Original Research Reports

If They Can't Change, Why Support Change? Implicit Theories About Groups, Social Dominance Orientation and Political Identity

Dennis T. Kahn[a], Michal Reifen Tagar[a], Eran Halperin[a], Martin Bäckström[b], Joseph A. Vitriol[c], Varda Liberman*[d]

[a] Baruch Ivcher School of Psychology, The Interdisciplinary Center, Herzliya, Israel. [b] Department of Psychology, Lund University, Lund, Sweden. [c] Department of Psychology, University of Minnesota, Minneapolis, MN, USA. [d] Arison School of Business, The Interdisciplinary Center, Herzliya, Israel.

Abstract

In three studies across three cultures (U.S., Sweden, and Israel), we examine whether implicit theories about groups are associated with political identity and whether this relationship is mediated by Social Dominance Orientation (SDO). Study 1 found that raising the salience of entity beliefs leads to increased right-wing political self-identification on social issues, although no such effect was found regarding general or economic political identity. In Study 2, we found that the more participants endorsed entity beliefs about groups (vs. incremental beliefs about groups), the more they identified as political rightists (vs. leftists) in the U.S., Sweden, and Israel. SDO mediated this relationship in the U.S. and Swedish samples, but not in the Israeli sample – a political setting in which political identity is largely determined by attitudes regarding the Israeli-Palestinian conflict. Study 3 showed that SDO mediated the relationship between implicit theories about groups and Israelis' political identity regarding social/economic issues, but did not have such a mediating role with respect to political identity regarding the Israeli-Palestinian conflict. Theoretical and practical implications are discussed.

Keywords: implicit theories about groups, group malleability, political identity, political ideology, social dominance orientation, political psychology

Sammanfattning

Vi undersökte, i tre olika kulturer (USA, Sverige och Israel), om implicita teorier om grupper är relaterade till politisk orientering och om denna relation medieras av social dominans (SDO). Resultaten från Studie 1 visade att tendensen till politisk högerorientering kring sociala frågor ökade som ett resultat av att entitetsteorier om grupper (att grupper inte kan förändras) gjordes mer tillgängliga. Ökad tillgänglighet till entitetsteorier om grupper hade dock ingen effekt på generell politisk orientering eller politisk orientering angående ekonomiska frågor. Studie 2 visade att ju mer deltagarna stödde entitetsteorier jämfört med inkrementellteorier om grupper (att grupper kan förändras), desto mer identifierade de sig själva som politisk höger (jämfört med vänster) i USA, Sverige och Israel. Social dominans medierade denna relation i USA och Sverige, men inte i Israel. Det senare landet har en politisk kontext där politisk orientering till stor del handlar om attityder gällande Israel-Palestina-konflikten. Studie 3 visade att social dominans medierade relationen mellan implicita teorier om grupper och Israelers politiska orientering gällande sociala/ekonomiska frågor, men att social dominans inte hade en sådan medierande effekt när det gällde politisk orientering angående Israel-Palestina-konflikten. Teoretiska och praktiska implikationer av forskningen diskuteras.

Nyckelord: Implicita teorier om grupper, gruppers formbarhet, politisk identitet, politisk ideologi, social dominans, politisk psykologi

<div dir="rtl">

תקציר

בשלושה מחקרים שנעשו בשלוש מדינות שונות (ארצות הברית, שבדיה וישראל) חקרנו האם תאוריות סמויות לגבי קבוצות קשורות לזהות פוליטית והאם הקשר מתווך על ידי Social dominance orientation (SDO). במחקר הראשון מצאנו כי תפעול של תאוריות סמויות (כלומר, של האמונה

</div>

שקבוצות לא יכולות להשתנות) גרם להזדהות פוליטית ימנית יותר בנוגע לסוגיות חברתיות, למרות שהתפעול לא השפיע על זהות פוליטית כללית או זהות פוליטית הקשורה לסוגיות כלכליות. במחקר השני, מצאנו שככל שהנבדקים תמכו ב entity theories about groups (כלומר, באמונה שקבוצות לא יכולות להשתנות), ככה הם הזדהו יותר כימין פוליטי. ממצאים אלו עלו בשלושה הקשרים שונים - ישראלי, אמריקאי ושבדי. כמשוער, הקשר מתווך על ידי SDO במדגם השבדי והאמריקאי, אך לא במדגם הישראלי. שיערנו שההבדל נובע מכך שבישראל, עמדות פוליטיות מתייחסות בעיקר לסוגיות הקשורות לסכסוך הישראלי-פלסטיני. במחקר 3, מצאנו ש SDOs תיווך את הקשר בין תאוריות סמויות לגבי קבוצות לבין זהות פוליטית, רק כאשר זהות פוליטית מוגדרת לפי סוגיות חברתיות/כלכליות, אך לא כאשר זהות פוליטית מוגדרת לפי סוגיות הקשורות לסכסוך.

מילות מפתח: תאוריות סמויות לגבי קבוצות, יכולת הקבוצה להשתנות, זהות פוליטית, אידאולוגיה פוליטית, אוריינטציה לשליטה חברתית, פסיכולוגיה פוליטית

Non-Technical Summary

Background
Can groups change their basic characteristics? The present research examines how the answer that different individuals provide to this question is related to their political identity – their self-identification as political left/right or liberal conservative.

Why was this study done?
The purpose of the studies was to examine the hypothesis that the belief that groups cannot change their characteristics is related to right-wing political identity, while the belief that groups can change their characteristics is related to left-wing political identity. We were further interested in the relationship between such beliefs about groups and justification of unequal power relations in society (social dominance beliefs).

What did the researchers do and find?
In the first study, the participants were given a (made-up) article showing either that groups generally are capable of change or that they are incapable of change. Reading the article showing that groups are incapable of change caused the participants to gravitate towards the political right with regards to social issues. The second and third studies were survey studies carried out in the U.S., Sweden and Israel and the results showed that the belief that groups cannot change was related to political right-wing identity. The results further indicated that the relationship between beliefs about the changeability of groups went through (i.e., was mediated by) the belief that the current power relations between different societal groups is justified (social dominance beliefs).

What do these findings mean?
The results confirmed our hypothesis that beliefs about the capability of change in groups is related to political identity. The studies also clarified why beliefs about groups are related to political identity. If you believe that disadvantaged societal groups (e.g., ethnic minority groups, the working class) are incapable of change, then you are more likely to see their subordinate place in the social hierarchy as justified (so called "social dominance beliefs") and such beliefs are in turn closely related to political identity.

*Corresponding author at: Arison School of Business, The Interdisciplinary Center, P.O.B. 167, Herzliya, 46150, Israel. E-mail: liberman@idc.ac.il

PsychOpen GOLD

People differ in the degree to which they believe that human traits and characteristics are malleable (Dweck, 1999; Levy & Dweck, 1999). Incremental theories state that human characteristics are susceptible to change and development over time, whereas entity theories state that such characteristics are inherent or fixed. Although the theory about implicit theories was originally developed with regard to the malleability of traits and characteristics of *individuals* (Dweck, 1999; Levy & Dweck, 1999), it has since also been applied to beliefs in the malleability of *groups* (e.g., Halperin, Russell, Trzesniewski, Gross, & Dweck, 2011; Rydell, Hugenberg, Ray, & Mackie, 2007; Wohl et al., 2015). Political life is to a large degree preoccupied with intergroup relations, such as relationships between ideological groups (e.g., liberals, conservatives), ethnic/racial groups (e.g., African-American, Caucasians), or economic groups (e.g., working class, middle class, upper class). Implicit beliefs about the malleability of *groups* is therefore of particular importance in understanding political phenomena. The current line of research examines whether endorsement of such implicit theories about groups are related to political identity, and whether this relationship is mediated by social dominance orientation (SDO: Pratto, Sidanius, Stallworth, & Malle, 1994).

Political Ideology

Political ideology can be defined as a "set of beliefs about the proper order of society and how it can be achieved" (Erikson & Tedin, 2003, p. 64). The social scientific study of political ideology has in recent years experienced a resurgence, in particular the study of its psychological underpinnings (e.g., Jost, 2017; Jost, Nosek, & Gosling, 2008). Traditionally, political ideology has been classified along a single left-right dimension. The paired concepts "Liberal"/"Left" and "Conservative"/"Right" are in the U.S. used to denote the same policy preferences, but the terms liberal and conservative are better understood and are more widely used (Wong & Gullo, 2005). This unidimensional perception of ideology, however, has been challenged and several commentators have suggested a bi-dimensional conceptualization of political ideology that distinguishes between economic and social (or cultural) political ideology (Conover & Feldman 1981; Duckitt, 2001; Feldman & Johnston, 2014). There is considerable heterogeneity in the ways in which political ideology is operationalized and often, no distinction is made between underlying *psychological characteristics*, self-reported *political identity* and attitudes regarding *policy issues*.

