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Modern Anti-Semitism and Anti-Israeli Attitudes

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Anti-Semitism is resurgent throughout much of the world. A new theoretical model of anti-Semitism is presented and tested in 3 experiments. The model proposes that mortality salience increases anti-Semitism and that anti-Semitism often manifests as hostility toward Israel. Study 1 showed that mortality salience led to greater levels of anti-Semitism and lowered support for Israel. This effect occurred only in a bogus pipeline condition, indicating that social desirability masks hostility toward Jews and Israel. Study 2 showed that mortality salience caused Israel, but no other country, to perceptually loom large. Study 3 showed that mortality salience increased punitiveness toward Israel's human rights violations more than it increased hostility toward the identical human rights violations committed by Russia or India. Collectively, results suggest that Jews constitute a unique cultural threat to many people's worldviews, that anti-Semitism causes hostility to Israel, and that hostility to Israel may feed back to increase anti-Semitism.

Keywords: anti-Semitism, Israel, subtle prejudice, terror management theory, human rights

After 50 years of remission, anti-Semitism is once again on the rise throughout much of the world. The three experiments reported in this article explored one potential source and several potential manifestations of anti-Semitism. All three studies addressed whether increasing anti-Semitism also increased hostility toward Israel.

Anti-Semitism Resurgent

A resurgence of anti-Semitism may not be readily apparent. Jews have generally fared well in the democratic West in the decades after World War II, and Israel, the Jewish state, has become a regional power. Nonetheless, anti-Semitism is increasing. This is true not only in the Middle East, where animus toward Jews is linked to hostility toward Israel (Matas, 2005), but also in the liberal West. Incidents of anti-Semitism throughout Western Europe have steadily increased over the past 10 years (Anti-Defamation League, 2005b). Anti-Semitic acts in the United States increased in 2004 to their highest point in nearly a decade and were up 17% from the previous year (Anti-Defamation League, 2005a). Jews are victimized by hate crimes proportionately more than any other racial or ethnic group in America (U.S. Census, 2004–2005). Despite this growing problem, many major works on stereotypes, prejudice, and discrimination have paid relatively little attention to resurgent anti-Semitism (one can find little or no mention of anti-Semitism, e.g., in Fiske, 1998; Jost & Banaji, 1994, or in many other reviews).

The Psychology of Anti-Semitism

Anti-Semitism is a bizarre social phenomenon. Many of the stereotypes relating to anti-Semitism are mutually contradictory and shift radically from era to era and from location to location. Jews have been condemned for being seditious communists and for being avaricious capitalists. Fascists in Nazi Germany and in 1980s Argentina accused their nations' Jews of having hidden loyalties to socialist regimes (Rein, 2003), whereas the Soviet Union regularly persecuted its Jews for harboring secret sympathies for the West (Weitz, 2001). Jews have been chastised as being corruptly cosmopolitan and as being insular traditionalists, as being heretical free-thinkers and as being mystical obscurantists, as being weak, ineffectual, and effete and as stealthily advancing toward worldwide domination (Johnson, 1987).

Some scholars of anti-Semitism see a method in these contradictions. Anti-Semitism may serve to create a tangible target upon which non-Jews project their own fears, especially fears that arise during times of social disruption (Cohn-Sherbok, 2002). Indeed,

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attacks against Jews spiked during the Crusades, the Black Plague, in France following the Franco–Prussian War, in Russia in the years preceding the Bolshevik Revolution, in Germany following World War I, in the United States during the Great Depression, in the Soviet Union during the Cold War, and in South America during the transition from dictatorships to democracy. Currently, anti-Jewish sentiment is rapidly spreading throughout the Muslim Middle East, which is itself undergoing massive social change (Glaeser, 2005).

Why this correspondence between anti-Semitism and social transition? Tolerance for others' opinions, especially those that challenge one's own deeply held personal values, are tied to people's own feelings of certainty or worth (Cohen, Aronson, & Steele, 2000). When people feel less secure, they become less tolerant of those whose views, perspectives, or beliefs are different from their own. Yet these findings themselves beg the question, why does insecurity lead to intolerance specifically toward Jews? Terror management theory offers an explanation.

Terror Management Theory

Terror management theory (TMT; Solomon, Greenberg, & Pyszczynski, 1991) proposes that many human activities function to reduce the terror that comes from awareness of one's own mortality. Culture provides one way to manage death-related anxiety. It does so by providing worldviews that offer order, meaning, and permanence; by providing a set of standards of valued behavior that, if satisfied, provide self-esteem; and by promising protection and, ultimately, death transcendence to those who fulfill the standards of value. In effect, people strike a bargain with their cultures—they subscribe to the ideology, dogma, and norms of their cultures and in return their cultures supply them relief from mortality terror. People therefore expend a great deal of effort maintaining their culturally bestowed worldviews and defending them against threats (for reviews, see Greenberg, Solomon, & Pyszczynski, 1997; Pyszczynski, Solomon, & Greenberg, 2003).

TMT and Outgroup Hostility

Although adherents often experience their cultural worldviews as absolute reality, these are actually fragile social constructions (cf. Berger & Luckmann, 1967; McCall & Simmons, 1966) requiring continual validation from others especially when confronted with reminders of mortality. This validation occurs mainly through the process of social consensus (Festinger, 1954; Kelley, 1967). Thus, the mere existence of others with similar worldviews bolsters people's faith in the validity of their own worldviews, thereby increasing the effectiveness of those worldviews as anxiety buffers. Likewise, the mere existence of others with dissimilar worldviews threatens people's faith in their own worldviews and undermines the effectiveness of their worldviews as anxiety buffers. For these reasons, people generally prefer ideas and people that conform to their worldviews and dislike ideas and people that deviate from them (see Florian & Mikulincer, 1998; Greenberg et al., 1997; Heine, Harihara, & Niiya, 2002; Ochsmann & Mathey, 1994).

TMT and Anti-Semitism

TMT provides a straightforward explanation for anti-Semitism. When focused on their own mortality, and in need of the protections that their worldviews provide, non-Jews may become more hostile toward Jews, because Jews represent a unique challenge to their worldviews. Although the nature of the worldview challenge that Jews can present is complex and requires more space to present than is feasible here, some key elements can be summarized as follows.

Theological Challenge

There is a fundamental asymmetry between Judaism and the two other Abrahamic religions, Christianity and Islam. Whereas all these faiths have roots in the Hebrew Bible and regard it as sacred, Judaism does not correspondingly acknowledge the New Testament, the Koran, the divinity of Christ, or the prophetic status of Mohammed. Thus, the need to convert, subjugate, or destroy Jews for their refusal to accept Jesus or Mohammed features centrally in the historical theology of Christianity and Islam, respectively (Goldhagen, 1997; Harris, 2004).

Socio-Cultural Challenge

Diaspora Jews have lived both near to yet separate from their non-Jewish neighbors. For centuries this separateness was imposed upon Jews, by laws that confined them to ghettos and that required them to wear clothing or insignia, or to carry documents, identifying them as Jews. At the same time, Jews' dietary codes, social mores, distinct languages (Hebrew, Yiddish, and Ladino), and internal governance led to self-segregation from their non-Jewish neighbors. Thus, Jews were both a proximal but perpetually alien presence, whose doings were at best a mystery. Furthermore, institutional and individual efforts by clergy, heads of state, artists, writers, and business leaders (e.g., Dinnerstein, 2003; Plous, 2003) presented Jews as threatening, which compounded the intergroup tension that would naturally arise from this cultural and religious separateness (e.g., Brewer, 2001; Tajfel, 1981).

Furthermore, people tend to favor their own groups (Brewer, 2001; Tajfel, 1981). The fact that Jews have not only survived this concerted hostility but currently thrive economically and politically in the United States, Europe, and Israel (e.g., Burstein, 2007; Marger, 1991; World Bank, 2006) may sometimes arouse suspicion and hostility among non-Jews because it potentially threatens deeply held beliefs about the superiority of one's own group. Indeed, the sociological literature suggests that many Jews and Jewish scholars are reluctant to highlight or acknowledge Jewish success for fear that it may provoke anti-Semitism (see Burstein, 2007, for a review).

Jews as a Worldview Threat

It is currently not possible to pinpoint which of the many secular, cultural, political, and theological sources of anti-Semitism predominate, or what combination is most likely to be triggered by mortality concerns. However, the very scope, duration, and pervasiveness of anti-Semitic themes and discourses suggest that Jews may present a distinctive worldview threat to many people under certain conditions. If worldview threats become acute when confronting mortality, then—according to TMT—non-Jews contemplating their own mortality should respond more negatively toward Jews. Consistent with this analysis, when Christians thought about their own mortality, their

trait ratings of Jews became more negative (Greenberg et al., 1990). Similarly, mortality salience increased American college students' agreement with the statement that "the Holocaust in Nazi Germany was God's punishment for the Jews" (Kunzendorf, Hersey, Wilson, & Ethier, 1992).

Modern Anti-Semitism

Modern sensibilities discourage people from expressing prejudice against minority groups (see, e.g., Nelson, 2002, for a review). For many people, detecting bigotry in themselves represents a threat to their own self-worth (Devine, Montieth, Zuwerink, & Elliot, 1991; Dutton & Lake, 1973; Gaertner & Dovidio, 1986; Harber, 1998, 2004). As such, overt racism and sexism have largely gone underground, hidden from external social censure and even from one's own self-recognition (McConahay, 1986; Swim, Aikin, Hall, & Hunter, 1995). These attitudes are submerged but not necessarily dormant; rather they are expressed through more socially acceptable guises in the form of modern racism and modern sexism (see Gaertner & Dovidio, 2000; McConahay, 1986; Swim et al., 1995).

