

There have been relatively few previous studies into the role of normative beliefs in aggression or aggressive intention toward specific groups, in contrast to the large literature on the role of normative beliefs in individual aggression. Of the few studies that have been conducted, the methodology has relied on the participants' self-report of both aggressive attitudes and behaviors. For example, Shechtman and Basheer [2005] found that Arab children in Israel held normative beliefs that endorsed greater retaliation against a Jewish child than against an Arab child. Similarly, Struch and Schwartz [1989] showed that perceived conflict and in-group bias were correlated with support for aggression against Arabs in a Jewish sample in Jerusalem.

A direct test is needed of whether normative beliefs about aggression leads to objectively measured behavioral intention toward committing aggressive acts toward another group. This question is an important test of theoretical models of inter-group aggression [Mackie and Smith, 1998] and has substantial clinical significance. If normative beliefs were strong predictors of inter-group aggressive intentions, then changing normative beliefs would be indicated as a focus of individual clinical interventions designed preempting aggressive out-group behavior, as well as national programs aimed at reducing aggressive interventions against stigmatized groups.

As it is desirable to study such behavior in the situation in which it naturally occurs [Painter, 2001], the study was conducted in Pakistan and focused on whether Muslim youths joined an anti-Semitic group. The first author has witnessed increasing aggression against non-Muslims, and has personally observed extremist groups recruiting on university campuses in Pakistan, which are officially registered and active within (otherwise) legitimate Student Unions. In addition to testing whether normative beliefs are related to aggressive intentions toward a specific group, this methodology will also provide some of the first indications of the kind of beliefs, which lead to joining extremist groups. The research is topical, with substantial political attention focused on the recruitment of individuals to extremist Muslim groups, particularly in the aftermath of the 9/11 terrorist attacks. To the extent that this research can be used clinically to change individual inter-group aggressive behavior, this research can also be used to decrease recruitment to extremist Muslim organizations. As gender has been shown to be important to both aggressive intentions and beliefs about aggression [e.g., Harris,

1996], this variable was statistically controlled in all analyses.

STUDY 1

Method

Participants. One hundred and forty four postgraduate students (80 females, 64 males) participated in this study. They were all postgraduate students of Muslim faith studying at a University in Pakistan. Ages ranged from 16 to 21 (Mean = 21.5, SD = .48).

Measures. As there was no existing measure of normative beliefs about anti-Semitic aggression in Pakistan, new items were developed for this study. Items were developed by the first author based on discussions with two experts in politics and international relations, responses obtained in a focus group with young persons, and content from Islamic web-based groups. As a result of content analysis of these discussions, six items were selected based on the acceptability of (1) cursing Jews in prayers and praying for God's wrath against Jewish people, (2) damaging Jewish property, (3) making threats against Jewish people, (4) speaking in public against Jewish people, (5) writing negatively about Jewish people, and (6) forwarding anti-Semitic e-mails or written material. Each of these items was phrased as an incomplete sentence (e.g., "Damaging a Jewish owned property is..."), with five possible responses (1 = absolutely the right thing to do, 2 = somewhat right, 3 = I am not sure, 4 = somewhat wrong, 5 = completely wrong). All scores were reverse coded, totaled, and divided by the number of items to produce a continuous variable ranging from 1 to 5, with higher scores representing more extreme normative beliefs about the acceptability of anti-Semitic aggression. The internal consistency of this measure was .80. A maximum likelihood factor analysis was conducted, and parallel analysis [see Zwick and Velicer, 1986] indicated the existence of a single latent factor.

Procedure. The normative belief measure was pilot tested with thirty bi-lingual psychology students who were not included in the final sample. They completed the scale in Urdu as well as English. There was no discrepancy between the scores from two versions. None of the students in pilot testing found it a sensitive topic and no ambiguity about the items was reported.

In the main study, data were collected from participants over 4 days. On the first day participants were selected through classroom announcement and

participation was voluntary. The research was described as “a study measuring attitudes.” Students completed the normative belief measure along with other buffer measures focusing on driving attitudes, which were designed to create ambiguity about the real purpose of the study. Participants were asked to provide their roll numbers on the back of the forms to confirm they had completed the study.

