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Bounded rationality's account for the influence of group identification on ingroup favoritism: A field investigation using Jewish and Arab populations in Israel

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Abstract

We used the bounded rationality approach to explore the impact of group identification on intergroup relations. As part of a national survey in Israel on intergroup relations, 1,289 Jewish and Arab citizens completed assessments of group identification, functional relations, and a host of indices of ingroup favoritism. Results provided evidence of (a) a positive relation between group identification and ingroup favoritism, (b) perceptions of more positive functional relations that were associated with less ingroup favoritism, and (c) a Functional Relations \times Group Identification interaction, which revealed that high-identifiers who evaluated intergroup relations as positive experienced the lowest levels of ingroup favoritism. We discuss how the results not only support predictions derived from a bounded rationality model, but help clarify the complex relation between group identification and ingroup favoritism.

Bounded rationality's account for the influence of group identification on ingroup favoritism: A field investigation using Jewish and Arab populations in Israel

According to the bounded rationality approach to understanding intergroup relations (Yamagishi & Mifune, 2008; Yamagishi, Terai, Kiyonari, Mifune, & Kanazawa, 2007), the motivation to favor the ingroup results from intragroup considerations. Using this theoretical approach, favoritism expressed in the minimal group context has been modeled repeatedly (for a review, see Yamagishi, Jin, & Kiyonari, 1999), with a recent meta-analysis identifying considerable support for the approach's predictions (Balliet, Wu, & De Dreu, 2014). However, although early theorizing concluded that ingroup favoritism was independent of the degree to which group members identified with their group (e.g., Yamagishi & Kiyonari, 2000), more recent theoretical elaborations have outlined a pathway by which group identification could affect the expression of ingroup favoritism.

The goals of this research were to further investigate that pathway and to test the bounded rationality model using a large real-world sample. Such an endeavor also allowed us to compare the predictions of the bounded rationality approach to those of the dominant model of intergroup relations, social identity theory (Tajfel & Turner, 1979). We begin with an outline of the two theoretical models and how they explain ingroup favoritism in both cooperative and competitive contexts, then discuss the models' explanations of how group identification affects ingroup favoritism.

The Bounded Rationality Approach

Consistent with evolutionary accounts of moral development (e.g., Axelrod & Hamilton, 1981; Trivers, 1972), bounded rationality proposes that human evolutionary history was marked by living in groups, which conferred evolutionary advantages such as food sharing, mating

opportunities, and common defense against predators. These groups were marked by generalized exchange, in which each group member expected other group members to cooperate. To avoid exclusion from the group, members were expected to contribute to the group and to cooperate with other members (Shinada & Yamagishi, 2007). Evaluations of ingroup members are hypothesized to be motivated by these intragroup processes. Generalized intragroup exchange dictates that group members are expected to favor ingroup members. In this way, expressing favoritism toward fellow group members is not motivated by an "anti-outgroup" sentiment, but rather is a way to meet the perceived expectations of fellow group members.¹ Jin and Yamagishi (1997), for instance, noted that when group members were asked how much they expected ingroup and outgroup members to contribute to them as part of a social task, they expected more from their fellow group members.

Consideration of the positive or negative functional relations between groups elucidates what motivates behavior toward ingroup and outgroup members. When relations between groups are negative (competitive), ingroup members express ingroup favoritism because they expect greater reciprocity from each other (and are expected to reciprocate) than from outgroup members. However, when relations between groups are positive (cooperative), group members expect reciprocity from both ingroup members and outgroup members, which eliminates ingroup favoritism (Yamagishi & Mifune, 2008).

Impact of group identification on intergroup relations. Despite early writings that downplayed the importance of group identification in the intergroup context (e.g., Yamagishi, Jin, & Kiyonari, 1999; Yamagishi & Kiyonari, 2000), more recent theorizing outlined a pathway by which group identification might produce more ingroup favoritism. Specifically, group identification was hypothesized to produce greater favoritism due to the greater anticipated

reciprocity from fellow ingroup members (Yamagishi & Mifune, 2008). Consistent with this logic, strong identification produces beliefs that fellow group members will express ingroup-biased behavior (Brann & Foddy, 1987), and Yamagishi and Kiyonari (2000) noted that the effects of group identification on ingroup favoritism were eliminated when the expected reciprocity from ingroup members was controlled. In other words, only when one's group identification served as a cue to expect additional favoritism from fellow group members did it influence the amount of one's own ingroup favoritism.

