

# THE CONDITIONAL EFFECT OF NETWORK DIVERSITY AND VALUES ON TOLERANCE

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## ABSTRACT

While recent literature reports that network diversity generates tolerance, empirical data suggest that in Israel, a highly diverse country, tolerance has been in scarce supply. The well-documented importance of personal value preferences (specifically, openness to change vs. conservation and self-transcendence vs. self-enhancement) in producing tolerant views leads us to hypothesize that values function as boundary conditions mitigating the impact of network diversity upon both political and social tolerance. Building on a representative survey conducted in Israel in 2011, we show that diversity contributes to tolerance more when people are open-minded; when conservatives encounter dissimilar attitudes, they are either less affected or respond with increased intolerance. Secondly, those who highly regard the opinions of others and express an individual predisposition for self-transcendence at the expense of self-enhancement are affected by network diversity to a greater extent. Further, the effect of diversity on tolerance is mediated by the perceived threat from the relevant group.

**Keywords:** Tolerance; values; network diversity; contact; heterogeneity; Israel.

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The political science literature agrees that in order to be effective, a democratic polity should breed tolerance (Beetham 1994). Consequently, much research is devoted to the determinants of tolerance in different settings, with diverse networks, wherein people are exposed to different opinions, celebrated as key to a tolerant, democratic community (Huckfeldt et al. 2004; Ikeda and Richey 2009; Mutz 2002a; Peffley et al. 2001; Robinson 2010; Tadmor et al. 2009; but see Falomir-Pichastor and Frederic 2013). Such exposure induces perceptions of a legitimate opposition and leads to appreciation for the rights of out-groups (Gibson 2006; Laumann 1973; Mutz and Mondak 2006; Price et al. 2002). However, do all people experiencing exposure to diversity react with increased tolerance?

We propose two boundary conditions on the effect of network diversity imposed by one's preexisting value preferences; specifically openness to change vs. conservation and self-transcendence vs. self-enhancement values (Schwartz 1992). First, diversity contributes to tolerance just as long as one is open-minded; when conservatives encounter cross-cutting attitudes, they are either less affected or respond with increased intolerance, as interactions with different-minded individuals induce a disruption of stability and group conformity, which may activate a desire to curtail the liberties of others (Haas and Cunningham 2014; Roccas and Amit 2011). Secondly, those who regard highly the opinions of others, characterized by stressing self-transcendence at the expense of self-enhancement values, are affected by network diversity to a greater extent compared to those preferring self-enhancement over other-regarding.

Further, emphasizing the role of individual-level variance in openness to change suggests that threat is an important mechanism underlying the effect of network diversity on tolerance. To the extent that diversity reduces intergroup threat, it will in turn result in decreased prejudice (Davies et al. 2011; Pettigrew 1998; Voci and Hewstone 2003). Thus, we suggest that the effect on tolerance of being part of a cross-cutting social network is mediated by perceived threat.

To study the mechanisms underlying the effect of network diversity on tolerance, we focus on Israel, considered by some scholars to be the ultimate laboratory for the study of tolerance (Shamir and Sagiv-Schifter 2006; Sullivan et al. 1993). The Israeli setting is characterized by deeply embedded social heterogeneity. Compared to citizens of most other democracies, Israelis report more frequent interactions with immigrants as colleagues and friends, and a higher share of ethnic minorities in their neighborhoods, indicating a relatively high structurally-induced exposure to diversity (see Online Appendix A).<sup>1</sup> Functioning as a single electoral constituency with a low electoral threshold (1.5 percent), the Israeli polity translates social diversity into political heterogeneity. A complex human mosaic along with the favorable electoral provisions have resulted in a society in which networks are ethnically diverse and often politically heterogeneous. Yet, in Israel political and ethnic diversity is not necessarily accompanied by high levels of tolerance (Arian et al. 2005; Shamir and Sagiv-Schifter 2006; Sullivan et al. 1985). For instance, the Israeli public scores lower than the public in the US, the UK, and New Zealand on many political tolerance indicators (Sullivan et al. 1993). Studying personal characteristics and perceived threat as the mechanisms underlying the effect of discussion network heterogeneity on tolerance may assist in explaining why highly diverse settings are not necessarily the most tolerant.

Using data from a nationwide representative random sample of the Jewish population in Israel conducted in 2011, we show that the otherwise robust effect of exposure to diversity on tolerance is conditional on personal values. Further, and as hypothesized, threat is found to be an important mediator of the effect that networks have on tolerance. Overall, we suggest that not everyone in a diverse network is equally likely to exhibit an increased level of tolerance. These results stress that an understanding of attitude formation should take into account both contextual factors and psychological predispositions.

## **TOLERANCE AND NETWORK DIVERSITY**

A tenet of democracy, tolerance is understood as readiness to acknowledge and respect the social and political rights of others (Almond and Verba 1965; Gibson 1992; Putnam 2000; Sullivan et al. 1982). Still, the complexity of the concept has been documented in empirical and theoretical studies (Hurwitz and Mondak 2002; Mondak and Hurwitz 1998; Mondak and Sanders 2003, 2005). The literature distinguishes between social and political tolerance, between different actors (e.g., atheists, Communists, Arabs, predefined groups such as atheists, or one's own least-liked group) and different acts (e.g., attending a demonstration, getting elected, teaching in a school), and between abstract support for rights and freedoms in principle and tolerance towards explicit targets.

Starting with the latter, there is a gap between the nearly universal endorsement of abstract democratic norms associated with tolerance (Corbett 1982; Ikeda and Richey 2009), and the considerably less support for extending these norms to particular groups such as atheists (Karpov 2002), racists (Eisenstein 2006), homosexuals (Andersen and Fetner 2008), Arabs (Arian et al. 2005; Shamir and Sagiv-Schifter 2006), or to one's specific least-liked group, defined to ensure that both liberals and conservatives can express intolerance (Chong 2006; Gibson 1992; Marcus et al. 1995; Mutz 2002b; Shamir and Sagiv-Schifter 2006; Sullivan et al. 1982). Still, abstract support for democratic norms has been found to be a good predictor of tolerance (Gibson 1992; Hurwitz and Mondak 2002; Sullivan et al. 1982).

Next, political tolerance is defined as acceptance of "the full legal rights" (Sullivan et al. 1982: 76) that range from the right to organize public rallies or teach in a public school to the right to run for office (Cohen 2004; Heyd 1996) for political opponents (predefined actors or least-liked; Marcus et al. 1995: 3), "regardless of how dangerous or repugnant" their views may seem to the respondent (Nie et al. 1996: 29). While political tolerance reflects a preference for

how the society should treat its political foes, “what one believes about politics is not necessarily connected to what one believes about one’s interpersonal relations” (Gibson 2006: 679). In the social domain, tolerance pertains to the preparedness to co-exist in the private realm with people belonging to one’s least-liked group or to a group that constitutes a potential threat to the socio-economic or cultural well-being of the majority (Gibson 1992; Roccas and Amit 2011; Sullivan et al. 1985). This involves the willingness to maintain personal contact with the member of the disliked group, such as by having him or her as a neighbor or a dating partner (Crandall 1991).

Building on the heritage of the Columbia School (Berelson et al. 1954; Lazarsfeld et al. 1944), current political scientists acknowledge the effect of inter-personal interactions within one’s social network on a range of political behaviors, including tolerance (Ben-Nun Bloom and Levitan 2011; Gibson 2006; Huckfeldt and Sprague 1995; Levitan and Wronski 2013; Mutz 2002, 2006; Putnam 2000).

Specifically, the literature amply documents the impact on political behavior of the level of one’s network diversity, also termed “cross-cutting exposure” (Mutz 2002a, b; Mutz and Mondak 2006); “diverse discussion networks” (Ikeda and Richey 2009); and “exposure to disagreement” (Lupton et al. 2014), ambivalence (Nir 2005), or heterogeneity (Huckfeldt and Sprague 1995). With the current literature acknowledging its multidimensionality (Eveland and Hively 2009), we focus in this paper on two types of the network diversity concept: *exposure to political disagreement* and *intergroup contact*. The former pertains to the level of exposure to discussions with politically unlike-minded network members (Mutz 2002a, b). The latter focuses on the sociological diversity of networks, in terms of race, nationality, or religion (Ben-Nun Bloom and Arikan 2012; Djupe and Calfano 2012; Gibson 2006; González and Brown 2003). While intergroup contact may or may not involve active political discussion (González

and Brown 2003; Laumann 1973; Mutz 2002b; Scheufele et al. 2006), it often is accompanied by a diversity of opinions (Djupe and Calfano 2012), challenges one's views, and is expected to breed ambivalence in attitudes regarding the respective out-group (Allport 1954; Davies et al 2011). Several additional network qualities were found to be influential on political behavior, among them the types of networks (Huckfeldt and Sprague 1995; Mutz and Mondak 2006; Scheufele et al. 2006; Verba et al. 1995; but see Pattie and Johnson 2008), and their size, cohesiveness, coherence, and sophistication (Erisen and Erisen 2012; McClurg, 2006).