The behavioral measure was taken during the 3 days immediately following administration of the normative beliefs scale (in no case was the behavioral measure taken on the same day as participants completed the personality measures). Over these 3 days the participants were approached by one of the three confederates who was a student in the same class as the participant. The confederates were asked to approach everyone in the class, and were not aware of who was participating in the study or aware of any participant’s responses on the normative beliefs measure. They said they were employed by the Students Union and asked the participants to complete a short form. The form included a page about student activities, the forthcoming student body elections, an invitation to join a book club, and a consent form for joining a “Muslim youth force” (the dependant measure). The purpose of the group was described as defending Muslim identity and honor, by opposing and fighting enemies of Islam such as Jews. Participants ticked one of three boxes to indicate whether they wanted to join this group (called “joiners”), whether they refused to join this group (called “refusers”), or whether they were not sure (and would receive further information in the future—called “requesters”). Participants also completed various other sections of the form (e.g., regarding the book club membership), which were not coded. Participants completed their roll call number on the form, ostensibly so that the Student Union could process their results (roll call

numbers were actually use to match the responses with the previously completed attitudes measure).

Ethical considerations. Before data collection, the study was considered before the ethical review board of the University of the Punjab and approval was granted. Once data collection had been completed, a debriefing session was held in which the purpose of study was explained and participants were invited to discuss their views. Any concerns were openly shared and acknowledged. No participant reported suspecting the purpose of the study or having distrusted the story of the confederates. All participants consented to their data being used in the study. No participant reported being caused distress by the study.

Results and Discussion

Sixty people (41.7% of sample; 48.8% of females, 32.8% of males) refused to join “refusers,” 67 people (46.5% of sample; 42.5% of females, 51.6% of males) wanted more information “requesters,” and 17 (11.8% of sample; 8.8% of females, 15.6% of males) immediately joined “joiners.”

A multinomial logistic regression was performed to predict the probability that a person would belong to one of the three groups, with “refusers” forming the comparison group for both “joiners” and “requesters” (see Table I). Higher levels of normative beliefs approving of anti-Jewish behavior increased the likelihood that people would be (a) requesters, and (b) joiners. Normative beliefs were a strong predictor of group membership; for each 1-point increment on the 5-point normative beliefs scale, the odds of being a requester increased by 1.98 and the odds of being a joiner by 7.09. There were no significant gender differences between the groups, although men trended toward being more likely to be both requesters and joiners (at $P < .10$).

TABLE I. Multinomial Logistic Regressions in Study 1 Showing How “Normative Beliefs Approving Aggression at Jews” Predicts Who “Requests Information About” or “Joins” a “Muslim Youth force” Compared With Who “Refuses” to Join

	<i>B</i>	SE	Wald	<i>P</i>	Odds ratio (95% CI)
<i>Distinguishing “requesters” from “refusers”</i>					
Constant	-2.68	1.11	5.85	.06	
Gender	0.67	0.37	3.24	.07	1.96 (0.94, 4.07)
Normative beliefs about aggression at Jews	0.67	0.33	4.24	.04	1.96 (1.03, 3.71)
<i>Distinguishing “joiners” from “refusers”</i>					
Constant	-8.81	1.97	19.97	.00	
Gender	1.19	0.61	3.77	.05	3.28 (0.99, 10.92)
Normative beliefs about aggression at Jews	1.96	0.51	14.80	.00	7.09 (2.61, 19.24)

For each model there were 1df, and the baseline comparison was refusing to join; significant predictors in bold. The model including education group improved prediction above the constant only model ($\chi^2 [4] = 22.76$, $P < .001$, $R^2 = .17$).

This study provides the first test of whether normative beliefs about aggression are linked to objectively rated aggressive intentions toward another group. Whether people believed that behaving aggressively toward Jews was acceptable was a very substantial predictor of whether they would join an extremist anti-Semitic group.