Classic anti-Semitism, like other forms of bigotry, has also likely gone underground. Except for extreme hate groups, few in the democratic West explicitly advocate repressing, isolating, or harming Jews. What, then, might be a more socially acceptable avenue for expressing anti-Semitism? Opposition to Israel. This is not to equate all anti-Israel views with anti-Semitism but instead to suggest that in some cases and for some people hostility toward Israel may provide a socially acceptable cover for hostility toward Jews in general.

This kind of camouflaged prejudice is common practice in hostility toward other groups. For example, hostility to minorities or women can be hidden within opposition to affirmative action, even though some who oppose affirmative action are neither sexists nor racists. In the same way, hostility toward Israel can serve as a socially acceptable cover for anti-Semitism precisely because other critics of Israel have motives untainted by such bias.

The Present Research

In the rest of this article, we present a new model of anti-Semitism based on the ideas described above and report three studies that test predictions of that model. The model's starting point is the well-established link between mortality salience (conscious thoughts of one's own death) and anti-Semitism. After replicating that link, our research explored ways in which modern anti-Semitism might manifest as hostility to Israel. The hypothesis that people higher in anti-Semitism would also harbor more hostility to Israel was directly tested. Given the frequency with which condemnations of Israel are accompanied by denials of anti-Semitism, and the lack of research empirically demonstrating that anti-Semitism causes hostility to Israel, it seemed important to empirically assess whether, at least sometimes, such condemnations may indeed reflect anti-Semitism.

Second, it is well-established that people are more likely to express prejudice (a) when they believe they will be caught lying (Jones & Sigall, 1971) or (b) when nonprejudicial explanations could plausibly explain their responses (e.g., Gaertner & Dovidio, 1986; Jones & Sigall, 1971; Nelson, 2002). To the extent that hostility to Israel reflects anti-Semitism, opposition to Israel should also increase under the following conditions: when people believe they will be caught lying, when hostility to Israel is measured in a subtle manner, and when hostility to Israel seems to reflect broader moral principles rather than anti-Semitism.

Theoretical Model

Figure 1 presents a model of relations between mortality salience, anti-Semitism, and attitudes toward Israel. The model predicts that mortality salience leads to increased anti-Semitism (Path 1) and that increased anti-Semitism leads to decreased support for Israel (Path 2). Thus, the model also predicts that anti-Semitism may partially mediate effects of mortality salience on attitudes toward Israel (Path 1 $\times$ Path 2).

Such mediation, however, is predicted to be only partial because the model also predicts that mortality salience can increase opposition to Israel without increasing anti-Semitism (Path 3). This is because Israel, as a combatant for over 60 years, may be viewed by some as perpetrating human rights violations. Mortality salience activates worldview defenses, and worldviews typically include moral codes. For these reasons, mortality fears lead to more punitive attitudes toward those perceived as committing moral transgressions (Greenberg et al., 1990). Violating others' human rights is not usually a morally acceptable practice. Mortality salience, therefore, may decrease support for Israel due to heightened moral sensibilities, separate from the arousal of anti-Semitism.

Study 1

Study 1 investigated mortality salience effects on anti-Semitism and opposition to Israel directly, through the use of questionnaires. Study 1 also tested the following two hypotheses regarding the role of mortality salience in increasing hostility to Israel: (a) Anti-Semitism mediates the effects of mortality salience on increased hostility toward Israel, and (b) mortality fears may increase hostility toward Israel for reasons unrelated to anti-Semitism.

One limitation of questionnaire-based attitude studies is that their objectives are often obvious. Social psychologists have long known that people may intentionally lie or distort their responses on such questionnaires in order to appear unprejudiced (e.g., Devine, 1989; Jones & Sigall, 1971). To address this problem, we introduced a bogus pipeline manipulation, in which some partici-

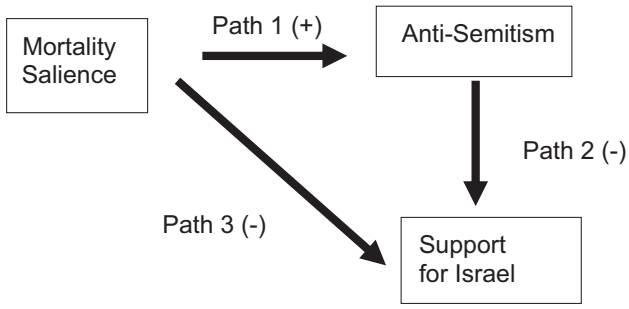

Figure 1. Theoretical model of anti-Semitism. Path 1 = mortality salience increases anti-Semitism. Path 2 = anti-Semitism decreases support for Israel. Path 3 = mortality salience decreases support for Israel for reasons other than anti-Semitism. + means the path is predicted to be positive. – means the path is predicted to be negative.

pants were led to believe that their underlying attitudes were transparent (thus making deception futile) and others were led to believe that their underlying attitudes were private (thereby making deception viable). Therefore an auxiliary hypothesis is that mortality salience effects on attitudes toward Jews and Israel will be apparent primarily when people believe they cannot hide their prejudices.

Method

Participants

We recruited 183 participants from a Rutgers University social psychology course. Participants received course credit for their participation, which lasted about 20 min. Participants were run in one session. The data from Jewish participants were removed from analyses, leaving a total of 151 participants. This included 99 women and 52 men. Nine identified themselves as African American, 30 as Asian American, 18 as Latino, 77 as White, 16 identified themselves as belonging to other ethnic groups, and 1 participant did not answer. Ninety-six identified themselves as belonging to one of the many Christian faiths, 3 as Muslim, 2 as Buddhist, 19 as Hindu, 28 as "other," and 3 participants did not answer.

Experimental Design

Participants were randomly assigned to one of four cells in a 2 (mortality salience: death or exam) × 2 (bogus pipeline: prejudice obvious or bogus pipeline) independent-groups design.

Mortality salience. In the mortality salience condition, participants responded to two open-ended questions relating to their own mortality, which read as follows: "Please describe the emotions that the thought of your own death arouses in you," and "Write down as specifically as you can, what you think will happen to you physically when you die."

Exam salience (control) participants responded to parallel questions regarding taking an upcoming exam, which read as follows: "Please describe the emotions that the thought of your next important exam arouses in you," and "Write down as specifically as you can, what you think will happen to you physically as you take your next important exam and when it's over." Exam salience provided an apt control condition among college students because, as demonstrated in previous TMT studies, exams are an unpleasant as well as anxiety-provoking yet nonlethal event.

Bogus pipeline. Techniques such as the bogus pipeline (Jones & Sigall, 1971) have long been used to reduce research participants' tendencies to overestimate their positive qualities and underestimate their negative qualities. These techniques convince participants that researchers can discover their true attitudes and beliefs, making efforts to hide such attitudes futile. In this study, the mortality salience manipulation was crossed with a bogus pipeline manipulation. Half the participants believed that the purpose of the experiment was to study prejudice (prejudice obvious), and the other half believed that the purpose of the experiment was to study attitudes and that we would be able to detect any lies about their true attitudes (bogus pipeline).

The cover page in the prejudice obvious condition stated that "This experiment deals with ***prejudice***." Instructions indicated that, because prejudice was such a major social problem, this study would investigate their prejudices and requested that even though "Some questions may be difficult or repetitive, please answer all questions as best you can." Thus alerted to the "purpose" of the survey, participants could hide socially unacceptable attitudes. These participants were not led to believe that experimenters had any means to determine the candor of their survey responses, and therefore disguising such attitudes remained a viable tactic for participants in the prejudice obvious condition.

Participants in the bogus pipeline condition received the same information about the survey as did those in the prejudice obvious condition, with two crucial differences. First, they were informed that we were studying attitudes, but there was no mention of prejudice. Second, they were also led to believe that any deception on their part (lying to appear unprejudiced) would be detected by sophisticated methods developed by psychologists. For example, participants were asked to consider the following question: "How often do you stop for stranded motorists? (*never*, *rarely*, *sometimes*, *usually*, *always*)." They were then told "This question might appear innocent enough, but, in fact, it is one of many tools psychologists use to detect people who lie to create a positive impression of themselves. With the possible exception of policemen on patrol, *NO ONE* "usually" or "always" stops for stranded motorists. People who say they do are most likely lying." This form of the bogus pipeline has worked well in prior studies of the expression of racial prejudice (Walker & Jussim, 2002).

Materials

The main dependent variables were three questionnaires that assessed anti-Semitism, attitudes toward Israel, and attitudes toward Palestinians. Questions were answered on a scale of 1–5, with 1 indicating strong disagreement and 5 indicating strong agreement.

Anti-Semitism Scale. The Anti-Semitism Scale was an updated version of Levinson and Sanford's (1944) Anti-Semitism Scale, modified to sample anti-Jewish attitudes with 23 contemporary, and less blatant, attitude items such as, "Jews still think of themselves as God's Chosen People," "Jews are more willing than others to use shady practices to get what they want," and "Jews are just as honest as other businesspeople" (reverse coded). The 23 questions (Cronbach's $\alpha = .93$) were scored on a 5-point Likert scale so that a higher score revealed a greater amount of anti-Semitism. Responses were combined and averaged to create a composite score.

