</u>
strongly	mildly	mildly	strongly

Thank you for your cooperation in completing the questionnaire.

Please forward this questionnaire to:

Rochelle Cole
 Psychology Department
 McMaster University
 1280 Main Street West
 Hamilton, Ontario
 L8S 4K1

(A self-addressed stamped envelope was provided)

Section 5.1 MANOVA with Group as a Between Factor (interview items)

Multivariate Main Effect of Group: $F(50,104) = 5.52, p < .0001$
 ($\alpha' = .002$)

	Group Main Effect F (df=2,76)
Age	0.20 ns
Years in position	0.44 ns
Years in elementary school system	2.34 ns
Years in federation	24.29 ($p < .0001$)
Participation in federation's activities	0.17 ns
Self as an activist in federation	0.07 ns
Self as a 'feminist'	4.69 ($p < .02$)
Identification with federation	0.12 ns
Like being member of federation	3.93 ($p < .025$)
Comfort about membership	0.97 ns
Positive about membership	6.87 ($p < .002$)
Secure about membership	2.20 ns
Satisfaction about membership	8.62 ($p < .0005$)
Satisfaction with relative power	2.58 ns
Satisfaction with relative status	0.98 ns
Easy should it be to be a member of either federation	7.08 ($p < .002$)
Desire to be a member of other federation	5.12 ($p < .001$)
FW members want to be a member of OP	1.69 ns
OP members want to be a member of FW	3.35 ($p < .05$)
Estimate of FW members becoming VOP's	0.23
Likelihood that FW & OP will remain separate	1.98 ns
Feelings of threat about amalgamation	9.40 ($p < .0005$)

Section 5.2 MANOVA with Group as a Between Factor (questionnaire items)

Multivariate Main Effect of Group: $F(38,98) = 1.92, p < .01$
($\alpha' = .0026$)

	Group Main Effect F (df=2,67)
Personal importance of federation power	5.56 (p < .006)
Personal importance of federation status	9.89 (p < .0005)
Personal importance of more membership	1.43 ns
Personal importance of federation's efforts re. pay equity	0.12 ns
Personal importance of prof. development programs	1.87 ns
Personal importance of federation's efforts re. social issues	0.63 ns
Value of power as an individual	1.42 ns
Value of status as an individual	0.99 ns
Desire of power as an individual	0.34 ns
Desire of status as an individual	0.90 ns
AWS	0.74 ns

SECTION 5.3

	FWTAO Members (n=24)	Voluntary OPSTF Members (n=22)	OPSTF Members (n=24)	Group Main Effect F (df=2,67)
Conflicting Interests of FWTAO & OPSTF	2.83	2.46	3.09	2.14 ns
Other Federation's Goals Damage Those of Your Federation	2.92	2.17	2.59	2.36 ns
Common Interests of FWTAO & OPSTF	3.71	4.04	3.91	0.91 ns
Your Federation Reached its Goals re. FWTAO & OPSTF Relations	2.92	2.92	2.41	1.83 ns
Other Federation Reached its Goals re. FWTAO & OPSTF Relations	2.38	2.75	3.00	2.39 ns
You Reached Your Goals re. FWTAO & OPSTF Relations	2.67	2.67	2.27	1.24 ns
Frustration re. FWTAO & OPSTF Relations	3.04	4.21	4.14	6.97 (p<.002)
Threat re. Ontario Supreme Court Ruling	2.42	3.33	2.68	2.62 ns

Section 5.4 Group x Federation Repeated Measure (3 x 2) MANOVA (interview items)

Multivariate Main Effect of:

- i) Group: $F(16,138) = 2.37, p < .01$
 ii) Federation: $F(8,69) = 20.08, p < .0001$

Multivariate Interaction of:

- iii) Group x Federation: $F(16,138) = 2.63, p < .01$

($\alpha' = .0062$)

