

**INTERRELIGIOUS SIMILARITIES:
PREDICTING DIFFERENCES IN RELIGIOUS OUTGROUP BIAS**

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Abstract

This research explored the combined effects of interreligious similarity and extrinsic, intrinsic, or quest religious orientation on responses to outgroup religions. In Study 1, interreligious similarity was primed either directly (similarity condition) or indirectly (similarity-and-difference condition) by also acknowledging differences. Study 2 used the same priming manipulation with the addition of a control condition. In both studies, the effects of the priming depended on participants' religious orientations. Similarity-and-difference priming seemed to be associated with the most positive responses to religious outgroups among high extrinsic Muslims, low intrinsic Muslims, and high intrinsic Jews. Both similarity and similarity-and-difference priming were associated with positive responses to religious outgroups among Christians. In Study 3, perceived interreligious similarity was measured, and participants were also asked whether or not they had a very close relationship with a religious outgroup member. Perceived interreligious similarity and close relationships with religious outgroup members were associated with positive responses among religiously diverse participants who were low on extrinsic orientation and low on intrinsic orientation, and among low extrinsic Christians and high quest Christians. Results are discussed in terms of social identity processes and distinctiveness threat. Implications for intergroup relations and future research on religious orientations are discussed.

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Interreligious Similarities: Predicting Differences in Religious Outgroup Bias

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Implications for dramatic real world phenomena have made intergroup bias a compelling area of research for social psychologists. Intergroup bias has been described as "... the systematic tendency to evaluate one's own membership group (the in-group) or its members more favorably than a nonmembership group (the out-group) or its members" (Hewstone, Rubin, & Willis, 2002, p. 576). Theories of intergroup relations comprise the building blocks for initiatives aimed at reducing bias. Similarity and difference within and between groups is a motif that runs through many of these theories. However, bias reduction initiatives have generally given similarity only a peripheral or incidental role.

The present research aims to directly assess how priming interreligious similarity affects reactions to religious outgroups. First, I illustrate how similarity and difference are ubiquitous elements of social identity approaches to intergroup relations. Second, I suggest mechanisms by which priming similarity can give rise to more positive outgroup attitudes, including intergroup relations and social comparison (selective accessibility) perspectives. Third, I elaborate on how research on source monitoring for contaminating influences suggests that similarities generated by participants themselves may be especially unlikely to elicit reactance. Fourth, I describe the importance of studying intergroup attitudes within the domain of religion. I review research on religion and prejudice, and how the relations between these depend on religious orientations or

dimensions of religiosity. Finally, I give an overview of the present research that assesses the effects of priming similarity (Studies 1 and 2) and the relations of perceived similarity (Study 3) to responses to outgroup religions. This research also explores the moderating influences of the extrinsic, intrinsic, and quest religious orientations on the effects of similarity priming and perceived similarity on openness to and evaluations of religious outgroups.

How Similarity Makes Them Similar

Social identity approaches (see Abrams & Hogg, 1999) such as; social identity theory, self-categorization theory, and optimal distinctiveness theory contain a motif of perceived similarity and difference. Although this typically pertains to perceived similarity to members of the same group and perceived difference from members of other groups; perceived difference from ingroup members, and more importantly, perceived similarity to outgroup members are also important features of this theorizing.

Social Identity Theory and Self-Categorization Theory. According to Social Identity Theory (SIT; Tajfel & Turner, 1979), individuals are motivated to establish ingroup distinctiveness from outgroups due to a need for positive social identity. Social interactions can vary along a continuum of interpersonal and intergroup. At one pole, interactions occur at the level of separate individuals. At the other pole, interactions occur at the level of separate groups. As interactions become more intergroup, the outgroup is perceived as more homogeneous. Thus, SIT posits that when behaviour is intergroup, the outgroup will be perceived as dissimilar from the ingroup, and outgroup members will be perceived as similar to each other.

Self-Categorization Theory (SCT) proposes a distinction parallel to the interpersonal-intergroup continuum in SIT (Turner, 1999). According to SCT, self-perception varies from personal identity, which is based on personal characteristics, to social identity, which is based on characteristics of a social category (Turner & Reynolds, 2004). This has implications for perceptions of similarity because "...when a shared social identity is psychologically operative or salient there is a depersonalization of self-perception such that people's perceptions of their mutual and collective similarities are enhanced" (Turner & Reynolds, 2000, p. 261). Put another way, "where people define themselves in terms of a shared category membership, there is a perceptual accentuation of intragroup similarities and intergroup differences on relevant correlated dimensions" (Turner, 1999, p.11). SCT was subsequently revised such that personal identity and social identity were no longer conceived as a continuum but rather as different levels of self-categorization. The basic point here is that SCT proposes that there is perceived similarity among members of a shared social category, whereas there is perceived difference between members of different categories.

Optimal Distinctiveness Theory. Optimal Distinctiveness Theory (ODT) elaborates on these ideas of similarity and difference. Specifically, ODT proposes that social identity is a function of two opposing needs, the need for assimilation and the need for differentiation from others (Brewer, 1991). Whereas the need for assimilation entails validation and similarity to others, the need for differentiation entails uniqueness and distinction from others. ODT suggests a dimension of distinctiveness and inclusiveness, with uniqueness at one pole and depersonalization at the other pole. When self-

categorization becomes more personalized, the need for collective identity and assimilation intensifies. Conversely, when self-categorization becomes more depersonalized, the need for personal identity and differentiation intensifies. Optimal distinctiveness is an equilibrium state that occurs when the competing needs for assimilation and differentiation are equal. Thus, ODT, like SIT, and SCT, emphasizes the importance of perceptions of similarity and difference in social identity processes.

Distinctiveness Threat. Social identity approaches not only acknowledge the importance of similarity within groups, but they also emphasise similarity as an important factor between groups. Specifically, the positive identity of a group is based on comparisons to other groups (Tajfel, 1978), and social comparisons are more likely with similar groups than with dissimilar groups (Turner & Brown, 1978). It has been said that similarity on a relevant dimension is the key criterion for whether groups are comparable (Turner, 1978). Thus, social identity approaches maintain that similarity between groups determines the likelihood that intergroup comparisons will occur and that these comparisons are important to maintaining a positive ingroup identity.

An extension of this is that outgroups who are similar to the ingroup on a relevant comparative dimension threaten the positive distinctiveness of the ingroup. Or put another way, the motivation to establish ingroup distinctiveness should be greater when the outgroup is similar (Tajfel & Turner, 1979). Further, "...to the extent that intergroup similarity implies common values, it will directly facilitate the development of competitiveness between groups" (Turner, 1978). For example, in one study (Turner, 1979), student participants were told that another group that was completing the same

verbal abilities task as they were either similar (Arts students) or different (Science students). Ingroup bias on estimated task performance was greater in the similar group condition than in the dissimilar group condition. In other research, Canadian students showed a similar pattern of intergroup differentiation when they compared themselves to Americans, a similar outgroup, versus Australians, a less similar outgroup (Lalonde, 2002). Other research suggests that distinctiveness threat arising from social comparisons to similar outgroups is greatest for people who more strongly identify with their ingroup (Branscombe, Ellemers, Spears, & Doosje, 1999), and that outgroup derogation is sometimes a response to distinctiveness threat. Taken together, the social identity findings on distinctiveness threat suggest that priming similarity between groups could instigate greater intergroup bias, if similarities are primed in a way that threatens the distinctiveness of the groups.

Possible Mechanisms for Similarity-Induced Reductions in Bias

Regardless of how similarity affects social identity processes, there is theoretical consensus surrounding the importance of similarity. And it is therefore plausible that priming similarity should affect social identity processes. The present research explored the extent to which priming similarity between an ingroup and an outgroup decreases unfavourable attitudes and increases openness toward that outgroup. Mechanisms for this possible reduction in bias are suggested next.

One Group, Common Identity. Just as shared category membership gives rise to perceived similarity among members of the same category, perceived similarity may give rise to feelings of belonging to a shared category among members of different categories.

Indeed, it is the perception of self and other as belonging to separate categories that is thought to be at the root of intergroup bias. "...social categorization involves most fundamentally a distinction between the group containing the self, the ingroup, and other groups, the outgroups – between the “we’s” and the “they’s” (Gaertner & Dovidio, 2000, p. 36). Mere words associated with separateness and distinctiveness have important implications. “These words (we, they) can potentially increase the availability of positive or negative associations and thereby influence beliefs about, evaluations of and behaviours toward other people, often automatically and unconsciously” (p. 39).

Past research manipulated whether participants identified themselves as part of one group, two groups, or as separate individuals (Gaertner, Mann, Murrell, & Dovidio, 1989) and found that the one group (one category) and separate individuals (no category) conditions were associated with less bias than the two groups condition. Furthermore, the one group condition was associated with the most favourable ratings overall. The categorization/group manipulation in this study was multi-faceted and primarily focused on physical indicators of group membership (seating configuration, group names, colours of group paraphernalia, etc.). Thus, although groups in this study were manipulated by similar features such as colour coordinated paraphernalia, the focus of the manipulation was on categorization, and similar physical features were simply a means by which categorization was manipulated.

It seems plausible that manipulating similarity alone could also decrease intergroup bias in a manner analogous to the common ingroup identity. However, priming similarity, without explicitly fostering a one-group identity, would likely create a

generic sense of harmony. The lack of explicit emphasis on a one-group identity may actually be beneficial to intergroup harmony because past work suggests that extreme assimilation can be threatening (Brewer, 1991; Hornsey & Hogg, 2001) and that people, often depending on their group's status and the history of relations between the groups, may be averse to sharing a common identity (Brewer & Gaertner, 2004; Hewstone, 1996). This latter research, along with research on distinctiveness threat, suggests that similarity priming may need to be tempered due to the need for positive distinctiveness (Brewer, 1991; Tajfel & Turner, 1979), a point which was addressed by the similarity priming manipulation that was used in the present research.

Assimilation and Contrast in Social Comparison. Research on assimilation and contrast effects in comparison provides a more micro explanation of how priming similarities between groups can yield assimilation or contrast effects. Similarity and contrast in social comparison processes have been described by the selective accessibility model (SA; Mussweiler, 2001). A key feature of the SA model is that the social comparison result of perceived similarity or perceived contrast depends on the nature of the hypothesis that is tested. Specifically, when individuals test the hypothesis that they are similar to the target of comparison, then assimilation occurs, whereas when they test the hypothesis that they are different from the target of comparison, then contrast occurs. This is because similarity hypothesis testing results in the accessibility of knowledge that is consistent with the target of comparison. In contrast, dissimilarity hypothesis testing results in the accessibility of knowledge that is inconsistent with the target of comparison (Mussweiler, 2001). For example, a young Pakistani woman named Mariam may

compare herself to her Indian classmate, Priya. If Mariam begins with the hypothesis that the two of them are similar, information about their common South Asian culture may become accessible (e.g., both of them bring samosas in their packed lunch, and consider Saif Ali Khan their favourite Bollywood actor). This similarity testing would result in assimilation, that is, Mariam seeing herself as similar to Priya. However, if Mariam began with the hypothesis that she is different from Priya, information about their different religions (Islam and Hinduism) may become accessible (e.g., Mariam celebrates Eid but Priya celebrates Diwali, and Mariam eats halal meat but Priya is vegetarian). This dissimilarity testing would result in contrast, that is, Mariam seeing herself as different from Priya.

Procedural priming has been used to manipulate similarity testing or dissimilarity testing. For example, in one study (Mussweiler, 2001), participants were either asked to generate similarities between two scenes (similarity testing) or differences between two scenes (dissimilarity testing). The scenes were the same in both conditions; the only difference was in the procedure induced by the instructions. As expected, participants in the similarity testing condition produced similarities between the scenes whereas those in the difference condition produced differences. In sum, it appears that an initial focus on similarity or difference, whether spontaneous or externally induced through priming, has important implications for social comparison processes.

Source Monitoring and Internally Processed Similarities. Source monitoring research on contaminating influences on judgment has identified factors that influence correction for contamination. One factor that has been influential is whether the

information to be judged is internally processed or externally provided (Mussweiler & Neumann, 2000). Specifically, information is less likely to be viewed as contaminating if it has been elaborately internally processed. For example, a moderate coffee drinker may read a news article claiming that drinking three cups of coffee a day is beneficial to overall functioning. Whilst reading the article, she may generate some of her own examples of caffeine-induced boosts in her performance. Subsequently, she hears a TV news headline criticizing this research, but before she has time to think about it, the news has moved to the next story. Weeks later, when she contemplates having her third cup of coffee for the day, she wonders whether peppermint tea would be a wiser choice. Then she remembers reading the news article and how she had recalled so many personal experiences of a caffeine-induced edge and chooses the coffee. In this way, similarities between groups that are internally processed or generated by participants themselves should be less likely to be dismissed as contaminating than similarities that are imposed on participants by external sources. Consequently, the priming manipulation in the present research that required internal processing by having participants themselves identify interreligious similarities was designed to minimise dismissal by participants.

Level of Abstraction and Advantages over Contact Interventions. In various respects, similarity priming may have advantages over contact interventions that physically bring together individuals from different groups with the aim of reducing intergroup bias. Although contact interventions have been shown to improve intergroup attitudes (Pettigrew, 1998; Pettigrew & Tropp, 2006), one of their earlier criticisms was the limited generalizability effects beyond outgroup members in the immediate research

setting, because favourable outgroup members in the contact setting would sometimes be discounted as exceptional cases (e.g., Hewstone & Brown, 1986). In contrast, priming similarities between groups involves recognizing similarities at the more abstract level of the group, rather than the specific level of the individual. In addition, if priming similarities between groups is effective, the simplicity and ease of administration of similarity priming gives it practical utility. Although contact is probably more desirable, it is not always feasible. Importantly, an assumption of contact research is that groups will come to recognize the similarities that they share (Hewstone, 1996). Study 3 addresses this assumption.

Importance of Religion in Intergroup Relations

The importance of religion in cross-cultural psychology has been recently emphasized (Tarakeshwar, Stanton, & Pargament, 2003) and mainstream social psychologists have recently called for the further investigation of the role of religion in social contexts (Cohen & Neuberg, 2008; Shariff, 2008). It is my view that religion is a critical variable in the study of intergroup relations, in particular. Although intergroup relations research is often concerned with religious groups, religion as a moderating variable is rarely ever addressed. Some recent research (Burriss & Jackson, 2000) has, however, taken a related approach by offering a social identity analysis of religion. At least two related reasons compel the study of religion in the context of intergroup relations. First, research has documented links between certain religious orientations and prejudice toward outgroups (Allport & Ross, 1967; Batson, Schoenrade, & Ventis, 1993; Jackson & Hunsberger, 1999). Second, throughout world history, conflicts and wars have

been carried out under the guise of religion. The present research focuses on the former of these reasons but may have implications for the latter.

Religious Orientations.

Yet when addressing so emotionally charged and value-laden a question, extreme examples provide little clarity. If we are to arrive at a meaningful understanding of the role of religion in discouraging or encouraging intolerance, prejudice, and bigotry, then we believe we must depart from William James's maxim of looking at extreme examples and look instead at the social attitudes and behavior of more typical religious individuals. And when we do, we cannot rely on anecdotes; we need objective, empirical evidence. (Batson et al., 1993, p. 295)

Early conceptualisations of the relations between religion and prejudice suggested that associations between these were not due to a problem with religion per se, but rather in an individual's approach to religion. Allport (1950) initially described immature and mature religion as developmental stages, though it was possible that adults did not advance beyond immature religion. Whereas immature religion was unreflective and guided by fear or utilitarian motives, mature religion was reflective and guided by higher order (rather than self-serving) goals. Mature religion could transform a person's life because of the meaning of religion for that person. This form of religion was characterised by morality, purpose in life, and understanding that derived from reflection and doubt. Allport contrasted this with immature religion which, because of its unreflective nature, was associated with prejudice and discrimination. He later refined the notions of immature and mature religion into the concepts of extrinsic and intrinsic religious orientations respectively. "The extrinsically motivated individual *uses* his religion, whereas the intrinsically motivated *lives* his" (Allport & Ross, 1967, p. 434).

Research on extrinsic and intrinsic religiosity and racial prejudice supported the notion that it was indeed extrinsic religious orientation and not intrinsic religious orientation that was related to prejudice (Allport & Ross, 1967). However, there was criticism by subsequent researchers (Batson, Schoenrade, & Ventis, 1993) that Allport's measure of religious orientations did not fully capture his original conceptualisations of intrinsic religious orientation. Specifically, it was argued that the Allport and Ross (1967) measure of intrinsic orientation tapped into religious commitment, but not understanding that arose from reflection and doubt. The introduction of the quest orientation was an attempt to capture this aspect of religiosity (Batson et al., 1991a, 1991b). Thus, Batson et al. (1993) proposed that there were actually three types of religious orientations; extrinsic (religion as a means to an end), intrinsic (religion as an end in itself), and quest (a journey to religious understanding). They gave examples of persons who typified the quest orientation, namely, Siddartha (Buddha), Gandhi, and Malcolm X. Further, they argued that it was quest orientation and not intrinsic orientation that was consistently related to tolerance. Although many of their descriptions were consistent with a typology interpretation of the religious orientations (i.e., with an individual being described as either extrinsic, intrinsic, or quest), Batson et al. (1993) claimed that their view was of religious orientations as dimensions that could be combined to describe a single individual.

A review of 60 studies indicated that it was clearly the case that extrinsic religious orientation was related to more prejudice than was intrinsic orientation (Batson et al., 1993). Similarly, those highly involved in religious activities consistently showed less

prejudice than those only moderately involved in religious activities. However, it was claimed that the findings for intrinsic orientation may be due to socially desirable responding or the fact that the forms of prejudice that had previously been measured were proscribed (or explicitly denounced) by Christianity (e.g., racism). When non-proscribed forms of prejudice were assessed, such as prejudice toward gay men or lesbians, a positive association between intrinsic religious orientation and prejudice was found. In contrast, the quest orientation was not correlated with and sometimes negatively correlated with proscribed and non-proscribed forms of prejudice. A recent review of the research (Hunsberger & Jackson, 2005) corroborates the link between intrinsic and prejudice against gay men and lesbians and the absence of and frequently negative relationships between quest and prejudice.