Attitudes toward Israel. The Attitudes Toward Israel Scale consisted of 10 questions assessing participants' levels of pro-Israeli sentiment such as, "I strongly support the Israeli cause" (Cronbach's $\alpha = .72$; see Appendix A for complete questionnaire). As with the Anti-Semitism Scale, questions were scored on a 5-point Likert scale. Responses were combined and averaged to create a composite score.

Attitudes toward the Palestinians. The Attitudes Toward the Palestinians Scale consisted of 10 questions assessing participants' levels of pro-Palestinian sentiment. Most items were highly similar to the Attitudes Toward Israel Scale items, such as "The Palestinians have been oppressed by Israelis for decades," "I strongly support the Palestinian cause," and "The Palestinians deserve a homeland" (Cronbach's $\alpha = .74$). A small number of questions,

however, were quite different, such as, "Palestinian suicide bombers are freedom fighters." (Any of our full scales are available from either Florence Cohen or Lee Jussim upon request.) Questions again were scored on a 5-point Likert scale. Responses were combined and averaged to create a composite score. The purpose of this measure was to determine whether the mortality salience manipulation affected levels of support for both Israelis and Palestinians (who are also associated with strife and conflict) or if it was unique to Israeli sentiment alone.

Procedure

The experimenter introduced the study as an investigation of the relationship between personality attributes and opinions about matters of public interest. In the mortality salience condition, participants responded to two open-ended questions relating to their own death. Exam salience control participants responded to parallel questions regarding taking an upcoming exam. Participants then filled out the three questionnaires used to assess anti-Semitism, anti-Israeli sentiment, and anti-Palestinian sentiment.

Filler questionnaires were then completed to sustain the cover story that this was a study testing the relationship between personality attributes and attitudes toward current events. Last, participants completed a demographic questionnaire assessing age, nationality, language spoken, religion, and grade point average and were debriefed.

Results and Discussion

Preliminary Analyses

We performed an initial series of univariate analyses of variance (ANOVAs), using mortality salience (death, exam) by bogus pipeline (bogus pipeline, prejudice obvious) by sex, ethnicity, and religion. These analyses yielded only a single significant interaction with mortality salience and, therefore, are not discussed further.[1] Means, standard deviations, and correlations among all dependent variables are presented in Table 1. To determine if mortality salience affected mood, we performed analyses of variance on an abridged version of the Positive and Negative Affect Scale (PANAS-X; Watson & Clark, 1992) including Positive Affect and Negative Affect. Consistent with previous TMT research, there were no significant differences in mood found in any of these analyses (all ps $> .1$). Three extreme outliers (± 2.5 SDs) on the Anti-Semitism Scale were removed before conducting analyses, leaving 148 participants. Ns varied slightly for subsequent analyses due to missing data.

Table 1
Means, Standard Deviations, and Intercorrelations for Variables in Study 1

Variable	1	2	3	4	5	6
1. Bogus pipeline	—					
2. Mortality salience	.01	—				
3. Anti-Semitism	.25**	.24**	—			
4. Palestinian support	.10	−.09	.13	—		
5. Israel support	−.16	−.27**	−.42**	−.03	—	
6. Bogus Pipeline × Mortality Salience	.58**	.58**	.40**	.00	−.32**	—
M	0.49	0.49	2.77	2.87	2.94	0.24
SD	0.50	0.50	0.74	0.43	0.36	0.43

Note. $N = 147$–148 for all correlations.
** $p < .01$.

Overview of Main Analyses

The main analyses consisted of a series of 2 (mortality salience, exam salience) × 2 (prejudice obvious, bogus pipeline) ANOVAs, performed on anti-Semitism scores, attitudes toward Israel, and attitudes toward the Palestinians. Although we report all main effects and interactions, none optimally test the operational hypotheses derived from our theoretical perspective. Specifically, the main hypotheses were that there would be more anti-Semitism and more opposition to Israel expressed in the mortality salience–bogus pipeline cell than in any of the other three cells. This prediction is optimally tested by a 1 degree of freedom a priori contrast (Rosenthal & Rosnow, 1991). Therefore, our main hypothesis was tested with a contrast in which the mortality salience–bogus pipeline cell was coded as –3 and all other cells were coded as 1.

Anti-Semitism

There were significant main effects for mortality salience, $F(1, 144) = 9.90$, $p = .002$, $r = .24$, and bogus pipeline, $F(1, 144) = 10.81$, $p = .001$, $r = .25$. Participants reported significantly greater levels of anti-Semitism under mortality salience ($M = 2.95$, $SD = 0.81$) than under exam salience ($M = 2.60$, $SD = 0.62$). Participants also reported more anti-Semitism when led to believe they would be caught lying ($M = 2.96$, $SD = 0.72$) than when led to believe that the study focused on assessing their prejudices ($M = 2.59$, $SD = 0.72$).

These main effects, however, were qualified by the predicted Mortality Salience × Bogus Pipeline interaction, $F(1, 144) = 7.32$, $p = .008$, $r = .21$ (see Table 2 for cell means). As predicted, anti-Semitism was highest in the mortality salience–bogus pipeline group.

The most focused, crucial test of our hypotheses was provided by the a priori 1 degree of freedom contrast, which was significant, $t(144) = 5.23$, $p < .001$, $r = .40$. The a priori contrast coefficients correlated .99 with the observed cell means. Furthermore, an analysis of the residual between-groups variance (after accounting for the variance explained by this contrast) was not significant, $F(2, 114) = 0.14$, *ns*. In other words, this contrast accounted for nearly all of the systematic variance in anti-Semitism, and what

[1] There was a significant interaction of religion (Christian, non-Christian) with mortality salience for attitudes toward the Palestinians, $F(1, 143) = 3.96$, $p < .05$. There was no religion difference under exam salience (Ms = 2.89 and 2.93, for Christians and non-Christians, respectively), but there was a religion difference under mortality salience (Ms = 2.73 and 3.06, respectively), $t(143) = 2.80$, $p < .05$. Nonetheless, mortality salience did not significantly affect attitudes toward the Palestinians among either Christians or non-Christians (both ts < 1.4, both ps $> .05$). Future research might want to further explore these types of religion differences in mortality salience effects on support for Palestinians; they are, however, beyond the scope of the present research and are not discussed further.

Table 2
Cell Means on the Anti-Semitism Scale in Study 1

	Prejudice obvious			Bogus pipeline		
Condition	*N*	*M*	*SD*	*N*	*M*	*SD*
Exam	39	2.57	0.61	36	2.63	0.63
Death	37	2.62	0.81	36	3.29*	0.65

Note. Scores were based on a 5-point Likert scale. Higher scores indicate higher levels of anti-Semitic sentiment. These means are participants' average score on the 23 questions comprising this scale.
* This mean differs from the others at $p < .05$ across rows and columns.

was left over was not significant. This contrast, therefore, strongly supported the hypotheses that mortality salience in conjunction with the fear of being caught lying to appear unprejudiced increased anti-Semitic expression. However, when participants were aware that prejudice was being measured they altered their responses to appear less anti-Semitic than they actually were.

Attitudes Toward Israel

Scores on the Attitudes Toward Israel Scale were affected by mortality salience, $F(1, 143) = 12.04$, $p = .001$, $r = .27$, and by the bogus pipeline, $F(1, 143) = 4.11$, $p < .05$, $r = .16$. Participants reported significantly less support for Israel under mortality salience ($M = 2.85$, $SD = 0.40$) than under exam salience ($M = 3.05$, $SD = 0.29$). Participants also reported less support for Israel when led to believe they would be caught lying ($M = 2.89$, $SD = 0.38$) than when led to believe that the study focused on assessing their prejudices ($M = 3.01$, $SD = 0.34$). These main effects, however, were qualified by a Mortality Salience × Bogus Pipeline interaction that approached significance, $F(1, 143) = 2.83$, $p = .09$, $r = .13$ (see Table 3 for cell means). As predicted, opposition to Israel was highest in the mortality salience–bogus pipeline group.

The crucial test of the second hypothesis was again provided by the a priori 1 degree of freedom contrast, which compared the mortality salience–bogus pipeline group (coded as 3) to the other three groups (each coded as –1). This contrast was significant, $t(143) = 4.11$, $p < .001$, $r = .32$. The a priori contrast coefficients correlated .95 with the observed cell means. Furthermore, the residual between-groups variance (after accounting for the variance explained by this contrast) was not significant, $F(2, 143) = 0.93$, *ns*. In other words, this contrast accounted for nearly all of the systematic variance in attitudes toward Israel, and what was left over was not significant. This contrast, therefore, strongly supported the hypotheses that mortality salience in conjunction with the fear of being caught lying to appear unprejudiced decreased expressed support for Israel.

This pattern is particularly valuable for revealing the (partial) role of anti-Semitism in anti-Israeli sentiment. If opposition to Israel and anti-Semitic prejudice were not intertwined for participants, the bogus pipeline manipulation would likely have had no interactive effect with mortality salience. In the mortality salience–prejudice obvious condition, participants expressed as much support for Israel as in both exam salience conditions. In the mortality salience–bogus pipeline condition, however, support for Israel significantly dropped. In other words, our participants seemed to recognize that their opposition to Israel reflected anti-Semitism, which they disclosed only when they thought they would be caught.