Exposure to political disagreement was reported to boost political tolerance towards least-liked groups Mutz (2002a, b), by increasing awareness of differing viewpoints (Mutz 2006; Mutz and Mondak 2006; Price et al. 2002), reducing the confidence that people have in the correctness of their attitudes (e.g., Festinger 1954; but see McClurg 2006), and developing skills of deliberation (Laumann 1973; Mutz 2002). Further, Ikeda and Richey (2009) were able to replicate the effect of exposure on political tolerance outside the United States, using a nationwide survey undertaken in Japan. Gibson (2006) came to similar conclusions for South Africa using network diversity, measured as intergroup contact. Thus, we first expect to replicate the effect of diversity in the Israeli context, such that:

*H<sub>1a</sub>: The diversity of individuals' personal networks will increase political and social tolerance towards least-liked groups.*

Next, in addition to tolerance towards one's particular least-liked groups, the Israeli context allows investigating tolerance towards Israeli Arabs, a specific predefined group, in an intractable real-life conflict. Previous research focusing on political tolerance toward one's least-liked group and tolerance towards Arabs in Israel deems the two related, but not identical (Shamir and Sagiv-Schifter 2006).<sup>2</sup> Similarly, Gibson (2006) reported that there is only moderate correlation between the political and interracial tolerance expressed by African and

White South Africans ( $r=.1$  for Africans and  $r=.25$  for Whites). Further, interracial contact (equivalent to contact with Arabs in our study) was the strongest predictor of interracial tolerance (equivalent to tolerance towards Arabs) for both African and white South Africans, while it lost explanatory power in the model of political tolerance for the African South Africans (the majority in the SA) and remained marginally important for the white group. This indicates that different dimensions of tolerance may be affected by different types of diversity.

Our data were collected in February and March 2011, after the Gaza flotilla raid, a military operation by Israel against the Turkish “Gaza Freedom Flotilla,” and the 2010 Hamas-led attacks against Israel aiming to derail the negotiations between Israel and the Palestinian Authority. Since the Arab citizens of Israel are often considered “hostile minorities”<sup>3</sup> (Shamir and Sagiv-Schifter 2006), and given the tensions at that point in time, it is particularly interesting to test for the effect of network diversity on tolerance towards Israeli Arabs. Indeed, following research that established the contribution to tolerance of having members of an out-group in one’s social network (Allport 1954; Davies et al. 2011; Gibson 2006; Pettigrew 1998; Stephan and Stephan 1985; Voci and Hewstone 2003), it was suggested that among Israeli Jews contact with Arabs facilitates empathy, trust, and legitimization (Bar-Tal and Teichman 2005; Maoz 2011). We thus expect that:

*H<sub>1b</sub>: The diversity of individuals’ personal networks will increase political and social tolerance towards Israeli Arabs.*

## **TOLERANCE AND CORE VALUES**

In addition to the affirmative effect of network diversity, recent studies show that personal value preferences also play an important role in tolerance. The effect of values has been established at both the individual (Marcus et al. 2005; Schwartz 1992; Seligman and Katz 1996) and

aggregate (Inglehart and Welzel 2003) levels, employing cross-sectional, cross-time, and cross-country studies (e.g., Gibson 2006; Golebiowska 1995; Peffley et al. 2001).

This paper makes use of Schwartz's (1992) value typology, which extends the classical definition of values by Rokeach (1968). Schwartz identified four higher-order archetypes, summed up as two general dimensions: (1) openness vs. conservation values, where the former emphasize readiness for new experience and the latter emphasize self-restriction and traditionalism; (2) self-transcendence vs. self-enhancement values, where the former emphasize concern for the welfare and interests of others and the latter emphasize the pursuit of self-interest and personal development.

Past research provided robust evidence that openness to change fosters tolerance, whereas holding conservation values leads to intolerance towards least-liked groups (Davidov et al. 2008; Sagiv and Schwartz 1995; Weldon 2006). While open people are ready for new experiences, tolerate ambiguity, and value personal independence, individuals who hold conservation values are concerned with preserving the social hierarchy, tradition, and norms, and are thus less tolerant of out-groups and competing views (Davidov et al. 2008; Sagiv and Schwartz 1995). It is thus hypothesized that:

*H<sub>2a</sub>: Openness to change (vs. conservation) values will increase tolerance.*

Further, universalism and benevolence, which represent the higher-order value dimension of self-transcendence, are related to tolerance and concern for the well-being of others (Sagiv and Schwartz 1995). Since individuals holding self-transcendence values are characterized by sensitivity to others, they are expected to regard highly the opinions of their in-group members, thus being more affected by diversity in their social network. We thus expect that:

*H<sub>2b</sub>: Self-transcendence (vs. self-enhancement) values will increase tolerance.*

Indeed, toleration of non-compliant groups was found to increase among individuals who value negative liberty, that is, freedom from external restraint, which is associated with openness, and to decrease among those who value positive freedom, associated with self-enhancement (Gustavsson 2012).

### **THE INTERACTIVE EFFECT OF NETWORK DIVERSITY AND VALUES**

There are some reasons to suspect that the effect of network diversity on tolerance has boundary conditions. Cross-cultural studies of tolerance and diversity demonstrate that a boost to societal heterogeneity due to an increasing presence of ethnic, cultural, or immigrant minorities is often not accompanied by tolerance, but rather by antagonism among members of the majority group (Ben-Nun Bloom et al. 2014; Glaser 1994; Oliver and Wong 2003; Stein et al. 2000). Further, the recent literature acknowledges that the effect of situational factors in shaping political behavior may be contingent on individual-level predispositions (Mondak et al. 2010), such as personality traits (Hibbing et al. 2011; Mondak 2010; Mutz 2002a; Testa et al. 2014) and values (Ben-Nun Bloom and Levitan, 2011; Lupton et al. 2014; Roccas and Amit 2011).<sup>4</sup>

For instance, an experiment that manipulated the extent to which participants perceived an issue as morally relevant while assessing their social network attitudinal composition, showed that attitudes on issues perceived as moral may be beyond the influence of social network members (Ben-Nun Bloom and Levitan 2011). Another experimental study that manipulated the saliency of the heterogeneity of religious and national groups in Israel by presenting students with in-group or out-group cues (e.g., pictures of ultra-Orthodox Jews vs. prototypical Jews), shows that people high on conservation values express fewer social distance preferences when the group's homogeneity is made salient (Roccas and Amit 2011). Further, the effect of

exposure to disagreement on political tolerance was found to be contingent on the respondent's orientation toward conflict (Mutz 2002a; Testa et al. 2014).

Still, the scarce current literature suffers several limitations. First, the extant studies focus on student or *mechanical Turk* samples (Testa et al. 2014); on narrowly-defined social distance preferences toward deviant groups that have been predetermined by the researchers (Roccas and Amit 2011); and on manipulated, rather than measured, diversity (Roccas and Amit 2011) and values (Ben-Nun Bloom and Levitan 2011); and typically do not control for other explanations of tolerance such as threat perceptions from the out-group. This study is designed to fill these gaps. We extend the argument for both content-free and group-specific political and social tolerance in Israel; build on a nationwide representative sample of the Israeli non-Arab sample (followed by a robustness test of hypotheses on the representative sub-sample of the Arab minority); account for both political and ethnic network diversity (exposure to political disagreement and contact with Arabs), the two dimensions of values (openness vs. conservation and self-transcendence vs. self-enhancement), and two measures of tolerance (towards one's least-liked group and towards Arabs); and account for the key contextual control variables from the tolerance literature in political science, such as support for democratic norms, threat perceptions, education, and religion (Shamir and Sagiv-Schifter 2006), as well as social factors related to the likelihood of interconnectedness, such as religion, parenthood, age, and ideology (Eisenstein 2006; Ikeda and Richey 2009; Karpov 2002; Mutz 2002a; Putnam 2000).