RWA and SDO

By underlying psychological characteristics, we mean stable dispositional tendencies in the individual that may be central to the development of political ideas. While a host of such psychological characteristics have been suggested, arguably the most prominent and well researched are right-wing authoritarianism (RWA: Altemeyer, 1998) and social dominance orientation (SDO; Pratto et al., 1994). Right-wing authoritarianism (Altemeyer, 1998) refers to the tendency for submission to authority, adherence to social conventions and norms and hostility and punitiveness towards social deviants. The RWA concept is the heir to the efforts made by Adorno and his colleagues (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950) to capture the personality dimensions that underlie support for right-wing authoritarian ideologies and is commonly found to be strongly correlated with identification with right-wing or conservative political identity (see Jost, Glaser, Kruglanski, & Sulloway, 2003 for a review). Originally, research on RWA primarily focused on submission to authority rather than authoritarian dominance (Altemeyer, 1998). Thus, to use Adorno's metaphor of the bicycle rider who bows from the waist up and kicks from the waist down, RWA research concerned itself more with the tendency to bow from the waist up than with the tendency to kick from the waist down.

The concept of SDO sought to remedy this, focusing on authoritarian dominance, the preference for unequal relationships among categories of people (Pratto et al., 1994) and justification and preservation of the current

stratification of society (Pratto, 1999; Sidanius, 1993; Sidanius & Pratto, 2001; Sidanius, Pratto, & Bobo, 1996). According to social dominance theory, the human preference for social harmony makes us shun conflict and disorder and motivates us to justify the current social order. This need to justify the social order encourages the development of hierarchy-legitimizing myths (e.g., "people tend to get what they deserve and deserve what they get"), which tend to become prevalent in society. Individuals who endorse such hierarchy-legitimizing myths are said to be high on social dominance orientation. Legitimizing the current societal order is further closely connected to the conservative position of protecting the status quo and upholding traditional authorities and institutions and SDO has accordingly been shown to be associated with right-wing/conservative political positioning (e.g., Federico & Sidanius, 2002; Pratto & Glasford, 2008; Sidanius, Mitchell, Haley, & Navarrete, 2006; Sidanius & Pratto, 2001). While research on SDO has focused primarily on discrimination on the basis of intra-societal categories such as gender, age, race, class, sexual orientation etc., a number of studies have also shown that social dominance orientation is related to hawkish positions in interstate conflicts (e.g., Porat, Halperin, & Bar-Tal, 2015; Pratto et al., 1994); at least to the extent that one's own country is perceived as more powerful than its' counterpart (Henry, Sidanius, Levin, & Pratto, 2005).

Political Identity

Several scholars have operationalized economic and social political ideology as SDO and RWA (e.g., Altemeyer, 1998; Duckitt, 2001). We differentiate between underlying psychological characteristics (i.e., SDO and RWA) and self-reported political identities with regards to economic, social and general political ideology, which are typically measured on left-right or liberal-conservative continuums (e.g., Jost et al., 2003). While tendencies for social dominance beliefs or right-wing authoritarianism are related to political identification or endorsement of different political ideologies, we do not see them as operationalizations of political ideology or political identity. In this article, we are interested in the association between psychological characteristics (i.e., implicit theories about group and social dominance orientation) and ideological self-placement. In order to avoid conceptual confusion, we use the term "political identity" to refer to self-placement on the left-right continuum.

Implicit Theories and Political Identity

The degree to which one endorses change in society in general, and change in the hierarchy between different societal groups in particular, lies at the heart of the conservative-liberal, or right-left, divide (Jost et al., 2003; Jost, Federico, & Napier, 2009). Since implicit theories about groups in essence deal with beliefs about the possibility of change, or malleability, we suggest that such beliefs are an important building block in understanding the psychological underpinnings of political identity. While a number of studies have dealt with the relationship between endorsement of implicit theories about groups and support for specific *policies* (e.g., Halperin, Crisp, Husnu, Dweck, & Gross, 2012; Wohl et al., 2015), the current study constitutes the first attempt to connect implicit theories about groups with *political identity*. We hypothesize that the more one endorses entity theories about groups (incremental theories about groups), the more rightist/conservative (leftist/liberal) one's political identification (H1). The rationale underlying this prediction is that the degree to which one believes that societal groups *can* change (i.e., implicit theories about groups) determines one's attitude towards the *desirability* of change – one of the core aspects underlying the left-right or liberal-conservative divide (Jost et al., 2009, 2003).

Implicit Theories About Groups, SDO and Political Identity

The present research further aims to examine the relationship between implicit theories about groups, political identity and other psychological characteristics known to be associated with political identity (i.e., SDO and RWA). More specifically, we reason that a belief that the characteristics of groups *are* changeable should be associated with a belief that the power relations between groups *should* change as well – i.e., low degree of social dominance beliefs. In contrast, believing that groups are unchangeable are hypothesized to be associated with a more stable and unchanging perception of power relations between groups – i.e., high degree of social dominance beliefs. A high degree of social dominance is in turn expected to be associated with right-wing/conservative political identity. We thus hypothesize a mediation model in which implicit theories about groups are associated with SDO, which, in turn, is associated with political identity. In other words, we predict that SDO will mediate the relationship between implicit theories about groups and political identity (H2).

Cross-Cultural Differences

We take a cross-cultural approach, examining our hypotheses in three different settings – the U.S., Israel and Sweden. We did not have any predefined hypotheses regarding cross-cultural differences in the relations between the study variables. The main reason for carrying out the study in these three cross-cultural samples was to test the cross-cultural robustness of the findings. We thus sought to test our hypotheses in three settings that varied with regards to relevant cultural and political characteristics. One important difference between these countries is the presence of violent intergroup conflicts. While Sweden is situated in one of the calmest corners of the world, having been spared from overt military conflict for more than 200 years (Sundberg, 2010), Israel has been entrenched in military conflicts with its' Palestinian and Arab neighbors since the creation of the state (Bregman, 2016). The U.S. has also been involved in numerous military conflicts, although as opposed to Israel, these military conflicts have mainly been fought overseas (Axelrod, 2002) and thus presumably had a less pervasive impact on the everyday lives of its' citizens. The countries also differ regarding the issues under debate in the political discourse. The Israeli-Palestinian conflict overshadows all other issues in the political discourse of Israel and self-identification along a left-right continuum is in Israel mainly a function of whether one holds a hawkish or dovish stance with regards to the conflict (Diskin, 1999; Hazan, 2007; Reifen Tagar, Morgan, Halperin, & Skitka, 2014). In contrast, in the U.S. as well as in Sweden, political discourse is to a greater degree influenced by intra-societal issues of allocation of resources to different social and economic groups, the size of the government and the influence of traditional authorities and value systems, such as the church, family values and traditional gender roles (e.g., Bäck & Möller, 1997; Pew Research Center, 2014; Wilson & DiIulio, 2008).

The *terminology* used to denote political ideology, however, differs between the U.S. and Sweden. While in the U.S., the division between social and economic dimensions of political identity is often used and well-known (e.g., Feldman & Johnston, 2014), this terminology is not commonly used in Sweden, where a unidimensional left-right terminology is the most common terms used to denote political identity (Holmberg & Oscarsson, 2004; Kumlin, 2004; Oscarsson, 1998; Särlvik, 1974). The U.S., Israel and Sweden further differ with regards to their political slant. While Sweden has long been dominated by the social democratic party, with leftist governments being in power for 74 out of the last 100 years (Riksdagen, 2016), the U.S. is typically fairly evenly divided by liberals and conservatives. Israel has for the last decades been characterized by a majority of rightists, with right-wing governments having been in power for 28 out of the last 40 years (Knesset, 2017).