Little research has explored the relations between the religious orientations and prejudice against religious groups. However, one program of research in this area (Jackson & Hunsberger, 1999) explored the relations between religious orientations and prejudice toward four target groups: Christians, believers, atheists, and non-believers. They found significant negative correlations between intrinsic orientation and favourable opinions of atheists and non-believers and significant positive correlations between intrinsic orientation and favourable opinions of Christians and believers (Study 2). Mean comparisons showed that those high in intrinsic orientation demonstrated ingroup favouritism in their ratings of the four groups. A similar pattern of results was found extrinsic orientation. Interestingly, this research also found that among non-believers, attitudes toward atheists and non-believers were significantly more favourable than were

attitudes toward Christians and believers. In sum, the little research that has been done on religious orientation and interfaith attitudes suggests that the extrinsic and intrinsic orientations are related to non-proscribed religious outgroup prejudice among Christians, but that non-religious people also tend to show ingroup favouritism.

Most, or possibly all, of the aforementioned research was conducted with Christians in North America. Although some research has looked at relations between religious fundamentalism and prejudice in other religious groups (Hunsberger, 1996; Hunsberger, Owusu, & Duck, 1999), little or no research has assessed the relations between the religious orientations and prejudice in non-Christian samples. This may be partially because the widely used scale to assess religious orientations, The Religious Life Inventory (Batson et al., 1993), was validated with Christian samples (Batson et al., 1993, Hill, Francis, & Robbins, 2005). Nonetheless, given that Allport's (1950) original conceptualisations of religious orientations drew references to a variety of religious groups, and given the religious diversity in Canada, and the issues of interfaith relations among religious groups in current world events, the present research comprised a first step at addressing this void. Specifically, the research explored the relations between religious orientations and religious outgroup prejudice among the three largest religious groups in Canada, Christians, Muslims, and Jews (Statistics Canada, 2003). Prejudice toward a diversity of religious outgroups was also explored.

Hypotheses

The current research provided a test of various alternate effects of priming interreligious similarities. Research on the selective accessibility model and a common

ingroup identity would suggest that emphasizing intergroup similarities would promote positive outgroup responses. An alternate hypothesis based on research on social identity and distinctiveness threat would be that explicit emphasis on intergroup similarities elicits distinctiveness threat and defensive negative responses to outgroups. However, an integration of these views is possible. It might be that indirectly emphasizing intergroup similarities may elicit positive responses to religious outgroups. These alternate predictions were tested. There were no specific hypotheses surrounding the anticipated moderating role of religious orientations on the effects of interreligious similarity priming, so the nature of these interactions remained exploratory.

Overview of the Present Research

This research aimed to assess the effects of priming interreligious similarities between Christians, Muslims, and Jews on openness to and evaluations of religious outgroups. The general hypothesis was that priming similarity (Studies 1 and 2) and perceived similarity (Study 3) would predict more favourable responses to religious outgroups. The religious orientations, extrinsic, intrinsic, and quest, were explored as potential moderating variables of similarity priming or perceived similarity.

Study 1

This study aimed to assess the effects of drawing attention to interreligious similarities on responses to outgroup religions. Two versions of similarity priming were tested: One form directly highlighted similarities, whereas the other form indirectly drew attention to similarities. Both versions used exactly the same task that involved matching similar concepts from different religions. However, whereas the instructions for the direct version referred to “similar concepts”, the instructions for the indirect version referred to “opposing concepts”. Because both versions primed similarities between religions by requiring participants to match similar concepts, the former version will be referred to as “similarity priming” and the latter version will hereafter be referred to as “similarity-and-difference priming”. It was expected that the efficacy of similarity or similarity-and-difference priming in promoting positive reactions to religious outgroups would depend on the extrinsic, intrinsic, and quest religious orientations. Dependent measures consisted of overall evaluations of religious outgroups and willingness to engage in relationships with religious outgroup members.

Method

Participants

Participants ($N = 125$) for the study were recruited online through the Undergraduate Research Participants Pool (URPP) at York University and email solicitation. The participation criteria were religious affiliation with Christianity ($n = 44$), Islam ($n = 46$), or Judaism ($n = 35$). Participants from the URPP received course credit as

compensation ($n = 56$), whereas other York Students ($n = 32$) participants from the community ($n = 37$) received a movie voucher. The student participants from York were significantly younger ($M = 20.32$, $SD = 2.47$) than those from the community ($M = 25.32$, $SD = 6.40$), $t(40.64) = -4.61$, $p < .001$.

Materials and Procedure

All materials were presented online via SurveyMonkey software. Because of software constraints and the online nature of the research (that meant multiple participants could complete the study at once and that data could be collected at any time of day), participants were randomly assigned to conditions using the following procedure: Conditions were alternated every two days to ensure approximately equal representation of participants from each religious group in each condition. Care was taken to ensure that both conditions were run on all days of the week. Independent samples t -tests on the means of a number of the individual difference variables (social dominance orientation, religious commitment, religious fundamentalism, religious orientations, and religious identity) were all non-significant, supporting the interpretation that the groups were equivalent.

Participants completed the consent form and were then presented with the following materials:

Religious Orientations. The Revised Religious Life Inventory (Hills et al., 2005) is a 24-item scale that assesses the extrinsic, intrinsic, and quest orientations. Where necessary, items were reworded for relevance for participants from diverse religious backgrounds (see Appendix A). For example, “church” was substituted for “place of

worship” and examples were provided in parentheses (e.g., temple, church, synagogue, mosque). Participants rated their level of agreement on 7-point Likert scales (1 = *strongly disagree*, 7 = *strongly agree*) on items such as, “a primary reason for my interest in religion is that my place of worship offers a friendly social atmosphere” (extrinsic), “my religious beliefs are what lie behind my whole approach to life” (intrinsic), and “questions are far more central to my religious experience than are answers”(quest). Means were computed for each of the orientations.

Religious Identity. Religious identity was assessed with a 12-item measure of identity (Cameron, 2004). Participants were asked to think of their own religious group when they rate their level of agreement with statements such as, “In general, the fact that I am (participant’s religious group) is an important part of my self-image” (see Appendix B). Items were rated on 7-point Likert scales (1 = *strongly disagree*, 7 = *strongly agree*) and the mean of the items was taken as the index of strength of religious identity.

Similarity Priming Manipulation. Participants in the similarity condition were instructed to identify similarities between concepts from Christianity, Islam, and Judaism. They were given the matching task shown in the first part of Appendix C, and were asked to identify as many matches as they could. Participants were presented with a concept from one religion and were instructed to select a similar concept from a different religion from a drop down menu. Next, they were instructed to select from a drop-down menu the link word that linked the two concepts together. For example, for the concept “Bible”, the similar concept would be “Qur’an” and the link word would be “holy book”. As shown in the second part of Appendix C, participants in the similarity-and-difference condition

completed the same task as those in the similarity condition, except that the instructions were framed in terms of difference. Participants were asked to select the “opposing concept” for each concept. Instead of a link word, they were asked to choose the appropriate “opposing categories” from a drop-down menu. For example, for the concept, “Bible”, the opposing concept would be “Qur’an” and the opposing categories would be “Christianity versus Islam”.

Certain features of this similarity priming manipulation are notable. First, the level of abstraction of the priming manipulation is at the level of the religious group. The dependent variables (e.g., the evaluation thermometer measure) were also at the group level. This enabled analyses that matched the theoretical rationale of the study which was also at the group level. Second, because the manipulation primes similarity at the group level of abstraction, the findings may be more generalizable beyond the particular research setting (Hewstone, 1996).

Openness to Relationships with Religious Outgroup Members. Openness to engage in relationships with Christians, Muslims, and Jews was assessed with 5 items inspired by Bogardus’s (1933) social distance measure. Items included having the religious group member as a neighbour, boss, friend, member of extended family (e.g., spouse of a cousin), and brother/sister in-law. These have been used in previous research to assess attitudes toward religious groups (Golebiowska, 2004). All items were rated on a 5-point scale (1 = *definitely would not mind*, 5 = *definitely would mind*). A factor analysis of the items was conducted using principle components analysis with varimax rotation. The scree plot and factor loadings suggested a two-factor solution. One factor

consisted of the non-family relationships, neighbour, boss, and friend; whereas the other factor consisted of the family relationships, member of extended family, and brother/sister in-law. These were labelled non-family and family respectively. Social distance scores were reverse-coded in the direction of openness to relationships and means were computed separately for non-family and family relationships.

Overall Views of Religious Groups. Overall evaluations of Christians, Muslims and Jews were assessed with an adapted version of the evaluation thermometer (Esses, Haddock, & Zanna, 1993). As shown in Appendix D, participants rated how they felt about each group on a 10-point scale (1 = 0-10 % *extremely unfavourable*, 10 = 90-100% *extremely favourable*). Order of the religious groups was randomized between participants.

Demographics. Participants completed a brief questionnaire that assessed religious affiliation, gender, age, and other background characteristics. This was followed by a brief questionnaire that probed reactions to the study materials.

Results

Analyses were conducted to assess differences between religious groups and were also conducted within religious groups to assess within-group patterns. Between-group differences were assessed with one-way ANOVAs or the equivalent robust tests. Interactions between religious group (Christians, Muslims, or Jews) and condition (similarity priming or similarity-and-difference priming) were assessed with 3 X 2 between-group ANOVAs.

For within-groups analyses, the data analytic strategy involved multiple approaches: Correlations were assessed between all variables of interest. Main effects of priming condition were assessed with independent samples *t*-tests. Two-way categorical by continuous variable (between the groups variable and each of the religious orientations) interactions were assessed with moderated multiple regression (Aiken & West, 1991).

Descriptive Statistics

Descriptive statistics and alpha reliabilities for the individual difference measures and for the key dependent measures can be found in Table 1.

Religious Group Differences for Individual Difference Variables

One-way ANOVAs were conducted to assess between-group differences on the main variables of interest, except in cases where variances were unequal. Only significant differences are reported here. Significant omnibus tests were followed up with posthoc Tukey HSD tests of mean differences. In cases where the Levene test for homogeneity of variances indicated that variances were unequal, the robust Welch test (i.e., F'') was used to test for mean differences. Significant omnibus Welch tests were followed up with Dunnett T3 posthoc tests. Means, standard deviations, and significant differences are indicated in Table 1. As shown in Table 1, the reason for the frequent cases of unequal variances was the restricted range of scores for ingroup evaluations, which tended to be associated with ingroup favouritism.

There was a significant difference between the religious groups on extrinsic orientation, $F(2,122) = 7.26, p = .001$. Specifically, Muslims scored higher on extrinsic

Table 1

Descriptive Statistics by Religious Group

| Measure | Religious Group | | | | | | | | |
|-----------------------|-------------------|-----------|----------|-------------------|-----------|----------|-------------------|-----------|----------|
| | Christians | | | Muslims | | | Jews | | |
| | <i>n</i> = 44 | | | <i>n</i> = 46* | | | <i>n</i> = 35 | | |
| | <i>M</i> | <i>SD</i> | α | <i>M</i> | <i>SD</i> | α | <i>M</i> | <i>SD</i> | α |
| Extrinsic Orientation | 3.52 _a | 1.12 | .74 | 4.44 _b | 1.24 | .79 | 4.04 | 1.01 | .66 |
| Intrinsic Orientation | 4.97 | 1.33 | .89 | 5.43 | .95 | .84 | 4.78 | 1.27 | .87 |
| Quest Orientation | 3.93 | 1.08 | .76 | 3.80 | 1.12 | .74 | 4.38 | 1.00 | .74 |
| Religious Identity | 5.48 | 1.19 | .90 | 5.67 | 1.07 | .90 | 5.86 | 1.05 | .92 |
| Christian Family | 4.95 _a | .18 | .66 | 3.50 _b | 1.32 | .93 | 2.93 _b | 1.38 | .84 |
| Muslim Family | 4.07 _a | 1.20 | .86 | 4.68 _b | .80 | .99 | 2.70 _c | 1.23 | .86 |
| Jewish Family | 4.27 _a | 1.08 | .90 | 3.11 _b | 1.34 | .90 | 4.74 _a | .78 | 1.00 |
| Christian Non-Family | 4.92 _a | .23 | .65 | 4.51 _b | .84 | .94 | 4.64 _b | .53 | .66 |
| Muslim Non-Family | 4.67 | .58 | .85 | 4.70 | .55 | .73 | 4.42 | .12 | .80 |
| Jewish Non-Family | 4.71 _a | .50 | .79 | 4.02 _b | 1.05 | .88 | 4.80 _a | .48 | .65 |
| Views of Christians | 8.91 _a | 1.64 | - | 8.33 | 1.72 | - | 7.89 _b | 1.78 | - |
| Views of Muslims | 7.16 _a | 2.59 | - | 9.50 _b | 1.09 | - | 6.37 _a | 2.16 | - |
| Views of Jews | 7.95 | 2.17 | - | 6.84 _a | 2.87 | - | 8.86 _b | 1.88 | - |

* Sample size varies from 45 to 46.

Note. Means with different subscripts within a given row are significantly different.

orientation than did Christians.

orientation, $F(2, 122) = 7.26, p = .001$. Specifically Muslims scored higher on extrinsic orientation than did Christians. There was also a significant difference between the religious groups on intrinsic orientation, $F''(2, 74.54) = 3.76, p = .03$. Muslims scored higher on intrinsic orientation than did Jews. Finally, there was a significant difference between religious groups on quest orientation, $F(2, 122) = 3.02, p = .05$. Jews scored higher on quest orientation than did Muslims.

Religious Group Differences for Key Dependent Variables

Analyses followed the same strategy as those for the individual difference measures.

Openness to Family. There was a significant difference between the religious groups on openness to a Christian family member, $F''(2, 53.29) = 63.03, p < .001$. As shown in Table 1, Christians were more open to a Christian family member than were Muslims and Jews. There was also a significant difference between the religious groups openness to a Muslim family member, $F''(2, 72.11) = 34.32, p < .001$. Muslims were more open to a Muslim family member than were Christians and Jews, and Christians were more open than were Jews. Moreover, there was a significant difference between the religious groups on openness to a Jewish family member, $F''(2, 81.10) = 23.56, p < .001$. Christians or Jews were more open to a Jewish family member than were Muslims.

Openness to Non-Family. There was a significant difference between the religious groups on openness to non-family relationships with Christians, $F''(2, 61.84) = 8.82, p < .01$. As shown in Table 1, Christians were more open to non-family relationships with Christians than were Muslims and Jews. Similarly, there was a significant difference

between the religious groups on openness to non-family relationships with Jews, $F''(2,78.15) = 10.08, p < .001$. Christians and Jews were more open to non-family social relationships with Jews than were Muslims.

Overall Evaluations. There was a significant difference between the religious groups on overall view of Christians, $F(2,123) = 3.57, p = .03$. As shown in Table 1, Christians had a more positive view of Christians than did Jews. Similarly, there was a significant difference between the religious groups on overall view of Muslims, $F''(2, 64.98) = 40.07, p < .001$. Muslims had a more positive overall view of Muslims than did either Christians or Jews. Moreover, there was a significant difference between the religious groups on overall view of Jews, $F''(2, 79.97) = 7.18, p = .001$. Jews had a more positive overall view of Jews than did Muslims.

Correlation Analysis of Religious Orientations

Correlations between the religious orientations and other primary measures revealed three key trends that are shown in Table 2. First, for all three religious groups, there was a strong positive correlation between intrinsic religious orientation and religious identity. Second, for Christians and Muslims, there was a strong negative correlation between quest religious orientation and religious identity. Third, for Christians and Muslims, there was a positive correlation between intrinsic orientation and ingroup favouritism in the form of ingroup evaluations.

Table 2

Correlations of Religious Orientations with Primary Measures

| Measure | Religious Orientation | | | | | | | | |
|----------------------|-----------------------|------|------|-----------|-------|--------|--------|--------|------|
| | Extrinsic | | | Intrinsic | | | Quest | | |
| | C | M | J | C | M | J | C | M | J |
| Religious Identity | -.19 | -.04 | -.11 | .80** | .59** | .52** | -.44** | -.54** | -.25 |
| | | | | * | | | | | |
| Christian Family | .06 | -.14 | .25 | -.24 | -.23 | -.50** | .06 | .16 | .38* |
| Muslim Family | -.06 | -.06 | .17 | -.24 | .22 | -.40* | .10 | -.05 | .39* |
| Jewish Family | .06 | -.08 | -.13 | -.27 | -.02 | .16 | .20 | -.06 | -.10 |
| Christian Non-Family | -.00 | -.05 | -.24 | -.18 | -.07 | .10 | -.00 | -.06 | .01 |
| Muslim Non-Family | -.12 | .07 | -.09 | .12 | .16 | .18 | .16 | -.47** | .00 |
| Jewish Non-Family | -.16 | .10 | -.01 | .15 | .32* | .30 | .20 | -.26 | -.14 |
| Views of Christians | .01 | .02 | -.09 | .39** | -.06 | -.01 | -.14 | .05 | .18 |
| Views of Muslims | .13 | .02 | -.08 | .11 | .30* | -.13 | .12 | -.25 | -.24 |
| Views of Jews | .18 | -.04 | .01 | .21 | -.03 | .24 | .07 | .10 | -.24 |

* $p < .05$. ** $p < .01$. *** $p < .001$.

Note. C = Christians. M = Muslims. J = Jews.

Similarity Priming Manipulation

When the religious groups were combined, there were no main effects of the manipulation on the key dependent variables of interest. However, there were some differences when the effects of the manipulation were tested within religious groups. Effects of priming condition were assessed with independent samples *t*-tests, except in cases where variances were unequal. In cases where the homogeneity of variances test indicated that variances were unequal, the robust Welch *t*-test (i.e., *t'*) was used.