It is possible that participants in the mortality salience–prejudice obvious condition expressed more positive attitudes toward Israel mainly because they feared being seen as anti-Semitic, rather than because they were hiding actual anti-Semitism. However, this is also unlikely for the following reasons. First, support for Israel received no similar boost from the prejudice obvious manipulation under exam salience. Second, the difference between the bogus pipeline and prejudice obvious conditions in expressed attitudes toward Israel emerged only when participants' anti-Semitism actually increased (under mortality salience). If they merely feared being seen as anti-Semitic, but were not actually more anti-Semitic, the prior analyses should have shown no effect of mortality salience on anti-Semitism. Those analyses, however, showed that mortality salience did increase anti-Semitism. We conclude, therefore, that the best explanation for this result is that our participants in some way recognized that their increased hostility toward Israel under mortality salience reflected anti-Semitism, which they hid in the prejudice obvious condition but admitted to in the bogus pipeline condition.

Attitudes Toward the Palestinians

We examined support for the Palestinians for two reasons. First, we wanted to examine whether the effects of mortality salience were unique to anti-Semitism. It could be that attitudes to any outgroup, not only Jews, would become more hostile following mortality salience. Second, perhaps mortality salience causes people to become more hostile to anyone engaged in war and conflict and creates "a pox on both your houses" effect.

To test these ideas, we examined whether mortality salience and the bogus pipeline manipulations affected scores on our Attitudes Toward the Palestinians Scale. The same mortality salience by bogus pipeline 2 × 2 ANOVA was, therefore, performed on the scale measuring support for Palestinians. This analysis yielded no main effects or interaction effects on attitudes toward the Palestinians (all Fs < 2, all ps $> .1$). Thus, there was no evidence that mortality salience either increased or decreased support for the Palestinians and no evidence that people were masking their true attitudes toward the Palestinians. Thus, hostility following mortality salience did not generalize to another Middle East combatant.

Table 3
Cell Means on the Attitudes Toward Israel Scale in Study 1

	Prejudice obvious			Bogus pipeline		
Condition	*N*	*M*	*SD*	*N*	*M*	*SD*
Exam	38	3.06	0.30	36	3.04	0.28
Death	37	2.95	0.37	36	2.74*	0.41

Note. Scores were based on a 5-point Likert scale. Higher scores indicate higher levels of support for Israel. These means are participants' average score on the 10 questions comprising this scale.
* This mean differs from the others at $p < .05$ across rows and columns.

Mediational Analyses

The Figure 1 model proposes that mortality salience increases hostility to Israel through two routes. One route is independent of anti-Semitism (Path 3). The second route is an indirect effect mediated by anti-Semitism (an increase in Anti-Semitism causes an increase in opposition to Israel; Paths 1 and 2). These predictions were tested in a set of mediational analyses.

We have already established that mortality salience in conjunction with a bogus pipeline manipulation increased anti-Semitism and reduced support for Israel. Furthermore, those who were more anti-Semitic also were less supportive of Israel, $r(147) = -.42$, $p < .001$. The negative relationship between anti-Semitism and support for Israel is consistent with the hypothesis that anti-Semitism mediates effects of mortality salience on support for Israel, although it is also consistent with several alternative hypotheses. The next set of analyses directly tested these hypotheses.

Establishing mediation. Mediation can be established by demonstrating four specific results (Baron & Kenny, 1986). First, the independent variable should significantly affect the mediator. The theoretical a priori contrast has established that mortality salience in conjunction with the fear of being caught lying increases anti-Semitism. Second, the independent variable should significantly affect the dependent variable in the absence of the mediator. The theoretical a priori contrast has already established that mortality salience in conjunction with the fear of being caught lying reduces support for Israel.

Third, the effect of the independent variable on the dependent variable should significantly decrease when the mediator is added to the model. In our case, this means that the effect of the a priori contrast (mortality salience in conjunction with the fear of being caught lying) on support for Israel should be reduced when controlling for anti-Semitism. Fourth, the effect of the mediator on the dependent variable should remain significant, even when controlling for the independent variable. In our case, this means that anti-Semitism should still predict reduced support for Israel, even when controlling for the a priori contrast. Our next set of analyses tested the third and fourth requirements for establishing mediation.

Testing this hypothesized model required us to conduct two separate regression analyses. The first regression assessed effects on anti-Semitism (this regression used the a priori contrast coefficients, i.e., 3 for mortality salience–bogus pipeline, –1 for the other three cells, to predict anti-Semitism). The second regression tested effects (of the a priori contrast) on support for Israel, controlling for anti-Semitism, and constituted the key test of mediation.

Results of this model are presented in Figure 2. The link between anti-Semitism and opposition to Israel remained significant even after controlling for the a priori contrast ($B = .35$, $p \leq .05$). This supports the hypothesis that anti-Semitism at least partially mediated the effects of mortality salience on support for Israel.

Furthermore, the path from the a priori contrast to support for Israel decreased from $\beta = -.32$, $p < .001$, to $\beta = -.19$, $p < .05$. Sobel's (1982) test indicated that this decrease was significant ($z = -2.00$, $p < .05$). As predicted by the Figure 1 theoretical model, these results supported hypotheses that there would be two routes by which mortality salience reduced support for Israel: one route involving mediation by increased anti-Semitism and one route independent of anti-Semitism.

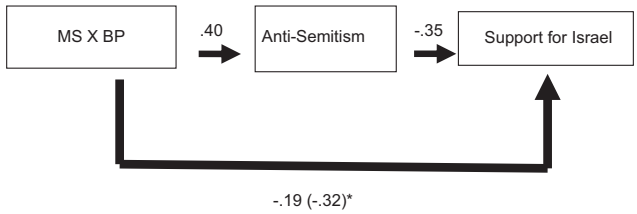

Figure 2. Mediational Model 1: Does anti-Semitism mediate effects of mortality salience on support for Israel? MS × BP refers to the a priori contrast comparing participants in the mortality salience–bogus pipeline condition with participants in the other three conditions (see text for more details). All coefficients are standardized and significant at $p < .05$. The coefficient in parentheses was obtained from a model without the mediator. The asterisk means that the change in this coefficient was statistically significant ($p < .05$).

An alternative model. Because Study 1 was an experiment, the relationships starting with mortality salience in Figure 2 are clearly causal. However, mediation analyses showed that the effects of mortality salience and the bogus pipeline on hostility toward Israel were not due exclusively to the direct effects of these manipulations but were partially mediated by anti-Semitism. Because anti-Semitism was not an experimental manipulation, however, causal inferences regarding its relationship with attitudes toward Israel are not as well-justified as causal inferences regarding effects of mortality salience and the bogus pipeline.

Therefore, we tested an alternative model in order to determine the viability of an alternative assumption—that opposition to Israel caused anti-Semitism and, therefore, mediated the effects of mortality salience on anti-Semitism. Thus, Mediational Model 2 (see Figure 3) was identical to Mediational Model 1, except that it reversed the assumed causal relationship between anti-Semitism and support for Israel. In this model, the path linking attitudes toward Israel to anti-Semitism remained significant ($B = -.33$, $p < .01$) and the effect of the a priori contrast on anti-Semitism was reduced (from .40 to .29). A Sobel's test indicated that this reduction was significant ($z = 3.10$, $p < .01$). Therefore, these results are consistent with the idea that attitudes toward Israel partially mediated the effect of mortality salience on anti-Semitism.

However, neither Model 1 nor Model 2 provided evidence of complete mediation. These results, therefore, mean that both models do a moderately good job of explaining the correlation between anti-Semitism and attitudes toward Israel. Unfortunately, our data did not permit us to directly test for bidirectional mediation. Nonetheless, the conclusion most clearly justified by this pattern of results is that anti-Semitism and opposition to Israel exist in a cycle of mutual causation.

Although this mutual causation was not predicted, it does not threaten the validity of our hypothesized model (which was confirmed) and is interesting and important in its own right. Taken together, our results are consistent with the hypothesis that anti-Semitism and opposition to Israel may exist in a cycle of mutual causation. This means that our initial model requires an interesting and important additional path: from attitudes toward Israel to anti-Semitism.

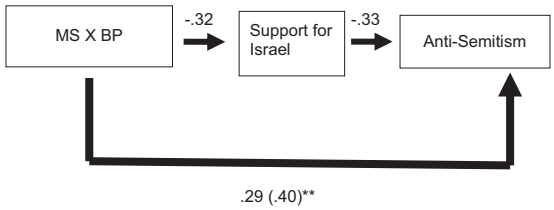

Figure 3. Mediational Model 2: Does support for Israel mediate effects on anti-Semitism? MS × BP refers to the contrast comparing participants in the mortality salience–bogus pipeline condition with participants in the other three conditions (see text for more details). All coefficients are standardized and significant at $p < .05$. The coefficient in parentheses was obtained from a model without the mediator. The double asterisk means that the change in this coefficient was statistically significant ($p < .01$).

Such bidirectional causality is highly plausible. In addition to anti-Semites being more likely to oppose Israel, negative attitudes toward Israel might also lead to hostility for Jews more generally. This possibility is consistent with a recent survey of 5,000 citizens from 10 European countries that demonstrated that individuals with extreme anti-Israel views are more likely to be anti-Semitic (Kaplan & Small, 2006).

Study 2

Study 1 investigated overt, explicit anti-Semitism and attitudes toward Israel. It showed that mortality salience increased both anti-Semitism and opposition to Israel. It also showed, however, that fear of appearing prejudiced can suppress both of these effects. It therefore seems likely that hostility toward Jews and Israel will often be expressed in subtle and indirect ways that are plausibly interpretable as something other than prejudice. Studies 2 and 3, therefore, assessed more subtle and covert expressions of anti-Semitism and anti-Israel sentiment.

