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Juliana Schroeder¹ and Jane L. Risen¹

Abstract

One of the largest Middle East coexistence programs annually brings together Israeli and Palestinian teenagers for a 3-week camp in the United States. For 3 years, we longitudinally tracked how this intervention affected Israelis' and Palestinians' relationships with, and attitudes toward, each other. Specifically, we measured participants' outgroup attitudes immediately before and after camp, and, for 2 years, 9 months following "reentry" to their home countries. In all 3 years, participants' attitudes toward the outgroup improved from precamp to postcamp. Participants who formed an outgroup friendship during camp developed more positive feelings toward outgroup campers, which generalized to an increase in positivity toward all outgroup members. Although the positivity faded upon campers' reentry, there was significant residual positivity after reentry compared to precamp. Finally, positivity toward the outgroup after reentry was also predicted by outgroup friendships. Future contact interventions may profit from encouraging individuals to make *and* maintain outgroup friendships.

Keywords

attitudes, conflict, contact theory, friendship, ingroup, intergroup relations, outgroup

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What is the most important thing you realized since coming home from camp?

That the other side aren't animals—they're humans—and they have their own beliefs and thoughts.

check-points wouldn't have to worry. Even in utopia, she could not imagine a world without military check-points. For millions of Middle Eastern teenagers like her, intergroup conflict is a way of life.

—A Seeds of Peace camper

¹University of Chicago, USA

When asked to describe a peaceful utopia, one Israeli teenager responded that it would be a place without terrorism and violence, where soldiers at

Corresponding author:

Juliana Schroeder, University of Chicago, 5807 South Woodlawn Ave, Chicago, IL 60637, USA.

Email: jschroeder@chicagobooth.edu

Over the past several decades, hundreds of coexistence programs have tried to improve relations between Israelis and Palestinians. One of the largest Middle East coexistence programs, Seeds of Peace, brings Israeli and Palestinian teenagers together for a 3-week summer camp nestled in the woods of Maine, thousands of miles from their home and the conflict. The camp experience is designed to promote positive intergroup contact using the “optimal” conditions specified by Allport’s intergroup contact theory (1954). In addition, largely because the camp takes place in relatively neutral territory, it provides a rare opportunity for friendships to form between groups. Friendship is widely regarded as a potent form of contact and “friendship potential” has been offered as the fifth optimal condition for effective contact interventions (Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Pettigrew, 1998).

In the current paper, we take advantage of the unique opportunity afforded by Seeds of Peace. First, we examine to what extent a contact intervention can alleviate long-standing prejudice between antagonistic groups by longitudinally tracking attitudes of Israelis and Palestinians toward each other. Second, we examine how intergroup friendships influence attitude change. Before his untimely death in 2002, Seeds of Peace founder John Wallach often gave campers the advice to simply “make one friend.” Our study investigates the wisdom of this advice. Third, we examine whether the intervention’s effects will remain after participants return to their respective countries within the conflict region. Seeds of Peace uses a “neutral-setting” model (Lazarus, 2011), physically transplanting participants to a neutral setting outside of the Middle East. Critics of neutral-setting programs contend that they suffer from the “reentry” problem: even if there is an immediate effect of the intervention, it is likely to disappear when participants return home (e.g., Hammack, 2006). We measure outgroup attitudes before and after camp, as well as more than 9 months after participants return home, to test the immediate and long-term effects of camp, providing one of the first quantitative examinations of the influence of a contact intervention after

reentry. Finally, because this program occurs every year with a new set of Israeli and Palestinian teenagers, we test whether our model of attitude change replicates year to year.

Can Intergroup Contact Longitudinally Predict Israeli–Palestinian Attitude Change?

Since Allport formulated intergroup contact theory in 1954, research has repeatedly shown that positive intergroup contact is associated with reduced prejudice (see Pettigrew & Tropp, 2006). However, the vast majority of this literature consists of cross-sectional studies with convenience samples, leading researchers to call for more longitudinal designs (e.g., Pettigrew & Tropp, 2011) with antagonistic groups (Malhotra & Liyanage, 2005; Paluck & Green, 2009).

Longitudinal studies maintain an important advantage over both laboratory experiments that lack external validity¹ and cross-sectional studies that are ill-equipped to consider causality. Recent longitudinal studies find beneficial effects of contact on intergroup attitudes (Binder et al., 2009; Brown, Eller, Leeds, & Stace, 2007; Christ et al., 2014; Dhont, van Hiel, De Bolle, & Roets, 2012; Eller & Abrams, 2004; Enos, 2014; Levin, van Laar, & Sidanius, 2003; Swart, Hewstone, Christ, & Voci, 2011) and some further show that attitudes at Time 1 predict contact at Time 2, suggesting the contact effect is bidirectional (Binder et al., 2009; Levin et al., 2003; Swart et al., 2011; but see Dhont et al., 2012).

Nonetheless, the question still exists whether intergroup contact can create long-term attitude change specifically for more antagonistic groups, such as Israelis and Palestinians.² The Israeli–Palestinian conflict is widely considered one of the most profound and protracted conflicts of the 20th century (Shlaim, 1996). Children from the Palestinian and Israeli cultures are often indoctrinated from birth to consider the “other side” of their conflict as the enemy. In our own sample of 279 Jewish Israeli and Palestinian participants (summing across 3 years), the majority had personally experienced

violence related to the conflict and had only experienced negative contact with the other side prior to the intervention.

Several characteristics of the Israeli–Palestinian conflict may make it especially susceptible to intergroup antipathy (e.g., dehumanization; Maoz & McCauley, 2008). First, both groups perceive themselves as the exclusively indigenous people of the land, mutually denying the other's rights (Kelman, 1978). Second, both groups bring to the conflict a national history of persecution and destruction, producing a “siege mentality” (Bar-Tal & Antebi, 1992). Third, the power relations in the conflict are complex; there exists a double asymmetry perception of power such that Israel considers itself less powerful compared to the Arab world, but Palestinians consider themselves less powerful compared to Israelis (Rouhana & Fiske, 1995).

At least three currently unpublished dissertation studies of coexistence programs conducted in the Middle East found significant attitude change from preintervention to postintervention that then reversed back to preintervention levels within 2 months of the end of the intervention (Bar-Natan, 2005; Husseini, 2009; Rosen, 2006). Thus, although the majority of longitudinal contact studies suggest that positive contact improves intergroup attitudes, the long-term effectiveness of contact interventions for Israelis and Palestinians is still unclear.

Neutral-Setting Intervention Effectiveness: Friendship Potential Versus the Reentry Problem

Another unique opportunity that Seeds of Peace presents is to examine the effect of contact in the context of a neutral-setting intervention program. There are more than 15 coexistence programs for Israeli and Palestinian youth that take place outside of the Middle East (Lazarus, 2011), and many more neutral-setting intergroup contact programs for youth from other conflict regions. A potential benefit of neutral-setting programs is

that, because they physically remove participants from societal and familial pressures, they may allow for formation of deeper intergroup friendships.

Cross-group friendships are widely upheld as one of the most potent types of positive contact (e.g., Brown & Hewstone, 2005; Davies et al., 2011). For instance, Allport (1954) favored intimate to trivial contact, Cook (1962) referred to “acquaintance potential” as a necessary condition for intimacy, and Pettigrew (1998) wrote, “The contact situation *must* [emphasis added] provide participants with the opportunity to become friends” (Pettigrew, 1998, p. 76). Friendship may be particularly able to reduce prejudice because it is associated with several key mediators of contact theory including: increased knowledge about the outgroup (Allport, 1954; Eller & Abrams, 2003, 2004; Eller, Abrams, & Gómez, 2012; but see Stephan & Stephan, 1984), individuation of the out-group (Miller, 2002), reduction of intergroup anxiety (Greenland & Brown, 1999; Islam & Hewstone, 1993; Stephan & Stephan, 1985), reduction in perceived threats to the in-group (realistic and symbolic threats: Stephan & Renfro, 2003; Stephan & Stephan, 2000), increased perspective-taking and empathy (e.g., Galinsky & Moskowitz, 2000), increased self-disclosure (Pettigrew, 1997, 1998), and changes in other positive and negative emotions (Tam et al., 2007). Also supporting the effectiveness of friendship formation is evidence that quality of contact, not quantity, is more predictive of future attitudes toward outgroups (Binder et al., 2009; Eller & Abrams, 2004; but see Brown et al., 2007).