Among Christians, there was a significant effect of the similarity priming manipulation on overall evaluations of Christians, $t'(24.11) = -2.42, p = .02$. Participants in the similarity-and-difference priming condition reported more positive overall views of Christians ($M = 9.42, SD = 1.10$) than did those in the similarity priming condition ($M = 8.17, SD = 2.01$). There was also an effect of priming condition on Christians' openness to Jewish non-family, $t'(25.07) = -2.06, p = .05$. Christians in the similarity-and-difference priming condition reported more openness to non-family relationships with Jews ($M = 4.85, SD = .36$) than did those in the similarity priming condition ($M = 4.52, SD = .61$).

Among Jews, there was a significant effect of the similarity priming manipulation on openness to Muslim non-family, $t(33) = -2.21, p = .03$. Participants in the similarity-and-difference condition reported more openness to non-family relationships ($M = 4.67, SD = .55$) than did those in the similarity priming condition ($M = 4.16, SD = .80$).

Similarity Priming by Religious Orientation Interactions

Two-way categorical by continuous variable (between the 2-level condition variable and each of the religious orientations) interactions were assessed with moderated multiple regression (Aiken & West, 1991; West, Aiken, & Krull, 1996). The categorical variable was effect coded (similarity = 1, similarity-and-difference = -1), and the effect-coded categorical variable, the centered continuous variable, and the interaction term were entered simultaneously into the regression equation. Because the primary interest was in outgroup bias rather than ingroup favouritism and for the sake of brevity, only interactions for responses to religious outgroups (and no interactions for religious ingroups) are reported here.

Extrinsic Religious Orientation. Among Muslims, there was a marginally significant Extrinsic Orientation X Priming interaction on openness to non-family social relationships with Christians, $\beta = -.30$, $t(42) = -1.96$, $p = .06$. None of the simple slopes or effects was significant. As shown in Figure 1, the pattern of predicted values was such that at low extrinsic orientation, those who were primed with similarity reported more openness than did those who were primed with similarity-and-difference. In contrast, at high extrinsic orientation, those who were primed with similarity-and-difference reported more openness than did those who were primed with similarity.

Intrinsic Religious Orientation. Among Jews, there was a significant Intrinsic Orientation X Priming interaction on overall view of Christians, $\beta = -.59$, $t(31) = -3.59$, $p = .001$. The simple effect of condition was significant at high intrinsic religious orientation, $\beta = -.57$, $t(31) = -2.38$, $p = .02$. As shown in Figure 2, at high intrinsic

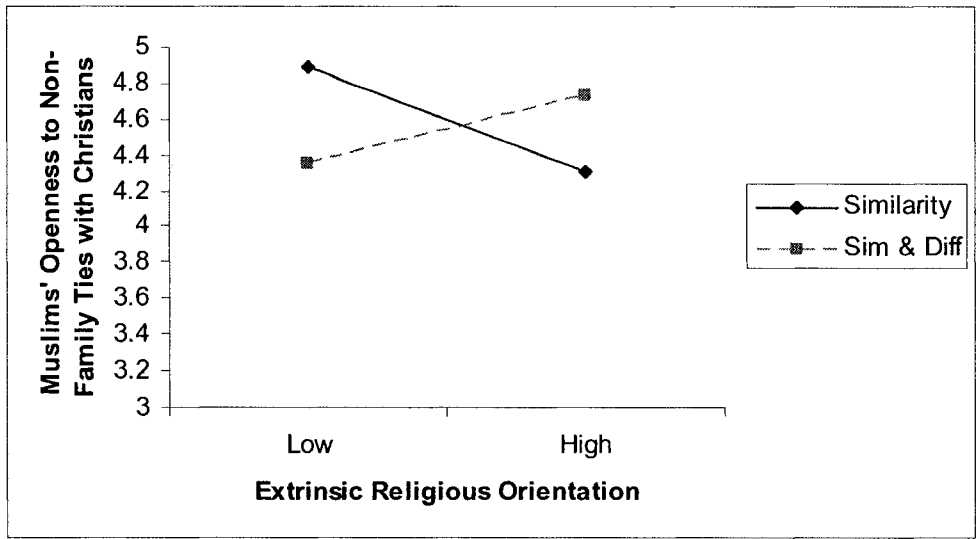


Figure 1. Muslims' openness to non-family ties with Christians as a function of priming condition (similarity or similarity-and-difference) and extrinsic religious orientation.

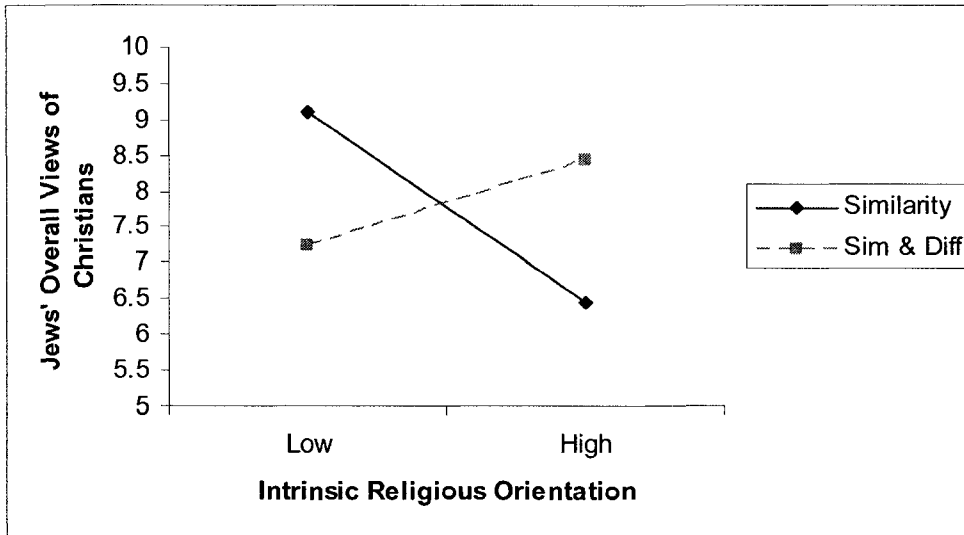


Figure 2. Jews' overall views of Christians as a function of priming condition (similarity or similarity-and-difference) and intrinsic religious orientation.

orientation, those in the similarity-and-difference priming condition reported more positive views of Christians than did those in the similarity priming condition. The simple effect of condition was also significant at low intrinsic religious orientation, $\beta = .53$, $t(31) = 2.75$, $p = .01$. As shown in Figure 2, at low intrinsic orientation, those in the similarity condition reported more positive views of Christians than did those in the similarity-and-difference priming condition. In addition, the simple slope of intrinsic orientation was marginally significant in the similarity-and-difference condition, $\beta = .36$, $t(31) = 1.98$, $p = .06$, and was significant in the similarity condition, $\beta = -.79$, $t(31) = -2.99$, $p < .01$.

Discussion

The findings of this study were of two notable themes. First, the pattern of religious group differences was consistent with past findings on social identity theory and intergroup bias (Brewer, 1999). In general, there was an ingroup favouritism effect, such that responses to ingroups were more positive than were responses to outgroups. Second, and more central to this dissertation, was evidence indicating that indirectly drawing attention to interreligious similarities promotes positive reactions to religious outgroups. This theme will now be described in more detail.

The similarity-and-difference priming condition required participants to pair together similar concepts from different religions, but the wording of the task acknowledged the distinctiveness of the individual religions. Relative to the similarity priming condition, the similarity-and-difference priming condition tended to be associated with more positive responses to outgroups. This was suggested by the main effect of condition on Jews' openness to non-family ties with Muslims and the main

effect of condition on Christians' openness to non-family ties with Jews. The results are consistent with social identity theory predictions that individuals are motivated to establish ingroup distinctiveness from outgroups, to preserve a positive social identity (Tajfel & Turner, 1979). The present results are also consistent with optimal distinctiveness predictions that individuals strive for a balance between similarity to and distinctiveness from groups (Brewer, 1991). Distinctiveness threat has been described as the result of social comparisons in which the ingroup is not sufficiently distinct from a relevant outgroup (Branscombe et al., 1999). Given that one of the common responses to distinctiveness threat is outgroup derogation (Branscombe et al.), it seems likely that the direct similarity priming comprised a distinctiveness threat. In contrast, when interreligious similarities were primed indirectly while acknowledging the distinctiveness of the religious groups, positive outgroup responses were observed.

There was some evidence that the indirect approach to highlighting similarities between religions was most effective for highly religious people, whereas the direct approach to highlighting similarities appeared to be effective for less religious people. This was suggested by the interaction of extrinsic orientation and similarity priming for Muslims' openness to Christian non-family. It was also suggested by the interaction of intrinsic orientation and similarity priming for Jews' overall evaluations of Christians. Among high extrinsic Muslims and among high intrinsic Jews, similarity priming was associated with less positive responses to Christians than was similarity-and-difference priming. At least for individuals high in intrinsic orientation, it is likely that religion is a more central aspect of their social identities. This is substantiated by the positive

correlations between intrinsic orientation and religious identity. Thus the social identity threat posed by the direct similarity priming may be especially potent for those for whom religion is very central whereas the threat may be weaker or nonexistent for those for whom religion is less central. This is consistent with claims that distinctiveness threat is more applicable to high identifiers, but relatively less applicable to low identifiers (Branscombe et al., 1999).

Results further suggested that directly emphasizing interreligious similarities between groups can elicit negative responses to religious outgroups. This is also consistent with optimal distinctiveness and social identity predictions that too much similarity to an outgroup can threaten the ingroup's positive social identity (Brewer & Gaertner, 2004; Hornsey & Hogg, 2001) and that social identity threat can result in outgroup derogation (Hewstone, 1996).

This study provides some initial support for the efficacy of priming interreligious similarities in promoting openness toward outgroup religions. However, a limitation of this study was that the similarity and the similarity-and-difference conditions were compared against each other, rather than against a control group. This limits the interpretation of the findings in terms of which priming condition was eliciting the effects. Was it similarity priming, similarity-and-difference priming, or both?

Another implication of the present results is that religious groups may differ in the degree to which they endorse the extrinsic, intrinsic, and quest religious orientations. Muslims scored highest on intrinsic and extrinsic orientations, whereas Jews scored highest on the quest orientation. This may be informative as to the meaning of religion

and interpretations of what it means to be religious for these religious groups. Given that past research on the religious orientations has been primarily with Christian samples (Allport & Ross, 1967; Batson et al., 1993; Hills et al., 2005), the present research comprises an important step as to the implications of the orientations for other religious groups. Indeed the current results also provide preliminary evidence that the relations between the religious orientations and measures of outgroup prejudice may vary as a function of religious group.

With regard to the religious orientations, there was one striking pattern for all three religious groups: Intrinsic religious orientation and religious identity had a strong positive correlation.¹

In sum, results of Study 1 provided preliminary support for the hypothesis that similarity priming can give rise to more positive reactions to religious outgroups. The general trend was that indirect similarity priming was associated with more favourable responses than was direct similarity priming. Further, it seemed that direct priming of similarities could be effective for promoting positive interfaith reactions among less religious people (low extrinsic, low intrinsic), but that indirect priming of similarities was more effective for promoting positive interfaith reactions among more religious (i.e., high intrinsic) people.

¹ Interestingly, although they have not been reported due to redundancy, the interactions between religious identity and similarity priming were largely consistent with those and other results for intrinsic orientation. Thus it may be that religious identity taps into the intrinsic orientation toward religion, and this may be the case across a number of religious groups.

Study 2

Study 1 assessed the effects of a similarity priming manipulation on responses to religious outgroups. In many cases, the similarity-and-difference condition interacted with individual difference variables (extrinsic orientation, intrinsic orientation) to give rise to the most positive outgroup responses. One limitation of Study 1 was that there was no control condition against which to compare the effects of similarity priming and similarity-and-difference priming. For the purposes of these critical comparisons, Study 2 included a 3-level priming manipulation that consisted of similarity, similarity-and-difference, or control. An additional feature of Study 2 was a behavioural measure that was designed to assess participants' willingness to interact with people of other faiths.

Overview

As in Study 1, participants completed individual difference measures of the extrinsic, intrinsic, and quest religious orientations. Similarity priming was manipulated in the same way as in Study 1. In the additional control condition, participants completed a "religious knowledge" task that involved matching concepts to religions (versus the similarity and similarity-and-difference priming which involved matching corresponding concepts across different religions). Participants then completed measures of openness to relationships with religious group members and overall evaluations of religious groups. Finally, for the behavioural measure, participants were given the option to leave their email address for a potential follow-up study that would involve interfaith discussion groups.

Method

Participants

Participants were 284 undergraduates from the Undergraduate Research Participant Pool (URPP) at York University. Participants were recruited via separate postings on the URPP website for Christians, Muslims, and Jews. The participation criteria section on the website stated that participants must belong to the specified religious affiliation. Although attempts were made to get roughly equal numbers of participants from each religious group (i.e., the posting for Jewish participants was displayed for a longer period of time), these attempts met with limited success, possibly because Jews are less frequent in terms of their representation in Toronto, compared to the other two groups (Statistics Canada, 2003). The resulting sample consisted of 121 Christians, 101 Muslims, and 62 Jews, with a mean age of 19.59 years ($SD = 2.63$).

The majority of participants were female ($n = 215$), but there was a considerable number of male participants ($n = 68$). Most participants were Canadian citizens (90.4 %) and approximately 46.6 % were born in Canada. The most frequent countries of birth after Canada were Iran (7.1 %) and Pakistan (6.4%). The majority of participants were single (85.2 %) and only 2.5 % of participants were married.

Materials and Procedure

All materials were presented online with the use of SurveyMonkey software. Participants completed the consent form and were then presented with the following materials:

Religious Life Inventory. As in Study 1, participants completed the revised Religious Life Inventory (Hills et al., 2005). The means for the subscales were computed

and the alpha reliabilities were .69, .89, and .74 for the extrinsic, intrinsic, and quest orientations, respectively.

Religious Identity. As in Study 1, participants completed a 12-item measure of identity (Cameron, 2004). The alpha reliability for this measure scale was .88.

Similarity Priming Manipulation. The materials for the similarity priming condition and the similarity-and-difference priming condition were the same as in Study 1. The materials for the control condition had the general format as the similarity and the similarity-and-difference tasks, but were framed as a “religious knowledge” task (see third part of Appendix C). As such, participants were asked to match religious concepts to the appropriate religion. For example, Bible would be matched to Christianity and the link word would be holy book. Importantly, each category of religious significance occurred only once (i.e., there will be only one holy book, only one religious leader, etc.). This was intended to minimize between-group comparisons, and to keep the task to matching concepts within, rather than across, religious groups.

Openness to Relationships with Religious Outgroups. As in Study 1, participants rated their preferred social distance (Bogardus, 1933) from Christians, Muslims, and Jews. To increase the representation of important and frequent relationships in the lives of participants, two new social distance items were added to assess willingness to engage in romantic relationships with people of specific religious outgroups. Thus, in this study, participants indicated their willingness to engage in a number of relationships (neighbour, boss, friend, member of extended family, brother or sister in-law, boyfriend or girlfriend, and spouse) on 5-point scales (1 = *definitely would not mind*, 5 = *definitely would mind*).

As in Study 1, a principle components analysis with varimax rotation was conducted. The scree plot and factor loadings revealed a two-factor solution (non-family and family) with the two new items, spouse and boyfriend/ girlfriend loading on the family factor. Social distance scores were reverse-coded in the direction of openness to relationships and means were computed separately for non-family and family relationships.

Overall Views of Religious Groups. As in Study 1, participants rated their overall evaluations of various religious groups on a 10-point (1 = 0-10 % extremely unfavourable, 10 = 90-100% extremely favourable) adapted version of the evaluation thermometer (Esses et al., 1993). They rated their views of Christians, Muslims, Jews. Order of religious groups was randomized between participants.

Results

The data analytic strategy involved multiple approaches. Correlation analysis was used to assess associations between all the variables of interest. Between-group differences were assessed with one-way ANOVAs or the equivalent robust tests. Two-way categorical by continuous variable (between the groups variable and each of the religious orientations) interactions were assessed with moderated multiple regression (Aiken & West, 1991). Analyses were conducted to assess differences between religious groups and were also conducted within religious groups to assess within-group patterns.

Descriptive Statistics

Descriptive statistics and alpha reliabilities for the individual difference measures and for the key dependent measures can be found in Table 3.

Table 3

Descriptive Statistics by Religious Group

| Measure | Religious Group | | | | | | | | |
|-----------------------|-------------------|-----------|----------|-------------------|-----------|----------|-------------------|-----------|----------|
| | Christians | | | Muslims | | | Jews | | |
| | <i>n</i> = 121* | | | <i>n</i> = 101** | | | <i>n</i> = 62 | | |
| | <i>M</i> | <i>SD</i> | α | <i>M</i> | <i>SD</i> | α | <i>M</i> | <i>SD</i> | α |
| Extrinsic Orientation | 4.18 | 1.01 | .73 | 4.30 | .97 | .65 | 3.91 | 1.04 | .64 |
| Intrinsic Orientation | 4.57 | 1.16 | .86 | 5.01 _a | 1.13 | .87 | 3.61 _b | 1.40 | .90 |
| Quest Orientation | 4.12 _a | 1.03 | .76 | 3.79 _b | 1.03 | .75 | 3.98 _c | 1.01 | .72 |
| Religious Identity | 5.19 | .93 | .85 | 5.40 | .99 | .88 | 5.40 | 1.13 | .92 |
| Christian Family | 4.84 _a | .50 | .94 | 3.45 _b | 1.20 | .86 | 3.64 _b | 1.28 | .92 |
| Muslim Family | 3.56 _a | 1.14 | .89 | 4.69 _b | .61 | .79 | 2.77 _c | 1.30 | .92 |
| Jewish Family | 3.80 | 1.05 | .89 | 2.98 | 1.24 | .87 | 4.93 | .26 | .84 |
| Christian Non-Family | 4.86 _a | .47 | .94 | 4.67 _b | .57 | .80 | 4.80 | .42 | .71 |
| Muslim Non-Family | 4.57 _a | .65 | .81 | 4.75 _a | .55 | .82 | 4.17 _b | .92 | .86 |
| Jewish Non-Family | 4.65 _a | .52 | .71 | 4.39 _b | .95 | .85 | 4.90 _c | .28 | .45 |
| Views of Christians | 9.13 _a | 1.40 | - | 7.98 _b | 1.70 | - | 8.10 _b | 1.86 | - |
| Views of Muslims | 7.19 _a | 2.58 | - | 9.15 _b | 1.36 | - | 6.16 _c | 2.68 | - |
| Views of Jews | 7.79 _a | 2.12 | - | 7.01 _b | 2.33 | - | 9.02 _c | 1.48 | - |

*Sample size varies from 120 to 121. ** Sample size varies from 100 to 101.