A clear test of the impact of group identification on ingroup favoritism can be constructed by investigating favoritism under both positive and negative functional intergroup relations. Because a strongly identified group member believes that other ingroup members are similarly highly motivated to consider their group members' welfare, that group member should exhibit more intergroup behavior oriented toward what he or she believes the ingroup wants. Thus, in a cooperative interaction with an outgroup, a strongly identified group member would be expected to produce favorable evaluations of outgroup members because the outgroup—not just the ingroup—is seen as a source of beneficial outcomes for the ingroup. Alternatively, in a competitive context, strong group identification should lead to more ingroup favoritism, as outgroup members are not seen as sources of reciprocity, but ingroup members are. Laboratory evidence supports such a prediction. Specifically, Montoya and Pittinsky (2011) experimentally manipulated the degree to which intergroup relations were either positive (cooperative) or negative (competitive) and the degree to which group members identified with their group. Results revealed that when relations between groups were positive and group members identified strongly with their group, their evaluations of the outgroup were the most positive.

Social identity theory. Social identity theory (Tajfel & Turner, 1979, 1986) posits that

individuals define themselves in terms of group membership and that group members are motivated to positively evaluate their group through comparisons with other relevant groups. The original theorizing predicted a direct link between group identification and ingroup favoritism (Tajfel & Turner, 1979, p. 16) and later meta-analyses and reviews identified small effects consistent with this prediction (e.g., Aberson, Healy, & Romero, 2000; Hinkle & Brown, 1990). More recent work has similarly found that those group members who identify strongly with their group respond less favorably to efforts to integrate the ingroup with an outgroup, as it threatens the positive identity of their own group (Crisp, Stone, & Hall, 2006; Hornsey & Hogg, 2000; Jetten & Spears, 2003).

With respect to functional relations, when functional relations are negative, strongly identified group members are more motivated than less strongly identified group members to maintain and protect the positive identity of the group (Branscombe et al., 1993; Branscombe & Wann, 1994; Jetten, Spears, & Manstead, 1998, 1999, 2001; Roccas & Schwartz, 1993; Spears, Doosje, & Ellemers, 1997). However, it is important to note that such ingroup favoritism is expected to persist even when functional relations are positive. Deschamps and Brown (1983), for example, proposed that positive functional relations continue to produce a threat to the uniqueness and distinctiveness of the group—particularly for those with high group identification—and that this threat fuels continued ingroup favoritism. This contention is supported by studies that failed to identify an effect for functional relations on ingroup favoritism (e.g., Brewer & Silver, 1978; Brown & Abrams, 1986).

In summary, social identity theory proposes that both positive and negative functional relations, by threatening the ingroup (via either negative social comparisons, loss of positive distinctiveness, or reduction of the ingroup's material well-being), should produce ingroup

favoritism. However, functional relations should also moderate the impact of group identification on ingroup favoritism, such that when functional relations are negative, highly identified group members should show the highest levels of ingroup favoritism.

Purpose of the Study

The purpose of this study was to investigate predictions of the bounded rationality model with respect to group identification and functional intergroup relations. To test the model's predictions, we analyzed data that had been gathered to understand the attitudes and beliefs of people living in a country with clearly distinct and historically contentious social groups. Specifically, we used data from a national survey of Israeli citizens in which Jewish and Arab participants were asked about the relations between their two groups. The survey included a diverse set of measures of ingroup favoritism, including affective measures (allophilia, prejudice), discrimination, stereotypes, and preferences for social policies toward integration.

Bounded rationality hypothesizes that functional relations predicts the amount of ingroup favoritism, such that cooperation should produce less ingroup favoritism than competition does because a cooperative outgroup is associated with greater (reciprocated) benefits. Furthermore, the relation between functional relations and ingroup favoritism should be moderated by group identification, such that those who identify strongly, compared to those who identify less strongly, should have more polarized evaluations of the outgroup. Alternatively, social identity theory also predicts an interaction between group identification and functional relations, with the greatest levels of ingroup favoritism resulting when relations are negative and group identification is high. In contrast to bounded rationality's predictions, however, social identity theory predicts that high ingroup favoritism persists for high identifiers even when functional relations are positive.