Drawing on the recent literature, we expect that exposure to diverse political views or to ethnic diversity will contribute to tolerance, but only as long as one appreciates openness; when people holding conservation (vs. openness to change) values encounter dissimilar political attitudes or come into contact with out-group members (e.g., in the workplace; see Mutz and Mondak 2006), either their level of tolerance is less affected or they respond with further

bigotry (Ben-Nun Bloom et al. 2014). Individuals who place a value on honoring traditions, and who are concerned with preserving conformity and the social order, are less welcoming to challenging political opinions and to the presence of out-group members, both in their own network and in society in general (e.g., Davidov et al. 2008; Sagiv and Schwartz 1995). Those holding conservation values strive for stability, and prefer the expected and well-known over the unpredictable and unfamiliar in everyday life (Schwartz 1992) and in the political realm (Schwartz et al. 2013). Attempting to retain a well-defined group identity, their reaction to the perceived political or ethnic diversity of their network may be one of hostility generalized to overall intolerance; this may lead to a reversal of the effect of diversity (de Zavala et al. 2010; Roccas and Amit 2011). We therefore expect that:

*H<sub>3a</sub>: The effect of network diversity on tolerance will be dampened or even backfire among the holders of conservation (vs. openness to change) values.*

Next, the higher-order value dimension of self-transcendence is manifested in concern with the well-being of others, and was found to lead to higher support for immigration and civil liberties (Schwartz et al. 2013) and positive attitudes towards out-groups associated with tolerance (Sagiv and Schwartz, 1995). Those who regard highly the opinions of others are expected to be more attentive to the attitudes of their in-group members and thus be more strongly affected by political and ethnic diversity in their networks. We expect the positive effects of both measures of network diversity to accelerate among individuals high on self-transcendence values, as it has been found that support for individuals' freedoms is accompanied by a high level of tolerance (Schwartz et al. 2013). We therefore reason that:

*H<sub>3b</sub>: Respondents high on self-transcendence (vs. self-enhancement) are expected to be more affected by network diversity.*

## THREAT AS MEDIATING THE EFFECT OF NETWORK DIVERSITY

What is the mechanism underlying the effect of network diversity on tolerance? Whereas perceived threat is perhaps the most celebrated underpinning of intolerance, we argue that it may also underlie the effect of network diversity on intolerance, being affected by diversity and in turn affecting tolerance.

First, literature in multiple disciplines has robustly demonstrated that threat to substantive interests such as physical well-being and material resources (as suggested by realistic conflict theory; see Sherif 1966) as well as symbolic threats to the status of one's in-groups and their norms and traditions (as suggested by social identity theory; see Tajfel 1981) underlie intolerance and out-group hatred (for empirical evidence, see Gibson 2006). Shamir and Sagiv-Schifter (2006) studied intolerance in Israel over time to find that threat mediates the effect of ongoing conflict on political tolerance, while Hutchison and Gibler (2007) linked political tolerance to external territorial threats. Studying the etiology of different measures of intolerance among the American public and in South Africa, Gibson (1992, 2006) found that various measures of tolerance were negatively related to perceived threat to the "American way of life," to perceived personal threat (1992), and threat to the group's status in the society and its economic well-being (2006).

At the same time, it has been suggested that intergroup contact reduces intergroup threat (Gibson 2006; Pettigrew 1998; Stephan and Stephan 1985; Voci and Hewstone 2003), which in turn results in decreased out-group hatred and increased tolerance (Gibson 2006; Haas and Cunningham 2014; Marcus et al. 1995; Sullivan et al. 1982, 1985). Mutz (2002b) demonstrates the mediating role of close personal relationships across lines of political difference in the relationship between network diversity and political tolerance. More recently, Pettigrew and Tropp (2008) conducted a meta-analytic study that allowed learning about the processes

through which contact reduces intolerance. They found, *inter alia*, that anxiety mediates a positive effect of contact on the acceptance of out-groups. We therefore expect that:

*H<sub>4</sub>: Perceived threat from the out-group will mediate the positive effect of diversity on political and social tolerance.*

## **METHOD**

To test the hypotheses and understand the boundary conditions on political and social tolerance in a highly heterogeneous society such as Israel, we designed a nationwide representative telephone survey of the adult Jewish Israeli population, which was conducted in March 2011.<sup>5</sup> For more details on survey methodology, see Online Appendix B.

### Measures

To facilitate interpretation, all variables were coded to vary between 0 and 1.<sup>6</sup> For more details on measures and descriptive statistics, see Online Appendix B.

*Tolerance:* To measure tolerance towards one's least-liked group (LLG), we employed the widely used content-controlled technique developed by Sullivan and colleagues (Sullivan, et al. 1982). Each participant was presented with seven tolerance items regarding their particular LLG, and the same seven items regarding Arabs. We used two scales of political tolerance: toward the least-liked groups and towards Arabs (sample item: “[Arabs/Members of the LLG] should be allowed to hold demonstrations”) and two other scales of social tolerance (e.g., “I would not be pleased if my daughter or son were dating [an Arab/ a member of LLG].”). As can be seen in Appendix Table A3, social tolerance is overall lower in the Israeli sample than political tolerance, similar to the finding for the American electorate as reported by Sullivan et al. (1982: 238).

*Network diversity:* We employed two measures of network diversity (Huckfeldt and Sprague 1995), also termed “dangerous” (as opposed to agreeable “safe” ones, Eveland and Hively 2009), “cross-cutting” (Mutz 2002b), “ambivalent” (Nir 2005) and “heterogeneous” (Huckfeldt and Sprague 1995; McLeod et al 1999).

(1) *Exposure to disagreement* was measured using a “discussant generator,” as in Mutz (2002), with items tapping difference in political ideology and overall level of agreement when discussing politics (also see Ben-Nun Bloom and Levitan 2011; Levitan and Visser 2009). (2)

*Contact with Arabs:* The measure focused on interactions both within and outside the workplace, and whether the respondent had any Arab friends: “Do you have any relationships with Arabs? 1. Not at all; 2. Some relationships, but only at the workplace; 3. Some relationships: one or two acquaintances; 4. Many relationships, including friends.” The results section below presents a descriptive analysis of these two measures.

*Values:* We used an abridged form of Schwartz’s Portrait Values Questionnaire (PVQ, see Online Appendix B for items) to measure core values. Online Appendix D provides a detailed empirical validation of these measures.

Controls. *Abstract democratic norms:* A scale of three 5-point scale agreement items: “I support freedom of speech for all people, regardless of their positions”; “All people should be entitled to the same rights, regardless of their political views”; “People or groups in the minority should be free to win majority support for their opinions.” *Perceived threat of Arab Israelis:* “Arabs are an existential threat to the country,” a 5-point agreement scale. *Perceived threat of LLG:* “[LLG] poses a serious threat to the existence and form of the polity in Israel,” a 5-point agreement scale. *Identity of LLG - left or right:* a binary variable that captures the ideological leaning of the disliked group (Lindner and Nosek 2009). *Discussing politics:* “To what extent do you discuss political matters with family and friends?”, a 5-point agreement scale; *Ideology:*

7-point right-left scale; *Religiosity*: “To what extent do you observe religious tradition?,” 4-point scale; *Education*: 6-point scale, from no school at all to master’s degree or above; *Income*: 5-point scale of average family income; *Parent*: 1=parent; *Male/female*: 1=male; *Age group*: Eleven possible groups; *Network size*: Number of discussants in one’s network.

## **RESULTS**

### The prevalence of network diversity

The distribution of exposure to disagreement among Israeli Jews is, overall, in accordance with findings regarding the American public (cf. Mutz 2002a; Mutz and Mondak 2006). Thus, 38% of the Jewish public in Israel scored in the lowest quadrant of the exposure to dissimilar views measure (0-.25); further, 82% of the public scored under .5 and only 3% scored in the upper quadrant (.75-1), yielding a mean of .321. Figure 1 depicts the distribution of exposure to disagreement among the Jewish public, and by ideology, core values, and religiosity.

[Figure 1 about here]

As indicated by the figure, the heavily skewed distribution characterizes all groups in Israeli society, including those identifying with the political right, left, and center, as well as the secular and the religious, and those endorsing values of conservation, openness to change, self-transcendence, and self-enhancement. Importantly, there is variance in cross-cutting communication across all these groups.

Table A1 in the Online Appendix presents descriptive statistics and t-tests comparing the mean of network disagreement across the different groups. Generally, there is slightly more diversity in the opinion networks of left-leaning identifiers, compared to both right-leaning ( $p=.059$ ) and center ( $p=.042$ ) identifiers. Non-religious respondents show more prevalent cross-cutting communication than the religious, although this effect does not reach any accepted level

of statistical significance ( $p=.315$ ), whereas there is no difference in diversity by values.

Overall, diversity is not necessarily dependent on belonging to any particular social group.

Next, intergroup contact with Arabs in Israel is generally limited in scope, as presented in Figure 2. Thus, 55% of the Israeli Jews in the sample reported no relationships with Arabs, 27% reported contact limited to the workplace, 12% reported having one or two Arab acquaintances, and 7% reported having many relationships, including Arab friends, yielding a mean of .235 on a 0-1 scale. Compared to cross-racial contact between South-African whites and blacks (Gibson and Claassen 2010), these results indicate fairly infrequent cross-group interaction.