Note. Means with different subscripts within the same row are significantly different.

Religious Group Differences for Individual Difference Variables

One-way ANOVAs were conducted to assess between-group differences on the main variables of interest, except in cases where variances were unequal. Only significant differences are reported here. Significant omnibus tests were followed up with posthoc Tukey HSD tests of mean differences.

There was a marginally significant difference between the religious groups on extrinsic orientation, $F(2, 281) = 2.94, p = .06$. Specifically, as shown in Table 3, Muslims scored higher on extrinsic orientation than did Jews. There was also a significant difference between the religious groups on intrinsic orientation, $F(2, 281) = 26.03, p < .001$. Specifically, Muslims scored higher on intrinsic orientation than did Christians or Jews and Christians scored significantly higher than Jews.

Religious Group Differences for Key Dependent Variables

For all the following variables, the Levene test for homogeneity of variances was significant. Consequently, the robust Welch test was used to test for mean differences. Significant omnibus tests were followed up with Dunnett T3 posthoc tests. Table 3 shows that as in Study 1, the reason for the frequent cases of unequal variances appears to be the restricted range of scores for ingroup evaluations, which tended to be associated with ingroup favouritism.

Openness to Family. There was a significant difference between the religious groups on desirableness of a Christian family member, $F''(2, 118.84) = 78.57, p < .001$. As shown in Table 3, Christians were more open to Christian family than were Muslims and Jews, who did not differ from each other. There was also a significant difference

between the religious groups on openness to a Muslim family member, $F''(2, 136.36) = 87.76, p < .001$. As shown in Table 3, Muslims were more open to a Muslim family member than were Jews or Christians, and Christians were more open than were Jews. Similarly, there was a significant difference between the religious groups on openness to a Jewish family member, $F''(2, 166.19) = 166.08, p < .001$. As shown in Table 3, Jews were more open to Jewish family than were Muslims or Christians, and Christians were more open than were Muslims.

Openness to Non-Family. There was a significant difference in openness to Christian non-family, $F''(2, 164.30) = 3.45, p = .03$. As shown in Table 3, Christians were more open to Christian non-family than were Muslims. There was also a significant difference in openness to Muslim non-family $F''(2, 142.55) = 10.78, p < .001$. As shown in Table 3, Muslims and Christians were more open to Muslim non-family than were Jews. Similarly, there was a significant difference between the religious groups on openness to non-family social relationships with Jews $F''(2, 178.41) = 17.60, p < .001$. As shown in Table 3, Jews were more open to Jewish non-family than were Christians or Muslims, and Christians were more open than were Muslims.

Overall Evaluations. There was a significant difference between the religious groups on overall views of Christians, $F''(2, 145.83) = 17.61, p < .001$. As shown in Table 3, Christians had more positive views of Christians than did Jews or Muslims, but Muslims and Jews did not differ from each other. There was also a significant difference between the religious groups on overall view of Muslims, $F''(2, 138.76) = 49.96, p <$

.001. As shown in Table 3, Muslims had more positive overall views of Muslims than did either Christians or Jews, and Christians had more positive views than did Jews.

Similarly, there was a significant difference between the religious groups on overall views of Jews, $F''(2, 175.02) = 24.05, p < .001$. As shown in Table 3, Jews had more positive overall views of Jews than did Muslims or Christians, and Christians had more positive views than did Muslims.

Email Address for Follow-up Study. A significant chi-square test suggested a non-independence between religious group and the likelihood of leaving one's email address for an ostensible follow-up study involving religious discussion between members of religious groups ($\chi^2 = 7.61, p = .02$). Whereas Christians and Jews had a greater tendency toward not leaving an email address (62.8 % and 64.5 %, respectively) than toward leaving an email address, Muslims were actually more likely to leave an email address (53.5 %) than to not leave an email address (46.5%).

Correlation Analysis of Religious Orientations

Correlations between the religious orientations and other primary measures that are shown in Table 4 replicated three key trends from Study 1. First, for all three religious groups, there was a strong positive correlation between intrinsic religious orientation and religious identity. Second, for Christians and Muslims, there was a strong negative correlation between quest religious orientation and religious identity. Third, for Muslims there was an association between intrinsic orientation and positive views of the ingroup.

An additional finding that was not observed in Study 1 was that, for Muslims, there was a significant positive correlation between extrinsic religious orientation and

Table 4

Correlations of Religious Orientations with Primary Measures

| Measure | Religious Orientation | | | | | | | | |
|----------------------|-----------------------|-------|-------|-----------|--------|--------|------------------|--------|------|
| | Extrinsic | | | Intrinsic | | | Quest | | |
| | C | M | J | C | M | J | C | M | J |
| Religious Identity | .15 | .25* | .16 | .65** | .70** | .44** | -.22* | -.33** | -.10 |
| Christian Family | .17 | -.19 | -.02 | .05 | -.41** | -.56** | .04 | .15 | -.20 |
| Muslim Family | -.04 | .01 | .18 | -.14 | -.03 | -.42** | .18 ^a | -.18 | .10 |
| Jewish Family | -.02 | -.22* | -.01 | -.14 | -.32** | .16 | .23* | .08 | .08 |
| Christian Non-Family | .20* | .02 | -.04 | .06 | .06 | -.15 | .20* | .07 | -.06 |
| Muslim Non-Family | .00 | .12 | -.28* | .05 | .24* | -.32* | .08 | -.02 | .10 |
| Jewish Non-Family | .05 | -.12 | -.08 | .11 | .09 | .15 | .17 | .09 | .15 |
| Views of Christians | .06 | -.06 | .14 | .15 | -.14 | -.14 | -.11 | .02 | -.02 |
| Views of Muslims | .02 | .16 | -.04 | .04 | .35** | -.14 | .06 | -.23** | .22 |
| Views of Jews | .04 | -.08 | -.06 | .04 | -.01 | .21 | .17 | -.02 | -.04 |

* $p < .05$. ** $p < .01$. ^a $p = .05$.

Note. C = Christians. M = Muslims. J = Jews.

religious identity. Perhaps this correlation was obtained in this study because of the larger sample of Muslims, compared to Study 1.

Similarity Priming Manipulation

When the religious groups were combined, there were no main effects of the manipulation on the key dependent variables of interest. However, there was a significant effect of the manipulation when analyses were conducted within religious groups. These were tested with one-way ANOVAs, except where the homogeneity of variance test indicated that the variances were unequal and the robust Welch test was used.

Among Muslims, there was a significant effect of the similarity priming on openness to Muslim non-family, $F''(2, 57.87) = 4.59, p = .01$. Dunnett T3 posthoc tests indicated that Muslims in the similarity condition reported significantly more openness to Muslim non-family ($M = 4.91, SD = .23$) than did those in the control condition ($M = 4.51, SD = .74$).

In addition to this within-group similarity priming effect, there were a number of effects of the priming manipulation that were moderated by the religious orientations of participants.

Similarity Priming by Religious Orientation Interactions

Two-way categorical (three priming conditions) by continuous variable (each of the religious orientations) interactions were assessed with moderated multiple regression (Aiken & West, 1991; West, Aiken, & Krull, 1996). Because there was a clear comparison group (the control group) in this study, dummy codes rather than effect codes were used for the categorical variable, to enable a clearer interpretation of the results. In

the first set of dummy codes the control group was the comparison group (D1: similarity = 1, similarity-and-difference = 0, control = 0; D2: similarity = 0, similarity-and-difference = 1, control = 0), and in the second set of dummy codes the similarity-and-difference group was the comparison group (D3: similarity = 1, similarity-and-difference = 0, control = 0; D4: similarity = 0, similarity-and-difference = 0, control = 1). In the first set of analyses, the first set of dummy codes, the centered continuous variable, and the two interaction terms were entered simultaneously into the regression equation. This process was then repeated for the second set of dummy codes. For each of the religious groups (Christians, Muslims, and Jews), this procedure was followed for all the categorical X continuous analyses for each of the religious orientations (extrinsic, intrinsic, and quest). Because the primary interest was in outgroup bias rather than ingroup favouritism and for the sake of brevity, only interactions for responses to religious outgroups (and no interactions for religious ingroups) are reported here.

Because of the preliminary nature of the research, a per comparison error rate of .05 was adopted. Because of the large number of analyses, however, the following criteria were adopted for reporting interactions: The interaction had to be significant and, a) one of the simple slopes or effects had to be significant, or b) the interaction must illustrate a trend in the results within this study or between studies.

Among Christians, there was an Extrinsic Orientation X Similarity vs. Control interaction on overall views of Jews, $\beta = .42$, $t(115) = 3.00$, $p < .01$. There was also a significant Extrinsic Orientation X Similarity-and-Difference vs. Control interaction, $\beta =$

.25, $t(115) = 2.12$, $p = .04$. These effects are presented together in Figure 3. Simple slopes analysis revealed that the simple slope of extrinsic orientation was significant in the similarity condition, $\beta = .28$, $t(115) = 2.02$, $p = .05$, and in the control condition, $\beta = -.36$, $t(115) = 2.23$, $p = .03$. Among those in the similarity condition, there was a positive relationship between extrinsic orientation and Christians' views of Jews; whereas among those in the control condition, there was a negative relationship between extrinsic orientation and Christians' views of Jews. Simple effects analysis revealed that at low extrinsic orientation, participants in the similarity condition reported significantly more negative views of Jews than did those in the control condition, $\beta = -.28$, $t(115) = -1.95$, $p = .05$. In contrast, at high extrinsic orientation, participants in the similarity condition reported significantly more positive views of Jews than did those in the control condition, $\beta = .31$, $t(115) = 2.14$, $p = .04$, and participants in the similarity-and-difference condition reported significantly more positive views of Jews than those in the control condition, $\beta = .39$, $t(115) = 2.38$, $p = .02$.

For Muslims, there was also a significant Extrinsic Orientation X Similarity vs. Control effect on openness to non-family relationships with Christians, $\beta = -.27$, $t(95) = -2.11$, $p = .04$. The simple slope of extrinsic orientation was approaching significance in the similarity condition, $\beta = -.32$, $t(95) = -1.73$, $p = .09$. As shown in Figure 4a, in the similarity condition, there was a negative relationship between extrinsic orientation and openness to Christians. Simple effects analysis revealed that at low extrinsic orientation, participants in the similarity condition reported significantly more openness to non-

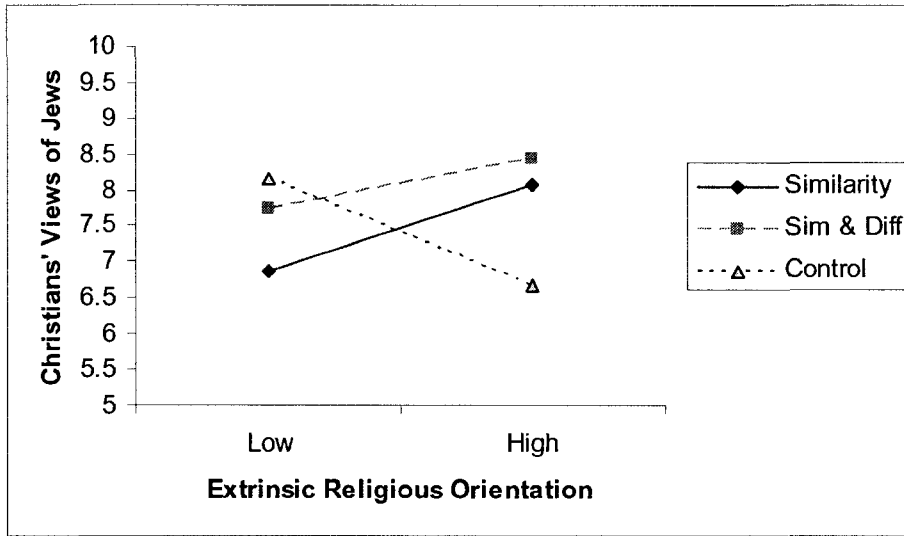
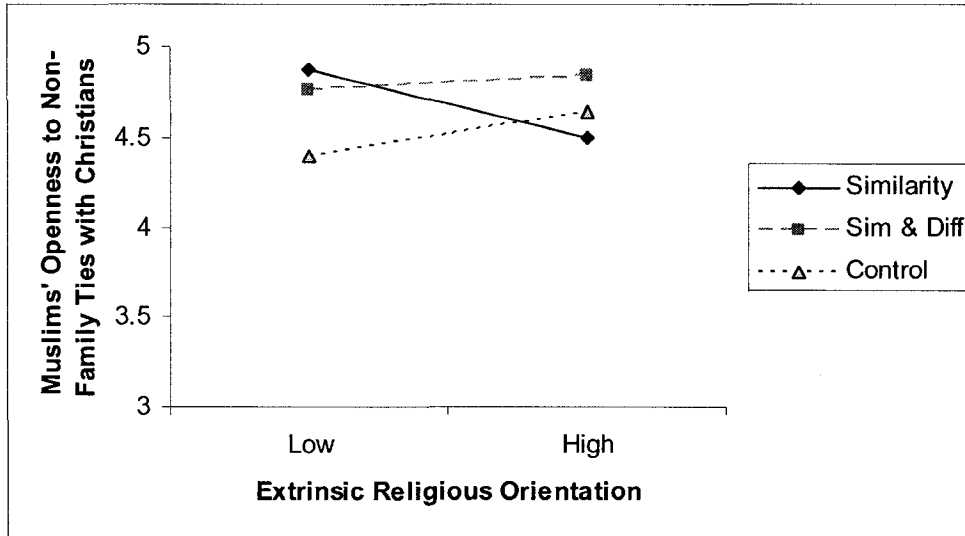


Figure 3. Christians' overall evaluations of Jews as a function of priming condition (similarity, similarity-and-difference, or control) and extrinsic orientation.

a) Christians



b) Jews

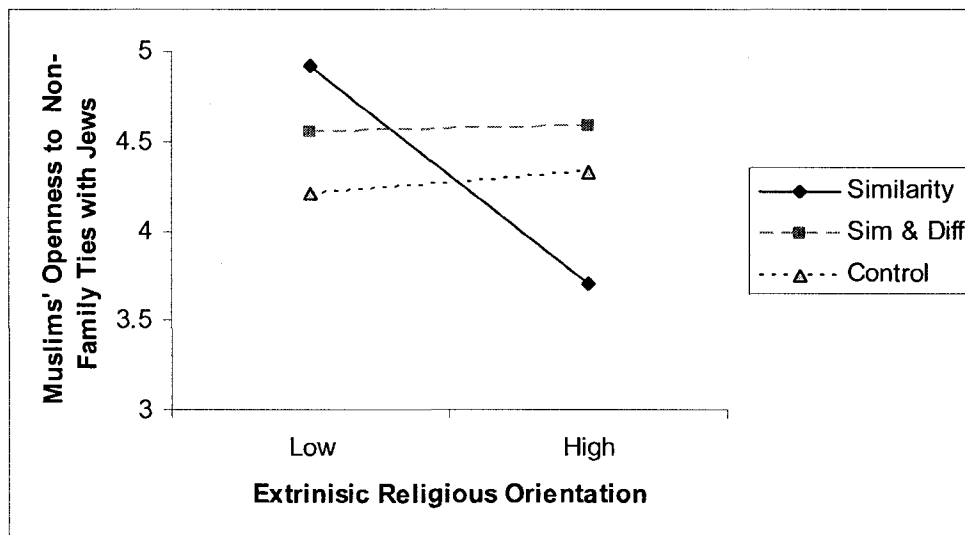


Figure 4. Muslims' openness to non-family ties with religious outgroup members as a function of priming condition (similarity, similarity-and-difference, or control) and extrinsic religious orientation.

family ties with Christians than did those in the control condition, $\beta = .38$, $t(95) = 2.28$, $p = .02$.

Among Muslims, there was an Extrinsic Orientation X Similarity-and-Difference vs. Control effect on overall evaluation of Christians, $\beta = .34$, $t(95) = 2.38$, $p = .02$. None of the simple slopes or effects was significant. However, the pattern of results resembled Figure 4a such that in the similarity condition, there was a negative relationship between extrinsic orientation and overall views of Christians.

For Muslims' openness to non-family relationships with Jews, there was a similar Extrinsic Orientation X Similarity vs. Control interaction, $\beta = -.36$, $t(95) = -2.82$, $p < .01$. The Extrinsic Orientation X Similarity-and-Difference vs. Control interaction was also significant, $\beta = -.33$, $t(95) = -2.58$, $p = .01$. These effects are presented together in Figure 4b. The simple slope of extrinsic religious orientation was significant in the similarity condition, $\beta = -.62$, $t(95) = -3.36$, $p = .001$. In the similarity condition, there was a negative relationship between extrinsic orientation and openness to Jews. Simple effects analysis revealed that at low extrinsic orientation, participants in the similarity condition reported significantly more openness to non-family ties with Jews than did those in the control condition, $\beta = .34$, $t(95) = 2.08$, $p = .04$. In contrast, at high extrinsic orientation, participants in the similarity condition reported significantly less openness than did those in the control condition, $\beta = -.31$, $t(95) = -1.98$, $p = .05$, and participants in the similarity-and-difference condition reported significantly more openness than did those in the similarity condition, $\beta = -.43$, $t(95) = -2.84$, $p < .01$.