Method

Participants and Procedure

Data were drawn from a national survey in Israel that examined the feelings and attitudes of Jewish and Arab citizens toward key aspects of coexistence, such as support, opportunity, language policy, and integration. Data were obtained through telephone interviews with 795 Jewish citizens and face-to-face interviews with 494 Arab citizens, producing a final sample of 1,289 participants. Table 1 presents demographic information for the sample.

The survey was created in English and then translated into Hebrew, Arabic, and Russian. Questions were translated and then back-translated to ensure item accuracy. The survey of Arabs was conducted from mid-October to the end of December 2007. The survey of Jews was conducted from mid-November to the end of December 2007. Participants were instructed that the interviewer would be "asking you about Arab and Jewish citizens in Israel." For each of the two populations, we created six versions of the survey to counterbalance the items and to control for order effects.

Materials

Group identification. A participant's identification with the ingroup was assessed using the cognitive subscale of Henry, Arrow, and Carini's (1999) group identification inventory. The cognitive dimension evaluates the degree to which the participant categorizes himself or herself as a member of the group. Sample items include "I do not think of [Arab citizens/Jews] as part of who I am (reversed)" and "I see myself as quite similar to [Arab citizens/Jews]." The questionnaire consisted of four items, each on a four-point scale ranging from 1 (*disagree*) to 4 (*agree*). The items were averaged to form an index of group identification, $\alpha = .62$.

Functional relations. The cooperation-competition nature of the relations between

groups was measured using a subset of a scale developed by Gaertner, Mann, Murrell, and Dovidio (1989). On a scale of 1 (*not at all*) to 4 (*very much*), participants were asked to indicate the degree to which the described interaction was characterized as cooperative, confrontational (reversed), quarrelsome (reversed), and trusting. The four items were averaged to form an index of functional relations, $\alpha = .59$.

Affective allophilia. The degree to which participants felt positively about the outgroup was assessed using the four-item affective subscale of the Allophilia Scale (Pittinsky, Rosenthal, & Montoya, 2011). Sample items include "I like [Arab citizens/Jews]" and "I have positive feelings for [Arab citizens/Jews]." Participants responded on a four-point scale ranging from 1 (*disagree*) to 4 (*agree*). The scale was reliable, $\alpha = .86$.

Positive approach. The degree to which participants were motivated to approach members of the other group was assessed using the four-item engagement subscale of the Allophilia Scale. Sample items include "I want to know [Arab citizens/Jews] better" and "To have more satisfaction in my life, I want to have more [Arab citizens/Jews] as friends." Participants responded on a four-point scale ranging from 1 (*disagree*) to 4 (*agree*). The scale was reliable, $\alpha = .84$.

Prejudice. Negative attitudes were assessed using items adapted from a measure of xenophobia (see Radkiewicz, 2006; Soldatova, 2007). The prejudice scale had four items, including "I do not like [Arab citizens/Jews] at all" and "I keep [Arab citizens/Jews] out of my everyday life if I can," and was rated on a 1 (*disagree*) to 4 (*agree*) scale. The scale was reliable, $\alpha = .80$.

Policy support. The degree to which participants agreed with six statements in support of social and economic policies to facilitate engagement and improve relations between Israeli Jews

and Arabs was assessed. Sample items include "I would be willing to take part in a discussion group between Arab and Jewish citizens that aimed to improve relations between them" and "I support policies that respect the cultural differences in Israel." Each item was rated on a 1 (*disagree*) to 4 (*agree*) scale. The items were averaged to form an index of policy support, $\alpha = .69$.

Stereotypes. Positive and negative cognitive evaluations of the outgroup were assessed using six traits: three positive (rational, well-adjusted, and emotionally stable) and three negative (deceitful, corrupt, and unintelligent). Participants responded to each on a four-point scale ranging from 1 (*disagree*) to 4 (*agree*). The items were averaged to form an index of positive stereotypes, $\alpha = .64$, and of negative stereotypes, $\alpha = .74$.