As a counterpoint to the enhanced potential for friendship formation that neutral-setting interventions can offer, there may also be enhanced potential for recidivism upon reentry. According to critics, because neutral-setting encounters rely on the creation of artificial, mediated settings that are detached from the actual conflict context, any effect of the encounter will be erased upon participants' inevitable return to reality. Reentry is particularly difficult in contexts of intractable conflict, in which participants' home countries are hostile to the goals of the

intervention and opposed to relationships with the “enemy.” Upon return to their own countries participants are indoctrinated once more with negative opinions regarding the other side of the conflict. In addition, participants face a host of challenges that make it difficult to maintain any new relationships that are formed: check-points, visa requirements, and other logistical issues that make it difficult for them to meet in person with participants from the other side. Within the Seeds of Peace program, for example, reentry struggles are a “staple of online correspondence between alumni” (Lazarus, 2011, p. 117).

To consider the net effect from the possible benefits of friendship formation and costs of reentry, we measure friendship formation and attitude change before and after reentry in the current study. Our data provide one of the first quantitative examinations of the influence of an intervention after reentry, and can provide a direct response to critics of the neural-setting model.

Hypotheses

We form four primary hypotheses on the basis of the contact theory literature, specifically considering the studies reviewed above that are longitudinal, use antagonistic groups, or involve neutral-setting interventions. First, by comparing measures pre- and postcamp, we can determine the average change in camper attitudes toward the outgroup during the contact experience. We predict that attitudes toward the outgroup will improve from precamp to postcamp even in the context of the contentious Israeli–Palestinian conflict (H1).

Second, across several years of data from campers, we can distinguish between the campers who made the strongest bonds with the outgroup (i.e., close friendships) compared to those who made weaker connections. From this, we can determine whether quality of contact predicts change in attitudes, as well as whether initial attitudes predict the quality of contact. We hypothesize that compared to campers who form weak connections, campers who form stronger

connections will feel more positively toward outgroup campers, which will generalize to their feelings about all outgroup members (H2).

Third, by comparing postcamp attitudes to attitudes measured after campers have been home for more than 9 months, we can determine how attitudes change following reentry. In addition, by comparing precamp attitudes to follow-up attitudes we can determine if any of the change is maintained. We predict that attitudes toward the outgroup will regress after reentry (H3).

Finally, we test whether the quality of contact longitudinally predicts outgroup attitudes from postcamp to reentry. We examine three nonmutually exclusive possibilities for how relationships with outgroup campers may influence attitudes after reentry. First, participants with stronger relationships with outgroup campers *during* camp may maintain more positive attitudes toward the outgroup after reentry (H4a). Second, participants with stronger relationships with outgroup campers *after* reentry have more positive attitudes toward the outgroup (H4b). Third, participants with the greatest *change* in relationships from the end of camp to after reentry (that is, those who lose the fewest or make the most outgroup friendships between the end of camp and after reentry) may have more positive attitudes toward the outgroup (H4c).

Method

Seeds of Peace camp. The 3-week Seeds of Peace summer camp uses psychological principles—specifically, Allport’s (1954) “optimal” conditions of support of authorities, equal status, common goals, and intergroup cooperation—to create an environment that will establish positive contact between campers. First, because most of the teenagers are explicitly selected by their own governments to attend camp and all of their families give them permission to attend, the camp is clearly supported by their recognized authorities. Second, upon entry to camp, campers are required to speak only English and are mixed by delegation in their living environments (bunk areas and table groups), which gives them equal status. Third, campers participate in

group challenges, also mixed by delegation, with superordinate goals designed to require teamwork and cooperation between delegations. Finally, campers have 90-minute daily “dialogue sessions” conducted by trained adult mediators from the conflict region to facilitate open communication and perspective-taking.

Upon return to their respective countries, Seeds of Peace institutes regional programming to encourage maximum future interaction between campers. The programming includes electronic means of communication such as a Facebook page, a published newsletter, and in-person events that are both bi- and uni-national.

Camper selection. Teenagers are selected either by their government (i.e., the Israelis) or Seeds of Peace officials (i.e., the Palestinians) to attend camp.³ The selection involves two criteria: leadership potential and English-speaking skills. Teenagers must be nominated for their leadership capability and complete an application to attend with parental consent. Those who are selected receive an all-expenses paid trip to the United States for camp. Parents complete paperwork for their children to attend camp and give consent for their children to complete surveys.

To better understand the selection bias in our sample (compared to a representative sample of Israelis and Palestinians), in 2012 we asked participants two questions drawn from national surveys of Palestinians and Israelis. First, we asked: “What would you say these days about your security and safety, and that of your family?” with response options: *Completely safe, Safe, Not safe, Not safe at all, or Do not know*. 33.4% of our sample of 40 Palestinians in 2012 reported feeling completely safe or safe, compared to 49.6% of the national sample of Palestinians in 2012 (Palestinian Center for Policy and Survey Research, 2012), suggesting that, if anything, our sample did not feel as safe as other Palestinians. Second, we asked: “Which of the following statements is closest to your view about the prospects of lasting peace between the Israelis and the Palestinians?” with response options: *Will happen in the next 5 years, Will certainly happen but will take*

more time, or Don't believe it will ever happen. Only 2.4% of our Israeli sample and 25% of our Palestinian sample in 2012 reported that lasting peace would never occur, compared to 49% of Israelis and 53% of Palestinians in national samples collected in 2011 (Telhami, 2011a, 2011b). This indicates that, before the contact intervention, our sample was significantly more optimistic about the prospects for lasting peace than national samples were. Because our sample is not representative, we can only generalize our findings to people who would choose to go to camp (i.e., we cannot assume that forcing contact would have the same effect). We return to a full discussion of the possible levels of selection bias in our sample in the General Discussion section.

Procedure. Campers completed the precamp survey upon arrival at camp in a large room together before they began camp activities. Surveys are in English but facilitators were available to help translate if campers had difficulty. On the last day of camp, the campers sat in the same room and completed a postcamp survey. To reduce demand effects, all surveys explain:

The answers you give to this survey are anonymous—no one will know how you answered the questions. For this survey to be useful, it's important that you give accurate information, so please think carefully and give answers that are true for you personally.

In 2010, two 3-week sessions of camp were run sequentially during the summer. In 2011 and 2012, there was only one camp session for Middle Eastern campers because of the timing of Ramadan. Thus, the 2010 sample is larger than the 2011 and 2012 samples. We analyzed the 2010 data with session as a factor and found no significant interaction effects: the results were the same in each session. We report the results from the combined sample.

In years 2011 and 2012, we collected follow-up data from the campers 9 to 12 months after camp ended. We emailed online surveys to campers with the incentive of an iPod shuffle and camp gear.

Campers who attended bi-national or uni-national events were also given hard copies of the follow-up survey to complete. Therefore, a small number of campers completed follow-up surveys twice. For these campers, we used the first version completed. In the Results section, we compare the follow-up samples in 2011 and 2012 to the full camp samples on all dependent variables of interest to address any possible selection bias.

Materials. We updated the precamp, postcamp, and follow-up surveys each year based on the prior year's responses. Next we report the questions used for our analysis. To review every item in each survey, please see the online Appendix.