Intrinsic Religious Orientation. Among Christians, there was a significant Intrinsic Orientation X Similarity vs. Control interaction on openness to family relationships with Jews, $\beta = .28$, $t(114) = 2.26$, $p = .02$. The Intrinsic Orientation X Similarity-and-Difference vs. Control interaction was marginally significant, $\beta = .22$, $t(114) = 1.89$, $p = .06$. These effects are presented together in Figure 5. The simple slope of intrinsic orientation was significant in the control condition, $\beta = -.42$, $t(114) = -2.94$, $p < .01$. In the control condition, there was a negative relationship between intrinsic orientation and openness to Jewish family. Simple effects analysis revealed that at high intrinsic orientation, participants in the similarity condition reported significantly more openness to family ties with Jews than did those in the control condition, $\beta = .41$, $t(114) = 2.84$, $p < .01$, and participants in the similarity-and-difference condition also reported significantly more openness to family ties with Jews than did those in the control condition, $\beta = .32$, $t(114) = 2.05$, $p = .04$.

There was also an Intrinsic Orientation X Similarity vs. Control interaction on Christians' overall evaluation of Jews, $\beta = .27$, $t(114) = 2.20$, $p = .03$. The pattern of results resembled Figure 5. None of the simple slopes were significant, however. Simple effects analysis revealed a marginally significant effect such that at high intrinsic orientation, those in the similarity-and-difference condition reported more positive views of Jews than did those in the control condition, $\beta = .29$, $t(114) = 1.87$, $p = .06$.

Among Muslims, there was an Intrinsic Orientation X Similarity vs. Control interaction on overall evaluation of Christians, $\beta = .40$, $t(94) = 2.69$, $p < .01$. The Intrinsic Orientation X Similarity vs. Similarity-and-Difference interaction was also significant, β

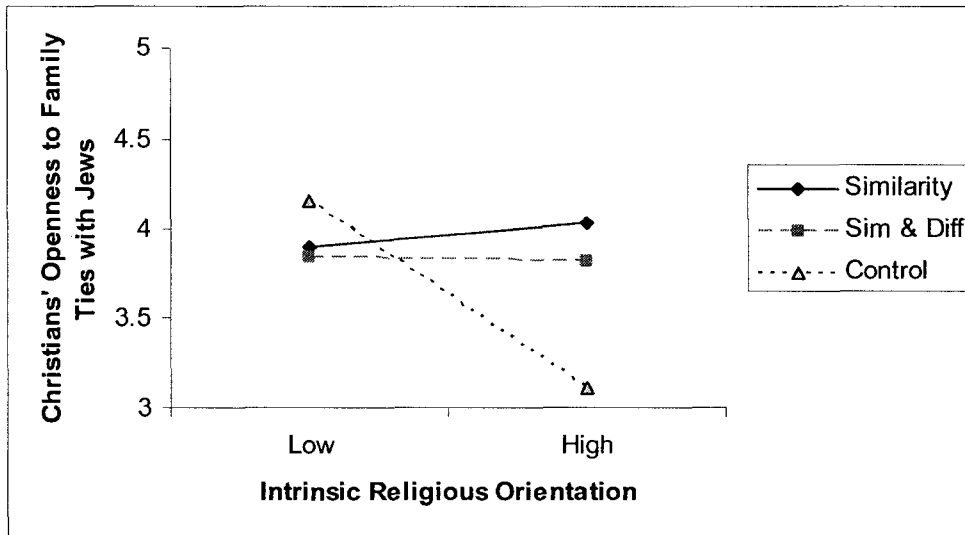


Figure 5. Christians' openness to Jewish family as a function of priming condition (similarity, similarity-and-difference, or control) and intrinsic religious orientation.

= .36, $t(94) = 2.15$, $p = .03$. These effects are presented together in Figure 6. The simple slope of intrinsic orientation was significant in the control condition, $\beta = -.36$, $t(94) = -2.31$, $p = .02$. As shown in Figure 6, in the control condition, there was a negative relationship between intrinsic orientation and favourable views of Christians. Simple effects analysis revealed that at low intrinsic orientation, participants who were in the similarity condition reported significantly less favourable views of Christians than did those in the control condition, $\beta = -.51$, $t(94) = -2.42$, $p = .02$, and participants who were in the similarity condition reported significantly less favourable views of Christians than did those in the difference condition, $\beta = -.51$, $t(94) = -2.06$, $p = .04$.

There was a similar Intrinsic Orientation X Similarity vs. Similarity-and-Difference interaction on Muslims' overall evaluations of Jews, $\beta = .38$, $t(94) = 2.21$, $p = .03$. Although none of the simple slopes were significant, the pattern of results was similar to that in Figure 6. Simple effects analysis revealed a marginally significant effect at low intrinsic orientation such that those in the similarity condition reported less positive views of Jews than did those in the control condition, $\beta = -.43$, $t(94) = -1.87$, $p = .06$. Similarly, those in the similarity condition reported significantly less positive view of Jews than did those in the difference condition, $\beta = -.62$, $t(94) = -2.35$, $p = .02$.

Among Jews, there was an Intrinsic Orientation X Similarity vs. Similarity-and-Difference interaction on overall evaluations of Christians, $\beta = -.52$, $t(56) = -2.28$, $p = .03$. The simple slope of intrinsic orientation was significant in the similarity condition, $\beta = -.51$, $t(56) = -2.56$, $p = .01$. As shown in Figure 7, in the similarity condition, there was a negative relationship between intrinsic orientation and Jews' views of Christians.

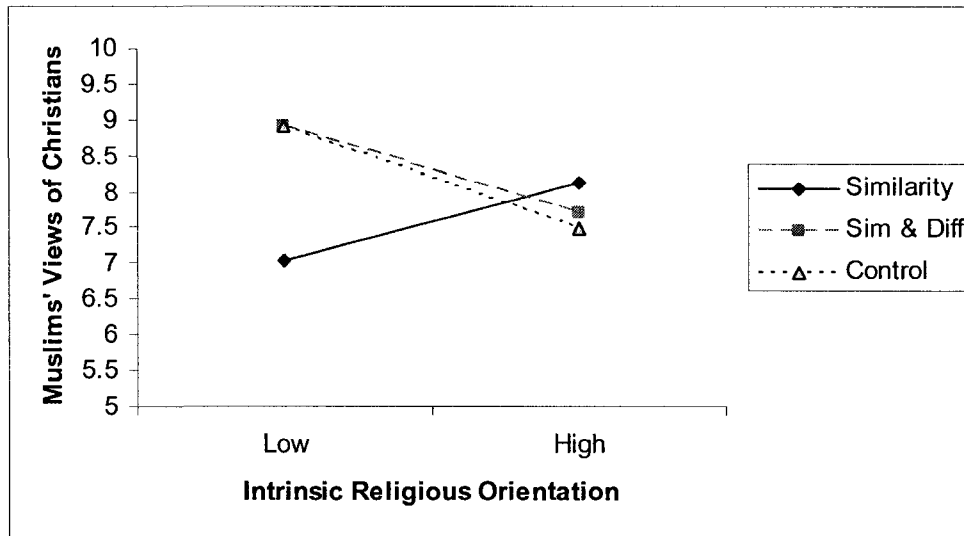


Figure 6. Muslims' views of Christians as a function of priming condition (similarity, similarity-and-difference, and control) and intrinsic religious orientation.

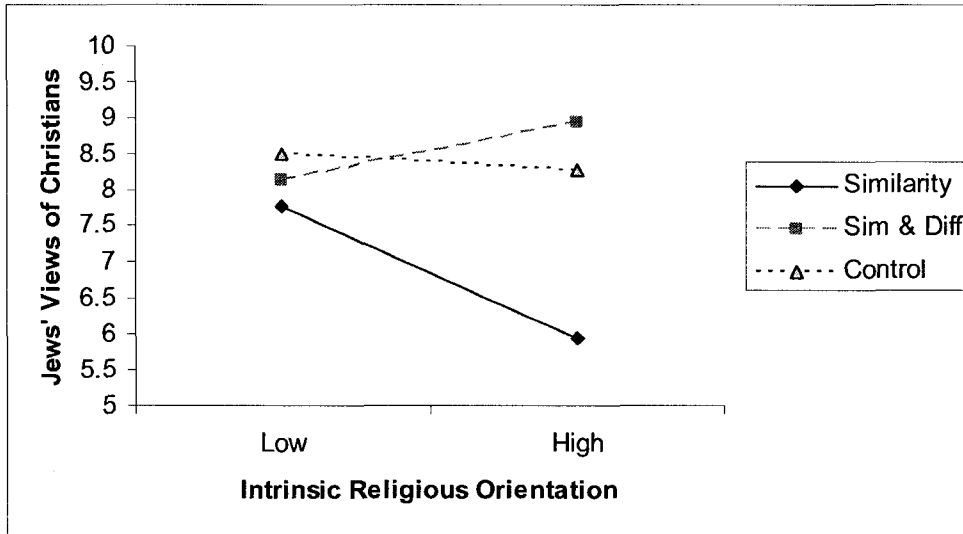


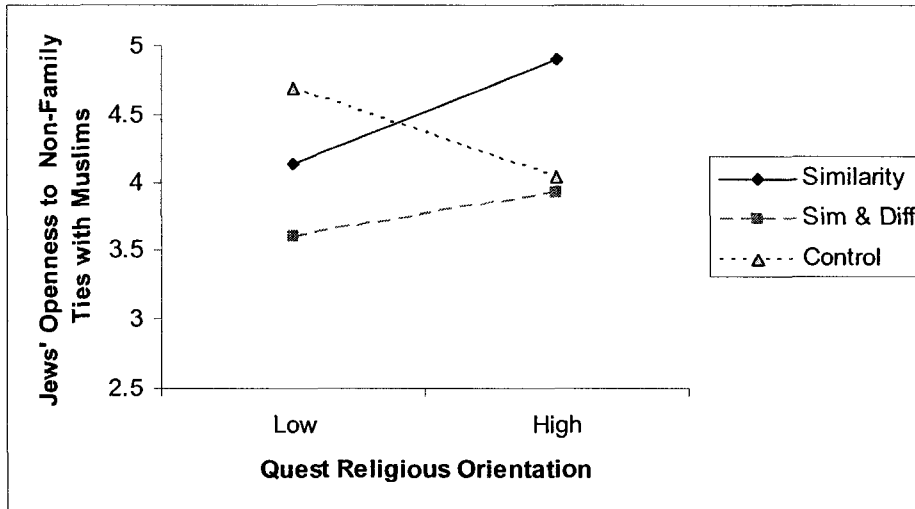
Figure 7. Jews' overall evaluations of Christians as a function of priming condition (similarity, similarity-and-difference, or control) and intrinsic religious orientation.

Simple effects analysis revealed that at high intrinsic orientation, those in the similarity condition reported significantly less positive views of Christians than did those who were in the control condition $\beta = -.58, t(56) = -2.33, p = .02$, or the similarity-and-difference condition, $\beta = -.76, t(56) = -2.68, p = .01$.

Quest Religious Orientation. Interaction effects between quest orientation and the priming manipulation were found only for the Jewish subsample. Among Jews, there was a significant Quest Orientation X Similarity vs. Control interaction on openness to non-family relationships with Muslims, $\beta = .45, t(56) = 2.44, p = .02$. The simple slope of Quest orientation was significant in the similarity condition, $\beta = .40, t(56) = 1.97, p = .05$. As shown in Figure 8a, in the similarity condition, there was positive relationship between quest orientation and openness to Muslims. Simple effects analysis revealed that at low quest orientation, participants in the similarity-and-difference condition reported significantly less openness to non-family ties with Muslims than did those in the control condition, $\beta = -.56, t(56) = 2.50, p = .02$. At high quest orientation, participants who were in the similarity condition reported more openness than did those in the control condition, $\beta = .45, t(56) = 2.14, p = .04$, or the similarity-and-difference condition, $\beta = .49, t(56) = 2.36, p = .02$.

For Jews' openness to non-family relationships with Christians, there was a similar but marginally significant Quest Orientation X Similarity vs. Control interaction, $\beta = .34, t(56) = 1.85, p = .07$. The Quest Orientation X Similarity-and-Difference vs. Control interaction was significant, $\beta = .61, t(56) = 3.38, p = .001$. The pattern of results resembled Figure 8a. The simple slope of quest orientation was significant in the control

a) Openness to Muslim Non-Family



b) Openness to Christian Family

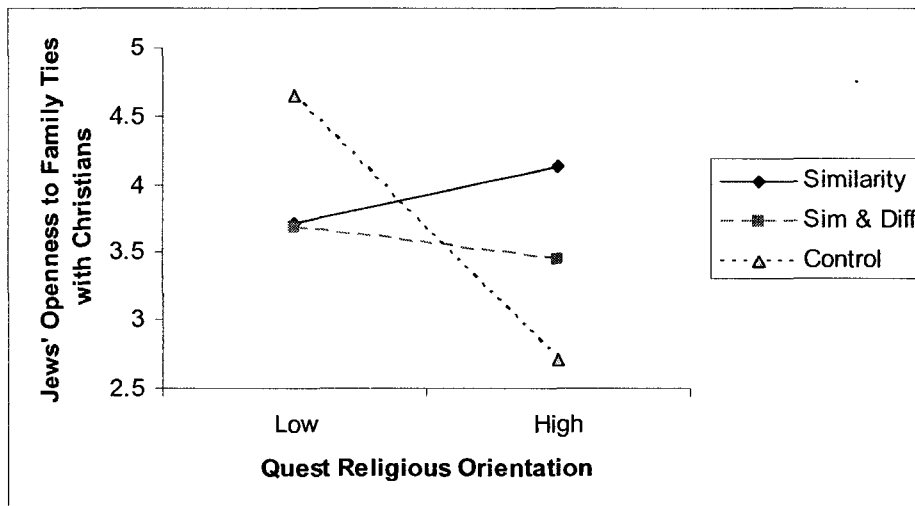


Figure 8. Jews' responses to religious outgroups as a function of priming condition (similarity, similarity-and-difference, or control) and quest religious orientation.

condition, $\beta = -.63$, $t(56) = -2.75$, $p < .01$ and in the similarity-and-difference condition, $\beta = .42$, $t(56) = 2.00$, $p = .05$. In the control condition, there was a negative relationship between quest orientation and openness to Christians. In contrast, in the similarity-and-difference condition, this relationship was positive. Simple effects analysis revealed that at low quest orientation, those in the similarity-and-difference condition reported significantly less openness than did those in the control condition, $\beta = -.69$, $t(56) = -3.07$, $p < .01$.

For Jews' openness to family relationships with Christians, there was a significant Quest Orientation X Similarity vs. Control interaction, $\beta = .54$, $t(56) = 2.90$, $p < .01$. There was also a significant Quest Orientation X Similarity-and-Difference vs. Control interaction, $\beta = .37$, $t(56) = 2.06$, $p = .04$. The simple slope of quest orientation was significant in the control condition, $\beta = -.73$, $t(56) = -3.19$, $p < .01$. As shown in Figure 8b, in the control condition, there was a negative relationship between quest orientation and openness to Christian family. Simple effects analysis revealed that at high quest orientation, those in the similarity condition reported significantly more openness to family ties with Christians than did those in the control condition, $\beta = .52$, $t(56) = 2.49$, $p = .02$.

Discussion

Study 2 replicated the two themes of results from Study 1. First, there was a robust effect of ingroup favouritism. Again, this is consistent with past research on social identity and ingroup bias (Brewer, 1991; Tajfel, 1978). Second, there was additional

evidence that priming similarities between religious groups can promote positive reactions to religious outgroups. This central theme will now be addressed in more detail.

In this study, two types of priming were compared to a control condition. Although the similarity priming made similarities explicitly salient, the similarity-and-difference priming, which involved the same task, made similarities salient, but less explicitly. In most cases, either similarity or similarity-and-difference priming was associated with more positive outgroup responses than was the control task. However, the nature of the similarity priming that works best to reduce outgroup prejudice depends on the religious affiliation of the religious ingroup and the religious orientations (extrinsic, intrinsic, and quest) of the respondents.

The religious orientations were developed with and have been researched primarily with Christian samples (Batson et al., 1993, Hills et al., 2005). The present data suggest that the implications of religious orientations for prejudice may depend on the religious ingroup of the sample. Indeed, religious group differences were observed in the means of the religious orientations and in the correlations between religious orientations and religious identity. The results from the interactions of the priming manipulation and the religious orientations further support this preliminary evidence that the religious orientations may differentially predict prejudice among different religious groups.

For Christians, drawing attention to similarities between religious groups was associated with positive outgroup reactions. Both types of priming were associated with positive outgroup reactions. This was suggested by the interactions between extrinsic orientation and priming condition on evaluations of Muslims and Jews. This was also

suggested by the interactions between intrinsic orientation and priming condition on evaluations of Jews and openness to Jewish family.

For Muslims, drawing attention to similarities between religious groups was associated with positive outgroup reactions, but the indirect priming condition worked best. That is, similarity-and-difference priming promoted positive reactions to religious outgroups among high extrinsic Muslims and low intrinsic Muslims. Indeed, similarity priming was associated with less positive reactions to religious outgroups among high extrinsic Muslims and low intrinsic Muslims. This was also the case for some Jews: Explicitly highlighting similarities was associated with less positive views of Christians among high intrinsic Jews. Similar interaction effects for extrinsic orientation in Muslims and intrinsic orientation in Jews were observed in Study 1.

The results for Muslims and for Jews are consistent with social identity and optimal distinctiveness research. Too much similarity to an outgroup can be threatening to the ingroup's social identity (Brewer & Gaertner, 2004; Hornsey & Hogg, 2001, Tajfel & Turner, 1979) and social identity threat results in negative outgroup attitudes (Hewstone, 1996). The outgroup derogation observed among the high extrinsic Muslims and high intrinsic Jews is likely a defensive response to distinctiveness threat (Branscombe et al., 1999).