[Figure 2 about here]

Figure 2 further reveals that the level of contact with Arabs generally does not differ by ideology, religiosity, and core values (see Table A2 in the Online Appendix for full descriptive statistics and t-tests). Still, while typically statistically insignificant, those identifying with the political right (compared with both left-wing and center identifiers), the religious, more conservative respondents (vs. those who are more open to experience) and those supporting self-enhancement (vs. self-transcendence) reported slightly (and insignificantly) less intergroup contact.

#### The effect of diversity and values on tolerance

In order to determine the extent to which diversity and personal values interact in influencing individuals' tolerance, each of the four measures of tolerance (social tolerance towards the least-liked group, political tolerance towards the least-liked group, social tolerance towards Arabs, political tolerance towards Arabs) was regressed on exposure to disagreement and intergroup contact (Models I-II), on the individual values of conservation and self-transcendence (Model III), and on the interactions between individual values and each of the two measures of diversity (Model IV), as well as on a set of control variables. We also tested the mediating influence that

threat has in the relationship between diversity and tolerance (Model I), where threat was omitted from the controls and tested as a mediator on the diversity measure that returned statistical significance (a precondition for mediation analysis). Results for the sixteen models (four measures of tolerance  $\times$  four models for each) are presented in Table 1.

[Table 1 about here]

First, Model I shows that network diversity significantly affects all four types of tolerance, confirming  $H_{1a}$  and  $H_{1b}$ . Still, exposure to political disagreement in one's network increases social and political tolerance towards one's politically most disliked group, while contact with Arabs specifically increases social and political tolerance towards Arabs, holding all else constant. *Ceteris paribus*, moving from minimal to maximal exposure to disagreement boosts social and political tolerance toward one's least-liked group by about a third and a sixth of their range (30% and 14%, respectively), while contact with Arabs increases social and political tolerance towards Arabs by about one-sixth of their range (14% and 15%, respectively). This speaks to the contextual nature of tolerance (Djupe 2011; Gibson 2006; Mondak and Sanders 2003; Mutz and Mondak 2006), and suggests that the magnitude of the impact of diversity is substantial in most cases, particularly for social tolerance toward the least-liked group.

Next, we were interested in testing the extent to which a feeling of threat from the out-group operates as a mediator of the relationship between diversity and tolerance ( $H_4$ ). For that matter, we conducted a mediation analysis using a bootstrapping method, and using case resampling to calculate the standard errors (Preacher and Hayes 2008). Mediation was calculated for the measure of exposure to diversity, which returned a statistically significant result in the specific model (a precondition for mediation analysis; see Baron and Kenny 1986), where the mediating variable was threat from least-liked groups for the tolerance towards least-

liked groups models, and threat from Arabs for the tolerance towards Arabs models. The results of the mediation analysis are presented in the bottom row of Table 1.

As hypothesized, the perceived threat from the relevant group mediates the effect of exposure to disagreement on tolerance. Over forty percent of the effect of exposure to disagreement on political tolerance towards one's least-liked group, and a quarter of its effect on social tolerance towards one's least-liked group, are mediated by the perceived threat from the group. Next, a fifth of the effect of contact with Arabs on social tolerance towards Arabs and a tenth of its effect on political tolerance towards Arabs are accounted for by threat from Arabs, holding all else constant. The mediation effects are statistically significant using the non-parametric bootstrapping method.<sup>7</sup> Overall, these results are consistent with the theoretical assumptions and outcomes of prior research (Pettigrew and Tropp 2008; Shamir and Sagiv-Schifter 2006) that point to mediating qualities of threat in the relationship between diversity and tolerance. Still, the difference in the magnitude of the mediation effect of threat may be explained by the fact that the LLG scale assured that while all respondents were asked about a disliked reference group, all Jewish respondents were asked about Arabs – even those who did not find Arabs to be threatening or repugnant.

Model II presents the effect of the two diversity measures on tolerance, when controlling for two types of threat. The effect of exposure to disagreement on political tolerance for one's least-liked group (Model II<sub>b</sub>) is no longer statistically significant when partialling out threat. Still, network diversity retains a unique effect on tolerance, unaccounted for by threat, for social tolerance towards one's least-liked group and for social and political tolerance for Arabs. These three coefficients retain a statistically significant direct effect when accounting for threat.

Next, the effects of values are typically in the hypothesized direction ( $H_{2a-b}$ ), as can be seen in Model III, such that as conservation values (vs. openness) increase, social and political

tolerance decreases, and as one increasingly values self-transcendence (vs. self-enhancement), social and political tolerance increases. However, these effects are typically not statistically meaningful, with the exception of predicting social tolerance toward Arabs with the conservation (vs. openness) scale. Moving from high openness to high conservation values decreases social tolerance towards Arabs by about 19% of its range ( $p=.082$ ). While it does not reach accepted levels of statistical significance in any of the models, the effect of self-transcendence vs. self-enhancement values approaches marginal significance on political tolerance toward Arabs ( $p=.155$ ).

Moving to examine  $H_{3a-b}$ , suggesting a boundary condition for the effect of network diversity, Model IV presents the interactions between values and each of the two measures of diversity in affecting tolerance. First, as per  $H_{3a}$ , the interaction terms reveal a significant interaction among exposure to disagreement and conservation values, for both social and political tolerance towards one's least-liked groups. Similarly, the effect of contact with Arabs is significantly moderated by conservation values for both social and political tolerance towards Arabs. These effects are typically robust to specification, as indicated in Model V. To facilitate interpretation, Figure 3 depicts the interactive effects, indicating how the marginal effect of network diversity changes with conservation values (1 on the x-axis; openness values being 0 on the x-axis), with 95% confidence intervals.

[Figure 3 about here]

Both exposure to political disagreement and contact with Arabs hold a positive and statistically significant effect on social and political tolerance when the conservation vs. openness values scale is beyond its mean ( $\bar{x}=.588$ ), that is, when one's values tend toward openness to change (0 on the x-axis). However, this positive and statistically significant effect wanes and reverses as openness declines. For three of the four tolerance measures, that is, social

and political tolerance towards one's least-liked group and social tolerance towards Arabs, the marginal coefficient of diversity changes its sign from positive to negative, indicating a boomerang effect, which approaches statistical significance for strong conservatives. For political tolerance towards Arabs, the positive effect of contact with Arabs loses significance for more conservative participants (where the conservatism scale is at .77), and no backfiring occurs. These results strongly support H<sub>3a</sub>.

To further test this boomerang effect, we estimated coefficients and standard errors for network diversity when the conservatism vs. openness values scale is above its middle point, that is, among conservatives. Results suggest that for those who hold conservative values, increasing network diversity reduces all four dimensions of tolerance, and this effect is marginally significant for political tolerance towards the least-liked group ( $b = -.690, p = .096$ ), approaches significance for social tolerance towards the least-liked group ( $b = -.949, p = .105$ ) and social tolerance towards Arabs ( $b = -.408, p = .157$ ), and holds a moderate insignificant negative effect on political tolerance towards Arabs ( $b = -.087, p = .687$ ).

Secondly, and in accordance with H<sub>3b</sub>, a marginally significant interaction between exposure to political disagreement and self-transcendence values emerged for both social and political tolerance towards one's least-liked group (Models IV<sub>a-b</sub>). However, the effect of contact with Arabs was not significantly moderated by self-transcendence values ( $p_{\text{political-tol-Arabs}} = .155; p_{\text{social-tol-Arabs}} = .277$ ). Figure 4 plots the marginal effect of diversity on self-transcendence values (1 on the x-axis) with 95% confidence intervals, for all four models.

[Figure 4 about here]

While network diversity retains its positive coefficient for all levels of self-transcendence vs. self-enhancement, its effect does not allow rejecting the null hypothesis at a 95% level of confidence for the lowest third of the scale that is, for individuals scoring high on self-

enhancement. More generally, the effect of cross-cutting discourse on tolerance increases with a tendency to self-transcendence in all four models, as per H<sub>3b</sub>. All else being equal, those who regard highly the opinions of others and tend to focus on group identity, characterized by stressing self-transcendence at the expense of self-enhancement values, are more attentive to the attitudes of their group members, and thus more affected by network diversity compared to those preferring self-enhancement to other-regarding attitudes. Again, however, the interaction of contact with self-transcendence vs. self-enhancement values is insignificant for social and political tolerance towards Arabs. Thus, there is partial support for H<sub>3b</sub>.