The Current Research

To summarize, we put forth two hypotheses. First, we hypothesize that the more one endorses entity theories about groups (incremental theories about groups), the more rightist/conservative (leftist/liberal) one's political identification. Based on this hypothesis, we carried out Study 1, in which we manipulated the salience of entity beliefs or incremental beliefs about groups and examined the effects on political self-identification. We further suggest a second hypothesis, that the relationship between implicit theories about groups is mediated by social dominance orientation. Study 2 was carried out in an American, a Swedish and an Israeli sample in order to test this hypothesis. Study 3 was carried out as a result of a post-hoc hypothesis arising from our analysis of the results from Study 2 and the rationale behind the study will be explained below.

Study 1

Study 1 was carried out in order to examine whether experimentally manipulating implicit theories about groups would affect political identity. The study utilized a single independent variable (implicit theories about groups), 2-wave panel design. Political identity was measured at both time points and implicit theories about groups (e.g., Rydell et al., 2007) were manipulated at Time 2 in order to examine its hypothesized causal effect on change in political identity across both measurement time points.

Method

Participants

Participants were 241 U.S. citizens (118 females (49%), 123 males (51%); Age M = 34.99, SD = 12.72) recruited from Amazon's Mechanical Turk (MTurk) for a study on "beliefs about society", and were compensated with $1.00 for their time. Of these individuals, 27% (65/241) failed to complete the survey at both Time 1 (N = 241) and Time 2 (N = 176). These individuals were ommitted from data analyses, since these involved assessing change between T1 and T2. Data collection was approved by one of the authors' Institutional Review Board. The T1 questionnaire took an average of 6 minutes to complete, while the T2 questionnaire took 8 minutes on average.

Measures

The experimental manipulation and measures used in the study are available in the supplementary material (the supplementary material also contains the measures used in Studies 2 and 3). At T1, additional measures were administered that are not included in this analysis (but administered for research questions not addressed in the current study).

Political identity — At T1 and T2, political identity was measured with three items, measuring general political identity (i.e. "How would you describe your political view?"), political identity for economic issues (i.e. "How would you describe your political outlook with regard to economic issues?") and political identity for social issues (i.e. "How would you describe your political outlook with regard to social issues?"). Participants were requested to respond on a scale from 1 (very liberal) to 5 (very conservative) on each of these items. Table 1 reports the means, SDs, and intercorrelations among all measures included in this analysis.

Table 1

Means, SDs and Correlations Between All Variables Used in Study 1: All Participants Included

Variable	M	SD	1	2	3	4	5
1. T1 General political identity	3.31	1.49	–				
2. T1 Social political identity	2.93	1.55	.82**	–			
3. T1 Economic political identity	3.67	1.62	.79**	.53**	–		
4. T2 General political identity	3.26	1.51	.97**	.80**	.79**	–	
5. T2 Social political identity	2.90	1.56	.82**	.94**	.55**	.83**	–
6. T2 Economic political identity	3.69	1.69	.78**	.54**	.94**	.81**	.55**

**$p < .01$.

Procedure

At T1, participants completed measures of all three indicators of political identity (i.e., general, social, economic). Approximately one week later, participants completed the T2 online survey, which included the experimental manipulation and T2 measures of political identity.

Experimental design — At the start of the T2 session, participants were randomly assigned to read an article ostensibly "published recently in the most prestigious psychological journal in the U.S." which characterized groups as having either a fixed or malleable nature. This experimental paradigm has in previous research been found to induce significant differences in beliefs about group malleability (e.g., Halperin et al., 2011). The full version of these articles can be found in the supplementary material. To increase our confidence in the validity of this manipulation for MTurk participants, we also conducted a manipulation check study on an independent sample of 115 U.S. citizens (67 females (58%), 48 males (42%); Age $M = 35.9$, $SD = 13.03$). We found clear evidence to suggest that participants in the fixed (vs. malleable) condition were more likely to endorse entity theories about groups $F(1, 114) = 155.06$, $p < .001$, $b = 1.82$, 95% CI for mean difference [1.54, 2.11], $\beta = .76$. After reading the article, participants' political identification and demographic characteristics were assessed as part of what was ostensibly another study.

Results

First, we sought to examine whether a drop-out bias existed, i.e., whether there were any meaningful differences in political self-placement for participants who did or did not return for T2. Participants who were retained for analyses did not differ from participants who failed to return for the T2 survey in terms of general political identity $t(236) = 0.36$, $p = .722$, 95% CI for mean difference [-0.36, 0.53], economic political identity $t(239) = 0.04$, $p = .970$, 95% CI for mean difference [-0.48, 0.46], or social political identity $t(238) = 1.32$, $p = .189$, 95% CI for mean difference [-0.15, 0.77]. Thus, no meaningful differences in the constructs of interest were observed between participant who completed or did not complete the T2 questionnaire. The participants in the sample were moderate in their political identity, with mean values of the different measures of political identity being close to the middle value of the political identity scale (see Table 1). All dimensions of political identity were positively correlated (see Table 1).

In order to examine whether experimentally manipulating implicit theories about groups leads to change in political identification across two measurement points, each T2 indicator of political identification – general, social, and economic – was subjected to a 2-way (1=Malleability vs. 0=Entity Beliefs) MANOVA, with corresponding T1 indi-

cators included as covariates. By including T1 dependent variables as covariates in the model, the coefficient for the effect of experimental condition estimates its impact on *change* in the dependent variable across the measurement period as a function of the manipulation (see Finkel, 1995; Lenz, 2013).

The multivariate effect of experimental condition on political identification was not significant $F(3, 164) = 1.69$, $p = .17$, partial $\eta^2 = 0.03$, suggesting that the experimental condition did not have an overall effect on political identification. However, univariate analyses revealed that the experimental condition affected political identification on the social dimension $F(1, 166) = 4.46$, $p = .037$, $b = -0.16$, 95% CI [-0.32, -0.03], partial $\eta^2 = 0.026$. The means and SDs for the different experimental conditions in the two waves are reported in Table 2. Looking closer at these means, salience of group malleability appears to have made participants more liberal on the social dimension, while salience of entity theories about groups made them somewhat more socially conservative, the net effect of which was a greater change in social political identity between T1 and T2. This univariate effect however, was not observed for general political identity $F(1, 166) = 1.64$, $p = .20$, $b = -0.08$, 95% CI [-0.19, 0.04], partial $\eta^2 = .01$ or economic political identity $F(1, 166) = 0.002$, $p = .97$. $b = -0.004$, 95% CI [-0.17, 0.18], partial $\eta^2 = 0.00$.

Table 2

Means, SDs and Mean Change at T1 and T2 in the Different Experimental Conditions

	Malleability condition						Entity theories condition					
	T1		T2		*M*	*SD*	T1		T2		*M*	*SD*
Political identity dimension	*M*	*SD*	*M*	*SD*	change	(*M* change)	*M*	*SD*	*M*	*SD*	change	change
General political identity	3.28	1.51	3.20	1.49	-0.07	0.34	3.34	1.48	3.31	1.45	-0.02	0.45
Social political identity	2.90	1.53	2.79	1.50	-0.10	0.59	2.95	1.59	3.01	1.62	0.06	0.56
Economic political identity	3.74	1.58	3.75	1.63	0.01	0.58	3.61	1.67	3.63	1.75	0.02	0.45

Discussion

The results from Study 1 provide partial support for the hypothesis that implicit theories about groups affect political identification. The salience of malleability theories made the participants more socially liberal, while salience of entity theories made them more socially conservative, the net effect of which was a significant change in social political identity. It should however be noted that the effect size was small and that when correcting for the fact that the hypothesis was tested for three separate dependent variables (i.e., Bonferroni correction, Neyman & Pearson, 1928), the effect did not reach conventional levels for statistical significance ($p > .017$). The experimental manipulation did not significantly affect general or economic political identity. The results from the study were thus not clear enough to draw straightforward conclusions regarding the association between implicit theories about groups and political identity and in order to further probe the robustness and cross-cultural validity of the relationship between implicit theories about groups and political identity and examine whether this relationship was mediated by social dominance orientation, we carried out Study 2.

Study 2

Study 2 was carried out in order to validate and test our hypotheses in additional cultural and political contexts. Further, we sought to test our second hypothesis, that SDO mediates the relationship between implicit theories and political identity. The study was conducted in the U.S., Sweden and Israel. We also included a measure of Right-Wing Authoritarianism (RWA; Altemeyer, 1996) in order to control for the effects of this important psychological predictor of political identity. Furthermore, including RWA allowed us to test whether any mediation effects were specific to SDO.