Past research on religious orientations suggests that extrinsic religious orientation has been associated with outgroup prejudice (Allport & Ross, 1967; Batson et al., 1993; Jackson & Hunsberger, 1999). This more superficial orientation toward religion may be particularly susceptible to the social identity threat that the direct priming of similarities

is likely to pose. Similarly, those who are low in intrinsic orientation to Islam are also likely to have a more superficial connection to religion, because intrinsic orientation, by definition, has to do with meaning and centrality that one attributes to religion. Additionally, the robust positive correlation that was replicated in this study indicates that those who are low in intrinsic orientation are also likely to be low in religious identity. Because religion is less central to them, those who are low in intrinsic orientation may also be less knowledgeable about Islamic scripture (e.g., the Qur'an) that emphasises the commonalities between Islam, Christianity, and Judaism. Thus, Muslims who are low in intrinsic orientation may be especially rejecting of the direct similarity priming because they find it more threatening and possibly because they find it less believable.

Jews who are high intrinsic orientation may be sceptical about and threatened by the direct similarity priming for somewhat different reasons. Since Judaism historically predates both Islam and Christianity, Jewish scriptures do not make direct references to the similarities to these faiths or to the central figures of these faiths (i.e., Muhammad and Jesus). Thus, the similarity priming may be less believable for high intrinsic Jews. Moreover, as in Study 1, the positive correlation indicates that Jews who are high in intrinsic orientation are also high in religious identity. Past research suggests that outgroup disliking and defensive reactions to social identity threat may be the strongest among those who are high in ingroup identity (Branscombe et al., 1999; Lalonde, 2002). Thus, much like the high extrinsic and low intrinsic Muslims described above, high intrinsic Jews may be especially like to find the explicit similarity priming less believable and more threatening.

It may be that because Christians comprise the largest religious group in Canada (Statistics Canada, 2003), that they were less threatened when they were exposed to the task that explicitly emphasised interreligious similarities. One example of the dominance of Christian traditions in Canadian society is the observance of official public holidays for Christmas and Easter. The dominance of Christianity in Canadian society may make Christians less susceptible to social identity threat in the Canadian context. This may explain why both types of priming worked well for the high extrinsic and high intrinsic Christians.

One situation where direct similarity priming was associated with more positive outgroup reactions was with Jews who were high in quest. Those who were high in quest and who were primed with similarities were more open to non-family ties with Muslims and family ties with Christians. The results from the control condition suggest that for Jews, quest orientation is negatively related to openness toward religious outgroups. This again points to how different religious groups may have distinct relations between the religious orientations and prejudice. This significant relationship between quest and outgroup prejudice in Jews contrasts with past research on quest with Christian samples in which quest is associated with more positive outgroup reactions (Batson et al., 1993). Nonetheless, the high quest Jews seem to be amenable to the more direct similarity priming, perhaps because they do not find it threatening. Note that, as in Study 1, there was no significant correlation between quest orientation and religious identity for the Jewish subsample.

Overall, the results for this study support the hypothesis that drawing attention to interreligious similarities promotes positive responses to religious outgroups. The optimal form of similarity priming and the precise nature of the effects depend on the religious affiliation of the ingroup and the religious orientations, extrinsic, intrinsic, and quest. Indirect similarity priming is associated with the most positive outgroup responses among Muslims. For Muslims, and possibly also for Jews, explicitly similarity priming can be associated with negative outgroup responses. The exception is for Jews who are high in quest, who respond favourably to the direct similarity priming. For Christians, both direct and indirect similarity priming are associated with positive outgroup responses.

Study 3

Studies 1 and 2 showed that either similarity or similarity-and-difference priming can promote positive responses to religious outgroups, depending on the person's religious orientation (extrinsic, intrinsic, or quest). The main dependent variables were overall evaluations of religious outgroups and the willingness to engage in family and non-family relationships with members of religious outgroups. In Study 3, the goal was to consider the relation between perceived similarity and participants' behaviour in the real world. The focus was on participants' relationships with religious outgroup members and how these relationships affect perceptions of interreligious similarity. Specifically, I compared the perceived interreligious similarity and interfaith opinions of those who have someone from a different religious group among their closest relationship partners and those who do not. I were also interested in how perceived interreligious similarity and religious orientations combine to predict responses to religious outgroups.

In contrast to Studies 1 and 2 that involved only Christians, Muslims, and Jews; Study 3 involved participants from a wider range of religious affiliations. I also assessed overall evaluations of a wider range of religious groups in order to establish generalizability: That is, how does perceived similarity to one religious outgroup relate to responses to other religious outgroups?

Overview

Participants with any religious affiliation were recruited for this online study. They completed a measure of religious orientations. Subsequently, they were asked to list

the initials of the 5 people who they felt closest to and were asked if any of the people listed belonged to a different religious group compared to (participants) themselves. Participants who responded “yes” were asked to choose the person who they were closest to out of those who belonged to a different religious group (Person X). Participants who responded “no” were asked to think of someone they knew who belonged to a different religious group (Person X). All participants then listed similarities between their religious group and that of Person X. They also rated the perceived similarity between their religious group and that of Person X. In addition, they completed social distance measures of their willingness to engage in family and non-family relationships with someone from the religious group of Person X. They also completed measures of interfaith dating opinions and interfaith relationship anxiety. Finally, they completed feeling thermometer ratings of their overall evaluations of various religious groups.

Method

Participants

Participants were 111 undergraduates from the Undergraduate Research Participant Pool (URPP) at York University. The participation criteria section on the URPP website stated that participants must have a religious affiliation.

Although there was a considerable number of men ($n = 21$) the majority participants were women ($n = 89$). One participant did not report gender. The mean age of participants was 21.85 years.

The majority of participants were Christian ($n = 71$). The remaining participants were Muslim ($n = 16$), Jewish ($n = 9$), Hindu ($n = 9$), and Buddhist ($n = 4$). One

participant reported another religious affiliation and one did not report religious affiliation.

Materials and Procedure

Religious Life Inventory. As in Studies 1 and 2, participants completed the revised Religious Life Inventory (Hills et al., 2005). The means for the subscales were computed and the alpha reliabilities were .72, .91, and .80 for the extrinsic, intrinsic, and quest orientations, respectively.

Group Assignment. Participants were divided into groups based on whether or not they were in a close relationship with someone from a different religious group.

Participants were asked to list the initials of the 5 people they felt closest to in ranked order. On the next screen, they were asked if any of these people were from a different religious group than their own. Those who responded close were advanced to a screen in which they were asked to select the person who they were closest to out of those who belonged to different religious groups. They were then asked to think of this person as Person X and to enter the initials of Person X in a blank space. They were also asked to identify the position (out of 5) where they previously had listed Person X. Those who responded distant were advanced to a screen that asked them to think of a person who they knew (not necessarily someone they were close to) who belonged to a different religious group than their own. They were then asked to think of this person as Person X and to enter the initials of Person X in a blank space. For simplicity, the groups will hereafter be referred to as the close and distant groups, according to whether or not

Person X, a person known to participants to be of a different religious group, was a partner from participants' top 5 closest relationships.

Characteristics of Person X. Participants responded to a series of follow-up questions about Person X, including their relationship to Person X, the number of years they had known Person X (1 = less than a year, 7 = most of my life), their closeness to Person X (1 = not at all, 5 = extremely), and the religious affiliation of Person X. These items served as manipulation checks.

Similarity Listing. Participants were given the opportunity to list up to 10 similarities they perceived between their own religious group and that of Person X.

Perceived Interreligious Similarity. Participants then rated the degree of similarity they perceived between their own religious group and that of Person X on an adapted version of the Inclusion of Other in Self Scale (Aron, Aron, & Smollan, 1992). As shown in Appendix E, they chose the pair of circles, out of 5 progressively overlapping pairs of circles, that best represented the degree of similarity they perceived between their own religious group (Y) and that of Person X (X).

Openness to Relationships with Religious Outgroup Members. As in Studies 1 and 2, participants rated their preferred social distance (Bogardus, 1933), but this time with reference to a person from the same religious group as Person X. They indicated their willingness to engage in non-family (neighbour, boss, friend) and family (member of extended family, brother or sister in-law, boyfriend or girlfriend, spouse) relationships on 5-point scales (1 = *definitely would not mind*, 5 = *definitely would mind*). Items were recoded in the direction of openness and means were computed separately for openness

to non-family and family relationships. The alphas were .91 and .88 for non-family and family respectively.

Interfaith Dating Opinions. As in Studies 1 and 2, participants rated on 7-point Likert scales (1 = *strongly disagree*, 7 = *strongly agree*) their opinions about interfaith dating (see Appendix F). Items were adapted from Lalonde, Giguere, Fontaine, and Smith (2007). Mean scores were computed for the subscales of personal openness ($\alpha = .91$) and general attitudes ($\alpha = .91$).

Overall Views of Religious Groups. As in Studies 1 and 2, participants rated their overall evaluations of various religious groups on a 10-point (1 = 0-10 % *extremely unfavourable*, 10 = 90-100% *extremely favourable*) adapted version of the evaluation thermometer (Esses et al., 1993). They rated their views of Jews, Muslims, Christians, Hindus, Sikhs, and Buddhists. Order of religious groups was randomized between participants.

Demographics. Participants completed a brief questionnaire that assessed religious affiliation, gender, age, and other background characteristics. This was followed by a brief questionnaire that probed reactions to the study materials.

Results

The data analytic strategy involved multiple approaches. Correlation analysis was used to assess associations between all the variables of interest. Between-group differences were assessed with independent samples *t*-tests. Two-way categorical by continuous variable (between the groups variable and each of the religious orientations) interactions were assessed with moderated multiple regression. Similarly, two-way

interactions between continuous variables (between perceived similarity and each of the religious orientations) were assessed with multiple regression.

Because the overwhelming majority of participants were Christian and the other religious groups were so small, overall evaluations of religious groups (on evaluation thermometer) were assessed for Christians only. The focus on Christians allowed for a clear interpretation of religious outgroups. However, all other analyses involved the full sample.

Descriptive statistics and alpha reliabilities for all the primary measures can be found in Table 5.

Group Differences for Individual Difference Variables

Most participants responded “yes” ($n = 61$) when asked if anyone of the 5 people they were closest to were from a different religious group than their own. For simplicity, those who responded “yes” will be referred to as the close group and those who responded “no” ($n = 48$) will be referred to as the distant group, according to their relationships with Person X. There were a number of differences between the close and the distant groups.

In terms of manipulation checks, Table 5 shows that participants in the close group had known Person X for a longer period of time compared to those in the distant group, $t(107) = 3.40, p = .001$, and felt closer to him or her, $t(107) = 8.30, p < .001$. The frequencies of the types of relationships with Person X further corroborated the validity of the close versus far groups. Specifically, among the close group, approximately 97 % of participants reported that Person X was a friend, boyfriend, girlfriend, or spouse;

Table 5

Descriptive Statistics by Relationship with Person X

| Measure | Relationship with Person X | | | | | |
|-------------------------------------|----------------------------|-----------|----------|--------------------------|-----------|----------|
| | Close <i>n</i> = 61 | | | Distant <i>n</i> = 48 | | |
| | <i>M</i> | <i>SD</i> | α | <i>M</i> | <i>SD</i> | α |
| Time Known Person X | 3.67 _a | 1.47 | - | 2.69 _b | 1.55 | - |
| Closeness to Person X | 4.33 _a | .63 | - | 2.92 _b | 1.13 | - |
| Similarities Listed | 4.00 | 2.34 | - | 4.29 | 3.11 | - |
| Extrinsic Orientation | 4.40 | .97 | .74 | 4.19 | 1.00 | .67 |
| Intrinsic Orientation | 4.70 | 1.29 | .89 | 4.70 | 1.42 | .92 |
| Quest Orientation | 4.20 _a | .88 | .72 | 3.71 _b | 1.19 | .84 |
| Perceived Interreligious Similarity | 2.98 _a | 1.02 | - | 2.63 _b | 1.14 | - |
| Openness to Family | 3.54 _a | 1.09 | .86 | 3.14 _b | 1.23 | .89 |
| Openness to Non-Family | 4.74 _a | .48 | .83 | 4.44 _b | .87 | .95 |
| Openness to Interfaith Dating | 4.41 _a | 1.67 | .90 | 3.82 _b | 1.89 | .91 |
| Interfaith Dating Support | 5.68 | 1.33 | .92 | 5.37 | 1.41 | .90 |

Note. Means with different subscripts within the same row are significantly different.

whereas among the distant group, approximately 67 % reported that Person X was a friend, boyfriend, or girlfriend (and only 3 of these 32 relationships were boyfriends or girlfriends). There was also a significant between-group difference in quest religious orientation, $t(109) = 2.53, p = .01$. As shown in Table 5, the close group was higher in quest orientation than was the distant group.

Group Differences for Key Dependent Variables

With regard to the hypothesized group difference in perceived interreligious similarity, the difference was significant, $t(107) = 1.72, p < .05$, one-tailed. As shown in Table 5, the close group perceived more interreligious similarity than did the distant group. There was also a between-group difference for openness to family relationships with someone from the religious group of Person X, $t(107) = 1.80, p < .05$, one-tailed. As shown in Table 5, the close group was more open than was the distant group. There was a similar significant between-group difference in openness to non-family relationships with someone from the religious group of Person X $t(107) = 2.25, p = .03$. The close group was more open than was the distant group. Finally, there was also a significant between-group difference for personal openness to interfaith relationships, $t(107) = 1.72, p < .05$, one-tailed. The close group was more open to interfaith dating than was the distant group.

For Christians' evaluations of religious outgroups, there were no significant between-group differences. However, the pattern of the means was such that the close group made more favourable evaluations of religious outgroups than did the distant group.

Correlation Analysis of Religious Orientations

Correlations between the religious orientations and other primary measures are shown in Table 6. As shown in Table 6, whereas intrinsic orientation was negatively correlated with openness to outgroup family, personal openness to interfaith dating, and interfaith dating support; quest orientation was positively correlated with all of these measures. For the Christian subsample, the association between intrinsic orientation and ingroup favouritism that was observed in Studies 1 and 2 was replicated: Among Christians, intrinsic orientation was correlated with positive evaluations of Christians, $r = .27, p = .02$.

Another interesting finding for the Christian subsample was that whereas intrinsic orientation was significantly negatively correlated with favourable views of Buddhists, $r = -.28, p = .02$, quest orientations was significantly positively correlated with favourable views of Buddhists, $r = .40, p = .001$.

Perceived Similarity

Perceived similarity was associated with a number of favourable reactions to outgroup religions. Specifically, perceived interreligious similarity was positively correlated with the number of interreligious similarities listed, $r = .30, p < .01$, openness to family relationships with someone from Person X's religion, $r = .26, p < .01$, personal openness to interfaith dating $r = .21, p < .05$, and favourable general attitudes toward interfaith dating $r = .22, p < .05$.

Table 6

Correlations between Religious Orientations and Primary Measures

| Measure | Religious Orientation | | |
|-------------------------------|-----------------------|-----------|-------|
| | Extrinsic | Intrinsic | Quest |
| Perceived Similarity | -.07 | -.10 | .15 |
| Outgroup Family | .07 | -.33* | .26* |
| Outgroup Non-Family | -.03 | -.09 | -.12 |
| Openness to Interfaith Dating | -.14 | -.33* | .37* |
| Interfaith Dating Support | -.09 | -.28* | .26* |

* $p < .01$.

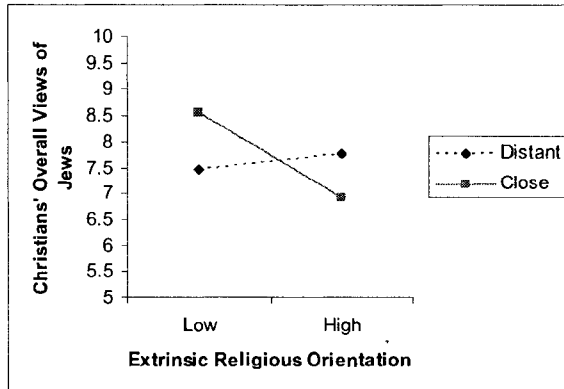
Group and Perceived Similarity by Religious Orientations Interactions

Two-way categorical by continuous variable (between the 2-level group variable and each of the religious orientations) interactions were assessed with moderated multiple regression (Aiken & West, 1991; West, Aiken, & Krull, 1996). The categorical variable was effect coded (close = 1, distant = -1), and the effect-coded categorical variable, the centered continuous variable, and the interaction term were entered simultaneously into the regression equation. For interactions between 2 continuous variables, the centered continuous variables and the interaction term were entered simultaneously into the regression equation. Because the primary interest was in outgroup bias rather than ingroup favouritism and for the sake of brevity, only interactions for responses to religious outgroups (and no interactions for religious ingroups) are reported here. Because of the preliminary nature of the research, a per comparison error rate of .05 was adopted. Because of the large number of analyses, however, the following criteria were adopted for reporting interactions: The interaction had to be significant and, a) one of the simple slopes or effects had to be significant, or b) the interaction must illustrate a trend in the results within this study or between studies.