	Group Main Effect	Federation Main Effect	Group x Federation Interaction
	F (df=2,76)	F (df=1,76)	F (df=2,76)
Power	11.99 (p < .0001)	12.84 (p < .0001)	0.36 ns
Legitimacy of power	0.59 ns	0.79 ns	0.81 ns
Power federations should have	1.25 ns	0.68 ns	0.76 ns
Status	3.81 (p < .05)	14.66 (p < .001)	1.63 ns
Legitimacy of status	3.40 (p < .05)	0.03 ns	0.21 ns
Status federations should have	1.33 ns	0.00 ns	1.58 ns
Effort into recruiting members	0.23 ns	140.13 (p < .0001)	7.97 (p < .001)
Effort into keeping members	6.92 (p < .002)	14.69 (p < .001)	10.89 (p = .0001)

Section 5.5 Group x Federation Repeated Measure (3 x 2) MANOVA (questionnaire items)

Multivariate Main Effect of:

i) Federation: $F(10,58) = 12.51, p < .0001$

Multivariate Interaction of:

ii) $F(20,116) = 2.51, p < .01$

No effect of:

Group: $F(20,116) = 1.28, ns$

($\alpha' = .005$)

	Group Main Effect F (df=2,67)	Federation Main Effect F (df=1,67)	Group x Federation Interaction F (df=2,67)
Importance of power	4.78 (p < .02)	6.06 (p < .02)	0.02 ns
Importance of status	2.60 ns	15.03 (p < .001)	0.43 ns
Importance of membership	1.15 ns	20.68 (p < .0001)	3.36 (p < .05)
Pay equity requirements met	0.56 ns	35.84 (p < .0001)	3.40 (p < .05)
Importance of meeting pay equity requirements	0.51 ns	49.02 (p < .0001)	3.71 (p < .05)
Professional development programs	2.27 ns	17.54 (p = .0001)	4.99 (p < .01)
Importance of professional development programs	2.71 ns	17.48 (p = .0001)	4.20 (p < .02)
Social Issues	3.10 (p > .06)	39.34 (p < .0001)	4.07 (p < .025)
Importance of social issues	2.68 ns	44.83 (p < .0001)	7.96 (p < .001)
Fairness of Ontario Supreme Court ruling	4.04 (p < .025)	16.88 (p = .0001)	1.07 ns

Section 5.6 Group x Target Sex (3 x 2) ANOVA

	Group Main Effect	Target Sex Main Effect	Group x Target Sex Interaction
	F (df=2,76)	F (df=1,76)	F (df=2,76)
Identification with the Gender Groups	4.42 (p < .02)	8.33 (p < .01)	9.82 (p < .001)

Section 5.7 MANOVA with Federation as a Repeated Measure

Multivariate Main Effect of Federation: $F(6,14) = 12.25, p = .0001$

(alpha' = .008)

	Federation Main Effect F (df=1,19)
Identification with the federations	0.19 ns
Like being a member of the federations	8.30 (p < .01)
Comfortable about membership in the federations	2.50 ns
Positive about membership in the federations	11.00 (p < .005)
Security about membership in the federations	2.21 ns
Satisfaction about membership in the federations	12.16 (p < .005)

Section 5.8 Group x Time Context Repeated Measure (3 x 3) MANOVA

Multivariate Main Effects of:

i) Group: $F(8,128) = 2.25, p < .05$

ii) Time Context: $F(8,60) = 3.37, p < .01$

Marginal Interaction of:

Group x Time Context: $F(16,120) = 1.71, p < .10$

($\alpha' = .0125$)

	Group Main Effect F (df=2,67)	Time Context Main Effect F (df=2,134)	Group x Time Context Interaction F (df=4,134)
Power of FWTAO	4.10 ($p < .025$)	3.29 ($p < .05$)	3.99 ($p < .01$)
Power of OPSTF	7.19 ($p < .01$)	3.34 ($p < .05$)	4.15 ($p < .01$)
Status of FWTAO	2.74 ns	3.78 ($p < .05$)	4.94 ($p = .001$)
Status of OPSTF	5.34 ($p < .01$)	1.28 ns	2.93 ($p < .025$)

Section 5.9 Group x Time Context Repeated Measure (3 x 3) MANOVA

Multivariate Main Effect:

i) Time Context: $F(4,64) = 3.23, p < .02$

Marginal Effect of:

Time Context: $F(8,128) = 1.96, p < .10$

No Effect of:

Group: $F(4,132) = 1.46, ns$

($\alpha' = .025$)

	Group Main Effect F (df=2,67)	Time Context Main Effect F (df=2,134)	Group x Time Context Interaction F (df=4,134)
Membership of FWTAO	1.55 ns	7.84 ($p < .001$)	2.30 ns
Membership of OPSTF	1.67 ns	7.74 ($p < .001$)	2.13 ns

Section 5.10 Group x Bases of Categorization Repeated Measure (3 x 3) ANOVA

	Group Main Effect F (df=2,76)	Bases of Categorization Main Effect F (df=2,152)	Group x Categorization Interaction F (df=2,152)
Legitimacy of bases of categorization (Religion/Language/Sex)	3.92 (p<.025)	9.13 (p<.001)	2.09 ns

Section 5.11 Group x Target Sex Repeated Measure (3 x 2) MANOVA

Multivariate Main Effect of:

i) Target Sex: $F(8,60) = 57.97, p < .0001$

No Effect of:

Group: $F(8,128) = 0.97, ns$

Multivariate Interaction of:

ii) Group x Target Sex: $F(16,120) = 2.52, p < .01$

(alpha' = .0062)

	Group Main Effect F (df=2,67)	Target Sex Main Effect F (df=1,67)	Group x Target Sex Interaction F (df=2,67)
Percentage in classroom	1.30 ns	195.55 (p<.0001)	2.87 ns
Percentage as vice-principals	0.00 ns	156.66 (p<.0001)	3.69 (p<.05)
Percentage as principals	0.00 ns	290.69 (p<.0001)	10.23 (p=.0001)
Percentage that should be in classroom	1.09 ns	17.36 (p=.0001)	1.90 ns
Percentage that should be vice- principals	0.00 ns	0.37 ns	1.25 ns
Percentage that should be principals	0.00 ns	0.00 ns	1.27 ns
Value of power	1.42 ns	21.24 (p<.0001)	2.27 ns
Value of status	1.61 ns	1.39 ns	1.77 ns

Section 5.12 Group x Repeated Measure (i.e., members of FWTAO, OPSTF & VOP's)
(3 x 3)MANOVA

Multivariate Main Effect of:

i) Group: $F(4,150) = 4.66, p < .01$, ii) Repeated Measure: $F(4,73) = 33.98, p < .0001$

Multivariate Interaction of:

iii) Group x Repeated Measure: $F(8,146) = 5.82, p < .0001$

($\alpha' = .025$)

	Group Main Effect F (df=2,76)	Subgroup Main Effect F (df=2,152)	Group x Subgroup Interaction F (df=4,152)
Amount of contact	9.29 (p < .001)	84.34 (p < .0001)	13.27 (p < .0001)
Like for group members	2.04 ns	0.30 ns	3.85 (p < .01)

Section 5.13 Group x Repeated Measure (i.e., members of FWTAO, OPSTF & VOP's)
(3 x 3)MANOVA

Multivariate Main Effect of:

i) Group: $F(4,132) = 3.56, p < .01$, ii) Repeated Measure: $F(4,64) = 30.64, p < .0001$

Multivariate Interaction of:

iii) Group x Repeated Measure: $F(8,128) = 3.68, p < .001$

($\alpha' = .025$)

	Group Main Effect F (df=2,67)	Subgroup Main Effect F (df=2,134)	Group x Subgroup Interaction F (df=4,134)
Values in common	2.84 ns	2.39 ns	6.95 (p < .0001)
Advantage of Supreme Court ruling	4.11 (p < .025)	87.26 (p < .0001)	5.34 (p < .001)

Section 5.14 Group x Federation Repeated Measure (3 x 4) ANOVA

	Group Main Effect F (df=2,76)	Federation Main Effect F (df=3,228)	Group x Federation Interaction F (df=6,228)
Federation as a comparison to own	8.08 (p < .001)	14.18 (p < .0001)	2.77 (p < .02)