Results

Due to the skewed distribution of the measure of group identification on which 690 of 1,289 participants (53%) reported the maximum score, we dichotomized the measure into those participants who reported the highest score and those who did not. For all analyses, we report the results of the dichotomized version, although all effect sizes were nearly identical when using the continuous version.

Descriptive Statistics

Table 2 presents descriptive information regarding the various measures included in the survey. Due to the low reliability estimates for some indices, we also computed correlation coefficients adjusted for attenuation. Disattenuated correlation coefficients were estimated using procedures outlined by Charles (2005), in which both measurement error and shared error variance were estimated.

Comparisons revealed several differences between the Jewish and Arab subsamples.

Jewish Israelis, compared to Arab Israelis, reported lower positive approach ($M_{\text{Jewish}} = 2.13$ [$SD = 0.98$] versus $M_{\text{Arab}} = 2.57$ [$SD = 0.87$]; Cohen's $d = 0.46$), less positive policy support ($M_{\text{Jewish}} = 2.12$ [$SD = 0.95$] versus $M_{\text{Arab}} = 3.34$ [$SD = 0.69$]; $d = 1.41$), and a less positive view of the functional relations between the groups ($M_{\text{Jewish}} = 2.05$ [$SD = 0.52$] versus $M_{\text{Arab}} = 2.22$ [$SD = 0.69$]; $d = 0.28$).²

Main Analyses

We first conducted analyses to determine whether there were differences between the Arab and Jewish subsamples as a function of group identification and functional relations. Tests of the Subsample \times Functional Relations \times Group Identification interaction on the indices of ingroup favoritism were associated with trivial effect sizes (all partial η^2 's $< .001$), with an inspection of the mean patterns for the Functional Relations \times Group Identification interaction indicating that the Arab and Jewish subsamples responded similarly to each index of ingroup favoritism. As a result, we collapsed across subsample and do not consider it further.

To investigate the impact of functional relations, group identification, and the Functional Relations \times Group Identification interaction on ingroup favoritism, we tested first for the impact of functional relations, then for the impact of group identification, then for the impact of the Functional Relations \times Group Identification interaction.

To begin, we regressed functional relations on each of the indices of ingroup favoritism. As presented in Table 3 (Model 1), functional relations exerted a large effect on each index of ingroup favoritism, such that more positive functional relations were associated with less ingroup favoritism (d 's between 0.49 and 0.91).

The second step tested for the impact of group identification on the indices of ingroup favoritism. Analyses that only included group identification's impact on ingroup favoritism

(Table 3, Model 2) revealed that group identification had only a trivial impact on the indices of ingroup favoritism (d 's between .02 and .12). Descriptively, greater group identification was associated with more ingroup favoritism.

The third step was to explore the relation between group identification, functional relations, and ingroup favoritism via inspection of the Group Identification \times Functional Relations interaction (Table 3, Model 3). The main effects of group identification and functional relations identified by the two-way interaction were comparable in size to the effects identified by the single-predictor analysis. With respect to the interaction, each dependent measure was explored using simple effects. We used Hayes's (2013) PROCESS macro (Model 1) to estimate the effects and predicted means for low and high group identification. As presented in Table 3 (Model 3, simple effects), for each index of ingroup favoritism, high identification was associated with a slope of approximately twice the magnitude of the slope for low-identification participants. Put another way, compared to low-identified participants, highly identified participants were less biased when relations were positive but were more biased when relations were negative. A plot of the relation between group identification and functional relations for affective allophilia is presented in Figure 1. Each of the dependent measures produced a similar crossover interaction, such that high group identification, compared to low group identification, changed more in moving from negative to positive functional relations.^{3 4}

Due to the low reliabilities for some indices, we repeated the analyses using structural equation modeling to estimate parameter estimates that consider measurement error. Table 4 reports these estimates. Comparing the results of Table 4 with those of Table 3 reveals that the basic pattern—the lowest levels of favoritism for highly identified group members when functional relations are positive—remained.