Israel Looming Large

Israel is one of the world's smallest nations. In terms of landmass, Israel is 1/3rd the size of Jordan and 1/50th the size of Egypt, and it is less than half the size of San Bernadino County, in Southern California. Yet Israel is routinely characterized as looming large and dangerous. A 2003 European Union poll, for example, found that nearly 60% of those surveyed believed that Israel was the greatest threat to world peace, worse than Iran, North Korea, Syria, and Sudan (Beaumont, 2003). Caricatures of Israel often present it or its leaders as looming giants (Gross, 2004; Kotek, 2004).

This disparity between Israel's actual size and the exaggerated manner in which it is often regarded constitutes an interesting and important psychological puzzle. How can something so small loom so large in the imaginations of its critics? Certainly, Israel is a regional power, but other regional powers—all with recent histories of violence and conflict, such as Great Britain and India—do not seem to be so frequently depicted as looming large and dangerous. This raises the possibility that there is something unique about perceptions of Israel. One possibility is that people who are anti-Semitic exaggerate Israel's physical size to justify and rationalize their fear of and prejudice against Jews. Study 2 examined whether increasing people's anti-Semitism increases their perceptions of the geographic size of Israel.

Study Overview

People subjectively amplify the size, proximity, volume, and duration of subjectively threatening objects and events (Harber, 2005; Riskind, Moore, & Bowley, 1995). Of particular interest is a tendency to perceive threatening things (e.g., snakes, spiders) as "looming" larger, or dominating the perceptual field (Mathews & Mackintosh, 2004). Similarly, within a working-class district in London, not only were anti-Jewish stereotypes and attitudes expressed, but there was a tendency to overestimate the size of the Jewish population in England (5 million estimated vs. 410,000 actual; Robb, 1954). Furthermore, South African anti-Semites overestimated the number of Jews in South Africa (Allport, 1954).

Hypotheses

If mortality salience increases anti-Semitism because Jews threaten many people's cultural worldviews, then mortality salience should also lead Israel to loom large but have little or no effect on subjective estimates of the size of other countries (which do not provide the type of cultural threat that Jews do). The present study, therefore, tested these predictions. Specifically, people were asked to estimate the size of Israel and several other countries, either under mortality salience or a control condition.

Method

Participants

We recruited 181 Rutgers University undergraduate students from a social psychology course. They were given extra credit for their participation. Participants were run in one 20-min session. Data from 17 Jews were excluded from all analyses, as were those of 3 students who had pervasive missing data. This left a total of 161 participants, of whom 99 were women and 62 were men. Eight identified themselves as African American, 34 as Asian American, 15 as Latino, 81 as White, and 23 identified themselves as members of other groups. Ninety-eight identified themselves as belonging to one of the many Christian faiths, 13 as Hindu, 7 as Muslim, 1 as Buddhist, 39 as "other," and 3 participants did not answer.

Materials

The main dependent variable was a series of seven maps in which participants were asked to judge the size of the country presented in comparison to a U.S. state. All questionnaire packets contained a map of the United States with the following instructions:

> Please look carefully at the map of the United States above. Pay attention to the size of each state relative to the United States. The questionnaire packet contains a series of questions about the U.S. followed by maps of different countries from around the world. It will be your task, based on your own knowledge of world geography, to decide which of the U.S. states each of these countries is most similar to in terms of size.

On the seven pages that followed, seven maps of the following countries were presented in the following order: Lebanon, Morocco, Japan, Israel, New Zealand, Great Britain, and Argentina. These countries were chosen because they, like Israel, have a vertical shape (longer than they are wide), because they represent nations of various sizes, located on five of the major continents, and because many share one or more other social, physical, or political features with Israel (some are democracies, some have recent histories of war and conflict, etc.). Accompanying each map was a size assessment in the form of the question, "What state does COUNTRY X most resemble in square miles?" Participants had a choice of 1 = *Delaware* (the smallest area), 2 = *New Jersey*, 3 = *South Carolina*, 4 = *Florida*, 5 = *California,* or 6 = *The entire West Coast* (Washington to California, which was the largest of the five sample areas).

Manipulations

Because it would not be obvious to participants that their responses would bear any relation to anti-Semitism, Study 2 did not employ the bogus pipeline manipulation used in Study 1.

Mortality salience. Procedures regarding the mortality salience manipulation versus exam salience manipulation were identical to those in Study 1.

Map key manipulation. In the map key condition participants were provided with a map key in square miles for the map of the United States and all of the maps on the questionnaires. In the no map key condition participants were not provided with a map key for the map of the United States nor for any of the maps on the questionnaires. This condition was included to evaluate whether giving participants an objective standard to use when estimating country size might eliminate effects of mortality salience.

Experimental Design

Participants were randomly assigned to one of the four conditions in our 2 (mortality salience: death or exam) × 2 (map key or no map key) independent-groups experimental design.

Procedure

The experimenter introduced the study as an investigation of the relationship between personality attributes and knowledge about world geography. In the mortality salience condition, participants responded to the same two open-ended questions relating to their own mortality described in Study 1. Exam salience (control) participants responded to parallel questions regarding taking an upcoming exam. Participants then filled out the questions related to the map presented on each page.

Filler questionnaires were then completed to sustain the cover story that the study was testing the relationship between personality traits and world knowledge. Lastly, participants completed a demographic questionnaire assessing age, nationality, language spoken, religion, and grade point average.

Results and Discussion

Preliminary Analyses

We performed series of two-way ANOVAs, using mortality salience (death, exam) by sex, ethnicity, and religion. These analyses yielded only 2 out of 21 possible interactions of a demographic variable with mortality salience and, therefore, are not discussed further. We performed another set of 2 (mortality vs. exam) × 2 (map key vs. no map key) ANOVAS on all variables. These analyses yielded no significant interactions and only two significant main effects for map key. Because map key did not alter the pattern of results regarding mortality salience effects, it was dropped from all subsequent analyses and is not discussed further. To determine if mortality salience affected mood, we performed ANOVAs on an abridged version of the PANAS-X (Watson & Clark, 1992) including Positive Affect and Negative Affect. Consistent with previous TMT research, there were no significant differences in mood found in any of these analyses (all *p*s > .1). A test for outliers did not find any.

Main Analyses: Effects on Judgments of Size

The main analyses tested the hypothesis that mortality salience would affect size judgments of Israel but not those of the other countries. This hypothesis was tested in several ways. First, we performed a 2 (mortality salience vs. exam salience) × 7 (country) mixed-model ANOVA (mortality salience vs. exam salience was between subjects; country was within subjects). This yielded a significant main effect only for country, $F(6, 149) = 122.70$, $p < .001$, $\eta = .62$ (all etas refer to generalized etas appropriate for repeated-measures designs as described by Bakeman, 2005). There was neither a main effect for mortality salience ($F < 1$, *ns*, $\eta = 0$) nor a Mortality Salience × Country interaction ($F = 1.22$, $p = .29$, $\eta = .08$). These results would appear to lead to the conclusion that, contrary to our hypotheses, mortality salience did not produce any effect on judgments of Israel.

Additional results, however, did provide support for the hypotheses. First, a simple examination of the cell means (see Table 4) indicates that, in absolute terms, the largest difference between mortality salience and exam salience occurred when judging Israel. Furthermore, the interaction term in the main analysis is a very diffuse test, with 6 degrees of freedom. In line with the recommendations of Rosenthal (1991), we performed a series of a priori

Table 4
T Values, Cell Means, and Standard Deviations for the Estimated Size of Countries in Terms of U.S. States' Sizes by Mortality Salience Condition in Study 2

	Exam salience		Mortality salience			
Country	*M*	*SD*	*M*	*SD*	*t*	Effect size *r*
Israel	1.86	1.04	2.27	1.36	2.49*	.19
Lebanon	2.97	1.37	3.22	1.33	1.47	.12
Morocco	3.49	1.37	3.29	1.53	0.85	.07
Japan	4.01	1.44	3.81	1.65	0.63	.05
New Zealand	4.33	1.06	4.45	0.99	−0.91	.07
Great Britain	4.53	1.20	4.47	1.30	0.67	.05
Argentina	5.29	1.06	5.26	1.16	−0.31	.02

Note. *N*s = 78 and 83 for exam and death salience, respectively, except for Lebanon (77 and 83, respectively) and Argentina (78 and 82, respectively). Higher means indicate greater perceived size.
* $p < .05$.

1 degree of freedom tests precisely because they provided a more focused test of our hypotheses.

First, we performed a *t* test comparing judgments of the size of Israel under mortality salience versus exam salience. As predicted, under mortality salience, participants estimated the size of Israel as significantly larger ($M = 2.27$, $SD = 1.36$) than under exam salience ($M = 1.86$, $SD = 1.04$), $t(159) = 2.12$, $p < .05$, $r = .19$. We next performed the same *t* test for the other six countries. None were significant (all ts < 2, all ps > 1). These results indicate that mortality salience did indeed influence ratings of the size of Israel but did not affect the ratings of the other countries.

In order to provide a clearer, more focused test of whether there was a Mortality Salience × Country interaction, we performed one additional analysis. This analysis compared ratings of Israel's size to that of the other countries directly and also eliminated the diffuse 6 degrees of freedom test of the interaction hypothesis. We accomplished this by first standardizing then summing together ratings of the size of all the non-Israel countries, and then performing a 2 (mortality salience or exam salience) × 2 (Israel or not Israel) mixed-model ANOVA. This analysis yielded the predicted significant Mortality Salience × Country interaction, $F(1, 154) = 4.80$, $p = .03$, $r = .12$.