2010 surveys. In the precamp and postcamp surveys, 72 Jewish Israelis and 50 Palestinians ($M_{age} = 15.37$, $SD = 0.91$, 43.4% male) reported their gender, religion, age, and nationality on the first page. Campers reported how they felt about people from the other side of their conflict from *Very negative* (1) to *Very positive* (7); how close they felt to people from the other side, *Not at all close* (1) to *Very close* (7); how similar they felt to people from the other side, *Not at all similar* (1) to *Very similar* (7); and how much they trusted people from the other side, *Do not trust at all* (1) to *Trust completely* (7). These four items formed our positivity index in 2010. Although these items—positivity, closeness, similarity, and trust—could each represent unique, or even orthogonal, aspects of attitude change developed through different processes (e.g., positivity may develop more implicitly and trust more deliberately; Gawronski & Bodenhausen, 2006), we combine them in the current paper because they form a reliable measure ($\alpha = .81$ at precamp, $\alpha = .85$ at postcamp) and load onto one factor (accounting for 65.24% of the variance at precamp and 69.79% of the variance at postcamp).

In the postcamp survey, participants again reported their demographics. On Page 2, the survey asked:

Think of the five people at camp to whom you feel most close. To make sure you are

thinking of five specific people, please list their initials below. Write the initials of the person that you feel closest to in the row marked "1." Write the initials of the person that you feel next most close to in the second row. Continue until you fill all 5 rows. You can list people in any delegation. After you list them, indicate which delegation each person is part of by checking the appropriate box.

This list of campers' five closest friends is our measure of quality of connection with the other side. We assume that participants who list a friend from the other side in their top five made a closer outgroup connection than those who did not list any friends from the other side.

Subsequently participants reported on the same four positivity items from the precamp survey. Participants also completed the same four positivity items with respect to campers from the other side. For example, they were asked "How close do you feel to Seeds of Peace campers from the other side of your conflict?"

2011 surveys. Forty one Jewish Israelis and 35 Palestinians ($M_{age} = 15.05$, $SD = 0.67$, 55.3% male) completed the precamp and postcamp surveys. The precamp survey was the same as 2010 with one change. To improve our positivity index, participants completed a humanization index (subset of items from Haslam, 2006) in addition to the four positivity items used in 2010. The humanization index asked participants: "How much do believe each of the following statements applies to people from the other side of your conflict?" and included five statements: "They are refined and cultured"; "They are rational and logical"; "They are unsophisticated" (reverse-scored); "They are my equal"; "They are less than human like an animal" (reverse-scored). The response scale was from *Not at all* (1) to *Extremely* (7). We confirmed that the four positivity items and the five humanization items formed a reliable measure ($\alpha = .87$ precamp, $.82$ postcamp) and loaded onto a single factor. The factor loadings for each item were above .70, with two exceptions.⁴

The 2011 postcamp survey was the same as 2010 postcamp survey with the humanization index added to match the precamp survey. The 2011 follow-up survey included the same questions as the 2011 postcamp survey, with select additions (see online Appendix). In the follow-up, when participants listed the five people to whom they felt most close, they were prompted to respond based on their current feelings: "Think of up to five people you met at camp to whom you CURRENTLY feel most close." Participants completed the four positivity items with respect to both the other side and campers from the other side in the postcamp and follow-up surveys, but only completed the five humanization items with respect to the other side.

2012 surveys. Forty one Jewish Israelis and 40 Palestinians ($M_{age} = 15.12$, $SD = 0.85$, 54.3% male) completed the precamp and postcamp surveys. The precamp survey in 2012 was the same as 2011 with three additions. First, in order to identify a predictor of positivity toward the other side before camp, we added a question asking, "How many people from the other side do you have personal, positive relationships with?" The response options were: 0, 1, 2–4, 4–8, or more than 8. Second, to further improve our positivity index, we added a three-item scale to measure empathy, adapted from Swart et al. (2011). They were: "If I saw a person from the other side was being treated unfairly, I think I would feel angry at the way they were being treated"; "If I heard that a person from the other side was upset, and suffering in some way, I would also feel upset"; "If a person from the other side I knew was feeling sad, I think that I would also feel sad." The response scale was *Strongly disagree* (1) to *Strongly agree* (7). Third, because two items from the humanization index in 2011 loaded poorly onto the "positivity" factor, we adjusted those two items. We removed the item: "They are unsophisticated" because campers reported difficulty understanding the meaning of "unsophisticated." We changed: "They are less than human, like an animal" to: "They are less than human."

In sum, our 2012 positivity index included four positivity items, three empathy items, and four humanization items. We again confirmed that the items formed a reliable scale ($\alpha = .89$ precamp, $.84$ postcamp) and loaded onto a single factor with factor loadings > 0.55 .

The 2012 postcamp and follow-up surveys included the same questions as the 2012 precamp survey. They also included the question asking participants to list their top five friends, as described in the 2010 and 2011 survey sections. Participants completed the four positivity items with respect to both the other side and campers from the other side in the postcamp and follow-up surveys, but only completed the humanization and empathy items with respect to the other side.

Results

We analyze data with respect to each of our four hypotheses, considering each of the 3 years of data collection in turn. We summarize the critical measures in Table 1, the regression models in Figure 1, and the change in positivity toward the outgroup in Figure 2.

H1: Contact will improve outgroup attitudes from precamp to postcamp.

2010 camp data. Our index for positivity toward the outgroup in 2010 included overall feelings to, trust of, similarity to, and closeness with the outgroup. Supporting Hypothesis 1, postcamp positivity ($M = 4.04$, $SD = 1.36$) was significantly higher than precamp positivity ($M = 3.46$, $SD = 1.27$), $t(119) = 4.66$, $p < .001$, $d = 0.42$.

2011 camp data. Our index for positivity included the same four positivity items, as well as the five-item humanization scale described in the Methods section. Replicating the 2010 result, postcamp positivity ($M = 4.41$, $SD = 1.06$) was significantly higher than precamp positivity ($M = 3.79$, $SD = 1.15$), $t(73) = 5.62$, $p < .001$, $d = 0.65$.⁵

2012 camp data. Our index for positivity included the same four positivity items, a four-item

humanization scale, and a three-item empathy scale described in the Methods section. Supporting Hypothesis 1 again, postcamp positivity ($M = 4.68$, $SD = 1.00$) was significantly higher than precamp positivity ($M = 4.01$, $SD = 1.20$), $t(80) = 6.63$, $p < .001$, $d = 0.73$.⁶

Summary. In all 3 years, we found strong support for Hypothesis 1, demonstrated by increased positivity toward the outgroup from precamp to postcamp. Not surprisingly, at the end of camp, feelings toward campers from the outgroup ($M_{2010} = 5.52$, $SD = 1.03$; $M_{2011} = 5.40$, $SD = 1.26$; $M_{2012} = 5.57$, $SD = 1.13$) were more positive than feelings toward all members of the outgroup ($M_{2010} = 4.04$, $SD = 1.36$; $M_{2011} = 3.94$, $SD = 1.29$; $M_{2012} = 3.73$, $SD = 1.29$), $r_s > .11$, $p_s < .001$, $d_s > 1.27$. But, as expected, participants' positivity toward campers from the outgroup was highly correlated with their positivity toward people from the outgroup, $r_s > .51$, $p_s < .001$. Thus, our results suggest that participants are more positive toward the specific individuals with whom they have positive contact, but that attitudes toward campers can generalize to overall attitudes toward the outgroup.

H2: Forming a close relationship with a member of the outgroup will predict postcamp positivity.

From participants' lists of their top five friends in the postcamp survey, we computed a dichotomous measure of whether or not each participant had listed someone from the other side of the conflict as one of their closest five friends.

2010 camp data. Overall, 57.8% of participants made a top five friend from the outgroup (hereinafter, "outgroup friend"). For Palestinians, an outgroup friend was defined as a Jewish Israeli, and for Jewish Israelis, an outgroup friend was defined as a Palestinian.⁷ 63.8% of Palestinians made an outgroup friend compared to 53.6% of Israelis.