STUDY 2

Introduction

Study 2 tested how beliefs about aggression could be changed, as a way of reducing joining extremist organizations. Several studies have shown that engaging in a face-to-face discussion about justifications of aggression changes attitudes toward the concept [see Richardson and Latané, 2001]. More generally, research on stereotyping and inter-group relations indicates that providing positive and empathetic information can reduce biases against an out-group [see Mackie and Smith, 1998]. Study 2 examined whether (a) a short educational intervention could change normative beliefs about aggression against Jews, (b) whether this educational intervention would reduce the likelihood that people would join an extremist group, and (c) whether this educational intervention would reduce the likelihood that people would join an extremist group because of their changes in normative beliefs about aggression against Jews.

Method

Participants. Participants were 92 Muslim undergraduate and postgraduate psychology students (53 female, 39 male) at a university in Pakistan. Ages ranged between 21 and 29 years.

Procedure. Participants were randomly assigned to receive one of two lectures. The students

were informed that two talks were being held on the normal seminar day, but that due to limited space they were being allocated to attend one or other. In the control condition, students received a normal lecture on cognitive-behavioral therapy, which made no mention of aggression or Jewish culture. In the experimental condition, students received a talk by a British Pakistani psychologist who is currently working on Muslim-Jewish relations. The lecture title was "Perceptions of Jews among Muslims." It lasted for 1 hr 40 min and addressed the history of victimization of Jewish people before the Crusades; the kind treatment of Jewish people by the Prophet Muhammad in early days of Islam; the shared Semitic heritage of Judaism and Islam; and the sharing of knowledge between scholars of Judaism and Islam throughout history. The talk generated a lively and prolonged debate among the participants.

The normative beliefs about aggression against Jews measure were administered at the start and the end of the lecture for both groups. During the 3 days following the lecture the participants were approached by confederates and asked to join the extremist group as in Study 1. All participants were fully debriefed, consented to their data being used, and did not report suspecting the purpose of the study.

Results

Thirty-six people (39.1% of sample; 43.4% of females, 33.3% of males) were classed as refusers, 41 (44.6% of sample; 45.3% of females, 43.6% of males) as requesters, and 15 (16.3% of sample; 11.32% of females, 23.1% of males) as joiners. In the first analysis, a multinomial logistic regression was performed to test whether the educational intervention predicted group membership (see Table II). It revealed that the intervention had a

TABLE II. Multinomial Logistic Regressions in Study 2 Showing How the Educational Intervention Affects Who "Requests Information About" or "Joins" a "Muslim Youth force" Compared With Who "Refuses" to Join

	<i>B</i>	<i>SE</i>	Wald	<i>P</i>	Odds ratio (95% CI)
<i>Distinguishing "requesters" from "refusers"</i>					
Constant	-.58	0.75	0.61	.43	
Gender	0.08	0.50	0.03	.88	1.08 (0.40, 2.91)
Group (0 = intervention 1 = control)	1.67	0.53	9.88	.00	5.25 (1.87, 14.78)
<i>Distinguishing "joiners" from "refusers"</i>					
Constant	-3.33	1.20	7.74	.01	
Gender	0.74	0.69	1.14	.29	2.10 (0.54, 8.13)
Group (0 = intervention 1 = control)	2.74	0.78	12.44	.00	15.41 (3.37, 70.46)

For each model there were 1df, and the baseline comparison was refusing to join. The model including education group improved prediction above the constant only model ($\chi^2 [4] = 21.48, P < .001, R^2 = .24$).

very substantial effect on group membership; people who had *not* received the intervention were 5.29 times more likely to request information and 16.57 times more likely to join the “Muslim youth force” than were participants who received the intervention.

Means (and SD) for pre and postintervention normative belief scores are presented in Table III for both groups. An analysis of covariance was performed to compare the two groups on postintervention normative beliefs, covarying pre-intervention beliefs and gender [see Vickers, 2005]. This analysis showed that the intervention had caused lower levels of normative beliefs approving of aggression against Jews in the intervention group ($F[88, 1] = 38.76, P < .001, \text{partial } \eta^2 (\text{group}) = .31$), relative to the control group.