Taken together, these analyses confirmed the hypotheses that mortality salience would increase the ratings of the size of Israel but not increase ratings of the size of any other country. The pattern of means showed that, in absolute terms, the largest effect of mortality salience on size ratings occurred for Israel. The *t* tests provided the most direct tests of the hypotheses and were entirely consistent with them. The 2 × 2 ANOVA results also indicated that the effect of mortality salience on ratings of the size of Israel exceeded the effect of mortality salience on the average rating of the other countries. The 2 × 7 ANOVA results, however, did not indicate that the amount of variance accounted for by the Mortality Salience × Country interaction exceeded chance.

Alternative Explanations

Because Israel differs from these other countries in so many ways, how do we know that anti-Semitism is the basis for this looming large effect? We cannot know with certainty. Our design, however, has eliminated many of the ways in which Israel differs from other countries as potential explanations for the looming large effect. The effect did not occur because Israel was longer than it is wide (all of our countries were longer than wide). It did not occur because it is located in the Middle East (so is Lebanon). It did not occur because it has been involved in many wars over the years (so have Britain and Lebanon). It did not occur because it is a democracy or a U.S. ally (so are Britain, New Zealand, and Japan). It did not occur because people generally tend to overestimate the size of very small countries (Lebanon is even smaller).

The most obvious way Israel differs from the other countries is that it is a Jewish state. Although it is not possible to rule out all conceivable alternative explanations, one that Study 2 could not eliminate is considered next.

How do we know that Israel looming large was not a "moral transgression" effect of mortality salience, rather than anti-Semitism? It has been well-established that mortality salience increases people's willingness to punish those who commit moral transgressions (e.g., Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). Perhaps any country perceived as committing human rights violations would be perceived as looming larger under mortality salience.

Study 2 cannot rule out this possibility. Again, however, nearly every comparison country has also committed human rights violations. Perhaps, however, the aggressive acts committed by the other countries were not as obvious to our research participants as were Israeli transgressions. Perhaps if we had made the human rights transgressions of other countries more salient, they too would have shown a similar looming large effect under mortality salience.

Study 3 directly tested the general explanation that mortality salience increases hostility toward Israel exclusively because it increases hostility to nations perceived as committing obvious human rights violations. If mortality salience has its effects exclusively because it activates concerns about moral transgressions, it should have similar effects on attitudes toward *any* country committing human rights violations (as long as people are aware of those violations). If, however, mortality salience has its effects in part because it increases anti-Semitism, it should most strongly increase hostility toward Israeli human rights violations.

Study 3

Prejudice is more likely to be expressed when it is "safe" to do so—when one has plausible reasons other than prejudice for acting in a prejudicial manner (e.g., McConahay & Hough, 1976; Nelson, 2002). One such manifestation is punishing transgressors: "Why are we punishing them? Not because we are prejudiced, but because they have committed an immoral act."

It is often difficult to determine the role of prejudice in many punitive attitudes and behaviors in daily life. Did the New Jersey police ticket proportionately more African American drivers because the police are bigots or because African American drivers committed more traffic infractions? Did many British academics support a boycott of Israel because they objected to Israeli treatment of Palestinians or because they are anti-Semitic? It is often impossible to be certain about the answers to questions such as these.

Experimentally, however, it is fairly easy to discover whether such reactions reflect prejudice: have the same transgression committed by a person or group who either is or is not a common target of prejudice. If the punishment is the same for both, it does not reflect prejudice. But, if the punishment is more severe for transgressions committed by a target of prejudice, then prejudice most likely plays a role.

This was the approach taken by Rogers and Prentice-Dunn (1981), whose White participants either were or were not insulted by an experimental confederate who was either African American or White. Participants then were instructed to attempt to teach the confederate some material, and to administer shocks whenever the confederate answered incorrectly. Participants gave the African American confederate more shocks than they gave the White confederates, but only after participants had been insulted. The insult provided a nonracist-appearing veneer to the selective increase in punishment of the African American confederate.

Such a phenomenon of camouflaged hostility has never been explicitly demonstrated with anti-Semitism. Nonetheless, it seems

like a very small leap to suggest that aroused anti-Semitism might also lead to increased condemnation of Israel for its transgressions.

Mortality Salience and Punishing Transgressors

Our morals lead us to oppose human rights violations. As such, we search for ways to punish transgressor nations in the forms of sanctions, boycotts, economic embargoes, and even war. Thus, when we encounter reminders of death, we reaffirm our sense of belief in a moral world order by more strongly demanding that human rights violators be punished. Thus, on the basis of Rosenblatt et al. (1989), mortality salience should lead people to more strongly support punishing those who commit human rights violations. However, if moral transgressions provide legitimizing cover for anti-Israel biases, then prescribed punishments following mortality salience should be selectively greater for Israel.

Hypotheses

This perspective on the dual role of mortality salience in increasing hostility to Israel is incorporated into our Figure 1 model, leading to two specific hypotheses. The first hypothesis is that mortality salience should increase people's support for punishing countries committing transgressions. This is captured by Path 3 in Figure 1. Path 3 represents all non-anti-Semitic reasons mortality salience can lead to opposition to Israel. Reasons that do not involve anti-Semitism are at least potentially equally applicable to any country, not just Israel. If mortality salience leads to increasing opposition to perceived moral transgressions (as captured by Path 3), then mortality salience should increase opposition to any country committing such transgressions.

The second hypothesis is that, because mortality salience also increases anti-Semitism, it should disproportionately increase support for punishing Israel. It must be noted that this perspective does not claim that Israel is a threat to worldviews whereas other countries are not. Instead, the claim is that mortality salience generally increases support for punishing transgressors, but it also increases support for punishing Israeli transgressions more than it increases support for punishing other countries' transgressions. This occurs because mortality salience (a) generally increases support for punishing countries that commit human rights violations (they are a threat to our moral sensibilities; Path 3) and (b) because it increases anti-Semitism (Path 1 $\times$ Path 2). The increased anti-Semitism should not affect punitiveness toward countries that are not Jewish states but should affect punitiveness toward Israel, which is a Jewish state.

Method

Participants

In order to increase the generalizability of this research, Study 3 did not examine college students. Instead, we obtained permission from a local non-Jewish, Indian physician to survey her patients and those accompanying them while in the waiting area of either of her two offices (one in Ramsey, NJ and the other in Middletown, NY).

We approached 262 people; 9 refused and 3 were dropped from the analyses due to incomplete data, leaving 250. We then removed all Jewish and Hindu participants' scores because of the Jewish/Israel focus of this research, because the physician is herself Indian, and because one of the comparison countries was India. This left a total of 235 participants. These remaining participants had an average age of 45, and 155 (70%) were women and 95 were men (30%). Six identified themselves as African American, 6 as Asian American, 19 as Latino, 196 as White, and 8 identified themselves as belonging to other ethnic groups. Two hundred identified themselves as belonging to one of the many Christian faiths, 3 as Muslim, 4 as Buddhist, 26 as "other," and 2 participants did not answer.

Experimental Design

Participants were randomly assigned to one of the six experimental conditions in this study's 2 (mortality salience: death or pain) $\times$ 3 (target country: Russia or India or Israel) independent-groups design.

Materials and Procedure

Participants were told that the study concerned the relationship between personality attributes and opinions on social issues. After completing filler questionnaires to sustain the cover story, participants were randomly assigned to a mortality salience condition or a pain salience condition. Because Study 3 was not conducted on a sample of college students, exam salience was not an appropriate control. Therefore, the control condition involved responding to questions regarding thoughts of physical pain as follows: "Please describe the emotions that the thought of being in intense pain arouses in you," and "Write down as specifically as you can, what you think will happen to you physically as you are in pain and when it's over." Mortality salience participants completed the typical two open-ended questions about death, and pain salience participants completed parallel questions about experiencing pain.

After completing the PANAS-X (to account for mood-based confounds; Watson & Clark, 1992), participants read one of three versions of an article concerning human rights abuses based on an Amnesty International report (Amnesty International, 2002). All three versions of the article were identical, except for our alterations locating the event in Palestine, Kashmir, or Chechnya and the perpetrator nation as Israel, India, or Russia, respectively. Each of the versions read as follows:

> The spiraling violence and killings in Israel/India/Russia and the Palestinian/Kashmiri/Chechnya territories the past four and a half years has brought untold suffering to the Palestinian/Kashmiri/Chechnyan and Israeli/Indian/Russian civilian populations. More than 3,200 Palestinians/Kashmiris/Chechnyans, including more than 600 children and more than 150 women have been killed by Israeli/Indian/Russian forces. Most of the victims were unarmed civilians who were not taking part in any armed confrontations. Thousands more have been injured, many of them maimed for life. Amnesty International has repeatedly condemned and campaigned against the killings of civilians. . . .

After reading the article, participants were asked how much they agreed (on a 5-point Likert scale, 1 = *disagree* and 5 = *agree*) with each of five possible punishments or actions to take against the human rights violator. Options included a national campaign against the target country, a citizens' boycott, withdrawal of aid, governmental economic bans, and the installation of a new gov-

ernment. These items demonstrated good internal reliability (α = .82). In order to keep participants' scores on the original 1–5 point scale, we summed participants' responses to the five sanctions questions and divided by 5. Higher scores indicated more agreement for sanctioning the country committing the human rights transgressions. Participants then completed a demographics questionnaire and were then debriefed, thanked, and dismissed.