In 2010, precamp positivity toward the outgroup did not predict the likelihood of making an

outgroup friend during camp in a logistic regression controlling for nationality, $b = -0.08$, $p = .791$. But participants who made an outgroup friend reported more positive feelings toward campers from the outgroup at postcamp, controlling for precamp positivity and nationality, $b = 0.28$, $p < .001$. Furthermore, postcamp positivity toward campers from the outgroup predicted postcamp positivity toward the outgroup in general, controlling for precamp positivity, nationality, and forming an outgroup friendship during camp, $b = 0.52$, $p < .001$. Thus, supporting Hypothesis 2, participants who made a close friend from the outgroup at camp had more positive feelings about campers from the outgroup and those who had positive feelings about campers developed more positive feelings toward all members of the outgroup.

2011 camp data. Overall, 63.2% of participants made a top five friend from the outgroup; 74.3% of Palestinians made an outgroup friend compared to 53.7% of Israelis.

Unlike in 2010, we found that precamp positivity toward the outgroup predicted the likelihood of making an outgroup friend in a logistic regression controlling for nationality, $b = 1.37$, $p = .007$. Replicating the 2010 result and supporting Hypothesis 2, participants who made an outgroup friend during camp reported more positive feelings toward campers from the outgroup at the end of camp, controlling for precamp positivity and nationality, $b = 0.21$, $p = .020$. And again, postcamp positivity toward campers from the outgroup predicted postcamp positivity toward the outgroup in general, controlling for precamp positivity, nationality, and whether or not they made an outgroup friend at camp, $b = 0.54$, $p < .001$. Thus, in 2011 we found a bidirectional relationship between friendship with the outgroup and attitudes toward the outgroup: Participants who had more positive feelings at the start of camp were more likely to form a close outgroup friendship during camp and participants who formed a close outgroup friendship were more likely to develop positive feelings toward the outgroup, over and above any positivity they had to start.

Table 1. Mean scores on positivity toward the outgroup and outgroup campers in 2010, 2011, and 2012 (with standard deviation in parentheses) for participants who did and did not make a postcamp outgroup friend.

	Percentage of participants who had at least one outgroup friend (at given time)	Participants who made a postcamp outgroup friend		Participants who did not make a postcamp outgroup friend	
		Positivity to outgroup campers	Positivity to outgroup	Positivity to outgroup campers	Positivity to outgroup
2010					
Precamp (<i>n</i> = 122)	N/A	N/A	3.44 (1.26)	N/A	3.55 (1.32)
Postcamp (<i>n</i> = 122)	0.58 (0.50)	5.74 (0.95)	4.17 (1.29)	5.27 (1.07)	3.92 (1.42)
2011					
Precamp (<i>n</i> = 76)	N/A	N/A	3.88 (1.18)	N/A	3.53 (1.19)
Postcamp (<i>n</i> = 76)	0.63 (0.49)	5.66 (1.16)	4.61 (0.94)	4.93 (1.31)	4.06 (1.17)
Follow-up (<i>n</i> = 41)	0.59 (0.50)	5.05 (1.15)	4.43 (1.07)	4.30 (0.99)	4.00 (0.83)
2012					
Precamp (<i>n</i> = 81)	0.33 (0.47)	N/A	4.10 (1.13)	N/A	3.84 (1.31)
Postcamp (<i>n</i> = 81)	0.64 (0.48)	5.73 (0.95)	4.78 (0.92)	5.29 (1.37)	4.50 (1.11)
Follow-up (<i>n</i> = 45)	0.58 (0.50)	5.11 (1.35)	4.51 (1.18)	5.24 (1.47)	4.64 (1.30)

Note. “Positivity” in 2010 is the average of four items: general feelings about, closeness to, similarity to, and trust of the outgroup. “Positivity” in 2011 is the average of the same four items and additionally a humanization index composed of five items. “Positivity” in 2012 is the average of the four items used in 2010 and 2011, the humanization index used in 2011 with one item removed, and a three-item empathy index. Because the positivity index changes each year, we cannot compare across years, only across time points within each year. The 2012 precamp outgroup friend measure refers to campers who reported at least one “positive, personal relationship” with someone from the outgroup prior to camp. All other “outgroup friend” measures refer to campers who reported at least one person from the outgroup in their list of the top five people to whom they were closest at camp.

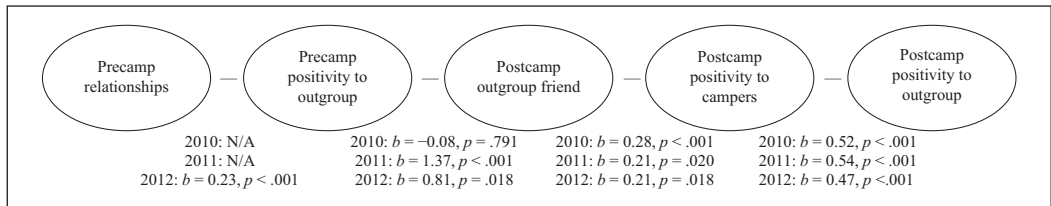


Figure 1. A model of attitude change toward the outgroup with regression coefficients for each year, controlling for nationality and each prior variable in the model.

2012 camp data. Overall, 64.2% of participants made a top five friend from the outgroup; 67.5% of Palestinians made an outgroup friend compared to 61.0% of Israelis. In 2012 we asked participants in the precamp survey to report the number of personal, positive relationships they had with the outgroup; 32.1% of participants reported having one or more personal and positive relationships with the outgroup prior to camp (42.1% Palestinians, 24.4% Israelis).

Having an outgroup relationship prior to camp predicted precamp positivity toward the outgroup, $b = 0.23, p = .004$, controlling for nationality. Like in 2011, precamp positivity toward the outgroup predicted the likelihood of making an outgroup friend during camp in a logistic regression controlling for nationality and precamp outgroup relationship, $b = 0.81, p = .018$. Replicating the 2010 and 2011 results and supporting Hypothesis 2, participants who made an outgroup friend

during camp reported more positive feelings toward campers from the outgroup at the end of camp, controlling for precamp outgroup relationship, precamp positivity, and nationality, $b = 0.21$, $p = .018$. And again, postcamp positivity to campers from the outgroup predicted postcamp positivity toward the outgroup in general, controlling for precamp outgroup relationship, precamp positivity, nationality, and postcamp outgroup friend, $b = 0.47$, $p < .001$. Thus, in 2012 we found the same bidirectional relationship between friendship with the outgroup and attitudes toward the outgroup as we found in 2011.

Summary. We found support for Hypothesis 2 in all 3 years (see Figure 1). Campers who made at least one close outgroup friend developed more positive feelings about campers from the outgroup and those who had positive feelings about campers felt more positively toward the outgroup at postcamp, controlling for precamp positivity (and precamp relationships with outgroup members in 2012).

H3: Positivity to the outgroup will fade after reentry.

2011 follow-up data. Twenty-seven Israelis (67.5% of the original sample) and 14 Palestinians (35.0% of the original sample) responded to the follow-up survey. The response rate for the two nationalities differed significantly, $\chi^2 = 5.08$, $p = .024$. To determine whether, within each nationality, those who completed the follow-up survey ($n = 41$) were meaningfully different from those who did not ($n = 35$), we compared the two groups on our critical measures as shown in Table 2. Controlling for nationality, participants who completed the survey were no different from those who did not on the change in positivity from precamp to postcamp and the likelihood of making an outgroup friend at camp. Precamp and postcamp positivity toward the outgroup was higher for those who completed the follow-up survey ($M_{Pre} = 4.00$, $SD = 1.10$; $M_{Post} = 4.67$, $SD = 0.94$) than those who did not ($M_{Pre} = 3.44$, $SD = 1.24$; $M_{Post} = 4.10$, $SD = 1.12$), $t_s(73) = 2.09$ & 2.39 , $p_s = .040$ and $.019$, $d_s = 0.49$ and 0.56 , respectively. Positivity toward campers from the outgroup was also higher for those who completed the follow-up survey ($M = 5.78$, $SD = 0.93$) than those who did not ($M = 4.93$, $SD = 1.45$), $t(73) = 3.07$, $p = .003$, $d = 0.72$.