Method

Participants and Procedure

U.S. sample (U.S.) — A sample of undergraduate students (*N* = 318, 240 females (75%), 77 males (24%) (1 missing value), Age: *M* = 20.25, *SD* = 3.54) participated in the online study in exchange for course credit. Data collection was approved by one of the authors' Institutional Review Board. The questionnaire took 20 minutes to complete on average.

Swedish sample (SE) — Students from a Swedish University (*N* = 172, 100 females (58%), 68 males (40%) (4 missing values), Age: *M* = 25.46, *SD* = 7.57) participated in the online study in exchange for a monetary award consisting of a cinema ticket. The participants were students from the university. Informed consent was attained and APA's Ethical Principles of Psychologists and Code of Conduct were observed. There was no formal ethical approval of the study from the University's ethical committee, nor was such an approval required from the University in order to conduct the study, since the study consisted entirely of completing commonly used self-report questionnaires. Duration of completing the questionnaire was not recorded.

Israeli sample (IL) — Jewish-Israeli students (*N* = 162, 66 females (41%), 96 males (59%), Age: *M* = 24.96, *SD* = 1.98) participated in the pen-and-paper study in exchange for course credit. Informed consent was attained and APA's Ethical Principles of Psychologists and Code of Conduct were observed. As in the Swedish sample, no formal ethical approval of the study was required from the University in order to conduct the study, since the study consisted entirely of completing commonly used self-report questionnaires. Duration of completing the questionnaire was not recorded.

Measures

The language used in the Swedish sample was Swedish and the language used in the Israeli sample was Hebrew. The first author of the current article speaks English, Swedish and Hebrew fluently and was able to ensure the equivalence of the translated versions of the questionnaire. In all three samples, additional measures, not included in this analysis (but administered for research questions not addressed in the current study), were included in the questionnaire.

Implicit theories about groups (ITG) — The ITG scale (Rydell et al., 2007) consisted of 4 items to which the participants are asked to state their degree of agreement on a scale between 1 (strongly disagree) to 6 (strongly agree). An example item from the scale is "Every group is a certain type of collection of people, and there is not much that can be done to really change that". Low values indicated endorsement of incremental beliefs about groups, while high values indicated endorsement of entity beliefs about groups. In the Swedish study, a scale

between 0 and 6 was used for all scales. High values indicated holding entity theories about groups while low values indicated holding incremental theories about groups (U.S.: α = .83, Sweden: α = .66, Israel: α = .84). The Swedish version of the scale was adapted from a Swedish translation of the implicit beliefs about intelligence and personality used in Jonsson and Beach (2010). The Hebrew translation of the scale items has been used in a number of previous studies (e.g., Halperin et al., 2011; Levontin, Halperin, & Dweck, 2013).

Social Dominance Orientation (SDO) — The social dominance orientation scale (version 6) (Sidanius & Pratto, 2001) consists of 16 items to which the participants are asked to state their degree of agreement between 1 (strongly disagree) and 7 (strongly agree), (U.S.: α = .94, Sweden: α = .90, Israel: α = .88). An example item from the scale is "It's probably a good thing that certain groups are at the top and other groups are at the bottom". Low values indicated a low degree of endorsement of social dominance beliefs, while high values indicated a high degree of endorsement of social dominance beliefs. We used validated translations of the SDO scale in the Swedish (Akrami & Ekehammar, 2006) as well as in the Israeli (Pratto, Sidanius, & Levin, 2006) samples.

Political identity — In the Swedish and Israeli samples, participants were asked to place themselves on a continuum from 1 (very left-wing) to 5 (very right-wing), while in the U.S. sample, political identity was solicited separately with regards to general, social and economic issues on a scale ranging from 1 (very liberal) to 5 (very conservative).

Right-Wing Authoritarianism (RWA) — The Right-Wing Authoritarianism scale (Altemeyer, 1996) consisted of 12 items (U.S.: α = .85, Israel: α = .67). An example item from the scale is "The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas". Low values indicated a low degree of right-wing authoritarianism while high values indicated a high degree of right-wing authoritarianism. In the Israeli sample, a validated Hebrew translation of the RWA scale was used (Rubinstein, 1996). The RWA scale makes use of wording which would be seen as extreme in the Swedish political debate and refers to prejudice which is not prevalent in Swedish society against specific groups (e.g., women, homosexuals) (Zakrisson, 2005). A 16-item version of the RWA scale, adjusted for the Swedish setting (Zakrisson, 2005) was therefore used in the Swedish sample (α = .82).

Results

All means, standard deviations and inter-correlations between the variables in the different samples are presented in Table 3. We did not have any predefined hypotheses regarding the relative level of endorsement of implicit theories about groups and social dominance orientation in the different countries. We were however interested in assessing such differences and carried out t-tests for independent samples for this purpose. For the sake of intergroup comparisons, the SDO and ITG responses in the Swedish sample was recoded to correspond with the response scale in the U.S. and Israeli sample. With regards to entity theories about groups, the U.S. and Israeli samples had a mean close to the midpoint of the 6-point scale, while the Swedish sample's mean was below the midpoint, indicating a general tendency to endorse incremental theories about groups in this sample. The mean in the Israeli sample was higher than both the U.S. sample $t(327) = 4.67$, $p < .001$ and the Swedish sample $t(324) = 9.43$, $p < .001$. Means for SDO in all three samples were below the midpoint of the 7-point scale, pointing to a low tendency for social dominance in each sample. As in the case of ITG, the participants in the Israeli sample endorsed social dominance beliefs to a higher degree than the U.S. $t(478) = 6.75$, $p < .001$ and Swedish participants $t(324) = 8.39$, $p < .001$. The U.S. participants further endorsed entity theories about groups $t(480) = 6.46$, $p < .001$

to a higher degree than the Swedish participants. The difference between the U.S. and Swedish samples for SDO did not reach statistical significance. The Israeli sample had a higher mean on the (right-wing) political identity item than the U.S. sample $t(477) = 11.66$, $p < .001$ and the Swedish sample $t(325) = 9.98$, $p < .001$. The Swedish and U.S. samples did not significantly differ on the political identity item $t(482) = 0.95$, $p = .343$.

Table 3

Means, Standard Deviations and Intercorrelations for All Study 2 Variables

Variable	*M*	*SD*	1	2	3	4	5
U.S.							
1. ITG	3.22	0.83					
2. SDO	2.73	1.20	.25**				
3. RWA	2.80	0.83	.15**	.55**			
4. General political identity	2.75	0.89	.18**	.54**	.65**		
5. Social political identity	2.48	1.07	.19**	.49**	.70**	.86**	
6. Economic political identity	3.03	1.02	.11†	.44**	.39**	.84**	.44**
IL							
1. ITG	3.59	0.82					
2. SDO	3.48	1.05	.13†				
3. RWA	3.21	0.60	.16*	.39**			
4. General political identity	3.70	0.72	.24**	.26**	.33**		
SE							
1. ITG	2.69	0.90					
2. SDO	2.54	0.99	.54**				
3. RWA	2.61	0.73	.47**	.63**			
4. General political identity	2.67	1.10	.31**	.62**	.36**		

†$p < .10$. *$p < .05$. **$p < .01$.

Our first hypothesis was that the more one endorses entity theories about groups (incremental theories about groups), the more rightist/conservative (leftist/liberal) one's political identification. In support of this hypothesis, degree of endorsement for entity beliefs about groups was significantly correlated with endorsement of right-wing political identity in the Swedish and Israeli samples. In the U.S. sample, degree of endorsement of entity beliefs about groups was significantly correlated with general right-wing political identity and right-wing political identity regarding social issues. The correlation with political identity regarding economic issues was in the expected direction, but did not reach statistical significance ($p = .055$) (see Table 3). These correlations were small to moderate in size.

We further hypothesized that SDO would mediate the relationship between ITG and political identity. In line with this hypothesis, degree of endorsement of entity beliefs about groups was significantly correlated with SDO in the Swedish and U.S. samples. In the Israeli sample, this correlation was not significant ($p = .090$). Furthermore, consistent with our hypothesis as well as with findings from previous studies (e.g., Federico & Sidanius, 2002; Pratto & Glasford, 2008; Sidanius et al., 2006; Sidanius & Pratto, 2001), SDO was significantly correlated with right-wing political identity in all samples. RWA was significantly correlated with degree of endorsement of entity theories about groups, SDO and general right-wing political identity in all samples (see Table 3).