We then tested whether the changes in normative beliefs might mediate the effect of the intervention on “joining” vs. “refusing” [see Baron and Kenny, 1986]. First, a new variable representing residualized changes in normative beliefs was formed by regressing postintervention normative beliefs on pre-intervention normative beliefs. A series of regressions were then performed to produce the path model in Figure 1. Gender was included in each to these regressions as a predictor (covariate), so the figure represents the results independent of the

TABLE III. Mean Normative Beliefs for Approving of Aggression Against Jews for Participants in the Intervention and Control Groups

	Intervention group		Control group		<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Pre-intervention	3.22	.62	3.11	.76	.16
Postintervention	2.49	.47	3.00	.75	-.81

N = 92, *d* = Cohen’s *d* measure of effect size. Between groups comparison of postintervention beliefs with pre-intervention beliefs as covariate is significant: $F[88, 1] = 38.76, P < .001, \text{partial } \eta^2 (\text{group}) = .31$.

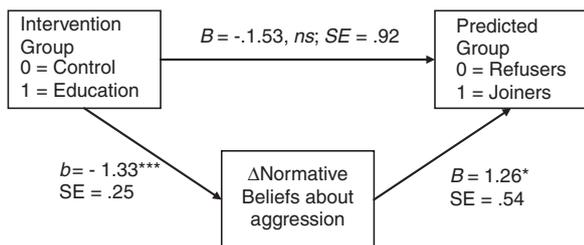


Fig. 1. Changes in normative beliefs about aggression against Jews mediate the relationship between the intervention and the prediction of refusers vs. joiners. * $P < .05$, * $P < .001$.**

effects of gender. In the path model in Figure 1, changes in normative beliefs mediate the relation between the intervention and who becomes a joiner vs. who becomes a refuser [Sobel’s $z = 2.14, P = .04$, fulfilling a sufficient condition for mediation, MacKinnon and Dwyer, 1993; Baron and Kenny’s, 1986, three causal steps were also met]. The intervention decreased participants’ normative beliefs approving of aggression against Jews, which in turn reduced the odds of the participant “joining” the Muslim Youth Force.

Discussion

Study 1 showed that normative beliefs about aggression against Jews strongly predicted whether a participant would join an extremist anti-Semitic group. Study 2 showed that a brief educational intervention was very successful in reducing the probability that people would join the extremist group (with people who had received the lecture being 16.57 times less likely to join the group). Further, the intervention was shown to reduce participants’ normative beliefs about aggression against Jews, and this change in beliefs about aggression was shown to explain why the intervention was effective in reducing the likelihood that a person would join an extremist group.

The magnitude of the effect of the intervention on the risk of joining was remarkably high. This suggests that the normative beliefs of the students were not very strongly held, and were relatively amenable to change. These beliefs were, however, very strong predictors of whether a person would join the extremist group (for each 1 point increment on the 5 scale, the odds of the person joining increased by 7.50 times). Taken together, this suggests that relatively weakly held beliefs are sufficient to make a person agree to join an extremist group; once the person joins, they may become locked into the group and not permitted to leave. This may explain the relative ease with which people are recruited into terrorist groups in certain environments. Once the person is a member, the extremist groups may use a reverse form of the intervention to increase normative beliefs about aggression, thus increasing the person’s commitment to the group and willingness to engage in more extreme acts. The results underline the importance of changing beliefs in the general population, and suggest an intervention that could be used.

The results of the intervention need to be tempered through the use of a short-term followup. As the normative beliefs were reported before and

after the lecture/intervention, it is possible that demand characteristics were partially responsible for the changes in normative beliefs. Arguing against this possibility was the confidentiality assurance, and the link between the changes in normative beliefs and willingness to join the extremist group. It seems unlikely that pure demand characteristics could lead to this objective outcome, especially as the initiation to join was not provided directly after (being given up to 3 days later), and as the no participant reported suspecting the confederate was related to the lecture during the extensive debrief. However, we would encourage future research to use longer follow-up periods. Additionally, future work should examine how long the effects of the intervention last, and the benefit of additional interventions to retain key benefits.