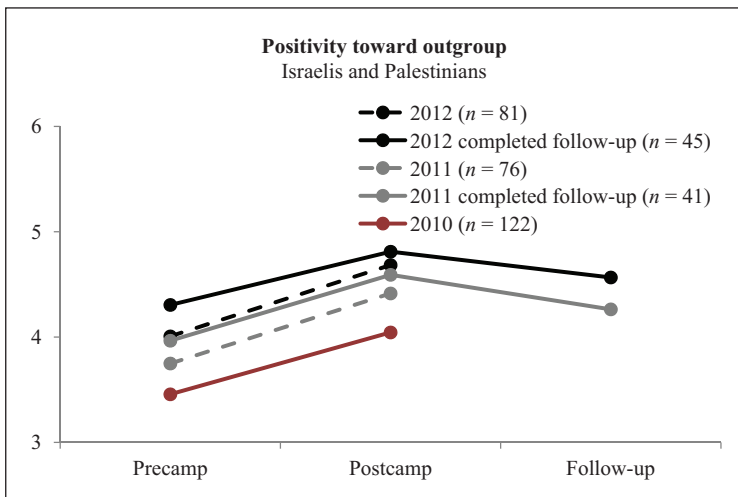


Figure 2. Positivity toward the outgroup for each year.

Note. Because the positivity index changes each year, we cannot compare across years, only across time points within each year. The possible range of values on the positivity index is 1 to 7.

Table 2. Mean scores on critical measures of participants who did or did not complete the follow-up survey in 2011 and 2012, controlling for nationality (with standard deviations in parentheses).

Critical measures from precamp and postcamp	2011 data		2012 data	
	Completed follow- up survey ($n = 41$)	Did not complete follow-up survey ($n = 35$)	Completed follow-up survey ($n = 45$)	Did not complete follow-up survey ($n = 36$)
Precamp positivity to the outgroup	4.00 ^a (1.10)	3.44 ^b (1.24)	4.33 ^a (1.17)	3.61 ^b (1.12)
Postcamp positivity to the outgroup	4.67 ^a (0.94)	4.10 ^b (1.12)	4.85 ^a (1.03)	4.47 ^a (0.92)
Change in positivity from precamp to postcamp	0.67 ^a (0.98)	0.57 ^a (0.93)	0.53 ^a (0.77)	0.87 ^a (1.06)
Positivity toward campers (postcamp)	5.78 ^a (0.93)	4.93 ^b (1.45)	5.77 ^a (1.00)	5.33 ^a (1.25)
Likelihood of making an outgroup friend (postcamp)	0.61 ^a (0.49)	0.66 ^a (0.48)	0.58 ^a (0.50)	0.72 ^a (0.45)
Precamp relationships with the outgroup	N/A	N/A	0.26 ^a (0.43)	0.43 ^a (0.50)

Note. Means within a row and within each year with different superscripts differ at $p < .05$. Because the positivity index changes from 2011 to 2012 we cannot compare across years, only across time points within each year.

Because our 2011 follow-up sample differed from the full 2011 sample, we retested Hypotheses 1 and 2 with the follow-up data. Restricting our dataset to only the Israelis and Palestinians who completed the follow-up survey, we confirmed Hypothesis 1: postcamp positivity ($M = 4.67$, $SD = 0.94$) was higher than precamp positivity ($M = 4.00$, $SD = 1.10$), $t(40) = 4.34$, $p < .001$, $d = 0.67$; and confirmed Hypothesis 2: participants who made an outgroup friend had more positive feelings toward campers from the outgroup at postcamp controlling for precamp positivity and nationality, $b = 0.49$, $p < .001$, which then predicted postcamp positivity toward the outgroup, $b = 0.50$, $p = .007$.

Next, testing Hypothesis 3 with the 2011 follow-up data, we found that postcamp positivity significantly decreased when measured at follow-up ($M = 4.26$, $SD = 1.00$), $t(40) = 2.53$, $p = .015$, $d = 0.39$. Feelings toward campers from the outgroup at follow-up ($M = 4.76$, $SD = 1.14$) also significantly declined compared to feelings toward campers from the outgroup at postcamp

($M = 5.78$, $SD = 0.93$), $t(40) = 7.17$, $p < .001$, $d = 1.11$. However, participants did maintain marginally greater feelings of positivity toward the outgroup in the follow-up than they showed in the precamp survey, $t(40) = 1.74$, $p = .089$, $d = 0.27$.

2012 follow-up data. Thirty-one Israelis (75.6% of the original sample) and 14 Palestinians (35.0% of the original sample) responded to the follow-up survey. Again, there was a significant difference in response rate across nationalities, $\chi^2 = 13.52$, $p < .001$. To determine whether, within nationality, those who completed the follow-up survey ($n = 45$) were meaningfully different from those who did not ($n = 36$), we compared the two groups on our critical measures as shown in Table 2. Controlling for nationality, participants who completed the survey were no different from those who did not on postcamp positivity, change in positivity from precamp to postcamp, positivity toward campers, the likelihood of having an outgroup relationship before camp, and the likelihood of making an outgroup friend during camp.

Precamp positivity toward the outgroup was higher for those who completed the follow-up survey ($M = 4.33$, $SD = 1.17$) than those who did not ($M = 3.61$, $SD = 1.12$), $t(79) = 2.80$, $p = .006$, $d = 0.63$.

Because our 2012 follow-up sample differed slightly from the full 2012 sample, we retested Hypotheses 1 and 2 restricting our dataset to only the Israelis and Palestinians who completed the follow-up survey. We confirmed Hypothesis 1: postcamp positivity ($M = 4.85$, $SD = 1.03$) was higher than precamp positivity ($M = 4.33$, $SD = 1.17$), $t(44) = 4.57$, $p < .001$, $d = 0.67$. However, we found a somewhat different pattern of results regarding Hypothesis 2: participants who made a postcamp outgroup friend did not have more positive feelings toward campers from the outgroup at postcamp controlling for precamp outgroup positivity, nationality, and precamp outgroup relationships, $b = 0.12$, $p = .911$, but postcamp feelings toward campers still predicted postcamp outgroup positivity, $b = 0.37$, $p = .012$.

Next, testing Hypothesis 3 with the 2012 follow-up data, we found that postcamp positivity again significantly decreased when measured at follow-up ($M = 4.57$, $SD = 1.22$), $t(44) = 2.29$, $p = .027$, $d = 0.34$. Feelings toward campers from the outgroup at follow-up ($M = 5.16$, $SD = 1.22$) also significantly declined compared to feelings toward campers at postcamp, $t(44) = 4.60$, $p < .001$, $d = 0.68$. But consistent with the 2011 follow-up data, participants maintained directionally greater feelings of positivity toward the outgroup in the follow-up than they showed in the precamp survey, $t(44) = 1.63$, $p = .110$, $d = 0.24$.

Summary. We find that positivity toward the outgroup fades after reentry. In both 2011 and 2012, outgroup positivity significantly decreased from postcamp to follow-up. However, we also find weak support for positivity being maintained. Outgroup positivity was marginally higher at follow-up compared to precamp, suggesting that some positive effect on attitudes remains more than 9 months after campers return home. If we combine the 2011 and 2012 samples, controlling for year, the difference between precamp outgroup positivity ($M = 4.17$, $SD = 1.14$) and

follow-up outgroup positivity ($M = 4.42$, $SD = 1.12$) is significant, $t(85) = 2.39$, $p = .019$, $d = 0.26$.

H4: Outgroup friendship will predict attitudes after reentry.

2011 follow-up data. To examine Hypothesis 4, we tested what best predicts attitudes after reentry: (a) campers' outgroup friendships at postcamp, (b) campers' outgroup friendships at follow-up, or (c) the change in campers' outgroup friendships from postcamp to follow-up. To do so, we used our dichotomous measure of outgroup friendship from postcamp (Hypothesis 4a). We also calculated a dichotomous measure of outgroup friendship at follow-up (Hypothesis 4b) and a measure of outgroup friendship change (Hypothesis 4c).