The inclusion of separate measures for political identity with regards to social and economic issues in the U.S. sample allowed us to asses a number of correlations which are of peripheral importance to the purpose of the present article, but noteworthy for their implications for research on such different aspects of political identity. RWA is usually associated with social political identity, while SDO is associated with economic political identity. We compared the strength of these different correlations, using the Fisher r-to-z transformation (Fisher, 1915). With regards to RWA, this pattern was apparent, with the correlation between RWA and social political identity being significantly stronger than the correlation between RWA and economic political identity $z = 6.89$, $p < .001$. For SDO however, there was no significant difference in the size of the correlation for the two types of political identity $z = 0.99$, $p = .162$ (Calculations based on Eid, Gollwitzer, & Schmitt, 2010) (see Table 3).

We further tested whether SDO mediated the relationship between ITG and political identity, using Model 6 of Hayes' (2013) PROCESS macro, including two mediator variables (SDO and RWA). The full results from these analyses are reported in Table 4.

Table 4

Total, Direct and Indirect Effects of ITG on Political Identity Through SDO and RWA – Study 2

Sample, effect and variable	b	SE	T	p	LLCI	ULCI
Total effect of ITG on political identity						
U.S. general political identity	0.19	0.06	3.18	.002	0.072	0.306
U.S. economic political identity	0.13	0.07	1.93	.055	-0.003	0.269
U.S. social political identity	0.25	0.07	3.43	<.001	0.104	0.386
U.S. political identity composite	0.19	0.07	2.87	.004	0.060	0.319
Sweden general political identity	0.37	0.09	4.05	<.001	0.191	0.556
Israel general political identity	0.21	0.07	3.14	.002	0.078	0.345
Direct effect of ITG on political identity through SDO and RWA						
U.S. general political identity	0.04	0.05	.94	.348	-0.047	0.132
U.S. economic political identity	-0.00	0.06	-.04	.969	-0.127	0.122
U.S. social political identity	0.09	0.05	1.66	.097	-0.016	0.192
U.S. political identity composite	0.04	0.06	.77	.442	-0.066	0.152
Sweden general political identity	-0.03	0.09	-.33	.740	-0.215	0.153
Israel general political identity	0.16	0.06	2.48	.014	0.033	0.289
Indirect effect of ITG on political identity through SDO						
U.S. general political identity	0.07	0.02	-	<.05	0.032	0.123
U.S. economic political identity	0.10	0.03	-	<.05	0.043	0.168
U.S. social political identity	0.04	0.02	-	<.05	0.010	0.087
U.S. political identity composite	0.07	0.03	-	<.05	0.029	0.122
Sweden general political identity	0.43	0.08	-	<.05	0.291	0.606
Israel general political identity	0.02	0.02	-	>.05	-0.004	0.079
Indirect effect of ITG on political identity through RWA						
U.S. general political identity	0.00	0.03	-	>.05	-0.049	0.058
U.S. economic political identity	0.00	0.01	-	>.05	-0.029	0.030
U.S. social political identity	0.01	0.04	-	>.05	-0.076	0.082
U.S. political identity composite	0.00	0.03	-	>.05	-0.043	0.061
Sweden general political identity	-0.01	0.02	-	>.05	-0.060	0.029
Israel general political identity	0.02	0.02	-	>.05	-0.004	0.077

PsychOpen GOLD

In all samples and for all but one of the political identity outcomes, the more the participants endorsed entity theories about groups (incremental theories about groups), the more they indicated right-wing (left-wing) political identity (total effect). The only exception was for economic political identity in the U.S. sample. This relationship was in the expected direction, but did not reach statistical significance. Due to the positive intercorrelations between the different facets of political identity in the U.S. sample, we also ran the analysis using a composite consisting of general, economic and social political identity. The results for the composite mirrored the results for the separate dimensions of political identity and indicated that the more the participants endorsed entity theories about groups (incremental theories about groups), the more they indicated right-wing (left-wing) political identity. The direct effect of endorsement of entity theories about groups on political identity through SDO and RWA was non-significant for all political identity-outcomes in the American and Swedish samples. In contrast, the direct effect of ITG on political identity through SDO and RWA remained significant in the Israeli sample.

In order to examine whether SDO or RWA mediated the effect of ITG on political identity, we analyzed indirect effects of these two potential mediators and also compared the strength of the different indirect effects, using contrast analysis. The contrast analysis, included in the PROCESS-output, entails calculating whether the difference between the non-standardized indirect effects of the different mediators is significant. While the indirect effect of implicit theories on political identity through SDO was significant for all outcomes in the U.S. and Swedish samples, the indirect effect of implicit theories on political identity through RWA was non-significant in each of these cases. This indicates that the mediating effect in these samples mainly was due to SDO (see Table 4). No significant indirect effects of SDO or RWA were found in the Israeli sample. Contrast analysis between the indirect effects further showed that the difference in the sizes of the indirect effects through SDO and the indirect effects through RWA were significant with regards to general b = 0.06, SE = 0.04, LLCI = 0.002, ULCI = 0.148, $p < .05$ and economic political identity b = 0.09, SE = 0.03, LLCI = 0.036, ULCI = 0.168, $p < .05$ in the U.S. sample as well as for general political identity in the Swedish sample b = 0.44, SE = 0.09, LLCI = 0.278, ULCI = 0.626, $p < .05$. The difference between the indirect effect through SDO and the indirect effect through RWA was not significant with regards to social political identity nor for the political identity composite in the U.S. sample. Taken together, these results indicate that the relationship between ITG and political identity was mediated by SDO in the American and Swedish samples, while no such mediating effect could be found in the Israeli sample. Finally, we tested an alternative mediation model in which SDO was entered as independent variable while ITG were entered as mediator. The indirect effect of SDO on political identity through ITG was non-significant for all political identity outcomes.

Discussion

Study 2 provided support for our first research hypothesis, that degree of endorsement of entity beliefs (incremental beliefs) is positively associated with right-wing/conservative (left-wing/liberal) political identity. Further, while SDO mediated the relationship between implicit theories about groups and political identity in the U.S. and Swedish samples, it did not do so in the Israeli sample. A possible explanation of this cross-cultural difference may lie in the characteristics of these differing political contexts. In the U.S. and Sweden, political identity is to a large degree determined by one's attitude regarding the distribution of economic resources, the size of the public sector and support of traditional values and authorities (e.g., Bäck & Möller, 1997; Pew Research Center, 2014; Wilson & Dilulio, 2008). In Israel however, the Israeli-Palestinian conflict is highly prominent, takes a central place in the life of Israelis and continuously takes central stage on the public agenda (Bar-Tal, 1998, 2013; Maoz & McCauley, 2005; Nagar & Maoz, 2017). Political identity in Israel is therefore largely a function of one's attitude regarding the Israeli-Palestinian conflict (e.g., Diskin, 1999; Hazan, 2007; Reifen Tagar et al., 2014).

Introducing SDO as a mediator was based on the rationale that the more one believes that groups cannot change their basic characteristics (entity theories about groups) the more one will accept the current stratification of society and have a decreased motivation to change the current group hierarchy (social dominance beliefs). This in turn would predict the right-wing/conservative political identity, entailing a preference for stability and maintenance of the status quo (Jost et al., 2009). Based on this reasoning, we put forth a posthoc hypothesis; SDO mediates the relationship between implicit theories about groups, *insofar that political identity refers to attitudes regarding existing social/economic hierarchies within society*. In countries engaged in violent intergroup conflicts, such as Israel, holding the belief that groups cannot change may rather be related to the belief that the conflict with the other group is an unavoidable consequence of the inherent aggressive and untrustworthy nature of the other group. As a result, any attempt to reach a peaceful, negotiated resolution to the conflict is doomed to fail. Such positions are not necessarily related to attitudes regarding the reformation or retention of social/economic hierarchies within the Jewish-Israeli majority population, since the outgroup in question is not a subgroup within that population, but a separate national group. Thus, SDO is unlikely to play a mediating role in such a context. Instead, we would expect a direct (unmediated) relationship between degree of endorsement of entity theories about groups and political identity in such settings.