This study focused on normative beliefs regarding aggression specifically against Jews. A large literature has focused on the role of general normative beliefs about aggression (e.g., the acceptability of aggression against all other individuals and groups) [e.g., Huesmann and Guerra, 1997]. This study follows in the tradition of inter-group aggression by examining specific normative beliefs against the group in question [Shechtman and Basheer, 2005; Struch and Schwartz, 1989]. Future work needs to test whether aggressive intentions are better predicted by general or specific normative beliefs, and whether the effects of these types of provide independent predictive validity.

The role of normative beliefs in out-group aggressive intentions is important in theoretical models of inter-group aggression [Mackie and Smith, 1998], and this study demonstrates that normative beliefs predict an objective and important behavioral outcome. Joining extremist groups is an issue of considerable political and practical importance, and this study suggests a way in which educational interventions could be used to reduce the attractiveness of such groups.

ACKNOWLEDGMENTS

This research was sponsored by study grants to Naumana Amjad by the Higher Education Commission of Pakistan and the AnneMarie Schimmel scholarship.

REFERENCES

- Baron RM, Kenny DA. 1986. The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *J Pers Soc Psychol* 51:1173–1182.
- Dodge KL, Laird R, Lochman JE. 2002. Multidimensional latent-construct analysis of children's social information processing patterns: correlations with aggressive behavior problems. *Psychol Assess* 14:60–73.
- Erdley CA, Asher SR. 1998. Linkages between children's beliefs about the legitimacy of aggression and their behavior. *Soc Dev* 7:321–339.
- Harris MB. 1996. Aggression, gender, and ethnicity. *Aggr Violent Behav* 1:123–146.
- Henry D, Guerra N, Huesmann R, Tolan P, VanAcker R, Eron L. 2001. Normative influences on aggression in urban elementary school classrooms. *Am J Community Psychol* 28:59–81.
- Huesmann LR. 1988. An information processing model for the development of aggression. *Aggr Behav* 14:13–24.
- Huesmann LR, Guerra NG. 1997. Children's normative beliefs about aggression and aggressive behavior. *J Pers Soc Psychol* 72:408–419.
- Mackie DM, Smith ER. 1998. Intergroup relations: insights from a theoretically integrative approach. *Psychol Rev* 105:499–529.
- MacKinnon DP, Dwyer JH. 1993. Estimating mediated effects in prevention studies. *Eval Rev* 17:148–158.
- Painter D. 2001. Social representations and aggression: on culture and the psychology of violence. In: Ramirez JM, Richardson DS (eds.). *Cross-Cultural Approaches to Aggression and Reconciliation*. Huntington, NY: Nova science publications, pp 205–213.
- Pepitone A. 1976. Toward a normative and comparative biocultural social psychology. *J Pers Soc Psychol* 34:641–653.
- Pepitone A. 1981. Lessons from the history of social psychology. *Am Psychol* 36:972–985.
- Richardson DS, Latané B. 2001. Dynamic social impact theory predicts the development of regional variation in, and social representations of, aggression. In: Ramirez JM, Richardson DS (eds.). *Cross-Cultural Approaches to Aggression and Reconciliation*. New York: NovaScience, pp 9–21.
- Salmivalli C, Voeten M. 2004. Connections between attitudes, group norms, and behaviour in bullying situations. *Int J Behav Dev* 28:246–258.
- Shechtman Z, Basheer O. 2005. Normative beliefs supporting aggression of Arab children in an inter-group conflict. *Aggr Behav* 31:1–12.
- Struch N, Schwartz SH. 1989. Inter-group aggression: its predictors and distinctness from in-group bias. *J Pers Soc Psychol* 56:364–373.
- Vickers AJ. 2005. Analysis of variance is easily misapplied in the analysis of randomized trials: a critique and discussion of alternative statistical approaches. *Psychosom Med* 67:652–655.
- Werner NE, Nixon CL. 2005. Normative beliefs and relational aggression: an investigation of the cognitive bases of adolescent aggression. *J Youth Adolesc* 34:229–243.
- Zumkley H. 1984. Individual differences and aggressive interactions. In: Mummendey A (ed.). *Social Psychology of Aggression*. New York: Springer, pp 33–49.
- Zwick WR, Velicer WF. 1986. Comparison of five rules for determining the number of components to retain. *Psychol Bull* 99:432–442.