The models also included several control variables, with results revealing the stable impact of some indicators across the board and the contextual nature of others. First, perceived threat holds a stable negative effect on all four types of tolerance. Secondly, abstract democratic norms, that is, general support for minority and civil rights, are positively associated with both types of political tolerance and with social tolerance toward the least-liked group, but do not affect social tolerance toward Arabs. Network size has a negative, albeit insignificant, effect on tolerance. Religiosity and ideology have a robust effect on tolerance toward Arabs, but not one's least-liked group. Still, a left-wing least-liked group (such as Arab parties, the Labor Party, etc.) consistently decreases social and political acceptance of one's least-liked groups, compared to a right-wing least-liked group, holding all else constant (as reported by Lindner and Nosek 2009). Other demographic controls have an overall insignificant or sporadic effect on tolerance.

Results obtained for hypotheses H<sub>1</sub>-H<sub>3</sub> are in line with the findings of the Columbia School that consistently stressed the crucial role of the social context in political behavior (Berelson et al. 1954; Lazarsfeld et al. 1944).

### *Robust analysis*

These results indicate that the interactive effect of network diversity is robust to various changes in specification and transcends a particular measure of tolerance. Still, we were interested in further examining the robustness of our findings.

First, the sample size dwindled due to non-response for some of the variables (primarily exposure to disagreement, least-liked group, and income), causing a list-wise deletion. We thus reproduced the models when using Multiple Imputation in Mplus-6. This simulation technique added a minimum of 106 and a maximum of 239 observations to the sample size, depending on the model. Results, presented in Appendix Table A4, were mostly replicated, confirming the interactive effect of cross-cutting discourse and values on the various indicators of tolerance.

Can the results be generalized to other political settings? While Israel stands out as a democracy engaged in a protracted conflict and large-scale immigration that affects social diversity, the main effects of network diversity on tolerance replicate findings from vastly different contexts such as the U.S. (Mutz 2002a, Mutz and Mondak 2006) and Japan (cf. Ikeda and Richey 2009). This suggests that the boundary condition may be generalizable above and beyond Israeli Jews.

Still, we were interested in empirically examining the generalizability of the interaction between diversity and values. Our representative survey included an Israeli-Arab stratum (n=112), enabling a comparison of the findings from the Jewish population. Results were generalized from the Jewish to the Arab sample, as presented in Appendix Table A5 and Figure A2 (see further analysis in the Online Appendix).

Finally, the argument that diversity affects tolerance is undermined when individuals self-select into more or less politically diverse networks. First, considerable research suggests that political agreement does not motivate the creation of networks (Huckfeldt et al. 2000; Lazer et

al. 2010; Levitan and Visser 2009). Further, once the network is in place, the level of its volatility is relatively low, and the more diverse networks are actually slightly more stable (Bello and Rolfe 2014; Eveland and Kleinman 2013).

Yet another possibility may be that personality traits alter the level of exposure to political disagreement within a diverse network (Mondak 2010: 119; Mondak et al. 2010). Particularly, studies report that more open individuals discuss politics more frequently the more they agree about politics with their discussion partner (Gerber et al. 2012; Huckfeldt and Sprague 1987). To examine this possibility in our sample of Israeli Jews, we considered the correlations between network diversity and a proxy for conflict avoidance (“It is important to her/him to live in secure surroundings. S/he avoids anything that might endanger her/his safety”). This tentative measure for conflict avoidance did not correlate with exposure to disagreement ( $p=.214$ ), with contact with Arabs ( $p=.524$ ), or with one’s network size ( $p=.195$ ). Similarly, conservatism vs. openness to change values did not significantly correlate with network diversity ( $p_{\text{disagreement}}=.934$ ;  $p_{\text{contact}}=.588$ ) or network size ( $p=.192$ ), and self-transcendence values did not correlate with contact or network size ( $p_{\text{contact}}=.187$ ;  $p_{\text{size}}=.748$ ), but slightly reduced exposure ( $r=-.129$ ,  $p=.024$ ). Overall, this suggestive evidence strengthens our design against arguments regarding selection bias. Still, it is not feasible to definitively rule out the selection hypothesis with the data at hand, and it should be further tested in future experimental and longitudinal studies.

## CONCLUSIONS

Interconnectedness with others guides all aspects of human experience (Christakis and Fowler, 2009). The current study examines the mechanisms that underlie the effects of network diversity, both political and ethnic, on tolerance. It reveals a dynamic interplay between one’s

individual psychological predispositions (basic human values), the societal context (diversity of network), and core political values (social and political tolerance), while accounting for the mediating effect of reality perception (threat). Studying the complex relationship between social context and individual psyche offers a fuller and more multilayered picture of tolerance.

We found that the effect of network diversity on tolerance holds in a highly heterogeneous environment subject to an intractable violent conflict (Israel), while previous research yielded results for relatively homogenous (Japan) and relatively diverse but less conflicted (U.S.) settings. In addition, we have demonstrated the effects of network diversity on both social and political tolerance, for both one's least-liked group and an organic minority in a real-world setting. These results unify the theoretical arguments and demonstrate the robustness of the effect of diversity in both the political and social realms and under varying configurations of societal diversity.

Most importantly, this study illuminates processes that allow individuals to internalize or, in contrast, reject the idea that members of out-groups should be accepted as political equals and social partners. Previous research established strong links between basic human values and core political attitudes (Schwartz et al. 2010, 2013); some of this research has produced compelling empirical evidence that social diversity positively affects tolerance (Mutz 2002b) *inter alia* by reducing threat perceptions (Pettigrew and Tropp 2008). We have taken this scholarship one step further and illuminated the mechanisms that produce these well-established relationships. Ironically, the empirical findings imply that those who need tolerance the most tend to react negatively to increased diversity.

Some interesting discrepancies emerge from the data, demonstrating the multifaceted nature of tolerance. First, we find a non-trivial difference between tolerance towards disliked groups and towards Arabs, such that exposure to political disagreement in one's network

increases tolerance towards one's politically disliked group, while social contact with Arabs specifically increases tolerance towards Arabs. This result is in line with previous research focusing on tolerance toward one's least-liked group and tolerance towards Arabs in Israel (Shamir and Sagiv-Schifter 2006) which deems the two related, but not identical. We suggest that the beneficial effect of contact with Arabs reduces the threat from this particular social group, but does not necessarily generalize to political foes, and vice versa. That is, diversity is effective to the extent that it attenuates threat from a relevant outgroup. In the same vein, our results show that threat from Arabs mediates less of the effect on political tolerance than threat from the LLG. This difference in the magnitude of the mediation effect of threat may occur since the LLG scale assures that all respondents are asked about a disliked reference group, which is not necessarily the case when asking specifically about Arabs (Mondak and Sanders 2003; Sullivan et al. 1982), where there is a subset of the sample whose members do not necessarily view Arabs as a political threat. Third, the effect of network diversity is much larger on social than on political tolerance towards least-liked groups. This suggests that the social skills obtained in cross-cutting discourse increase the willingness to socially approve of members of repugnant groups, but not necessarily to grant them the right to politically affect the society. Thus, "what one believes about politics is not necessarily connected to what one believes about one's interpersonal relations" (Gibson 2006: 679). The argument can be made that social intolerance is less dangerous for democracy than political tolerance, and may not even violate democratic norms at all (Sullivan et al. 1982: 238). Additional research should further examine how exposure to different types of diversity differentially affects different dimensions of tolerance.

Overall, these results highlight that tolerance is shaped not just by one's personal dispositions, or by their social context, but also by the interaction of the two. Future studies

could investigate other combinations of individual, societal, and network factors that mitigate the impact of network composition. On the individual level, potential factors may include personal and cognitive predispositions (need for closure, intolerance of ambiguity), political characteristics (extremism, activism, libertarianism), and certain motivations (moral conviction, need for approval). In terms of features of the social network, it may be relevant to look at feelings of closeness to one's social network, to compare virtual and real-world networks, and study the role of network hubs and network structure. Further, our theory may have implications for other important political attitudes, specifically support for immigration, attitudes favoring multiculturalism, and prejudice.

Next, while network diversity fosters certain social and deliberation skills that allow socializing with, and granting social approval to, differently minded individuals, our findings suggest that some people are unable to translate these proficiencies into tolerance for those outside their group (Djupe and Calfano 2012). Future studies could further pinpoint the micro-mechanisms of this effect. Do conservative and self-oriented people simply not acquire such skills, are they unable to translate them to the political realm, or do they choose not to expand them outside of their own network? Can emotional regulation or sensitivity training techniques increase their ability to capitalize on their personal experience in political settings?

Finally, what are the prospects for tolerant attitudes in the future? The world has recently known some large-scale societal processes that are thought to be diversity-inducing. These include growing cultural interactions and contact between people of different traditions due to social, political, and economic globalization, as well as increased Internet use and particularly the wide penetration of virtual social networking services such as Facebook, where exposure to dissimilar views reaches unprecedented levels.