Study 3

We carried out Study 3 in order to examine the posthoc hypothesis arising from our analysis of Study 2, in which we found that SDO mediated the relationship between implicit theories about group and political identity in U.S. and Swedish samples, but not in an Israeli sample. We reasoned that this difference between the countries was due to differences in the determinants of political identity in each country. The rationale underlying the mediating role of SDO is based on the assumption that political identity to a large degree is determined by attitudes regarding the need to change the existing social/economic hierarchies in society. If this is the case, then SDO would only play such a mediating role insofar as political identity is defined in terms of changing or retaining the existing social/economic hierarchies. In order to examine this hypothesis, we replicated Study 2 in an additional Israeli sample, but with one crucial difference. Rather than simply assessing political identity with a single item as in Study 2, we separately measured political identity regarding the Israeli-Palestinian conflict and political identity regarding social and economic issues, relevant to the reformation or conservation of social/economic hierarchies. We expected SDO to mediate the relationship between implicit theories about groups and political identity regarding social/economic issues, but not to play such a mediating role regarding political identity relating to the Israeli-Palestinian conflict.

Method

Participants and Procedure

Jewish-Israeli students (*N* = 166, 70 females (42%), 95 males (57%) (1 missing value), Age: *M* = 24, *SD* = 1.82) participated in the online study in exchange for course credit. Informed consent was attained and APA's Ethical Principles of Psychologists and Code of Conduct were observed. There was no formal ethical approval of the study from the University's ethical committee, nor was such an approval required from the University in order to conduct the study, since the study consisted entirely of completing commonly used self-report questionnaires. The questionnaire took the participants 29 minutes to complete on average.

Measures

The same measures as in Study 2 were used in Study 3 (ITG α = .80; SDO α = .81; RWA α = .66). However, political identity was measured both with regards to the conflict, and with regards to social/economic issues. Additional measures, not included in this analysis (but administered for research questions not addressed in the current study), were also administered.

Political identity regarding the conflict — Participants were posed the question "Please state your political identity with regards to the Israeli-Palestinian conflict". The participants were asked to rate themselves on a scale ranging from 1 (very leftist) to 5 (very rightist).

Political identity regarding social/economic issues — Social/economic political identity was measured by asking participants to state their political identity regarding social/economic issues on a scale from 1 (very liberal) to 5 (very conservative). This item was preceded by a short explanation of the terms *liberal* and *conservative*. The text was: "In the following question regarding your political views with regards to social/economic issues, you will be asked to state your response on a scale from 'very liberal' to 'very conservative'. By 'liberal' we intend the general attitude that the government should pursue policies of regulation, tax policies and subsidies in order to achieve equal opportunity and equality for all. By 'conservative' we mean the general attitude that the government should pursue policies of a limited government and a free competitive market in order to provide people with the freedom necessary to pursue their own goals".

Results

All means, standard deviations and intercorrelations can be found in Table 5. The sample in Study 3 endorsed entity beliefs about groups to a lesser degree than the Israeli sample in Study 2 $F(1, 326) = 15.69$, $p < .001$, while holding social dominance beliefs to a similar degree $F(1, 326) = 2.18$, $p = .141$. The participants in this sample displayed a greater degree of support for right-wing political identity with regards to the conflict than with regards to social/economic issues $t(161) = 9.70$, $p < .001$. The more the participants endorsed entity beliefs about groups, the more they self-identified as political rightists with regards to the conflict. The relationship between endorsement of entity theories and rightists political identity was in the expected direction, but did not reach statistical significance ($p = .063$).

Table 5

Means, Standard Deviations and Intercorrelations for All Study 3 Variables

Variable	M	SD	1	2	3	4
1. ITG	3.20	0.96				
2. SDO	3.33	0.84	.20**			
3. RWA	2.98	0.56	.11	.22**		
4. IL-PA conflict political identity	3.55	0.83	.21**	.14[†]	.30**	
5. Soc/Ec political identity	2.80	0.78	.14[†]	.29**	.20*	.28**

[†]$p < .10$. *$p < .05$. **$p < .01$.

We hypothesized that SDO would mediate the relationship between ITG and political identity with regards to social/economic issues but not necessarily the relationship between ITG and political identity with regards to the Israeli-Palestinian conflict. Degree of endorsement of entity theories about groups was significantly correlated

with SDO and SDO was significantly correlated with conservative political identity with regards to social/economic issues. The correlation between SDO and political identity regarding issues related to the conflict was in the expected direction, but not statistically significant (p = .070). Right-wing political identity about the conflict was correlated with political identity regarding social/economic issues (see Table 5).

We again tested for mediation, using Model 6 of Hayes' (2013) PROCESS macro, including two mediator variables (SDO and RWA). The full results from these analyses are reported in Table 6.

Table 6

Total, Direct and Indirect Effects of ITG on Political Identity Through SDO and RWA – Study 3

Effect and variable	b	SE	t	p	LLCI	ULCI
Total effect of ITG on political identity						
Soc/Ec political identity	0.12	0.06	1.87	.063	-0.007	0.241
IL-PA conflict political identity	0.18	0.07	2.65	.009	0.045	0.309
Direct effect of ITG on political identity through SDO and RWA						
Soc/Ec political identity	0.07	0.06	1.08	.283	-0.055	0.188
IL-PA conflict political identity	0.14	0.07	2.19	.030	0.014	0.274
Indirect effect of ITG on political identity through SDO						
Soc/Ec political identity	0.04	0.02	-	<.05	0.009	0.095
IL-PA conflict political identity	0.01	0.02	-	>.05	-0.013	0.049
Indirect effect of ITG on political identity through RWA						
Soc/Ec political identity	0.01	0.01	-	>.05	-0.008	0.048
IL-PA conflict political identity	0.02	0.02	-	>.05	-0.017	0.065

For both political identity outcomes, the more the participants endorsed entity theories about groups, the more they indicated right-wing political identity (total effect), although this effect did not reach statistical significance for social/economic political identity (p = .063). As in the Israeli Study 2 sample, the direct effect of ITG on political identity regarding the conflict through SDO and RWA remained significant. In contrast, and similarly to the U.S. and Swedish Study 2 samples, the direct effect of ITG on political identity regarding social/economic issues through SDO and RWA was non-significant.

We then proceeded to analyze indirect effects of SDO and RWA and compared the strength of these indirect effects. While the indirect effect of implicit theories on political identity through SDO was significant for political identity regarding social/economic issues, the indirect effect of implicit theories on political identity through RWA was non-significant. Neither of the indirect effects were significant for political identity regarding the Israeli-Palestinian conflict. Similar to what had been the case in the U.S. and Swedish Study 2 samples, this indicated that SDO mediated the relationship between ITG and political identity regarding social/economic issues. Further, similar to the results for the Israeli Study 2 sample, no such mediating effect was found for political identity regarding the Israeli-Palestinian conflict.

Since the two measures of political identity were correlated, we further reran the mediation analyses, this time entering the other type of political identity as a covariate in the model. These analyses again showed a significant indirect effect of implicit theories on social/economic political identity through SDO, while no such mediating effect of SDO was found regarding the relationship between ITG and political identity regarding conflict. No significant

indirect effects were found for RWA. In should be noted however, that contrast analysis between the indirect effects through SDO and RWA showed that the difference in the size of the indirect effects was non-significant b = 0.03, SE = 0.02, LLCI = -0.009, ULCI = 0.083, p > .05. This result attests to the small effect sizes of the indirect effects and indicates that it is premature to draw conclusions regarding the possible mediating effect of RWA. We further tested an alternative mediation model in which SDO was entered as independent variable while ITG were entered as mediator. The indirect effect of SDO on political identity through ITG was non-significant.

Discussion

The results from Study 3 supported our posthoc hypothesis that SDO mediates the relationship between implicit theories about groups and political identity with regards to social/economic issues, but not necessarily the relationship between implicit theories and political identity with regards to intergroup conflict. We reason that this differences is due to differing determinants of these types of political identity. While political identity regarding social and economic issues relates to the desirability of reformation or conservation of intra-societal hierarchies, political identity regarding intergroup conflict rather relates to an inclination towards military action or negotiation in inter-societal tensions. In light of this result, we limit our conclusions drawn from the studies and suggest that SDO mediates the relationship between implicit theories about groups, *insofar that political identity refers to attitudes regarding existing social/economic hierarchies within society*. This specification is important and speaks to the need to take into account different political contexts when studying the psychology of political identity. In addition to the predominance of the conflict, the Israeli setting is characterized by being a melting pot for Jews from different parts of the world. Thus, social dominance attitudes of the kind "It's probably a good thing that certain groups are at the top and other groups are at the bottom" may among our participants have been interpreted from the perspective of the intra-Jewish relations, such as the relationship between Jews of European and Middle Eastern descent. Such attitudes presumably play a smaller role in predicting attitudes regarding the Israeli-Palestinian conflict and this may explain why SDO played a less critical role in predicting this facet of political identity in the Israeli setting.