Supporting Hypothesis 4a, making an outgroup friend during camp in 2011 predicted follow-up positivity toward the outgroup, controlling for precamp positivity and nationality, $b = 0.31$, $p = .016$. Because follow-up positivity was measured at least 9 months after camp, we can be more comfortable inferring the causal direction of this relationship. Namely, making a friend at camp leads participants to have more positive feelings toward the outgroup 9 months after "reentry." Moreover, the effect of making an outgroup friend at camp has a significant effect on follow-up positivity even if postcamp outgroup positivity is included as an additional control, $b = 0.28$, $p = .037$.

The follow-up survey asked participants to report the five people that they met at camp to whom they currently feel most close. Seventeen Israelis (62.9%) reported at least one outgroup friend and seven Palestinians (50.0%) reported at least one outgroup friend. We tested Hypothesis 4b by regressing follow-up positivity on nationality, precamp outgroup positivity, and existence of an outgroup friend at the time of follow-up. We did not find support for this hypothesis. Having an outgroup friend at follow-up did not predict follow-up positivity toward the outgroup, $b = 0.09$, $p = .485$.

To test Hypothesis 4c, we created a variable that measured change in outgroup friendship by

subtracting participants' postcamp outgroup friend score (0 or 1) from their follow-up outgroup friend score (0 or 1). Thus, the change variable was coded -1 if participants had an outgroup friend at the end of camp but lost their friend(s) from postcamp to follow-up, coded $+1$ if participants did not have a friend at the end of camp but gained one or more outgroup friends from postcamp to follow-up, and coded 0 if participants had no change in whether or not they had an outgroup friend. No change included participants who did not have an outgroup friend at either postcamp or follow-up as well as those who did have an outgroup friend at both postcamp and follow-up (see Table 3). Change in outgroup friend did not predict follow-up positivity toward the outgroup, $b = -0.16$, $p = .216$, controlling for precamp outgroup positivity and nationality.⁸ Therefore, we found no support for Hypothesis 4c in the 2011 data.

2012 follow-up data. Again, we separately tested Hypotheses 4a, 4b, and 4c. We did not find support for Hypothesis 4a, in contrast to what we had found in the 2011 data. Our regression analyses showed that making an outgroup friend during camp did not predict follow-up positivity toward the outgroup, controlling for precamp relationships with the outgroup, precamp outgroup positivity, and nationality, $b = -0.19$, $p = .118$.

Hypothesis 4b, which was not supported in 2011, was also not supported in 2012. At follow-up, 20 Israelis (64.5%) reported at least one outgroup friend and six Palestinians (42.9%) reported at least one outgroup friend. Whether or not participants had an outgroup friend at follow-up did not predict follow-up positivity toward the outgroup, controlling for precamp relationships with the outgroup, precamp outgroup positivity, and nationality, $b = 0.12$, $p = .321$.

To test Hypothesis 4c, we again created a variable to measure change in outgroup friendships from postcamp to follow-up. Unlike 2011, change in outgroup friendship marginally predicted follow-up positivity toward the outgroup, $b = 0.23$, $p = .062$, controlling for precamp relationships with outgroup, precamp outgroup positivity, and

nationality. Moreover, the change in outgroup friendship from postcamp to follow-up had a significant effect on follow-up positivity even if postcamp outgroup positivity was included as an additional control, $b = 0.29$, $p = .008$.⁹ This supports Hypothesis 4c and suggests that in 2012, change in outgroup friendships was a better predictor of future attitudes toward the outgroup than outgroup friendship at postcamp.

Summary. In both 2011 and 2012, outgroup friendship predicted follow-up positivity toward the outgroup (above and beyond any positivity reported at the end of camp), but the nature of the friendship variable was different. The 2011 data suggest that the maintenance of positive attitudes toward the outgroup following camp is best predicted by whether or not one forms an outgroup friendship *during* camp (H4a). In contrast, the 2012 data suggest that the maintenance of positive attitudes following camp is best predicted by whether participants maintain and form new friendships *after* camp (H4c). Although future research may be necessary to determine whether forming an outgroup friendship during camp or after camp is more important for maintaining positive attitudes once campers return home, it seems clear that having close friends from the outgroup is associated with improved long-term attitudes toward the outgroup. Thus, interventions that promote the formation of friendships during camp or help campers maintain friendships and form new ones after camp may all be useful.

General Discussion

We tested the effect of a contact intervention for Palestinian and Israeli teenagers in a neutral setting that satisfied Allport's (1954) optimal conditions. We found that participants had more positive attitudes toward the other side of their conflict after the intervention than before. Moreover, making at least one outgroup friend during the intervention predicted positive attitudes toward group members from the outgroup. This effect replicated in 3 separate years. Although

Table 3. Number of outgroup friends for the Israelis and Palestinians who completed the follow-up survey at postcamp and follow-up in 2011 and 2012 (percentage of total participants within nationality within year in parentheses).

Outgroup friend status at postcamp and follow-up	2011 data		2012 data	
	Israelis (<i>n</i> = 27)	Palestinians (<i>n</i> = 14)	Israelis (<i>n</i> = 31)	Palestinians (<i>n</i> = 14)
<i>No change A:</i> At least one outgroup friend at postcamp & at least one outgroup friend at follow-up	11 (41%)	6 (43%)	12 (39%)	3 (21%)
<i>No change B:</i> No outgroup friends at postcamp & no outgroup friends at follow-up	7 (26%)	2 (14%)	4 (13%)	6 (43%)
<i>Gained friend:</i> No outgroup friends at postcamp & at least one outgroup friend at follow-up	6 (22%)	1 (7%)	8 (26%)	2 (14%)
<i>Lost friend:</i> At least one outgroup friend at postcamp & no outgroup friends at follow-up	3 (11%)	5 (36%)	7 (23%)	3 (21%)

the positivity in attitudes toward the outgroup faded after participants returned to their home countries, there remained a significant increase compared to attitudes prior to the intervention's start. These results suggest that the reentry problem is real, but that it may not undermine all of the long-term effects of the intervention. Further, friendship with the outgroup predicted attitudes toward the outgroup after reentry. In one year, making an outgroup friend was the best predictor whereas, in another year, the change in outgroup friendship after the intervention was the best predictor.

Contributions to Contact Theory

Our research used a longitudinal design to investigate the relationship between contact and attitudes toward an antagonistic outgroup. Since being developed, contact theory has been primarily tested by measuring attitudes at a single point in time. Only a handful of studies have used a longitudinal design to examine the extent to which positive contact can influence long-term attitudes. Compared to a cross-sectional design, a longitudinal design allowed us to control for prior attitudes, making us more confident that the contact intervention in the current study causally improved

outgroup attitudes. Our design also allowed us to examine the extent to which attitudes predict the relationships that people form with outgroup members. Some studies have found a bidirectional relationship between contact and attitudes (e.g., Binder et al., 2009; Swart et al., 2011); we also find this relationship, although not in all 3 years. In both 2011 and 2012, participants with the most positive attitudes toward the outgroup at the beginning of camp were most likely to make an outgroup friend during camp.

A second contribution of the current paper is that, unlike most prior research, the contact intervention we study takes place outside of the natural context of the conflict. We test the effectiveness of this type of "neutral-setting" intervention by measuring attitudes toward the outgroup immediately before and after the contact intervention, and again 9 months after participants "reenter" their home countries. For our participants, reentry often involved losing contact with outgroup acquaintances or friends, returning to friends and family who hold negative attitudes toward the outgroup, and being faced with political realities of war and conflict. Unsurprisingly, we found that reentry made outgroup attitudes more negative. However, there is some reason for optimism: attitudes remained

more positive than they had been prior to the start of the intervention.