Notwithstanding these processes, data from the National Security Surveys Project 1988-2012 in Israel suggest that the overall level of tolerance has remained unchanged for over a decade, while some indicators of political tolerance have been on the decline. The increasing diversity in Israeli society has been accompanied by growing traditionalism and threat—the principal factors that diminish the positive effect of diversity among open individuals and reverse this effect among conservatives. Based on our analysis, scholars of public opinion should not anticipate a sudden rise in the levels of tolerance, despite processes that boost societal diversity. It is partially for this reason that tolerance is likely to be in scarce supply.

**TABLES AND FIGURES**

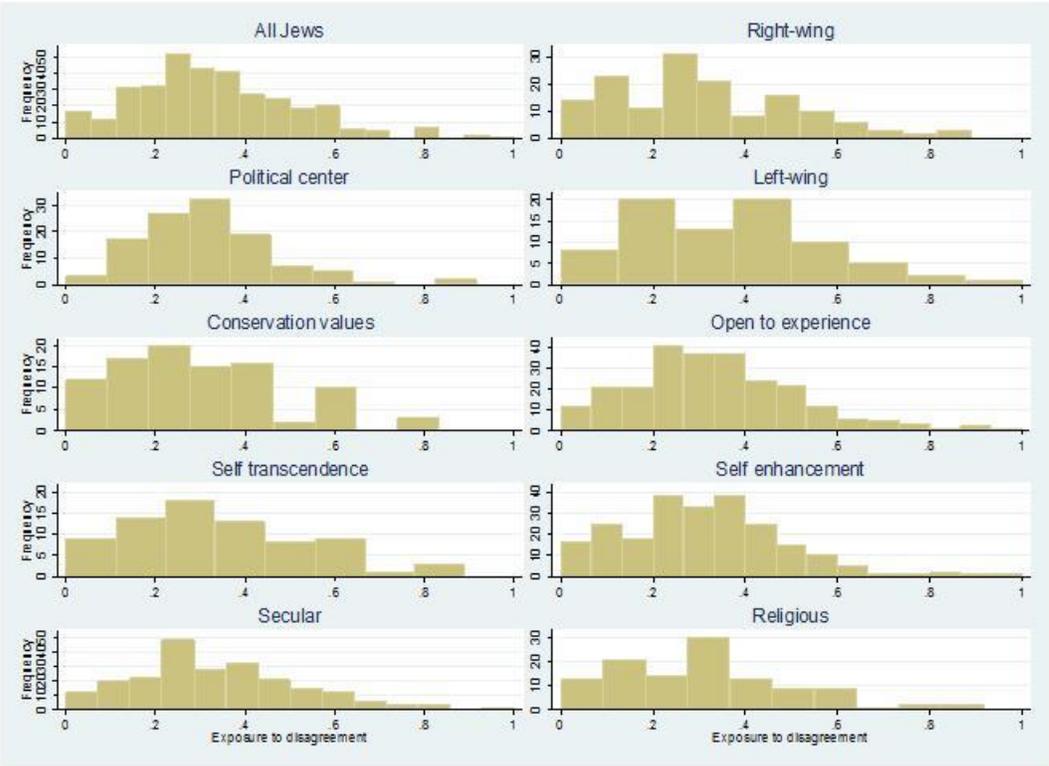
**Table 1.** Tolerance towards Least-Liked Group and towards Arabs

	Social tolerance - LLG					Political tolerance - LLG					Social tolerance - Arabs					Political tolerance - Arabs				
	I <sub>a</sub>	II <sub>a</sub>	III <sub>a</sub>	IV <sub>a</sub>	V <sub>a</sub>	I <sub>b</sub>	II <sub>b</sub>	III <sub>b</sub>	IV <sub>b</sub>	V <sub>b</sub>	I <sub>c</sub>	II <sub>c</sub>	III <sub>c</sub>	IV <sub>c</sub>	V <sub>c</sub>	I <sub>d</sub>	II <sub>d</sub>	III <sub>d</sub>	IV <sub>d</sub>	V <sub>d</sub>
Exposure to disagreement	.300 (.108) ***	.201 (.109) *	- (.559)	.543 (.466) **	1.154 (.466) **	.141 (.081) *	.084 (.076)	- (.410)	.466 (.313) ***	.888 (.313) ***	.138 (.084)	.115 (.091)	- (.482)	.470 (.094)	.114 (.094)	-.033 (.068)	-.103 (.063)	- (.321)	.237 (.066) *	-.113 (.066) *
Cross-group contact	-.018 (.067)	-.014 (.067)	- (.442)	.137 (.070)	.001 (.070)	.050 (.054)	.050 (.051)	- (.306)	.169 (.052)	.038 (.052)	.140 (.056) **	.116 (.056) **	- (.386)	.430 (.270) **	.635 (.270) **	.145 (.044) ***	.171 (.037) ***	- (.233)	.144 (.156) **	.372 (.156) **
Conservation vs. openness	-	-	-.097 (.169)	.441 (.388)	.300 (.346)	-	-	-.042 (.102)	.504 (.202) **	.392 (.202) *	-	-	-.194 (.111) *	-.227 (.228)	-.096 (.146)	-	-	-.081 (.071)	.201 (.147)	.030 (.095)
Self-transcendence vs. enhancement	-	-	-.067 (.151)	-.465 (.327)	-.052 (.174)	-	-	.057 (.105)	-.195 (.225)	.092 (.122)	-	-	.007 (.101)	.228 (.241)	-.010 (.110)	-	-	.122 (.085)	-.122 (.190)	-.035 (.093)
Disagreement* conservation	-	-	-	-2.030 (.809) **	-1.693 (.790) **	-	-	-	-1.589 (.625) **	-1.411 (.568) **	-	-	-	.627 (.799)	-	-	-	-	-.569 (.574)	-
Disagreement* transcendence	-	-	-	1.294 (.738) *	-	-	-	-	.846 (.517) *	-	-	-	-1.140 (.700)	-	-	-	-	-	-.044 (.518)	-
Contact* conservation	-	-	-	-.238 (.571)	-	-	-	-	-.300 (.399)	-	-	-	-1.062 (.474) **	-.906 (.465) **	-	-	-	-	-.407 (.238) *	-.354 (.237)
Contact* transcendence	-	-	-	.003 (.618)	-	-	-	-	.069 (.407)	-	-	-	.478 (.438)	-	-	-	-	-	.411 (.288)	-
Abstract democratic norms	.319 (.117) ***	.238 (.114) **	.328 (.105) ***	.221 (.121) *	.238 (.117) **	.400 (.083) ***	.315 (.079) ***	.325 (.071) ***	.290 (.083) ***	.299 (.080) ***	.074 (.093)	.014 (.093)	.058 (.082)	.058 (.097)	.040 (.096)	.245 (.055) ***	.199 (.056) ***	.191 (.057) ***	.203 (.064) ***	.202 (.063) ***
Threat – LLG	-	-.229 (.064) ***	-.196 (.059) ***	-.203 (.070) ***	-.212 (.067) ***	-	-.203 (.047) ***	-.201 (.044) ***	-.168 (.052) ***	-.173 (.051) ***	-	-.021 (.052) ***	.026 (.045) ***	-.021 (.051) ***	-.011 (.050)	-	-.104 (.033) ***	-.093 (.034) ***	-.089 (.035) **	-.089 (.035) **
Threat – Arabs	-	-.083 (.069)	-.099 (.065)	-.097 (.071)	-.099 (.072)	-	-.109 (.050) **	-.080 (.046) *	-.124 (.051) **	-.124 (.051) **	-	-.305 (.053) ***	-.303 (.044) ***	-.305 (.051) ***	-.300 (.050) ***	-	-.179 (.035) ***	-.178 (.036) ***	-.192 (.037) ***	-.183 (.036) ***