Results and Discussion

Preliminary Analyses

We performed a series of three-way ANOVAs using mortality salience (death, pain) and country (Israel, India, Russia) by sex, ethnicity, and religion. These analyses did not yield any significant interactions of a demographic variable with mortality salience and, therefore, are not discussed further. To determine if mortality salience affected mood, we performed ANOVAs on an abridged version of the PANAS-X (Watson & Clark, 1992) including Positive Affect and Negative Affect. There were no significant effects of mortality salience on any affect scale or subscale (all ps $> .1$). Additionally, as with Studies 1 and 2, we conducted a test for outliers. We did not find any.

Sanctioning Human Rights Transgressors

The main analyses consisted of a 2 (mortality or pain salience) × 3 (country: Israel, India, or Russia) ANOVA, with support for sanctions as the outcome. The ANOVA produced a significant main effect for mortality salience, $F(1, 229) = 8.83$, $p < .01$, $r = .19$, and a significant interaction between mortality salience and country, $F(1, 229) = 3.54$, $p = .03$, $r = .17$. There was no significant country main effect (cell means are presented in Table 5). The interactions and means were consistent with the hypothesis that mortality salience increased support for sanctioning Israel more than mortality salience increased support for sanctioning the other countries.

The fundamental predictions (a) that mortality salience would increase punitive attitudes toward any country committing human rights violations and (b) that mortality salience would increase punitive attitudes toward Israeli human rights transgressions more than it increased punitive attitudes toward other countries' human rights transgressions were optimally tested by a 1 degree of freedom a priori contrast (Rosenthal & Rosnow, 1991). Reflecting the hypothesis that mortality salience increases support for sanctions, India and Russia received contrast coefficients of –1 and 1, respectively, for pain salience and mortality. Reflecting the hypothesis that mortality salience more strongly amplifies support for punishing Israel, Israel received contrast coefficients of –2 and 2, respectively, for pain salience and mortality salience.

Results showed that the a priori contrast was significant, $t(229) = 3.53$, $p < .001$, $r = .20$. The a priori contrast coefficients correlated .86 with the observed cell means. An analysis of the residual between-groups variance (after accounting for the variance explained by this contrast) was not significant, $F(4, 229) < 1$, *ns*. In other words, the contrast integrating both sets predictions (that mortality salience would affect all countries, but Israel more) correlated nearly .9 with the cell means and fully accounted for the systematic variance in the experiment.

Post hoc contrasts further supported this conclusion. The effect of mortality salience on increasing support for punishing countries that commit human rights violations was most strongly apparent in the Israel condition. Within this condition, those who considered their own mortality expressed greater support for punishing Israel ($M = 3.37$, $SD = 1.28$) than did those who considered thoughts of pain ($M = 2.57$, $SD = 1.16$), $t(229) = 3.51$, $p < .001$, $r = .23$. There was an effect that approached significance for mortality salience increasing support for sanctioning Russia, $t(229) = 1.67$, $p < .10$, $r = .11$, and no effect for India, $t(229) = 0.14$, $p > .05$, $r = .01$. The post hoc tests therefore also provided more evidence of increased support for punishing Israel than the other countries.

A potential objection to Study 3 is that it simply failed to demonstrate anti-Semitism. The support for sanctioning Israel under mortality salience was not much greater than the support for sanctioning Russia or India. Where, then, is the anti-Semitism? The logic of the study's design suggests that the anti-Semitism most likely exists in the greater *increase* in punitiveness toward Israel than toward Russia or India. One way to evaluate the strength of this conclusion is to directly compare the likelihood of our obtained result (showing selective sanctioning of Israel) to the likelihood that mortality salience increased sanctions equally for all three countries. The next set of analyses performed this comparison.

Mortality Salience Effects for Israel Versus Mortality Salience Effects for Russia and India

The standard logic of significance testing requires that one assess the null hypothesis that mortality salience affects Israel in

Table 5
Cell Means, Standard Deviations, and a Priori Contrast Coefficients (CC) for Testing Study 3 Predictions

	Pain salience				Mortality salience			
Country	*N*	*M*	*SD*	*CC*	*N*	*M*	*SD*	*CC*
Israel	40	2.53	1.18	−2	36	3.36**	1.28	2
India	43	2.84	0.73	−1	43	2.81	1.10	1
Russia	35	2.81	0.87	−1	38	3.21†	1.02	1

Note. Higher means reflect support for stronger sanctions.
† This mean differs from the other mean in this row at $p < .10$. ** This mean differs from the other mean in this row at $p < .001$.

the exact same manner as it affects Russia and India. If the null hypothesis is rejected, one can then conclude mortality salience does not affect all countries similarly. Indirectly, two models are being compared: one based on the assumption that there is no difference between Israel, Russia, and India and the other based on a difference between Israel, Russia, and India existing. Bayesian analyses provide a means for directly comparing these two models: the *likelihood ratio*.

Glover and Dixon's (2004) likelihood ratio compares two statistical models based on the observed data. It is calculated accordingly:

$$\text{likelihood ratio} = (\text{Model 1 unexplained variation}/\text{Model 2 unexplained variation})^{n/2}$$

We computed the likelihood ratio by comparing two ANOVA models (see Appendix B for computations). First we examined a model that included only the mortality salience main effects. This model assumes that mortality salience led to equivalent sanctions for all three countries. In other words, this model assumes that Israel was not disproportionately sanctioned. We then examined the hypothesized model, as operationalized by the a priori contrast, which predicted that mortality salience would lead to disproportionate sanctioning of Israel. This analysis revealed that the hypothesized model predicting anti-Israel bias was almost 9 times more likely to be true than the model assuming that mortality salience affected support for sanctioning all three countries equally (see Appendix B).

This likelihood analysis further supports the conclusion that mortality salience caused Israel to fall prey to a double standard. Because anti-Semitism may increase hostility to Israel, when anti-Semitism is activated by mortality salience we should see a greater though not sole increase in disapproval of Israel for the same transgressions as for other countries. We neither predicted nor found that Israel was seen as the only country deserving of punishment for transgressions. We did, however, both predict and find much more support for our model assuming that mortality salience produces the largest increase in hostility toward Israel than for an alternative model assuming that mortality salience equally affects attitudes toward all three countries.

Ruling Out an Alternative Explanation

Study 3 participants completed the questionnaires in an ethnically Indian doctor's office. This is a potential problem for Study 3, because it might artificially suppress the mortality salience effects on willingness to punish India. Perhaps participants dampened their true willingness to punish India out of liking or deference to their Indian doctor, or out of consciousness that the doctor represented an important buffer to their health-related anxieties.

To examine this possibility, the Indian segment of the study was rerun using a sample of 50 Rutgers University students taking a psychology class with a White (non-Indian) professor. Fourteen identified themselves as men, 36 as women; 25 identified themselves as White, 1 as African American, 15 as Asian American, 7 as Hispanic, and 2 as "other"; 31 identified themselves as Catholic, 2 as Buddhist, 5 as Jewish, 1 as Muslim, and 11 as "other."

An ANOVA conducted on the college sample yielded no significant difference due to fear condition versus mortality salience condition, $F(1, 48) = 0.08$, $p = .76$, $r = .04$ (pain, $M = 2.76$, $SD = 0.75$ vs. mortality salience, $M = 2.70$, $SD = 0.62$). This pattern is nearly identical to that obtained in the Indian doctor's office regarding the Indian transgressions (see the cell means in Table 5 and the post hoc contrasts reported in the main results of Study 3). We conclude, therefore, that the results in the main analyses of Study 3 were not affected by participants completing questionnaires in the office of the Indian doctor.

General Discussion

This research presented a new model of anti-Semitism and tested key predictions of that model: (a) Mortality salience will increase anti-Semitism, (b) mortality salience will increase opposition to Israel without increasing anti-Semitism, and (c) mortality salience will increase opposition to Israel because it increases anti-Semitism. Results of all three studies confirmed these predictions.

Several aspects of these findings are consistent with prior research. Previous TMT research (Greenberg, Pyszczynski, & Solomon, 1986; Greenberg et al., 1990, 1997) has demonstrated that reminders of death increase derogation of outgroups. For example, Christian participants reminded of death liked fellow Christians more and Jewish people less (Solomon et al., 1991); Germans sat further away from a Turkish person and closer to a fellow German after a mortality salience induction; similarly, we know that the use of a bogus pipeline increases prejudicial responses (Jones & Sigall, 1971).

Furthermore, anti-Semitism and opposition to Israel may be at least partially explained by several other theories. For example, social identity theory (Tajfel, 1982) and social categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), the authoritarian personality, and right-wing authoritarianism (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Altemeyer, 1981, 1988, 1996) are sufficient to explain some aspects of classic anti-Semitism. And realistic group conflict theory (e.g., Sherif & Sherif, 1967) may help explain the hostilities felt between Israelis and Palestinians warring with one another over limited resources.

What then is new in the present research on anti-Semitism? This research is the first to treat attitudes toward Israel as a potential psychological marker for anti-Semitism. Specifically, we presented a new model of anti-Semitism that built upon and integrated theoretical ideas and empirical research involving both TMT and social desirability. It is the first psychological model that directly links mortality salience to hostility to Israel, and these are the first empirical studies linking anti-Semitism to opposition to Israel. Taken together, the present studies have supported the hypotheses that (a) anti-Semitism evokes hostility to Israel, (b) hostility to Israel may occur without anti-Semitism, (c) hostility to Israel can feed back to produce anti-Semitism, and (d) sometimes anti-Semitism manifests in a subtle manner.