A third contribution of our research is to study the relatively new “fifth optimal condition” of contact, friendship potential (Pettigrew, 1998). Because past research generally shows that quality of connection is a better predictor than quantity (Binder et al., 2009; Eller & Abrams, 2004), and several studies suggest friendship is one of the most potent types of contact (Davies et al., 2011; Pettigrew, 1997; Pettigrew & Tropp, 2006; Turner, Hewstone, Voci, Paolini, & Christ, 2007), we tested whether developing a friendship with someone from the outgroup is an important component of attitude change. Indeed, we find that participants who form a close friendship with someone from the outgroup during camp have more positive feelings toward campers from the outgroup. Whether or not participants formed at least one friendship was as good as or a better predictor of future attitudes toward the outgroup than the number of friendships they formed, suggesting that forming even just one friendship may be sufficient to improve intergroup relations. We also extend this research by examining maintenance of friendship over time, and find that, at least in the 2012 data, maintaining friendship may be a key predictor of attitudes. This suggests that it might not be enough to simply make an outgroup friend, especially if the probability of losing that friend is high. Strikingly, according to our analysis in 2012, it may be worse to lose an outgroup friend than to have never made one at all.

A final contribution of this research is to test contact theory in the context of the Israeli–Palestinian conflict. Researchers have called for more field studies with contact interventions of antagonistic groups (e.g., Paluck & Green, 2009), and the Israeli–Palestinian conflict is regarded as one of the most profound and protracted conflicts of the 20th century (Shlaim, 1996). It further allows us the opportunity to examine whether group status moderates contact effects, as some studies have found (e.g., Binder et al., 2009). Within the conflict, Palestinians are generally regarded as the group with lower power or status and Israelis the group with higher status.

Although Palestinians consistently had more negative outgroup attitudes than Israelis at each time point, we found similar patterns of change for the two groups. Our model of the effect of making an outgroup friend (see Figure 1) held for both Israelis and Palestinians. There were also no interactions of nationality and friendship on positivity toward the outgroup. Group status appears largely irrelevant to the influence of the contact intervention in this context.

The Importance of Making and Maintaining Outgroup Friends

Our research highlights the positive long-term effects that result from outgroup friendship. We find that friendship with the outgroup predicts participants’ attitudes 9 months after returning home, but our results differ across the 2 years of data collection. There are several possible reasons why friendships formed during camp may have mattered more in 2011 whereas change in friendships mattered more in 2012. First, there was overall slightly greater change in friendships, both gain and loss, in 2012 (20 of 45) compared to 2011 (15 of 41), which may partially account for why change in friendship was a better predictor in 2012 than 2011. Second, our measure of friendship considers only whether one or more individuals from the outgroup were listed in the top five. It does not take into account the psychological value of each friend: one could imagine that a first-ranked friend is more important than a fifth-ranked friend, and perhaps in 2012 more participants lost a first-ranked outgroup friend whereas in 2011 more participants lost a fifth-ranked outgroup friend.

To consider this possibility, we created a weighted friendship measure by assigning 5 points to a first-ranked friend, 4 points to a second-ranked friend, and so on, summing across all the other-side friends. We calculated this weighted friendship measure at postcamp, follow-up, and the change in weighted friendship from postcamp to follow-up. We find that weighted change in friendship from postcamp to follow-up was similar in 2011 ($M = -1.42$, $SD = 3.03$) and 2012

($M = -1.63$, $SD = 3.17$), $t(155) = 0.67$, $p = .675$, which suggests that the different patterns we find are not due to the crude nature of our scale.¹⁰

Another way to consider the value of a friendship is to give greater emphasis to mutual friendships: that is, a friendship that is listed by both parties may be worth more than a friendship only listed by one party. If the postcamp friendships in 2012 were less likely to be mutual friendships, that could also help explain their lack of predictive power of future attitudes. Future research examining mutual friendships and networks of friendships may help elucidate when and how friendships cause positive attitude change. For now, our data broadly suggest that both making and maintaining friends are important for preserving the improved attitudes toward the outgroup after reentry.

Implications for Neutral-Setting Contact Intervention Programs

There exist at least 15 contact intervention programs for Israeli and Palestinian youth outside of the Middle East (Lazarus, 2011); yet, to our knowledge, there are currently no quantitative assessments of these programs (for mixed-methods assessments, see Hammack, 2006; Lazarus, 2011). Considering the potentially high costs¹¹ of arranging such programs, having a clear understanding of their outcomes is critical. How much change can be accomplished in a few short weeks spent outside of the conflict region, particularly in the face of a lifetime of intergroup conflict? Our data suggest that substantial progress can occur: the average likelihood of making a top five friend from the outgroup was 63% across all 3 years, and the lowest likelihood was 59% (in 2010). It took just 3 weeks for the majority of participants to form a relationship with someone from the outgroup of their conflict—although it is important to note that, at least based on the 2012 data, a sizable minority of participants (32.1%) may already have had at least one positive relationship with the outgroup before camp.

Consequentially, our data also address some fundamental questions regarding the utility of neutral-setting contact intervention programs.

Critics of neutral-setting interventions primarily focus their criticism on the reentry problem. Even if a contact intervention is quite effective when participants are outside of the contact context, critics suggest that these positive changes may disappear when they return to the conflict region and in-person contact is no longer possible (e.g., Hammack, 2006). Thus, longitudinal studies like ours are critical for understanding the long-term psychological effects of short-term positive contact and for addressing some fundamental questions regarding the utility of these programs (see also Lazarus, 2014; Maddy-Weitzman, 2005). Our findings suggest that there are long-term benefits to off-site programs despite the costs of reentry. We find that attitudes toward the outgroup remain more positive after reentry than they were before the intervention. There may also be other benefits that were not measured in the current study. For example, in his more than 10 year evaluation of Seeds of Peace, Lazarus (2014) found that campers were especially likely to participate in other peace-building activities after attending camp.

Limitations

Our long-term results are promising, but they need to be interpreted cautiously because of the low rate of participation in the follow-up, especially among Palestinian campers. If participants who complete the follow-up are especially positive toward the intervention program, then our estimate of long-term attitude change may be larger than it would be with the entire sample. That is, positive long-term attitude change may only occur among those willing to participate in a follow-up. This caution is important for using the current data as an estimate of the average long-term effect for all participants who experience the contact intervention.

It is not entirely clear, however, that the average long-term effect is the most appropriate metric on which to judge the effectiveness of neutral-setting interventions. Our data suggest that some participants are able to manage their reentry and maintain attitudes that are more positive than the attitudes they had before the intervention. Thus,

our data show that it is at least *possible* to experience long-term attitude change even when positive contact is experienced outside of the conflict region. Knowing that it is possible may encourage researchers and practitioners to focus on the variables that make it most likely.

Methodologically, we would benefit from comparison to another group of participants such as a national sample of Israelis or Palestinians, or the more closely matched group of individuals who apply to the camp but are not accepted. We could then compare treated participants' follow-up attitudes to the attitudes of a comparison group rather than only to their own precamp attitudes. Because attitudes at the country level may be constantly changing due to volatile conditions in the Middle East—for instance, merely in the space of the past 3 years there has been a Syrian civil war, an Egyptian *coup d'état*, and an Iraqi insurgency, all of which arguably influenced Israeli–Palestinian relations—it would be useful to benchmark any attitude change against national change over the same time period. Another useful comparison group would be a true control group: participants accepted to Seeds of Peace who are randomly assigned to *not* receive treatment. Assigning participants to not receive treatment was logistically impossible in the current study. Despite calls for more rigorous experimental methods in prejudice research (e.g., Paluck & Green, 2009), few studies have used the experimental method of random assignment for contact interventions (Duncan, Boisjoly, Levy, Kremer, & Eccles, 2003; Furuto & Furuto, 1983; Green & Wong, 2009; Haring, Breen, Pitts-Conway, & Lee, 1987; Sheare, 1974) and those that have were not conducted with antagonistic groups.