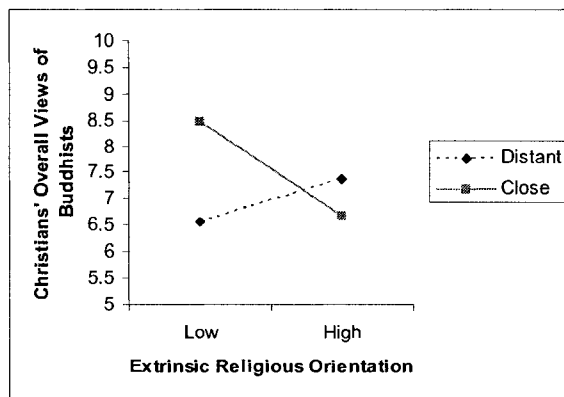
Extrinsic Orientation

Interactions with Group. The only significant Extrinsic Orientation X Group interactions were on Christians' evaluations of religious outgroups. (Recall that overall evaluations of specific religious groups were analyzed for Christians only, for ease of interpretation.) There was a significant interaction for Christians' views of Jews, $\beta = -.27$, $t(65) = -2.18$, $p = .03$. As shown in Figure 9a, at low extrinsic orientation, those in the

a) Views of Jews



b) Views of Buddhists



c) Views of Hindus

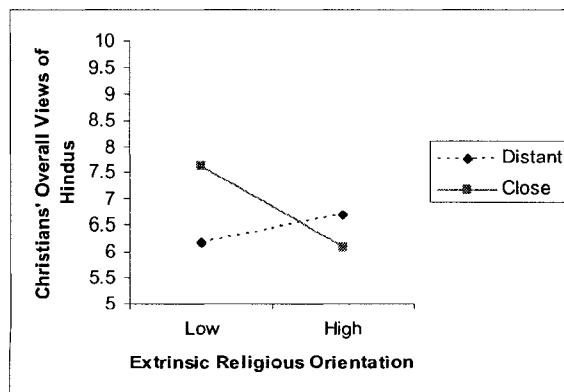


Figure 9. Christians' overall views of religious outgroups as a function of group (close or distant relationship to Person X) and extrinsic religious orientation.

close group reported more positive views of Jews than did those in the distant group, $\beta = -.29$, $t(65) = -2.00$, $p = .05$. In addition, the simple slope of extrinsic orientation was significant for the close group, $\beta = -.44$, $t(65) = -2.76$, $p < .01$. Specifically, among the close group, there was a significant negative relationship between extrinsic orientation and overall views of Jews.

Similarly, there was a significant Extrinsic Orientation X Group interaction on Christians' evaluations of Buddhists, $\beta = -.27$, $t(65) = -2.31$, $p = .02$. As shown in Figure 9b, at low extrinsic orientation, those in the close group reported more positive views of Buddhists than did those in the distant group, $\beta = -.39$, $t(65) = -2.68$, $p < .01$. In addition, the simple slope of extrinsic orientation was significant for the close group, $\beta = -.37$, $t(65) = 2.31$, $p = .02$. Specifically, among the close group, there was a significant negative relationship between extrinsic orientation and overall views of Buddhists.

There was also a marginally significant Extrinsic Orientation X Group interaction on Christians' evaluations of Hindus, $\beta = -.22$, $t(65) = -1.85$, $p = .07$. As shown in Figure 9c, at low extrinsic orientation, those in the close group reported more positive views of Hindus than did those in the distant group, $\beta = -.30$, $t(65) = -2.06$, $p = .04$. In addition, the simple slope of extrinsic orientation was significant for the close group, $\beta = -.33$, $t(65) = -2.01$, $p = .05$. Specifically, among the close group, there was a significant negative relationship between extrinsic orientation and overall views of Hindus.

Interactions with Perceived Interreligious Similarity. For interactions between extrinsic orientation and perceived interreligious similarity, there were a number of effects involving (all participants') general reactions to religious outgroup members and

interfaith attitudes. There was an Extrinsic Orientation X Perceived Similarity interaction on openness to family from the religious group of Person X, $\beta = -.22$, $t(107) = -2.40$, $p = .02$. As shown in Figure 10, at low extrinsic orientation, those who were high in perceived interreligious similarity reported more openness than did those who were low in perceived interreligious similarity, $\beta = .35$, $t(107) = 2.64$, $p = .01$.

Similarly, there was a significant Extrinsic Orientation X Perceived Similarity interaction on favourable general attitudes toward interfaith dating, $\beta = -.20$, $t(106) = -2.12$, $p = .04$. The pattern of results was similar to Figure 10. At low extrinsic orientation, those who were high in perceived interreligious similarity had more favourable attitudes toward interfaith dating than did those who were low in perceived interreligious similarity, $\beta = -.35$, $t(106) = -2.63$, $p = .01$.

Intrinsic Religious Orientation

Interactions with Group. There was an Intrinsic Orientation X Group interaction on openness to family from the religious group of Person X, $\beta = -.20$, $t(107) = -1.95$, $p = .05$. As shown in Figure 11, at low intrinsic orientation, those who were in the close group reported more openness than did those in the distant group. This simple effect was significant, $\beta = -.34$, $t(107) = -2.75$, $p < .01$. In addition, the simple slope of intrinsic orientation was significant for the close group, $\beta = -.50$, $t(107) = -4.07$, $p < .001$.

There was also a significant Intrinsic Orientation X Group interaction on personal openness to interfaith dating, $\beta = -.20$, $t(106) = -2.22$, $p = .03$. The pattern of results was similar to Figure 11. At low intrinsic orientation, those who were in the close group reported more openness to interfaith dating than did those in the distant group. This

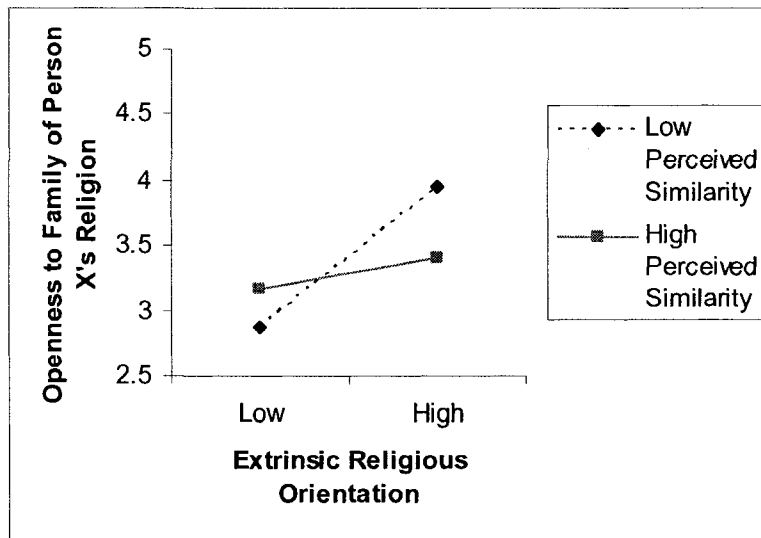


Figure 10. Openness to family relationships with someone from the religious group of Person X as a function of perceived interreligious similarity and extrinsic religious orientation.

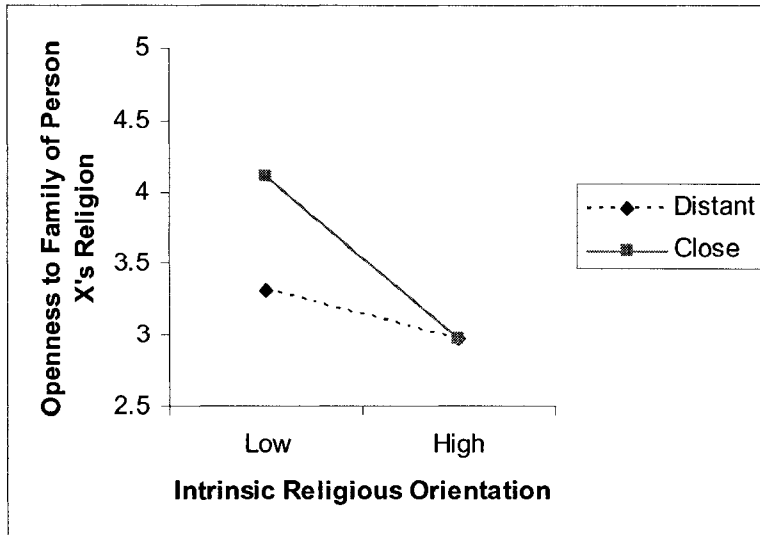


Figure 11. Openness to family relationships with someone from the religious group of Person X as a function of group (close or distant relationship with Person X) and intrinsic religious orientation.

simple effect was significant, $\beta = -.36$, $t(106) = -2.86$, $p < .01$. In addition, the simple slope of intrinsic orientation was significant for the close group, $\beta = -.52$, $t(106) = -4.25$, $p < .001$.

There were no significant Intrinsic Orientation X Perceived Similarity interactions.

Quest Religious Orientation

There were no significant Quest Orientation X Group interactions.

Interactions with Perceived Similarity. The only Quest Orientation X Perceived Similarity interactions were for Christians' evaluations of religious outgroups. There was a significant interaction for Christians' views of Muslims, $\beta = .24$, $t(66) = 2.01$, $p = .05$. As shown in Figure 12, at high quest orientation, those who were high in perceived similarity reported more positive views of Muslims than did those who were low in perceived similarity. However, this simple effect was a non significant trend, $\beta = .27$, $t(66) = 1.58$, $p = .12$, and there were no other simple effects or slopes.

There was a similar Quest Orientation X Perceived Similarity interaction for Christians' evaluations of Sikhs that was marginally significant, $\beta = .23$, $t(66) = 1.90$, $p = .06$. Although none of the simple effects or slopes was significant, the pattern of results was similar to Figure 12.

Discussion

The main findings of this study relate to two primary themes. First, having a close relationship with someone of a different religious group was associated with favourable responses to religious outgroups. Second, whereas perceived interreligious similarity was

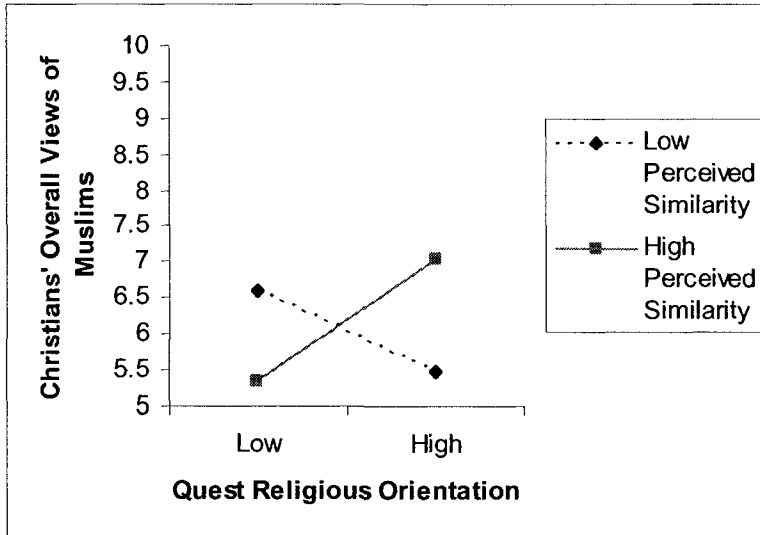


Figure 12. Christians' overall views of Muslims as a function of perceived interreligious similarity and quest religious orientation.

generally associated with positive reactions to religious outgroups; this depended on participants' religious orientations. These two themes will now be elaborated upon in turn.

The first major theme was that compared to the distant group, participants in the close group showed more openness to non-family relationships with a person from the religious group of Person X. There was also support for the hypothesis that the close group would be higher in perceived interreligious similarity than the distant group. These results are consistent with the findings from contact research that suggest that intergroup contact is associated with positive outgroup attitudes (Hewstone, 1996; Pettigrew & Tropp, 2006) and provides some suggestive evidence for the assumption that contact allows groups to recognize the similarities that they share (Hewstone, 1996).

Interestingly, there was a between-group difference in the close and distant groups in quest religious orientation. Those in the close group were higher in quest orientation than were those in the distant group. This is consistent with past research that suggests that quest orientation is associated with more open outgroup attitudes (Batson et al., 1993; Hunsberger & Jackson, 2005). Given the correlational nature of this result, multiple interpretations are possible. It could be that those who are high in quest are more likely to engage in close relationships with a person of another religion, or that those who are likely to engage in close relationships with a person of another religion become higher in quest. Regardless, the association between quest and openness to religious outgroups is consistent with past research on religious orientations and prejudice.

For Christians' overall evaluations of religious outgroups, having a close relationship with someone of a different religious group was associated with more favourable interfaith responses only among those low in extrinsic religious orientation. This effect was observed for Christians' evaluations of Jews, Hindus, and Buddhists. The fact that close relationships were associated with more positive outgroup responses among those low in extrinsic orientation only is consistent with past research suggesting that extrinsic orientation is associated with outgroup prejudice (Allport & Ross, 1967; Batson et al., 1993; Jackson & Hunsberger, 1999). It could be that for those who are high in extrinsic religious orientation, the effect of having a close relationship with someone of a different religious group is less generalizable to general opinions about that person's religious group or other religious groups. This would be consistent with past research on contact that has found that people sometimes discount desirable outgroup members as exceptional cases (Hewstone & Brown, 1986).

A similar pattern was observed for intrinsic orientation for criterion variables that dealt with intimate or family relationships with people from religious outgroups. Having a close relationship with someone of a different religious group was associated with more favourable interfaith responses only among those low in intrinsic religious orientation. This effect was observed for desired social distance from family relationships with someone from the religious group of Person X, personal openness to interfaith dating, and interfaith relationship anxiety. Past research on religious orientations suggests that intrinsic orientation is associated with some forms of prejudice (Batson et al., 1993; Hunsberger & Jackson, 2005). Results from this study suggest intrinsic orientation may

be associated with less open responses to intimate or family involvements with people of different religious groups.

The second major theme of the findings was that, consistent with predictions, perceived similarity was associated with a number of positive outgroup responses. Perceived interreligious similarity between one's one religion and that of Person X was positively correlated with the number of similarities listed, openness to outgroup family, openness to personal openness to interfaith dating and favourable interfaith dating opinions. Thus, as one would predict based on contact research (Hewstone, 1996) and research on common ingroup identity (Gaertner & Dovidio, 2000), perceived interreligious similarity was associated with positive outgroup attitudes.

Perceived interreligious similarity and extrinsic orientation combined to predict a number of interfaith responses. Analogous to the interactions between extrinsic orientation and group, perceived similarity seemed to be associated with positive outgroup responses only among those low in extrinsic orientation. This effect was observed for preferred social distance from family relationships with someone from the religious group of Person X and for personal openness to interfaith dating. Like the previously described interactions involving intrinsic orientation, these results involved intimate or family relationships with religious outgroup members. It may be that, when it comes to very close relationships with religious outgroup members, perceived interreligious similarity is not enough to promote interfaith openness among high extrinsics. Indeed, these very close relationships with religious outgroup members are likely to pose a particular threat to the perceived stability of the religious ingroup.

Interfaith marriages and offspring from interfaith unions may be perceived as particularly threatening to the future existence of the religious ingroup, as past research on opinions about interfaith (Haji, Lalonde, Durbin, & Naveh-Benjamin, 2008) and interracial unions suggests (Lalonde et al., 2007). Note that for more general views of religious outgroups, perceived similarity was associated with more positive outgroup responses among those high in extrinsic orientation, as in the case of Christians' views of Jews.

There was some evidence that perceived interreligious similarity was associated with favourable outgroup evaluations among those high in Quest religious orientation. Christians who were high in Quest and high in perceived similarity reported more positive overall evaluations of Muslims and of Sikhs. This is consistent with past findings that quest orientation is associated with favourable outgroup responses (Batson et al., 1993; Hunsberger & Jackson, 2005).

It seems that having a close relationship with someone of a different religious group predicts perceptions of greater interreligious similarity. Further, both a close relationship with a religious outgroup member and perceived interreligious similarity predicted positive outgroup responses among those low in extrinsic religious orientation. A close relationship with a religious outgroup member also predicted positive outgroup responses among those low in intrinsic orientation. In contrast, it was for those high in quest religious orientation that perceived interreligious similarity was associated with positive outgroup evaluations. Interestingly, those who had a close relationship with a religious outgroup member were higher on quest religious orientation. Overall, it seems that perceived similarity was associated with results analogous to those of primed

similarity (versus those of primed similarity-and-difference), a point that will be discussed in the next section.

General Discussion

The central theme of this research was that priming and perceiving interreligious similarities both predict favourable reactions to religious outgroups. In the case of priming similarities, an indirect approach to emphasising similarities seems to work better than a direct approach. However this is qualified by the individual's religious orientation and to some extent by the individual's religious group. In the case of pre-existing perceived similarity, the relations between perceived interreligious similarity and positive reactions to outgroups also seem to be moderated by religious orientation. These results are generally consistent with the hypotheses and with past research in the areas of social identity and religious orientations.

For religious people, the indirect approach to priming similarities yielded the most positive results. This pattern was observed among high extrinsic Muslims and high intrinsic Jews in Studies 1 and 2. The correlations suggest that these groups were also high on religious identity. Consistent with past research on social identity (Tajfel & Turner, 1979) and on distinctiveness threat specifically (Branscombe et al., 1999, Lalonde, 2002), these groups for whom religion was very central seemed to have an adverse reaction to the direct priming of similarities between their own religions and outgroup religions. However, these same groups responded more favourably to the indirect form of similarity priming, that required participants to match similar concepts, but acknowledged the distinctiveness of the individual religions.

In contrast to Jews and Muslims, neither high extrinsic nor high intrinsic Christians showed more favourable responses to the indirect versus direct similarity

priming. Both types of priming seemed to work equally well for religious Christians. It may be that the direct similarity priming was not threatening for Christians because of their relatively stable majority status in Canada (Statistics Canada, 2003). Social identities tend to be secure when a group's status in society is unlikely to change (Turner & Brown, 1978). Moreover, social identities tend to be more important for minority groups and past experimental research suggests that when the need for differentiation was activated, the majority group showed less bias than did the minority group (Brewer, 1991). In light of past research, then, it seems that the reason both types of priming worked for extrinsic or intrinsic Christians may be that the direct similarity priming manipulation did not pose a distinctiveness threat to Christians. The absence of this threat for Christians may be related to the relative status of Christians as a religious majority in Canada, and the presence of this threat for Muslims and Jews may be related to their minority status in Canada (Statistics Canada, 2003).