Discussion

The purpose of this research was to explore predictions of the bounded rationality approach concerning group identification, functional relations, and ingroup favoritism in a field study. Using a sample of 1,289 Jewish and Arab citizens in Israel, we identified several key patterns: (a) there was a descriptively small relation between greater group identification and more ingroup favoritism; (b) there was a descriptively large effect for functional relations, such that more positive relations were associated with less ingroup favoritism; and (c) the Functional Relations \times Group Identification interaction produced a pattern consistent with the predictions of the bounded rationality model, such that a combination of high group identification and positive functional relations produced the *least* ingroup favoritism. Impressively, these effects were present even when group identification was dichotomized and even after the analyses were repeated to model measurement error, two techniques that can be associated with a loss of statistical power (e.g., Ledgerwood & ShROUT, 2011; MacCallum, Zhang, Preacher, & Rucker, 2002). All told, these patterns not only align with laboratory investigations of the impact of group identification on functional relations (e.g., Montoya & Pittinsky, 2011), but also strongly support the bounded rationality model's predicted influence of group identification on functional relations.

Considerable empirical attention has focused on the complicated relation between group identification and ingroup favoritism. On the one hand, research has demonstrated that strong group identification magnifies ingroup favoritism (Masson & Verkuyten, 1993; Morse & Allport, 1952; Pettigrew et al., 1998). On the other hand, researchers have called into question the pervasiveness of the relation between group identification and favoritism (e.g., McGarty, 2001; Park & Judd, 2005), proposing that the relation does not exist (Brewer, 1999) or is only

present when relations between groups are competitive (Bettencourt, Miller, & Hume, 1999; Branscombe & Wann, 1994) or when the other group is perceived as similar (Jetten, Spears, & Manstead, 2001). However, our analyses revealed that the functional relations between groups is a moderator of the identification-to-favoritism link. The pattern of means for the Functional Relations \times Group Identification interaction indicates that group identification does affect the amount of ingroup favoritism, a finding partially consistent with the findings of Bettencourt, Miller, and Hume and Branscombe and Wann, as high group identification did lead to more ingroup favoritism when the functional relations were negative. However—and relevant to the aims of this paper—our results supported the predictions of bounded rationality, such that high group identification not only produced ingroup favoritism when functional relations were negative, but also produced the least favoritism when functional relations were positive.

Our finding that ingroup favoritism was at its lowest when group identification was high and when perceptions of the intergroup relations were positive conflicts with the predictions of social identity theory, self-categorization theory (Turner, 1985), and the common ingroup identity model (Gaertner & Dovidio, 2000). Each of these models proposes that positive evaluations of outgroup members can occur when (a) group boundaries are "degraded" (e.g., Gaertner et al., 1993, p. 20) and/or (b) group members identify with a superordinate identity, which may or may not involve group members "forsaking" their ingroup identity (Gaertner, Mann, Dovidio, Murrell, & Pomare, 1990, p. 703). However, our ancillary analyses (as noted in Footnote 4) do not support such predictions, as measures of categorization (one-group, two-group categorization) do not explain well the relation between group identification and ingroup favoritism. However, the Group Identification \times Functional Relations interaction—without changing categorization—is potentially consistent with the mutual differentiation model

(Hewstone & Brown, 1986), which proposes that positive intergroup relations can result when functional relations are positive and group identification is high. However, according to this model, positive intergroup relations result only when group members acknowledge the complementary contributions of both groups. Although it is unlikely that Israeli Arabs and Jews perceive such complementarity given their high degree of segregation, such an explanation cannot be ruled out by our data.

In addition, our field design may explain why we did not identify an effect for identity-based motives (i.e., positive distinctiveness) for those who identify strongly with their group. Models of a hierarchy of human needs, from Maslow's (1943) to modern versions (Kenrick, Griskevicius, Neuberg, & Schaller, 2010), propose that basic needs (such as hunger and safety) must be met before higher-order needs (such as affiliation and status/esteem) can be addressed. These higher-order needs align with motivations important to positive distinctiveness, rather than with lower-order real-world needs. It may have been that some of our participants, both Arab and Jewish, evaluated intergroup relations based on basic safety rather than on identification needs because such basic needs have not been met.