Comparing participants to a control group or quasicontrol group would be useful for measuring the influence of the contact experience, but it would not address the selection bias that leads certain people to apply to camp. Our data suggest at least some selection bias exists in our sample. First, our participants reported being more optimistic about the prospects for lasting peace than a national sample was around the same time.

Second, about one third (32.1%) of our 2012 participants reported already having at least one personal, positive relationship with an outgroup member. Thus, we must be cautious about generalizing our findings. Our results suggest that long-term attitude change can occur for people who choose to experience contact in a neutral-setting intervention. But, we cannot assume that such attitude change would occur for people forced to experience contact.

Future Directions

Several promising directions exist for this research, in addition to those already discussed. One direction is to further investigate why friendship improves attitudes toward outgroup members. Many reasons have been suggested and tested (e.g., Binder et al., 2009; Greenland & Brown, 1999; Islam & Hewstone, 1993; Miller, 2002; Pettigrew, 1997, 1998; Stephan & Renfro, 2003; Stephan & Stephan, 2000; Swart et al., 2011; Tam et al., 2007), and we find some evidence with respect to these in the current paper.¹² For instance, Brown and Hewstone (2005) hypothesize that intergroup boundaries must remain salient because this allows attitudes toward the outgroup friend to generalize to other outgroup members. Indeed, we find that having an outgroup friend directly predicted attitudes toward other outgroup acquaintances at camp (our measure of positivity toward campers from the outgroup), and those attitudes then predicted positivity toward the rest of the outgroup. Having an outgroup friend did *not* directly predict attitudes toward all outgroup members, suggesting that the ability to generalize from acquaintances or friends to the larger group is key to enacting larger change in beliefs.

To experimentally test whether forming and maintaining outgroup friends causally predicts long-term attitude change, we could design interventions that would help participants create friendships with the outgroup during the contact experience, as well as give them venues, for instance, through social media, to maintain those friendships. For example, one intervention could

encourage participants to enter their new friends' phone numbers into their cell phone before they leave camp, or to pay for campers' cell phone or texting services. Another could be hosting regular "online chat" sessions after camp, organized by the friendship networks established at camp (e.g., by bunk or dialogue group). Randomly assigning campers to interventions would be key for testing their effectiveness.

Another future direction is to examine the extent to which attitude change spreads to others. Extended contact, merely knowing ingroup members who have outgroup friends, can effectively improve outgroup attitudes according to cross-sectional (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) and quasi-experimental (Cameron & Rutland, 2006) research designs. Because extended contact involves no actual interaction with outgroup members, it is a potentially low-cost and wide-impact intervention. Extended contact is perhaps most beneficial to individuals who have little opportunity for actual interaction (Christ et al., 2010; Turner et al., 2007) and may even be as effective as direct contact (Christ et al., 2010). For these reasons, it is important to examine the extended contact effects of intervention programs. Does the increased outgroup positivity reported by campers spread to their friends and family members who do not attend camp?

Across our 3 years of data collection, Seeds of Peace founder John Wallach's advice to campers to "make one friend" seems prescient. Indeed, at least from pre- to postcamp, making a friend from the outgroup appears key to improving attitudes toward the other side of the conflict. But incorporating results from our analysis after reentry, we would modify his advice slightly: Make and *keep* just one friend.

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Notes

1. But note, laboratory and field experiments remain the gold standard for determining causality (see Paluck & Green, 2009, for an overview of field experiments relevant to contact theory).
2. For longitudinal studies of contact effects with antagonistic groups, albeit not Israelis and Palestinians, see Al Ramiah and Hewstone (2012); Al Ramiah, Hewstone, Little, and Lang (2013); and Marenin (1989).
3. The Middle Eastern delegations include Egyptians and Jordanians in addition to Palestinians and Israelis. Roughly 20% of campers in the Israeli delegation are Arab/Palestinian Israelis. We focus our analyses on Palestinians and Jewish Israelis because they are the two largest nationalities present, with at least 35 campers consistently attending from each nationality, and these two groups strongly consider each other to be "the other side."
4. The two reverse-scored humanization items loaded the least well on the positivity index: "They are unsophisticated" (factor loading = 0.31) and "They are less than human like an animal" (factor loading = 0.54). In future surveys, we removed or adjusted these items to ensure higher factor loading.
5. We separately examined the positivity index ($\alpha = .85$ precamp) and the humanization index ($\alpha = .74$ precamp). Both indices showed positive change from precamp to postcamp: $t(73) = 5.18, p < .001, d = 0.60$ and $t(71) = 5.15, p < .001, d = 0.60$, respectively.
6. We separately examined the positivity index ($\alpha = .81$ precamp), humanization index ($\alpha = .83$ precamp), and empathy index ($\alpha = .83$ precamp). All indices showed positive change from precamp to postcamp: $t(80) = 4.66, p < .001, d = 0.51$; $t(79) = 5.03, p < .001, d = 0.56$; and $t(80) = 5.28, p < .001, d = 0.58$, respectively.
7. In all years, making an outgroup friend (dichotomous variable) predicted positivity toward the outgroup just as well as (or better than) the total number of outgroup friends made (out of five). We therefore conducted all analyses using the dichotomous predictor.

8. We tested two variations of this analysis. First, we tested whether the *number* of friends gained or lost predicted follow-up positivity toward the outgroup. It did not: $b = -0.18, p = .192$, controlling for precamp outgroup positivity, nationality, and postcamp outgroup positivity. Second, we removed the participants who showed no change in outgroup friendships from the analysis—those coded 0 from the original analysis. When we included only participants who had -1 and $+1$ change scores ($n = 15$), the change in outgroup friend still did not predict follow-up attitudes toward the outgroup, $b = -0.38, p = .221$, controlling for precamp outgroup positivity and nationality.
9. We tested the same two variations of this analysis as we did with the 2011 campers. First, we tested whether the *number* of friends gained or lost predicted follow-up positivity toward the outgroup. It did, although not as strongly: $b = 0.22, p = .048$, controlling for precamp relationships with outgroup, precamp outgroup positivity, nationality, and postcamp outgroup positivity. Second, we removed the participants who showed no change in outgroup friendships from the analysis—those coded 0 from the original analysis. When we included only participants who had -1 and $+1$ change scores ($n = 20$), the change in outgroup friend still marginally predicted follow-up attitudes toward the outgroup, $b = 0.44, p = .064$, controlling for precamp relationships with outgroup, precamp outgroup positivity, nationality, and postcamp outgroup positivity.
10. The weighted postcamp friendship measure predicted follow-up attitudes similarly to our dichotomous postcamp friendship measure and the weighted change in friendship measure predicted follow-up attitudes similarly to our coded change in friendship measure. In 2011, the weighted postcamp friendship measure marginally predicted follow-up positivity, controlling for nationality, prepositivity, and postpositivity, $b = 0.24, p = .071$, but it was not a better predictor than the simple dichotomous variable of having an outgroup friend or not. In 2012, the weighted friendship measure did not predict follow-up positivity controlling for nationality, preresult with the outgroup, prepositivity, and postpositivity, $b = -0.16, p = .192$. In 2011, the weighted change in friendship measure did not predict follow-up positivity, controlling for nationality, prepositivity, and postpositivity, $b = -0.20, p = .101$. In 2012, the weighted change in friendship measure predicted follow-up positivity controlling for nationality, preresult with the outgroup, prepositivity, and postpositivity, $b = 0.28, p = .012$.
11. The approximate cost of sending one teenager to Seeds of Peace camp is \$6,000: therefore, across the 3 years of this study we can estimate that \$1.674 million was spent on campers alone.
12. In 2012, we added two scales to measure intergroup anxiety and outgroup homogeneity, variables recently shown to potentially mediate the effect of contact (Swart et al., 2011). We found decreased intergroup anxiety during camp, $t(80) = -3.40, p < .001$. We did not find a change in perceived outgroup homogeneity, $t(79) = 1.49, p = .141$. However, we found no evidence that anxiety mediated the effect of friendship on positivity toward the outgroup in our sample.

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