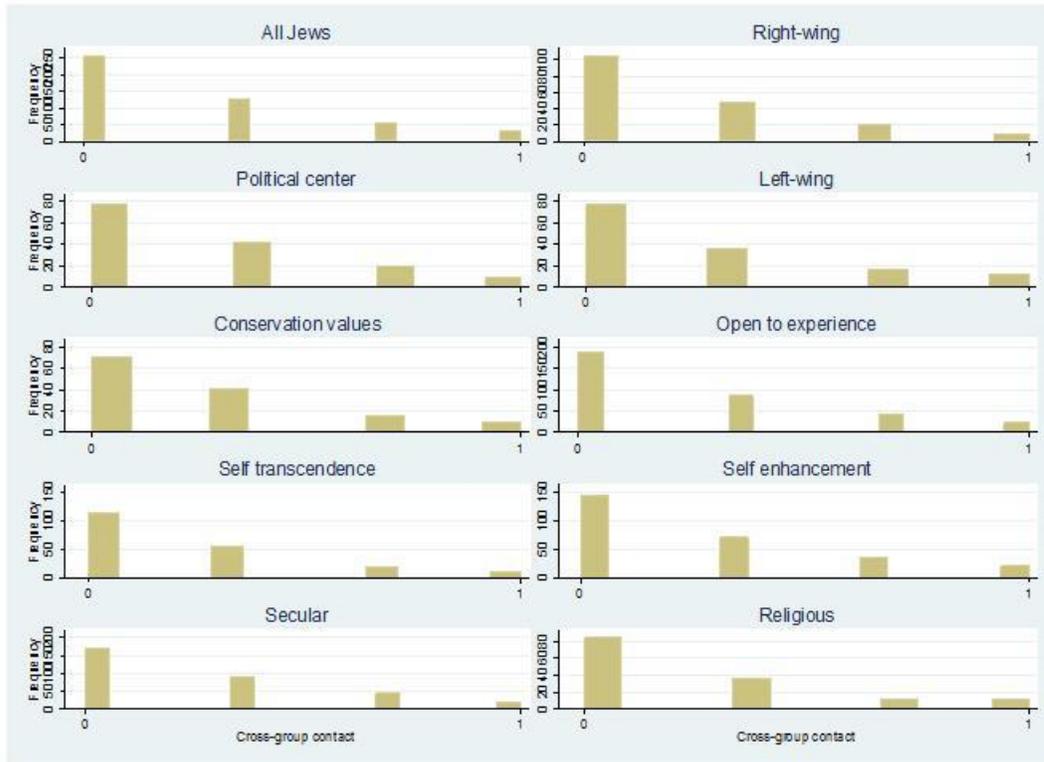
Ideology	-.019 (.099)	-.038 (.097)	-.018 (.083)	-.027 (.101)	-.021 (.102)	-.031 (.067)	-.044 (.062)	.009 (.055)	-.059 (.063)	-.051 (.063)	.246 (.070) ***	.135 (.063) **	.105 (.060) *	.105 (.066) *	.117 (.065) *	.136 (.050) ***	.099 (.045) **	.109 (.047) **	.066 (.050)	.075 (.048)
Religiosity	-.107 (.087)	-.106 (.082)	-.114 (.074)	-.103 (.086)	-.098 (.086)	.018 (.060)	.026 (.055)	.036 (.052)	.030 (.060)	.034 (.059)	-.160 (.068) **	-.167 (.062) ***	-.168 (.053) ***	-.157 (.060) **	-.157 (.058) ***	-.080 (.049)	-.082 (.047) *	-.017 (.049)	-.115 (.051) **	-.104 (.050)* *
Education	.036 (.089)	.008 (.089)	.069 (.081)	.040 (.091)	.036 (.091)	.097 (.070)	.066 (.068)	.077 (.059)	.064 (.071)	.062 (.071)	.123 (.074)*	-.030 (.068)	.017 (.063)	-.058 (.068)	-.052 (.067)	.130 (.057)**	.072 (.054)	.089 (.051)*	.053 (.058)	.062 (.057)
Income	.054 (.074)	.061 (.070)	.137 (.066)**	.062 (.076)	.052 (.075)	-.061 (.061)	-.052 (.053)	-.036 (.047)	-.073 (.055)	-.080 (.055)	.121 (.064)*	.086 (.061)	.097 (.055)*	.068 (.060)	.077 (.060)	-.043 (.046)	-.046 (.042)	-.050 (.040)	-.040 (.046)	-.039 (.046)
Discuss politics	-.109 (.077)	-.080 (.075)	-.082 (.059)	-.110 (.078)	-.108 (.079)	.034 (.053)	.066 (.051)	.092 (.043)**	.066 (.053)	.068 (.053)	-.019 (.058)	.024 (.053)	-.025 (.047)	-.010 (.053)	-.005 (.052)	.015 (.045)	.001 (.044)	.066 (.039)*	.014 (.046)	-.012 (.046)
Parent	-.070 (.048)	-.072 (.047)	-.001 (.043)	-.079 (.052)	-.082 (.051)	-.044 (.040)	-.056 (.039)	-.018 (.033)	-.066 (.040)*	-.067 (.040)*	-.002 (.042)	-.021 (.036)	-.014 (.033)	-.014 (.036)	-.013 (.037)	.067 (.036)*	.024 (.028)	.016 (.027)	.016 (.030)	.017 (.030)
Male	.018 (.043)	.007 (.042)	-.041 (.039)	-.006 (.044)	-.004 (.043)	.057 (.032) *	.038 (.031)	.003 (.029)	.023 (.032)	.025 (.032)	.040 (.034)	.008 (.032)	.007 (.030)	-.022 (.032)	-.022 (.032)	.071 (.024) ***	.053 (.023) **	.035 (.023)	.041 (.025) *	.046 (.024) *
Age group	.063 (.074)	.064 (.071)	.059 (.064)	.094 (.077)	.079 (.077)	.013 (.056)	.019 (.055)	.004 (.048)	.022 (.058)	.012 (.058)	.025 (.060)	-.015 (.055)	.041 (.054)	-.010 (.056)	-.003 (.056)	.099 (.048) **	.134 (.045) ***	.156 (.040) ***	.150 (.047) ***	.151 (.046) ***
Network size	-.003 (.016)	-.000 (.016)	-.000 (.013)	.007 (.017)	.007 (.017)	-.007 (.013)	-.006 (.012)	-.002 (.009)	-.004 (.012)	-.004 (.012)	.002 (.013)	-.008 (.012)	.003 (.010)	-.007 (.013)	-.009 (.013)	-.005 (.010)	-.012 (.009)	-.002 (.008)	-.013 (.010)	-.013 (.010)
LLG – left vs. right	-.199 (.060) ***	-.193 (.061) ***	-.182 (.050) ***	-.206 (.063) ***	-.200 (.064) ***	-.165 (.039) ***	-.146 (.039) ***	-.125 (.032) ***	-.162 (.040) ***	-.158 (.040) ***	-	-	-	-	-	-	-	-	-	-
Constant	.299 (.166) *	.575 (.179) ***	.535 (.158) ***	.601 (.277) **	.420 (.253) *	.224 (.143)	.486 (.151) ***	.391 (.118) ***	.360 (.220)	.244 (.190)	.038 (.134)	.501 (.139) ***	.541 (.117) ***	.507 (.208) **	.575 (.161) ***	.121 (.092)	.448 (.096) ***	.318 (.092) ***	.461 (.163) ***	.479 (.118) ***
N	227	218	265	205	205	228	218	265	205	205	257	219	266	206	206	256	218	264	205	205
R <sup>2</sup>	21.35	27.63	26.01	31.61	30.69	29.07	37.64	34.02	39.19	38.37	18.48	32.71	28.16	37.72	36.41	19.04	32.57	39.78	48.98	48.16
Mediation by threat (Model I)	26% (Z <sub>bootstrap</sub> =2.15)**					42% (Z <sub>bootstrap</sub> =2.23)**					21% (Z <sub>bootstrap</sub> =2.02)**					9% (Z <sub>bootstrap</sub> =1.68)*				

Table entries are unstandardized OLS coefficients, robust standard errors in brackets. \*\*\* two-tail 99% confidence level, \*\* two-tail 95%, \* one-tail 95%. The estimate and significance test for the mediation results come from a mediation test with bootstrapped standard errors.