Furthermore, the selection of the Jewish and Arab populations in Israel allowed for an investigation of predictions regarding relative status. The social and political situation in Israel makes Israeli Jews the dominant, high-status group and Israeli Arabs the subordinate, low-status group (Smootha & Kraus, 1985). From the perspective of social identity theory, both high- and low-status groups use strategies to enhance their positions (Tajfel, 1981; Tajfel & Turner, 1986). Whereas low-status groups use identity management techniques to cope with their lower status (e.g., Ellemers & van Knippenberg, 1997; Taylor & McKirnan, 1984), high-status groups operate to maintain their higher status (e.g., Branscombe & Ellemers, 1998; Kobrynowicz &

Branscombe, 1997). This is particularly evident for highly identified high-status group members: they experience more threat to their social identity than do low identifiers, which results in more ingroup favoritism. Social identity theory also proposes that highly identified low-status group members express more ingroup favoritism to increase the ingroup's status (Ouwerkerk, de Gilder, & de Vries, 2000; but see Jost & Banaji, 1994). However, despite such predictions, we did not identify differences between the Arab and Jewish subsamples. As mentioned previously, one reason for our failure to identify such effects may have been the absence of "higher-order needs" to impact responses before "lower-order needs" are satisfied.

A potential limitation of our study is that the findings were drawn from a self-report cross-sectional survey and analyzed using correlational methods. However, our findings are consistent with recent laboratory findings that high group identification in a cooperative context is associated with more positive intergroup evaluations (e.g., Montoya & Pittinsky, 2011) and with other theoretical predictions (e.g., Pruitt & Kimmel, 1977). A second concern focuses on the method of data collection. Specifically, due to pragmatic concerns regarding access to telephones and modern technology, the Jewish subsample was collected over the phone whereas the Arab sample was collected in person. Whereas it is possible that the relatively anonymous nature of the phone interviews would "permit" Jewish participants to express more ingroup favoritism (indeed, the Jewish sample, on average, did express more ingroup favoritism), it is important to note that (a) both subsamples produced similar cross-over interactions for the relation between group identification and functional relations and that (b) for both groups, the three-way Subsample \times Functional Relations \times Group Identification interaction was associated with a trivial effect size. Such findings do not support the contention that different levels of anonymity were responsible for the observed effects.

Conclusion

We explored the relation between functional relations, group identification, and ingroup favoritism in the field. Using a large cross-national sample of Arab and Jewish Israelis, we uncovered functional relations as a moderator of the identification-favoritism relation. Specifically, we revealed that although functional relations was associated with ingroup favoritism, group identification moderated the effect of functional relations, with a combination of greater group identification and perceptions of positive intergroup relations producing the least favoritism. Such findings not only support predictions derived from a bounded rationality model, but also show that a moderator (functional relations) is critical to understanding the relation between group identification and ingroup favoritism.

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Footnotes

¹ In contrast to research that emphasizes the importance of interdependence between group members as key to understanding intergroup relations, a spate of research from the 1970s and 1980s concluded the opposite. Specifically, Tajfel, Billig, Bundy, and Flament (1971), Billig and Tajfel (1973), and Doise (1988), among other researchers, failed to identify a relation between the degree to which group members were interdependent and the intensity of ingroup favoritism. However, bounded rationality research notes that, in fact, such research failed to manipulate interdependence (e.g., by failing to manipulate mutual fate control) or did not completely remove group members' expectations regarding fellow group members' responses (for a complete discussion, see Rabbie, Schot, & Visser, 1989; Yamagishi et al., 1999).

² We adhered to this journal's policy by reporting descriptive statistics and effect sizes rather than describing the results of inferential statistics (Trafimow, 2014). For readers assured by the results of traditional null hypothesis testing, all effect sizes greater than Cohen's $d = 0.20$ (what Cohen [1988] defined as the lower bound of a small effect) met traditional significance levels ($p < .05$).