Whether hostility to Israel reflects a new form of anti-Semitism has been a highly controversial topic in current political and cultural discourse. Some claim there is no link between anti-Semitism and hostility to Israel, some claim that anti-Semitism is repackaged as hostility toward Israel, and some claim that hostility toward Israel produces anti-Semitism (compare, e.g., Dershowitz, 2003, to Klug, 2004). One of the significant contributions of the present research has been to provide empirical evidence that bears

on these claims. Our research indicates that those claiming that there is no connection between anti-Semitism and hostility toward Israel are wrong. At least sometimes, there is indeed a link between anti-Semitism and anti-Israel sentiment, and this link is evident once the social desirability cover is removed. Our research also shows, however, that both of the latter claims are correct to some degree. Anti-Semitism increases hostility toward Israel, but not all hostility toward Israel stems from anti-Semitism. In terms of the causal direction between anti-Semitism and anti-Israel sentiment, our studies indicate that both paths may be valid (more on this below).

The present research has also demonstrated that, much like other prejudices, anti-Semitism has at least partially gone underground and may often manifest in subtle ways. Study 1 demonstrated that, at least sometimes, one needs a bogus pipeline manipulation to reveal self-reported anti-Semitism. Another contribution consisted of identifying some of those subtle manifestations of anti-Semitism. The results of Study 2 found that Israel loomed larger than other countries under identical situations, and the results of Study 3 found selectively greater support for punishing Israel versus other countries for identical human rights violations. Although subtle expressions of prejudice are well-documented for other groups (e.g., Gaertner & Dovidio, 1986; Rogers & Prentice-Dunn, 1981), this is the first research to demonstrate that they also occur with respect to prejudice against Jews.

A Small but Important Revision to the Model

Although not specifically predicted by our original model, we also found evidence that the effects of mortality salience on anti-Semitism were partially mediated by hostility toward Israel. In other words, hostility toward Israel may feed back and increase anti-Semitism. This finding is consistent with recent research on relations between anti-Semitism and hostility to Israel (Kaplan & Small, 2006) and clearly warrants further study. This finding is potentially important because it suggests that the resurgence of anti-Semitism may be fed, in part, by negative representations of Israel.

We think that the connection between hostility to Israel and increased anti-Semitism warrants an important revision to the model shown in Figure 1: There should be a Path 4, reflecting the causal influence of attitudes toward Israel on anti-Semitism.

Caveats and Directions for Future Research

All opposition to Israel is not anti-Semitism. Throughout this article we have stated that a reasonable person could oppose particular Israeli actions or policies and not be anti-Semitic. Because of the sensitivity around this point, however, we reemphasize that assertion here. Fair-minded people can legitimately take issue with Israel in many different ways, as they can for any other nation. It is precisely because anti-Israel attitudes can be untainted by bias (for some people) that expressions of these attitudes (for other people) can also serve as cover for unjustified, biased, and according to this research, anti-Semitic impulses.

Sample specificity. One limitation to the generality of this research is that the first two studies were conducted with students attending a liberal arts college. However, our predictions were confirmed in Study 3, which was conducted with a noncollege sample. We therefore conclude that the pattern of results, across the three studies, is not an artifact stemming from a student sample.

There are, however, two important limitations to the likely generalizability of our findings. In some cultural contexts there may be more anti-Semitism lurking under the surface than among our New York area samples; in other cultural contexts, blatant anti-Semitism may be so high that it would be very difficult to increase. Each of these is discussed next.

Populations for whom mortality salience effects on anti-Semitism might be stronger. The use of college samples for Studies 1 and 2 may actually attest to the power of our model. The New York area college students who constituted two of our samples represent probably one of the least anti-Semitic demographic groups in the world. It should therefore be harder to activate anti-Semitic attitudes among this group than among most other groups. Finding that mortality salience increased anti-Semitism even among this group may attest to the power and strength of our findings. Put differently, we speculate that our results might actually be stronger if conducted among other U.S. demographic groups where attitudes toward Jews are less sympathetic.

A related limitation is that these studies were conducted with American participants. Whether a similar pattern would occur outside the United States cannot be determined from the present research. However, we speculate that this demographic constraint strengthens the conclusions reached in our research. The United States is among the least anti-Semitic of all nations. In contrast to many countries, the United States has no history of laws segregating Jews from other groups, no history of legally relegating Jews to second-class citizen status, and no history of forced conversions, expulsions, mass murder, or genocide against Jews. These considerations lead us to speculate that our results might be stronger if our studies were conducted in cultural contexts where there is more anti-Semitism lurking under the surface than among our New York area samples.

Populations insensitive to mortality salience due to extreme anti-Semitism. Another limitation is that there may be other contexts in which our manipulations would have little or no effect on anti-Semitism. If, in some cultures or contexts, anti-Semitism is already so high as to constitute a psychological ceiling, then it might not be possible to raise it much higher, even with a mortality salience manipulation. For example, we doubt that a mortality salience manipulation would have increased anti-Semitism in Germany during the height of the Third Reich.

Other sources of prejudice. Another limitation of our research is that only TMT was tested. Many theories other than TMT have been proposed to explain anti-Semitism. However, none seems adequate for explaining many expressions of anti-Semitism and anti-Israeli sentiment. Consider, for example, the authoritarian personality (e.g., Adorno et al., 1950). Unless one posits a singular rise in authoritarian personalities over the last 10 years or so, this theory cannot explain the recent rise in anti-Semitism in Europe, the Middle East, and Asia.

Similarly, realistic group conflict theory (e.g., Sherif, 1966) proposes that prejudice arises when groups struggle with one another over limited or scarce resources. It may help explain the hostilities between the Israelis and Palestinians. However, those committing hate crimes against Jews in the United States and in Europe are not fighting for land with Israelis. Thus, realistic group

conflict theory seems able to provide, at most, a partial and highly limited explanation for modern anti-Semitism. Nonetheless, these other theories undoubtedly contribute to understanding anti-Semitism. It is important, therefore, for future research to investigate the conditions under which TMT and other theories (such as authoritarian personality, realistic group conflict, and many others) provide better explanations for modern anti-Semitism and how these theories might interact.

Conclusion

The main purpose of this research has been to understand the nature of modern anti-Semitism and to link anti-Semitism to some expressions of opposition to Israel. Our research assumes that Jews may sometimes represent a worldview threat, and hostility toward Jews and Israel arises from this threat. If Jews represent such a threat, then hostility toward Jews and toward Israel should be greater when worldviews are more valued and more needed—that is, in the shadow of mortality fears. Collectively, our three studies confirmed this perspective.

However, because prejudice is itself so highly stigmatized, many people may be reluctant to express blatant anti-Semitism. Understanding the ways in which anti-Semitism has gone underground and yet emerges in subtle and easily masked ways has been the second main objective of our model and three studies. In Study 1, explicit self-reported hostility toward Jews increased only when people believed they would be caught lying. The bogus pipeline technique, however, was not necessary to detect the increased perceived size of Israel or the selectively increased condemnation of human rights violations when committed by Israel following mortality salience. Although people can condemn Israeli actions without being anti-Semitic, our research has shown that hostility toward Israel may serve as cover for anti-Semitism and, at the same time, feed back and strengthen anti-Semitism (Study 1). Future research is clearly needed to determine whether the feedback loop tentatively identified in our work is a common pattern or whether causality generally goes in only one direction.

Our theoretical model may serve as a preliminary contribution to explaining the international rise in anti-Semitism over the last 10 years. War and conflict, by raising mortality salience concerns, increase anti-Semitism. Higher levels of anti-Semitism, in turn, increase hostility toward Israel. And public vituperation directed at Israel may feed back to increase anti-Semitism. The major advances within social psychology over the last 50 years (i.e., since the last major wave of anti-Semitism research) provide an extraordinary opportunity to understand the sources and consequences of anti-Semitism. They also will undoubtedly help detect the sometimes veiled manner with which anti-Semitism is expressed and the conditions under which opposition to Israel reflects—and does not reflect—covert anti-Semitism.

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Appendix A

Attitudes Toward Israel Scale

Please use the following 1–5 scale to answer the following questions:

1	2	3	4	5
Strongly disagree	*Disagree*	*Neither agree nor disagree*	*Agree*	*Strongly agree*

____The Israelis have been terrorized by Arabs for decades.
____I strongly support the Israeli cause.
____The Jews deserve a homeland in Israel.
____The Israelis have the right to fight against Palestinian terrorism using any means necessary.
____Israeli incursions into the West Bank and Gaza are necessary to preserve Israeli security.
____Israeli attacks on Palestinian terrorist targets are as justified as the American war in Afghanistan.
____Arabs have attempted to forcibly expel the Israelis for years.
____Many Israelis, or their ancestors, were forcibly expelled from Arab countries in 1948.
____All Jews should have the right to become citizens of the state of Israel.
____Palestinian suicide bombers kill far more Israeli civilians than Israelis kill Palestinian civilians.
____Terrorist attacks on Israeli civilians must end before Israelis should even begin to negotiate peace.

Appendix B

Contrast vs. Main Effect Likelihood Ratio Analyses

Model 1 = Just mortality salience main effects (i.e., Israel is same as India and Russia)
Model 2 = Our model's a priori contrast. Note: We obtained the SSe (sums of squares error) from a model that included *only* the a priori contrast (no main effects or interactions).
Model 1 SSe = 252.263
Model 2 SSe = 247.686523
Likelihood ratio (from Glover & Dixon, 2004) =
$lr = (SSe1/SSe2)^{\{n/2\}}$
SSe1/SSe2 = 1.018477
n = 235
lr = 8.595352

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