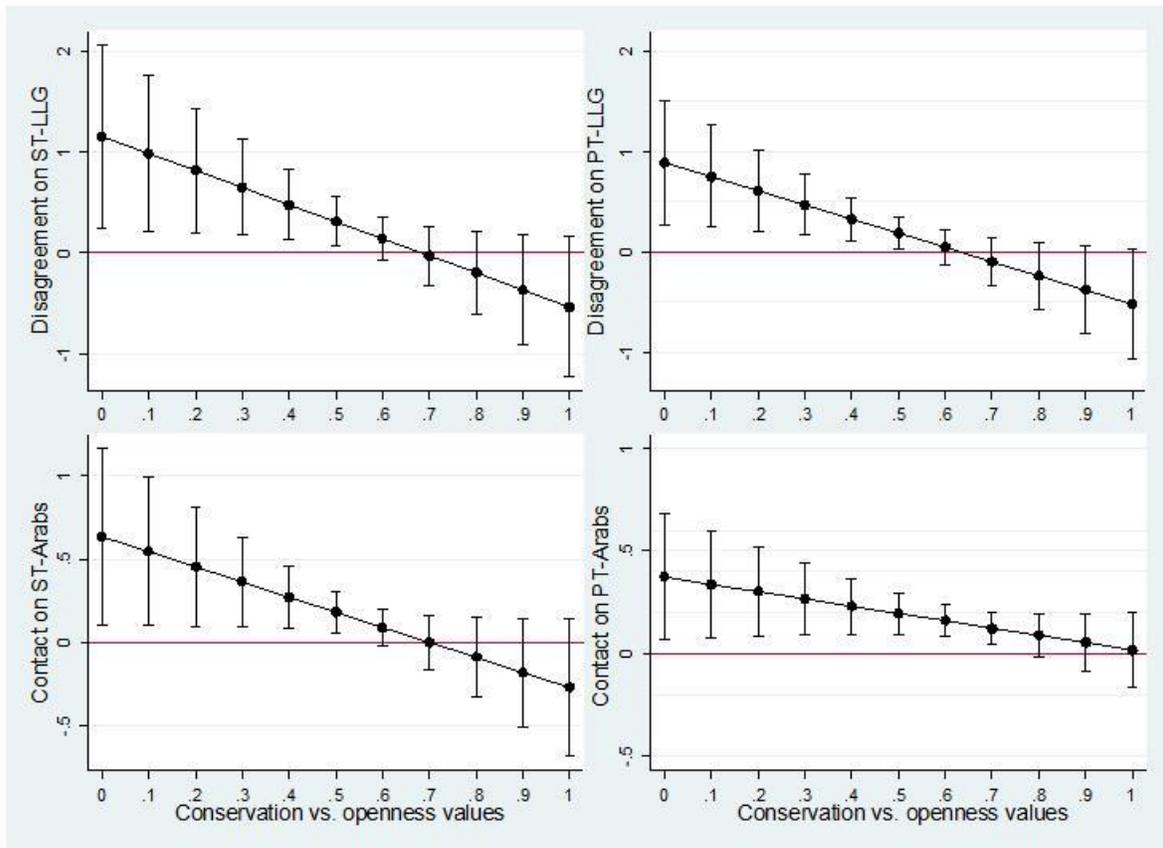
**Figure 1.** Exposure to Disagreement by Ideology, Values, and Religiosity



**Figure 2.** Intergroup Contact by Ideology, Values, and Religiosity

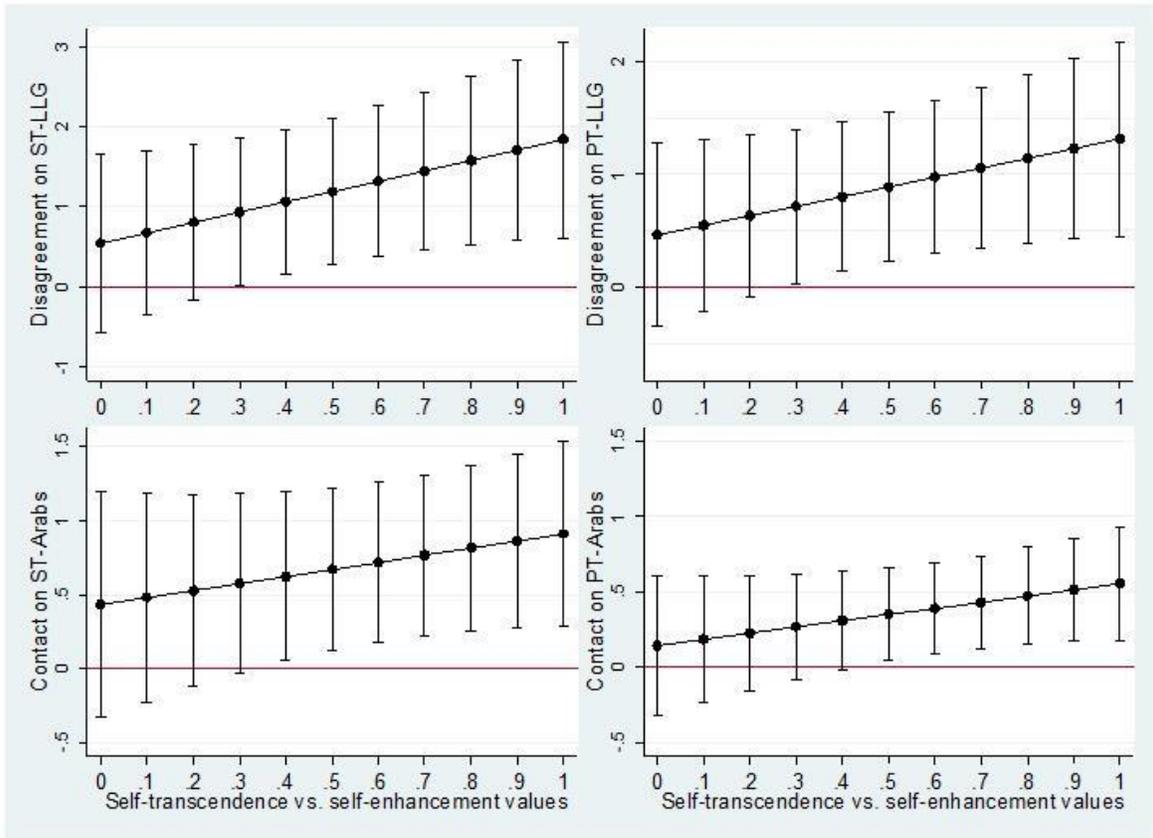


**Figure 3.** The Interactive Effect of Network Diversity and Conservation Values on Tolerance towards One's Least-Liked Group and towards Arabs



Average marginal effects with 95% Confidence Intervals. 1=conservation values (0= openness).

**Figure 4.** The Interactive Effect of Network Diversity and Self-transcendence Values on Tolerance towards One's Least-Liked Group and towards Arabs



Average marginal effects with 95% Confidence Intervals. 1= self-transcendence values (0=self-enhancement).

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<sup>1</sup> Aggregate level diversity measures also suggest that Israel is relatively high on cultural and ethnic fractionalization (Alesina et al 2003; Fearon 2003). For example, the odds that two people selected randomly in Israel speak different languages exceeds 55 per cent, and the odds that they belong to different ethnic and religious groups are over 34 per cent each. Also note that 60 percent of Israelis are immigrants of the first or second generation, and the nation's people speak 34 languages and belong to several distinct religions and ethnicities (see data on the Central Bureau of Statistics 2012. Source: <http://surveys.cbs.gov.il/Survey/surveyAlt.htm> )

<sup>2</sup> Further, while Israeli Jews remain least tolerant toward the Arab parties (Shamir and Sagiv-Schifter 2006), there is suggestive evidence based on previous research (Gibson 2006) that the public does not equate Arab political forces and the Arab social group. In our data, for instance, political tolerance towards one's least-liked group for those that named Arab parties as their least liked group (n=169) is .38, while the level of tolerance toward Arabs as a social group among the same subsample (n=163) reaches .51, a statistically significant effect.

<sup>3</sup> The Arab population in Israel numbers approximately 1.658 million residents, about 20.7% of the country's population, see Israel Central Bureau of Statistics, [http://www.cbs.gov.il/www/hodaot2013n/11\\_13\\_097e.pdf](http://www.cbs.gov.il/www/hodaot2013n/11_13_097e.pdf)

<sup>4</sup> The choice to focus on Schwartz's values is informed by scholarship which established a conceptual and empirical difference between personality traits and values in the study of tolerance (Schwartz et al 2010; Caprara et al 2006; Roccas et al 2002). Traits explain one's behavior, while values are used both to explain behavior and to justify choices, such that "values and not traits serve as standards for judging the behavior of self and others" (Roccas et al 2002:790). As cognitive representations of motivations in the form of goals and objectives manifested in goal directed acts, values were found to be better predictors of attitudes and behaviors over which individuals have cognitive control or choice (Roccas et al 2002; Caprara et al 2006:22), while traits should be better predictors of spontaneous, intuitive, and emotionally driven behaviors. With regards to tolerance, cross-cultural evidence suggests that tolerance is an explicitly learned attitude that depends on socialization experiences rather than an intuitive emotion or a genetic predisposition, and should thus be directed by one's core values (Marquart-Pyatt and Paxton 2007). Still, we view personality and values as two intimately interconnected concepts. For instance, "people born with a high need for arousal are likely to develop the trait of excitement-seeking as well as to value stimulation and devalue security" (Rocass et al 2002: 791). Further, some traits are conceptually comparable to values – such as the Big Five trait "openness to experience" and the values dimension "openness to change" employed in this study. Thus, potentially traits and values should both play a role in conditioning the effect of discussion networks.

<sup>5</sup> For the use of data, we are indebted to Michal Shamir.

<sup>6</sup> Rescaling variables to vary 0-1 is a standardization technique that allows comparing the effect size of independent variables of different units. It is computed using the formula  $\text{new value} = (\text{value} - \text{min}) / (\text{max} - \text{min})$ , which allows variables to have differing means and standard deviations but equal ranges.

<sup>7</sup> Note that the bootstrapping technique does not violate assumptions of normality and therefore provides some advantages over the Sobel test and is recommended for small sample sizes (Preacher and Hayes 2008).