We did not find evidence indicating that RWA mediated the relationship between implicit theories about groups and political identity. This is in line with our conceptual reasoning since SDO, but not RWA, directly addresses attitudes regarding the need to change social/economic hierarchies. It is important to note however, that the difference in size of the indirect effect of SDO and RWA was non-significant in several cases. It is thus too early to rule out any mediating effect of RWA based on the present results.

Social and economic political identities were collapsed into one item in the study. While the lack of differentiation between social and economic dimensions of political identity was due to a focus on the comparison between how political identity is defined in the different countries (relating to the conflict in Israel and relating to social and economic issues in the U.S. and Sweden), we recognize this as a limitation of the study. Future research would do well to include separate measures of social and economic dimensions of political identity.

General Discussion

Taken together, the results from the three studies support the relationship between implicit theories about groups and political identity. We found correlational evidence for such an association in two studies (Study 2 and 3) in

three cross-cultural samples (U.S., Sweden and Israel). The results from Study 1 further showed that increasing the salience of entity theories about groups (as opposed to incremental theories about groups) increased right-wing (left-wing) political identification on the social dimension. However, since this experimental manipulation did not affect general or economic political identity, conclusion regarding the causal effect of implicit theories on political identity should be made with caution. Whereas implicit theories about groups previously have been implicated with regards to support for specific policies (e.g., Halperin et al., 2012; Wohl et al., 2015), the current study is the first to demonstrate the relationship between implicit theories about groups and political identity.

We also hypothesized that social dominance beliefs would mediate the relationship between implicit theories about groups and political identity. Underlying this mediation model is the assumption that the more one holds entity beliefs about groups, the more one will accept inequality, which in turn will affect political self-identification. However, since our empirical evidence for the relationship between implicit theories about groups and SDO is correlational, we cannot yet infer a causal effect of the former on the latter.

Support for the hypothesis that SDO mediates the relationship between implicit theories about groups and political identity was found in a U.S. and a Swedish sample, but not in an Israeli sample. The results from an additional Israeli sample showed that while SDO mediated the relationship between implicit theories about groups and political identity regarding social/economic issues, it did not mediate the relationship when political identity related to the Israeli-Palestinian conflict. These results provide some clarification of the process by which implicit theories about groups determine political identity. Our interpretation of these results is that when political identity is based on attitudes towards social/economic hierarchies within society, holding entity beliefs about groups (i.e., groups can't change) will be associated with the endorsement of social dominance beliefs (i.e., hierarchies shouldn't change), which in turn will be associated with right-wing conservative political identity. However, SDO is unlikely to play such a mediating role in settings in which political identity is determined by one's position in regards to aspects of the political discourse that are largely unrelated to societal stratification and hierarchy. In such settings, implicit theories about groups rather seem to affect political identity in a direct (unmediated) way.

There are a number of implications of the reported studies for the study of political identity and ideology. First, the results indicate that general beliefs about the possibility of change in groups is associated with political identity. This reinforces the contention, put forth by Jost and his colleagues, that attitudes towards change is a central building block in political ideology and political self-identification (Jost et al., 2003, 2009). The results also bring together several lines of research and furthers the understanding of the interrelationships between different psychological determinants of political identity. Importantly, the results can help us to understand why people endorse or reject social dominance beliefs and how this in turn is reflected in political identification. If a certain group's position in society is merely the natural consequence of the unalterable characteristics of that group, then the current hierarchical order of society is more likely to be defended. This in turn would be likely to result in self-identification as a political rightist, or conservative. The research further has implications for the cross-cultural understanding of political identity. In particular, the present studies emphasize the importance of taking differing determinants of political identity into account in the study of political ideology and identity, and point to the limitations involved in the sole reliance on samples taken from single countries (e.g., U.S. samples) in the attempt to understand the psychology of political identity.

There are however limitations to the present studies. First, one of the main limitations is the differences between the samples in the measurement of political identity. While these differences to a large degree reflect attempts to

formulate study items which use familiar, colloquial terms, the lack of uniformity in measurement makes comparisons between the different samples difficult. Future research would do well to ensure uniformity in the measurement of political identity across cross-cultural samples. Notwithstanding this limitation, it is important to note the similarity and consistency with regards to the interrelations between the study variables in the different samples. Second, participants with missing data for individual items were excluded from the relevant analysis, using list-wise exclusion. While there was relatively little missing data, (up to 1.24% for individual items in Study 1, up to 1.26% in the Study 2 U.S. sample, up to 1.85% in the Study 2 Israeli sample, up to 4.65% in the Study 2 Swedish sample and no missing values in the Study 3 sample) it is possible that these individuals differed systematically from the rest, thus introducing a possible bias.

Further, while the inclusion of samples from several political/cultural settings allows us to ascertain that the obtained results are not specific to a particular culture or political context, it is too early to know whether the results from the study are universally valid. The results from the present studies suggest that the mediating role of SDO on the relationship between implicit theories about groups and political identity depends on the determinants of political identity in different cultural/political contexts. The results regarding political identity about intergroup conflict differed from the results regarding political identity about social and economic issues. Our interpretation of these findings is that SDO will mediate the relationship between implicit theories about groups and political identity only insofar that political identity relates to attitudes regarding existing intra-societal hierarchies. When political identity is defined in terms of attitudes towards an intractable intergroup conflict, SDO did not mediate this relationship. In order to ascertain whether this applies more generally to societies involved in intractable conflicts, research from further cultural settings would be needed. It would be especially informative to examine whether the results from the Israeli setting would replicate in other intractable conflict areas, such as Kashmir, Sri Lanka and Cyprus. In this regard, it should be noted that the included samples do not constitute representative samples of the different countries. Most importantly, we relied mainly on student samples in the present research, populations which are usually politically more liberal than the general population. This characteristic of the samples should be taken into account when interpreting the absolute levels on the different variables.

Political identity to a large degree deals with the desirability and feasibility of societal change. The results in the present article suggest that the degree to which one strives for such change may be related to one's belief in the possibility of underprivileged (or hostile) groups to undergo change. After all, if they can't change, why support change?

Competing Interests

The authors have declared that no competing interests exist.

PsychOpen GOLD

References

Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York, NY, USA: Harper.

Akrami, N., & Ekehammar, B. (2006). Right-wing authoritarianism and social dominance orientation. *Journal of Individual Differences, 27*, 117-126. doi:10.1027/1614-0001.27.3.117

Altemeyer, R. (1996). *The authoritarian specter*. Cambridge, MA, USA: Harvard University Press.

Altemeyer, R. A. (1998). The other "authoritarian personality". In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 47-91). New York, NY, USA: Academic Press.

Axelrod, A. (2002). *America's wars*. New York, NY, USA: John Wiley and Sons.

Bäck, M., & Möller, T. (1997). *Parties and organizations*. Stockholm, Sweden: Allmänna Förlaget. [in Swedish]

Bar-Tal, D. (1998). Societal beliefs in times of intractable conflict: The Israeli case. *International Journal of Conflict Management, 9*, 22-50. doi:10.1108/eb022803

Bar-Tal, D. (2013). *Intractable conflicts: Socio-psychological foundations and dynamics*. Cambridge, United Kingdom: Cambridge University Press.

Bregman, A. (2016). *Israel's wars: A history since 1947*. New York, NY, USA: Routledge.

Conover, P. J., & Feldman, S. (1981). The origins and meaning of liberal/conservative self-identifications. *American Journal of Political Science, 25*, 617-645. doi:10.2307/2110756

Diskin, A. (1999). The new political system of Israel. *Government and Opposition, 34*, 498-515. doi:10.1111/j.1477-7053.1999.tb00167.x

Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 33, pp. 41-112). San Diego, CA, USA: Academic Press.

Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development.* Philadelphia, PA, USA: Psychology Press/Taylor and Francis.

Eid, M., Gollwitzer, M., & Schmitt, M. (2010). *Statistik und Forschungsmethoden*. Weinheim, Germany: Beltz.

Erikson, R. S., & Tedin, K. L. (2003). *American public opinion* (6th ed). New York, NY, USA: Longman.

Federico, C. M., & Sidanius, J. (2002). Racism, ideology, and affirmative action, revisited: The antecedents and consequences of "principled objections" to affirmative action. *Journal of Personality and Social Psychology, 82*, 488-502. doi:10.1037/0022-3514.82.4.488

Feldman, S., & Johnston, C. (2014). Understanding the determinants of political ideology: Implications of structural complexity. *Political Psychology, 35*, 337-358. doi:10.1111/pops.12055

Finkel, S. E. (1995). *Causal analysis with panel data*. Thousand Oaks, CA, USA: Sage.