³ The role of the ingroup's intergroup norms regarding cooperation or competition has also been extensively investigated (e.g., Jetten, Spears, & Manstead, 1996). To explore the degree to which ingroup norms regarding cooperation or competition affected our findings, our survey included questions that tapped a participant's perception of his or her own group's evaluation of the other group (descriptive group norm; e.g., "How many [Arab citizens/Jews] do you think have negative attitudes about [Arab citizens/Jews]?"). To explore the potential impact of the descriptive norm on participants' ingroup favoritism, we first tested Group Norm \times Group Identification interaction for each favoritism measure. Analyses were associated with a moderate

effect for group norm, with the d 's ranging between .44 and .70, such that ingroup favoritism was greater to the extent that participants believed that their fellow group members were biased.

However, the effect sizes for the Group Norm \times Group Identification interaction were small (average $d = .07$), as were the effect sizes for the Group Norm \times Group Identification \times Functional Relations interaction (d 's ranged between .002 and .07).

⁴ Models consistent with social identity theory have advanced several mediating processes as critical to understanding the degree to which intergroup relations can be characterized as positive or negative. To investigate these processes, we included a question that assessed one-group categorization (from the common ingroup identification model [Gaertner et al., 2000]; "Despite all of the differences between them, there is frequently the sense that Arab and Jewish citizens are almost one group"), two-group categorization ("In Israel, there is usually a feeling as though Arab and Jewish citizens belong to different groups"), and perceived similarity (Branscombe & Wann, 1994; Jetten, Spears, & Manstead, 1998, 1999; "I feel that I am very similar to [Arab citizens/Jews]" and "My opinions on important subjects are similar to those of most [Arab citizens/Jews]").

Due to the limitations associated with modern mediation methods (for a discussion, see Grice, Cohn, Ramsey, & Chaney, 2015; Thoemmes, 2015; Trafimow, 2015), such analyses were not included. An inspection of the data, however, does not support the impact of categorization or similarity as responsible for our findings. First, mean patterns for indices of categorization or similarity do not track with changes in ingroup favoritism. Second, the Group Identification \times Functional Relations interaction on the indices of one-group categorization ($d = .03$), two-group ($d = .13$), and similarity ($d = .15$) were associated with trivial-to-small effect sizes.

Table 1

Demographic characteristics of Jewish and Arab participants

	Frequency		Percent	
	Jewish	Arab	Jewish	Arab
Gender				
Male	364	260	45.8	54.1
Female	430	221	54.2	45.9
Total	794	481	100.0	100.0
Age				
18-24	98	143	12.5	29.9
25-34	130	135	16.6	28.1
35-49	194	132	24.6	27.6
50-64	226	51	28.6	10.4
65 and over	136	20	17.3	4.0
Total	784	481	100.0	100.0
Religion				
Muslim	0	407	0.0	83.2
Christian	0	39	0.0	8.0
Druze	0	43	0.0	8.8
Haredi (ultra-orthodox Jew)	70	0	8.9	0.0
Dati (religious Jew)	89	0	11.3	0.0
Masorti (traditional Jew)	186	0	23.6	0.0
Hilouni (secular Jew)	443	0	56.2	0.0
Total	788	489	100.0	100.0

Note. Subtotals may not sum to 1,289 due to missing data.

Table 2
Correlation among variables

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	Correlation							
				1	2	3	4	5	6	7	8
1. Affective allophilia	1277	2.53	0.93		.68	-.91	.55	.63	-.66	-.11	.63
2. Positive approach	1283	2.30	0.96	.58		-.66	.65	.44	-.45	-.05	.36
3. Prejudice	1278	2.35	0.96	-.75	-.52		-.48	-.59	.69	.09	-.57
4. Policy support	1283	3.04	0.95	.49	.56	-.46		.40	-.35	-.09	.31
5. Positive stereotype	1266	2.39	0.73	.46	.32	-.40	.28		-.47	-.11	.58
6. Negative stereotype	1253	2.35	0.84	-.57	-.40	.57	-.32	-.35		-.02	-.45
7. Group identification	1286	3.63	0.55	-.08	-.05	.07	-.03	-.06	-.01		-.02
8. Functional relations	1275	2.12	0.57	.41	.29	-.39	.24	.33	-.34	-.04	

Note. Unadjusted correlations are presented below the diagonal and disattenuated correlations are presented above it.