Interestingly, it was low intrinsic Muslims, rather than high intrinsic Muslims, who showed a pattern similar to high extrinsic Muslims and high intrinsic Jews. That is, it was the low intrinsic Muslims in Study 2 who responded more favourably to the indirect similarity priming, relative to the direct similarity priming. One possible reason for this pertains to proscribed forms of prejudice in Islam. The Qur'an clearly states that Christians, Jews, and Muslims are all followers of the same God:

Lo! Those who believe (in that which is revealed to thee, Muhammad) and those who are Jews and Christians and Sabeans - whoever believe in Allah and the last day and doeth right - surely their reward is with their Lord, and there shall no fear come upon them neither shall they grieve.
Holy Qur'an, Sura/Chapter 2, Ayat/Verse 62

Thus, prejudice toward these religious groups is proscribed in the Qur'an. Therefore, the pattern of results for low intrinsic and high intrinsic Muslims is consistent with past research in which intrinsic orientation was related to tolerance, at least with regards to groups toward whom prejudice was proscribed (Batson et al., 1993, Hunsberger & Jackson, 2005). Given the centrality and meaning associated with religion for those high in intrinsic orientation, it is not surprising that they would be more likely to internalise and adhere to religious teachings of tolerance. This tolerance is especially likely to characterise responses to groups which their scriptures require devotees to be tolerant of.

It could be argued that the tolerant responses of the high intrinsic Muslims are due to socially desirable responding. Indeed, data for the Muslim subsample of the present study corroborated past findings of a positive association between intrinsic religious orientation and social desirability (Batson et al., 1993; Trimble, 1997). However, the correlation between social desirability and intrinsic orientation should not be surprising, given the definition of intrinsic orientation as 'living one's religion'. People who aim to put into practice values of religious tolerance and ethical behaviour that are espoused by religion should score high on social desirability, but their responses may be truthful rather than motivated by self-presentation. Indeed, based on his meta-analysis that found a reliable relationship between intrinsic religious orientation and social desirability, Trimble (1997) concluded that social desirability (i.e., ethical behaviour) is an important part of intrinsic orientation and should not be partialled out of intrinsic orientation. Therefore, based on this analysis and the other explanations described above, although

the high intrinsic Muslims seem to be responding in a socially desirable manner, it is likely for reasons other than self-presentation.

Another interesting finding concerning perceived similarity was the interaction of quest orientation and perceived similarity on Christians' evaluations of Muslims. The interaction for quest orientation seems to support past research that suggests more tolerant responses to outgroups by high quest Christians (Batson et al., 1993; Hunsberger & Jackson, 2005).

There was an interesting pattern of interactions between closeness to a religious outgroup member and extrinsic orientation on Christians' evaluations of religious outgroups. The pattern of interactions for Christians' evaluations of Jews, Buddhists, and Sikhs seemed to suggest that a close relationship with religious outgroup member was associated with more positive evaluations of religious outgroups when extrinsic orientation was low. In a similar way, having a close relationship with someone of a different religion seemed to be associated with openness only among those low in intrinsic religious orientation. These findings are consistent with a distinctiveness threat interpretation (Branscombe et al., 1999) among those who are high in extrinsic and intrinsic orientations.

The pattern of results for perceived similarity paralleled those for similarity. Perceived similarity and close relationships with a religious outgroup member seemed to pose a distinctiveness threat for religious people. Most of the differences occurred between those who were low in extrinsic or those low in intrinsic religious orientation, rather than for people who were high in these orientations. Perceived similarity or a close

relationship with a religious outgroup member were generally associated with more favourable responses to religious outgroups among those low in extrinsic and intrinsic orientations. This further corroborates the findings from Studies 1 and 2 that interreligious similarity predicts positive responses to religious outgroups, when the similarity does not pose a distinctiveness threat. And this is consistent with research on the need for a distinct ingroup identity, particularly when outgroups are perceived as similar on comparative dimensions (Lalonde, 2002; Tajfel, 1978).

Another ubiquitous, though less central, theme of the present research was that the religious groups consistently showed ingroup favouritism. Generally, this was found on measures of openness to family and on overall group evaluations. This robust finding replicates past research that suggests that ingroup favouritism is a pervasive phenomenon (Brewer, 1999).

Mechanisms of Similarity Priming Effects

Mechanisms of similarity priming effects were not directly tested in the present research, so mechanisms proposed here are speculative. Although past research on religious orientations, identity, and social categorization has focused on threats and affirmations of group values (Burriss, Branscombe, & Jackson, 2000; Jackson & Burriss, 2000), it seems unlikely that the present effects or relationships were driven by group values per se. This is because the similarity priming manipulation dealt more specifically with salient concepts within religions (e.g., places of worship), rather than higher order values espoused by religion (e.g., honesty). It seems more likely that defensive responses to threat were in response to distinctiveness threat than threats to self-worth as a group

member or group values. This is most clearly illustrated by the fact that the results of perceived similarity (Study 3) paralleled those of similarity priming (Studies 1 and 2). The perceived interreligious similarity measure was a pictorial one that made no explicit references to values. Moreover, a values explanation seems less plausible given that the similarity-and-difference priming was typically associated with the most positive responses to religious outgroups, at least for religious people. Taken together, the pattern of findings suggests that effects were driven by intergroup similarity and distinctiveness rather than by intergroup values.

Taking the perspective of the selective accessibility model (Mussweiler, 2001) it may be that people who are high in extrinsic orientation, intrinsic orientation, or religious identity, may, by default, begin with dissimilarity testing when they compare themselves to other religious groups. As described previously, the direct similarity priming may be especially threatening to their distinctiveness. Moreover, direct similarity priming may be perceived as especially contaminating from a source monitoring perspective (Mussweiler & Neumann, 2000), because it is completely at odds with the results of their dissimilarity testing. In contrast, the indirect similarity priming (similarity-and-difference priming) may be less threatening and seen as less contaminating because the wording of the task is more consonant with their dissimilarity testing. Thus, any perceived similarity arising from the similarity-and-difference priming may be seen as internally generated (Mussweiler & Neumann, 2000) and may consequently be more convincing.

It is unclear whether interreligious similarity priming and perceived interreligious similarity operate via similar mechanisms as a common ingroup identity. However, given

that there was no superordinate identity that was explicitly emphasized in the priming manipulation, different mechanisms seem plausible. This will be an area for future research.

Limitations

Although interactions between religious orientations and similarity priming were hypothesized, there were no specific hypotheses surrounding the patterns of these interactions. Due to the exploratory nature of these analyses, a fairly liberal criterion for controlling for Type I errors was employed. Thus, the current findings should be viewed as preliminary, and further research will address their reliability.

The generalisability of the current findings may be limited to multicultural and multifaith societies or to Canada specifically. Indeed, the research was conducted in Toronto, a large city with a particularly diverse population. Moreover, the focus of the similarity priming manipulation was limited to monotheistic faiths of the Abrahamic tradition that share a common history. On one hand, it could be argued that this was somewhat of an idealistic test of similarity priming. On the other hand, the historical and present relations between these religious groups have been spotted with conflict, suggesting that intergroup attitudes should not be easily malleable. The test for intergroup attitudes between Muslims and Jews was particularly stringent, not only because of the current climate in the Middle East, but because this climate is particularly salient on York University campus, where the research was conducted. In recent years, tensions between Palestinian and Israeli student groups at York have repeatedly made news stories (Alphonso, 2003a, 2003b; Cohen, 2004). This being said, it is still important for future

research to explore similarity priming and perceived similarity with other religious groups and in other cultural contexts.

Implications

Peace Journalism

The emerging field of peace journalism combines findings from various areas of psychology, such as conflict, groups, social influence, attitude change, and propaganda; and applies them to a new approach to reporting on conflicts (Kempf, 2003). In contrast to conventional war reporting which emphasizes differences, competition, and zero-sum outcomes; peace oriented reporting is less dichotomous and emphasizes empathy for and understanding of both sides and cooperation. Thus, whereas conventional war reporting escalates conflicts by emphasizing group differences, peace oriented reporting aims to de-escalate conflicts by emphasizing the similar humanity of both groups and the common goal of peace. Inherent in the peace journalism framework is the assumption that highlighting similarities can de-escalate intergroup tensions. Journalism is one of the areas in which similarity priming can be readily and directly applied to the reduction of intergroup bias and conflict de-escalation.

The results from the present research suggest that portrayals of interreligious similarity should be tempered to the taste of the target audience. For people for whom religion is important, it may be wise to present interreligious similarities in a way that also acknowledges the individuality of the religions. However, for people for whom religion is less important or for whom religious prejudice is proscribed, a more direct

emphasis on interreligious similarities may be just as effective at promoting positive reactions to religious outgroups.

Research on Religious Orientations

It seems that intrinsic religious orientation is more predictive of ingroup favouritism toward one's own religion than of disliking toward outgroup religions. Even when religious prejudice was not proscribed, intrinsic orientation was generally not correlated with negative views of religious outgroups (except in the case of evaluations of Buddhists). Intrinsic orientation was, however, negatively correlated with openness to very close relationships with religious outgroup members, such as family relationship or interfaith dating relationships. This may be because these very intimate relationships are perceived as realistic threats to the future existence of the religious ingroup.

It also seems that religious identity taps into intrinsic religious orientation. This was a robust effect in Christians, Muslims, and Jews, and it suggests that those who are high in intrinsic religious orientation see religion as central to their identity.

The results of the present research, particularly those for intrinsic orientation in Muslims and quest orientation in Jews, suggest that the relations between these orientations and outgroup prejudice may be depend on the religious group. Indeed, the meanings of these orientations may differ within the different religious teachings. This was suggested by robust negative correlations between religious identity and quest orientation for Christians and Muslims, and the absence of these correlations for Jews. Minor rewording of the Revised Religious Life Inventory seemed to produce a reasonably reliable measure of religious orientations, at least for the three Abrahamic

faiths. Future research will determine the applicability and predictive utility of religious orientations in other religious groups.

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Appendix A: Revised Religious Life Inventory

Extrinsic

1. The primary purpose of prayer is to gain relief and protection.
2. The place of worship (e.g., temple, church, synagogue, mosque) is most important as a place to form good social relationships.*
3. What religion offers me most is comfort when sorrows and misfortunes arise.
4. I pray chiefly because I have been taught to pray.
5. A primary reason for my interest in religion is that my place of worship offers a friendly social atmosphere.*
6. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic wellbeing.
7. The purpose of prayer is to secure a happy and peaceful life.

Intrinsic

8. It is important for me to spend periods of time in private religious thought and meditation.
9. If not prevented by unavoidable circumstances, I attend religious services.*
10. I try hard to carry my religion into all my other dealings in life.
11. The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during services.
12. Quite often I have been keenly aware of the presence of God or the Divine Being.
13. I read literature about my faith or religion.

14. If I were to join a group within my religious community, I would prefer to join a group with a religious focus (e.g., studying religious literature) than a group with a social focus (organizing religious events).*
15. My religious beliefs are what lie behind my whole approach to life.
16. Religion is especially important to me because it answers many questions about the meaning of life.

Quest

17. I was not interested in religion until I began to ask questions about the meaning of life.
18. I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in my relation to the world.
19. My life experiences have led me to rethink my religious convictions.
20. It might be said that I value my religious doubts and uncertainties.
21. Questions are far more central to my religious experience than are answers.
22. As I grow and change, I expect my religion to grow and change.
23. I am constantly questioning my religious beliefs.
24. There are many religious issues on which my views are still changing.

* Item has been reworded from the original.

Appendix B: Religious Identity

When reading a statement replace ***** with Your Religious Group (e.g., Muslims, Jews, Christians).

Please indicate Your Religious Group _____

1. I have a lot in common with other *****.
2. Overall, being ***** has little influence on how I feel about myself. (R)
3. I often think about the fact that I am *****.
4. In general, I am glad to be *****.
5. I find it difficult to form a bond with other *****. (R)
6. I often regret that I am *****. (R)
7. I feel strong ties to other *****.
8. The fact that I am ***** rarely enters my mind. (R)
9. Generally, I feel good when I think about myself as a *****.
10. In general, the fact that I am ***** is an important part of my self-image.
11. I don't feel good about being *****. (R)
12. I don't feel a sense of being "connected" to other *****. (R)

(R) Indicates reverse-scored items.

Appendix C: Similarity Priming Materials

Similarity Condition

Matching Task

Please find as many SIMILARITIES as you can. Read the concept provided and find a SIMILAR CONCEPT from the similar concepts drop-down menu. Select the SIMILAR CONCEPT and the corresponding LINK WORD that links the two concepts together.

EXAMPLE:

*****Similar Concept**** Link Word

Friday***** Sunday*****Special prayer day

For each concept, select the Similar Concept and the Link Word.

| | Similar Concept | Link Word |
|------------------|----------------------|----------------------|
| Quran | <input type="text"/> | <input type="text"/> |
| Lent | <input type="text"/> | <input type="text"/> |
| Moses | <input type="text"/> | <input type="text"/> |
| Synagogue | <input type="text"/> | <input type="text"/> |
| Jerusalem | <input type="text"/> | <input type="text"/> |
| Cross | <input type="text"/> | <input type="text"/> |
| Imam | <input type="text"/> | <input type="text"/> |
| Hebrew | <input type="text"/> | <input type="text"/> |
| Kosher | <input type="text"/> | <input type="text"/> |

Similar Concepts (in drop-down menu): Jesus, Star of David, Rabbi, Halal, Bible, Arabic, Church, Ramadan, Mecca

Link Words (in drop-down menu): Prophet/ Holy Person, Holy City, Fasting, Religious Symbol, Prayer Leader/ Religious Leader, Specially Prepared Food, House of Worship, Holy Book, Language of Holy Book

Similarity-and-Difference Condition

Matching Task

Please find as many OPPOSITES as you can. Read the concept provided and find an OPPOSING CONCEPT from the opposing concepts drop-down menu. Select the OPPOSING CONCEPTS and the corresponding OPPOSING CATEGORIES.

EXAMPLE:

*****Opposing Concept**** Opposing Categories

Friday***** Sunday*****Islam versus Christianity

For each concept, select the Opposing Concept and Opposing Categories.

| | Opposing Concept | Opposing Categories |
|------------------|----------------------|----------------------|
| Quran | <input type="text"/> | <input type="text"/> |
| Lent | <input type="text"/> | <input type="text"/> |
| Moses | <input type="text"/> | <input type="text"/> |
| Synagogue | <input type="text"/> | <input type="text"/> |
| Jerusalem | <input type="text"/> | <input type="text"/> |
| Cross | <input type="text"/> | <input type="text"/> |
| Imam | <input type="text"/> | <input type="text"/> |
| Hebrew | <input type="text"/> | <input type="text"/> |
| Kosher | <input type="text"/> | <input type="text"/> |

Opposing Concepts (in drop-down menu): Jesus, Star of David, Rabbi, Halal, Bible,

Arabic, Church, Ramadan, Mecca

Opposing Categories (in drop-down menu): Islam versus Judaism, Judaism versus

Christianity, Christianity versus Islam

Control Condition

Religious Knowledge Task

Read the concept provided and find an EXAMPLE from the examples drop-down menu.

Select the EXAMPLE and the corresponding RELIGION that links the concept and the example together.

SAMPLE ITEM:

*****Example**** Religion

Holy Book*****Bible *****Christianity

For each concept, select the corresponding example and religion.

| | Example | Religion |
|--------------------------------|----------------------|----------------------|
| Religious Symbol | <input type="text"/> | <input type="text"/> |
| Holy City | <input type="text"/> | <input type="text"/> |
| Religious Leader | <input type="text"/> | <input type="text"/> |
| House of Worship | <input type="text"/> | <input type="text"/> |
| Language of Holy Book | <input type="text"/> | <input type="text"/> |
| Special Prayer Day | <input type="text"/> | <input type="text"/> |
| Specially Prepared Food | <input type="text"/> | <input type="text"/> |
| Period of Fasting | <input type="text"/> | <input type="text"/> |

Examples (in drop-down menu): Rabbi, Ramadan, Sunday, Bible, Mecca, Kosher, Church, Arabic, Star of David

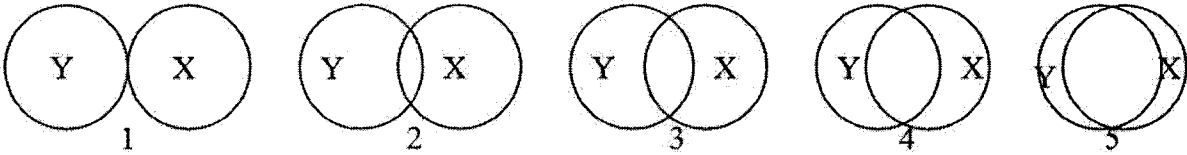
Religions (in drop-down menu): Islam, Judaism, Christianity

Appendix D: Evaluation Thermometer

What is your overall view of this group?*

*Rather than filling in an exact number between 0 and 100 (as the original measure requires), participants were asked to rate the religious groups on a 10-point scale from 0-10 % (Extremely Unfavourable) to 90-100% (Extremely Favourable).

Appendix E: Perceived Interreligious Similarity*



* Scale is adapted from the original in which one circle is labelled “self” and the other is labelled “other”.

Appendix F: Interfaith Dating Opinions*

1. I am open to involvement in an interfaith relationship.
2. I would happily marry someone from a different religious background.
3. I would date someone of another religion.
4. I would never become involved in a long-term relationship with someone outside my religious group. (R)
5. I would consider dating an individual from a different religious group to be a very positive experience.
6. Interfaith relationships are doomed to fail. (R)
7. It does not bother me if people of different religions date each other.
8. Persons of different religious groups should not become seriously involved. (R)
9. I think it is wrong for people of different religions to date each other. (R)
10. I get angry when I see a person of my religious group dating a person from a different religious group. (R)

* All items were reworded from the original scale, such that the word(s) race or ethnic group were replaced with religion or religious group.

(R) Indicates reverse-scored items.