Fisher, R. A. (1915). Frequency distribution of the values of the correlation coefficient in samples of an indefinitely large population. *Biometrika, 10*, 507-521.

Halperin, E., Crisp, R., Husnu, S., Dweck, C., & Gross, J. (2012). Promoting intergroup contact by changing beliefs: Group malleability, intergroup anxiety and contact motivation. *Emotion, 12*, 1192-1195. doi:10.1037/a0028620

Halperin, E., Russell, G. A., Trzesniewski, H. K., Gross, J. J., & Dweck, S. C. (2011). Promoting the peace process by changing beliefs about group malleability. *Science, 333*, 1767-1769. doi:10.1126/science.1202925

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY, USA: Guilford Press.

Hazan, R. Y. (2007). Kadima and the centre: Convergence in the Israeli party system. *Israel Affairs, 13*, 266-288. doi:10.1080/13537120701204829

Henry, P. J., Sidanius, J., Levin, S., & Pratto, F. (2005). Social dominance orientation, authoritarianism, and support for intergroup violence between the Middle East and America. *Political Psychology, 26*(4), 569-584. doi:10.1111/j.1467-9221.2005.00432.x

Holmberg, S., & Oscarsson, H. (2004). *Väljare: Svenskt väljarbeteende under 50 år*. Stockholm, Sweden: Nordstedts Juridik.

Jonsson, A.-C., & Beach, D. (2010). Reproduction of social class in teacher education: The influence of scientific theories on future teachers' implicit beliefs. *The Journal for Critical Education Policy Studies, 8*, 3-46.

Jost, J. T. (2017). Ideological asymmetries and the essence of political psychology. *Political Psychology, 38*, 167-208. doi:10.1111/pops.12407

Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology, 60*, 307-337. doi:10.1146/annurev.psych.60.110707.163600

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin, 129*, 339-375. doi:10.1037/0033-2909.129.3.339

Jost, J. T., Nosek, B. A., & Gosling, S. D. (2008). Ideology: Its resurgence in social, personality, and political psychology. *Perspectives on Psychological Science, 3*, 126-136. doi:10.1111/j.1745-6916.2008.00070.x

Knesset. (2017). *Governments of Israel*. Retrieved from https://www.knesset.gov.il

Kumlin, S. (2004). *The personal and the political: How personal welfare state experiences affect political trust and ideology*. New York, NY, USA: Palgrave MacMillan.

Lenz, G. S. (2013). *Follow the leader? How voters respond to politicians' policies and performance*. Chicago, IL, USA: University of Chicago Press.

Levontin, L., Halperin, E., & Dweck, C. S. (2013). Implicit theories block negative attributions about a longstanding adversary: The case of Israelis and Arabs. *Journal of Experimental Social Psychology, 49*(4), 670-675. doi:10.1016/j.jesp.2013.02.002

Levy, S. R., & Dweck, C. S. (1999). The impact of children's static versus dynamic conceptions of people on stereotype-formation. *Child Development, 70*, 1163-1180. doi:10.1111/1467-8624.00085

Maoz, I., & McCauley, R. (2005). Psychological correlates of support for compromise: A polling study of Jewish-Israeli attitudes towards solutions to the Israeli-Palestinian conflict. *Political Psychology, 26*, 791-807. doi:10.1111/j.1467-9221.2005.00444.x

Nagar, R., & Maoz, I. (2017). Predicting Jewish-Israeli recognition of Palestinian pain and suffering. *The Journal of Conflict Resolution, 61*, 372-397. doi:10.1177/0022002715590875

Neyman, J., & Pearson, E. S. (1928). On the use and interpretation of certain test criteria for purposes of statistical inference. *Biometrika, 20*, 175-240.

Oscarsson, H. (1998). *Den svenska partirymden. Väljarnas uppfattningar av konfliktstrukturen I partisystemet 1956–1996*. Unpublished manuscript, University of Gothenburg, Gothenburg, Sweden.

PsychOpen GOLD

Pew Research Center. (2014). *Global attitudes and trends* (March 17 – June 5, 2014). Retrieved from http://www.pewglobal.org

Porat, R., Halperin, E., & Bar-Tal, D. (2015). The effect of sociopsychological barriers on the processing of new information about peace opportunities. *The Journal of Conflict Resolution, 59*(1), 93-119. doi:10.1177/0022002713499719

Pratto, F. (1999). The puzzle of continuing group inequality: Piecing together psychological, social, and cultural forces in social dominance theory. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 31, pp. 191-263). San Diego, CA, USA: Academic Press.

Pratto, F., & Glasford, D. (2008). Ethnocentrism and the value of a human life. *Journal of Personality and Social Psychology, 95*, 1411-1428. doi:10.1037/a0012636

Pratto, F., Sidanius, J., & Levin, S. (2006). Social dominance theory and the dynamics of intergroup relations: Taking stock and looking forward. *European Review of Social Psychology, 17*, 271-320. doi:10.1080/10463280601055772

Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology, 67*, 741-763. doi:10.1037/0022-3514.67.4.741

Reifen Tagar, M., Morgan, G. S., Halperin, E., & Skitka, L. J. (2014). When ideology matters: Moral conviction and the association between ideology and policy preferences in the Israeli–Palestinian conflict. *European Journal of Social Psychology, 44*, 117-125. doi:10.1002/ejsp.1993

Riksdagen. (2016). *History of the Riksdag* [in Sweden]. Retrieved from www.riksdagen.se

Rubinstein, G. (1996). Two peoples in one land: A validation study of Altemeyer's right-wing authoritarianism scale in the Palestinian and Jewish societies in Israel. *Journal of Cross-Cultural Psychology, 27*, 216-230. doi:10.1177/0022022196272005

Rydell, R. J., Hugenberg, K., Ray, D., & Mackie, D. M. (2007). Implicit theories about groups and stereotyping: The role of group entitativity. *Personality and Social Psychology Bulletin, 33*, 549-558. doi:10.1177/0146167206296956

Sidanius, J. (1993). The psychology of group conflict and the dynamics of oppression: A social dominance perspective. In S. Iyengar & W. J. McGuire (Eds.), *Explorations in political psychology* (pp. 183-219). Durham, NC, USA: Duke University Press.

Sidanius, J., Mitchell, M., Haley, H., & Navarrete, C. D. (2006). Support for harsh criminal sanctions and criminal justice beliefs: A social dominance perspective. *Social Justice Research, 19*, 433-449. doi:10.1007/s11211-006-0026-4

Sidanius, J., & Pratto, F. (2001). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York, NY, USA: Cambridge University Press.

Sidanius, J., Pratto, F., & Bobo, L. (1996). Racism, conservatism, affirmative action, and intellectual sophistication: A matter of principled conservatism or group dominance? *Journal of Personality and Social Psychology, 70*, 476-490. doi:10.1037/0022-3514.70.3.476

Särlvik, B. (1974). Sweden: The social bases of the parties in a developmental perspective. In R. Rose (Ed.), *Electoral behavior: A comparative handbook* (pp. 371-434). New York, NY, USA: Free Press.

Sundberg, U. (2010). *Sweden's Wars: 1448-1814.* Stockholm, Sweden: Svenskt Militärhistoriskt Bibliotek Förlag. [in Swedish]

Wilson, J. Q., & DiIulio, J. J., Jr. (2008). *American government* (11th ed.). Boston, MA, USA: Houghton Mifflin.

Wohl, M. J. A., Cohen-Chen, S., Halperin, E., Caouette, J., Hayes, N., & Hornsey, M. J. (2015). Belief in the malleability of groups strengthens the tenuous link between a collective apology and intergroup forgiveness. *Personality and Social Psychology Bulletin, 41*, 714-725. doi:10.1177/0146167215576721

PsychOpen GOLD

Wong, N., & Gullo, K. (2005). Political labels: Majorities of U.S. adults have a sense of what conservative, liberal, right wing or left wing means, but many do not. *PR Newswire.* Retrieved from http://www.prnewswire.com

Zakrisson, I. (2005). Construction of a short version of the Right-Wing Authoritarianism (RWA) scale. *Personality and Individual Differences, 39*, 863-872. doi:10.1016/j.paid.2005.02.026

PsychOpen GOLD