Table 3

Effect size and regression information for ingroup favoritism as a function of group identification and functional relations

Dependent variable	Model 1		Model 2		Model 3			Model 3 Simple effects	
	Functional relations	Group ID	Functional relations	Group ID	Functional Relations × Group ID	Low group identification		High group identification	
						<i>b</i>	<i>d</i>	<i>b</i>	<i>d</i>
Affective allophilia	0.91	0.09	0.88	0.06	0.25	0.46	0.42	0.83	0.84
Positive approach	0.62	0.12	0.59	0.11	0.12	0.38	0.32	0.58	0.53
Prejudice	0.84	0.07	0.82	0.04	0.18	-0.49	0.43	-0.77	0.74
Policy support	0.49	0.09	0.47	0.08	0.13	0.27	0.22	0.50	0.45
Positive stereotype	0.71	0.13	0.68	0.12	0.13	0.33	0.37	0.49	0.61
Negative stereotype	0.72	0.02	0.71	0.04	0.14	-0.39	0.37	-0.60	0.64

Note. Effect sizes are Cohen's *d*. Group ID = group identification. *N* = 1,235.

Table 4

SEM-estimated effect size and regression information for ingroup favoritism as a function of group identification and functional relations

Dependent variable	Model 1	Model 2	Model 3			Model 3 Simple effects			
	Functional relations	Group ID	Functional relations	Group ID	Functional Relations × Group ID	Low group identification		High group identification	
						<i>b</i>	<i>d</i>	<i>b</i>	<i>d</i>
Affective allophilia	1.62	0.22	1.59	0.04	0.18	0.54	0.57	0.68	0.72
Positive approach	0.77	0.10	0.68	0.10	0.10	0.23	0.28	0.43	0.44
Prejudice	1.38	0.18	1.36	0.04	0.14	-0.52	0.52	-0.60	0.55
Policy support	0.65	0.18	0.60	0.20	0.20	0.13	0.18	0.67	0.64
Positive stereotype	1.42	0.22	1.09	0.12	0.12	0.36	0.33	0.67	0.64
Negative stereotype	1.00	0.04	0.97	0.08	0.13	-0.32	0.35	-0.52	0.51

Note. Effect sizes are Cohen's *d*. Group ID = group identification. *N* = 1,235.

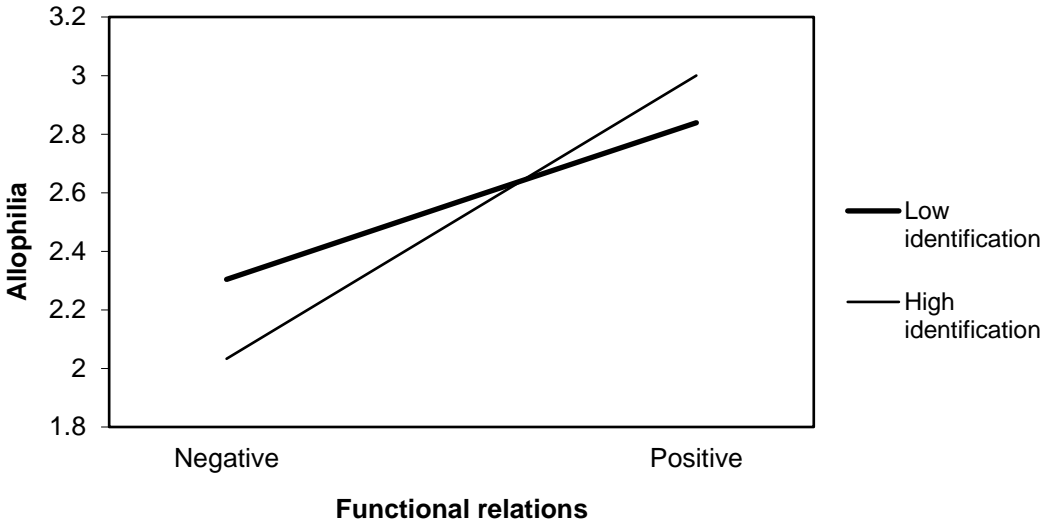


Figure 1. Affective allophilia as a function of group identification and functional relations