Together from afar: Introducing a diary contact technique for improving intergroup relations

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abstract

Bringing groups into direct contact is a popular way to break down negative stereotypes but is logistically challenging when groups are geographically distant or otherwise isolated. To address this issue, we present the *diary contact technique* (DCT), a methodology designed to improve relations between such groups via positive contact. In the DCT, individuals read real diary entries written by a member of their own culture (the in-group) or another culture (the out-group), with the prediction that reading out-group diary entries will reduce stereotyping. In this randomized controlled study, we validate the DCT's effectiveness in samples of Americans and Pakistanis. Individuals who received out-group diaries perceived less cultural distance between the two groups after the intervention, whereas participants who received in-group diaries showed no change in perceived cultural distance. The reductions in perceived cultural distance mediated decreases in negative stereotyping of the out-groups. These results suggest that the DCT is a promising tool for improving relations between cultures.

Core Findings

What is the issue?
Reducing conflict between different cultural communities is especially difficult when these communities are isolated geographically or in other ways. Changing negative stereotyping and reducing cultural distance requires an interventional effort. A *diary contact technique* (DCT) exposes communities to each other through making and reading diary content. It has been successful in reducing perceived cultural distance between treatment groups.

How can you act?
Selected recommendations include:
1) Increasing research and investment into virtual contact interventions for reducing perceived cultural distance between groups
2) Extending DCT into other areas such as schools, workplaces, government, and advocacy organizations

Who should take the lead?
Researchers, policymakers, and stakeholders in conflict management and resolution

Under the right conditions, contact between two social groups can build trust and reduce the risk of conflict. But in today's world, most contact between groups comes through mass media, where depictions of life in other cultures are incomplete and stereotype-ridden. In this article, we introduce a new intervention—the *diary contact technique* (DCT)—to promote positive contact between geographically far-flung groups and reduce bias. The DCT involves delivering diary entries over the course of a week from a member of one culture to a member of another culture, and it is easy to implement—simply requiring the acquisition of diary entries, translations, and survey-distributing software. We present data from samples of Americans and Pakistanis showing that the intervention is effective at reducing perceptions of cultural distance (the extent to which two groups differ in their values and norms)[1] in those groups and, in turn, mitigating negative stereotypes. We also offer practical suggestions for researchers and policymakers who may be considering implementing the DCT.

Prejudice & Cultural Contact in an Interconnected World

Economic opportunities and exploration have brought cultures into contact for thousands of years. Historians such as Herodotus, Marco Polo, and Ibn Battuta documented ancient forms of intercultural contact, and later social theorists such as Karl Marx and Friedrich Engels[2] discussed the influence of globalization on relations between groups at length. Marx and Engels's view, which has since been popularized by journalists like Thomas Friedman[3] and academics like Theodore Levitt,[4] was optimistic—holding that, as the marketplace became increasingly global, individuals' engagement with other cultures would translate into less ethnocentrism and more openness to foreign values and norms.

Yet recent global trends show that contact between groups does not always translate into tolerance. Although trade and travel have increased over the past three decades,[5] intercultural tension—particularly between the West and the Middle East and South Asia—has remained high. Wars in Afghanistan, Pakistan, and Iraq involving American forces have resulted in more than 200,000 violent civilian casualties in the last 20 years;[6] many inhabitants of these countries have developed a deep distrust of Americans and vice versa. In a 2013 survey, for example, only 11% of Pakistanis viewed Americans positively,[7] and in another survey conducted that same year, only 10% of American respondents said they trusted Pakistanis at least "a fair amount."[8]

One possible source of the protracted American–Pakistani hostility might be the ways that people learn about foreign cultures, which we refer to here as *out-groups*. People from different cultures tend to learn about each other through mass media outlets such as film, television, and news reports, where representations of out-groups are often stereotyped and incomplete.[9,10] Social media forums can provide more nuanced views, but they do not often bring people from different cultures together; people tend to use Twitter, Facebook, and the like to interact with their existing social networks, not to forge new connections.[11,12]

Intergroup contact theory, which explores how interactions between groups can reduce prejudice, suggests that relations between societies like Pakistan and the United States will not improve until members of these groups meet in more positive and safe conditions.[13] However, traditional ways of creating these conditions can be nearly impossible to implement for geographically distant cultures. For example, Gordon Allport's version of the contact hypothesis,[13] which he developed nearly 70 years ago, emphasized the importance of face-to-face activities to reduce prejudice,[14] yet language barriers and geographic distance stand in the way of direct contact between people living in different nations.

These limitations have resulted in a troubling lack of prejudice-reduction interventions tested in non-Western samples. In a 2009 review of 1,000 published and unpublished papers on intergroup prejudice, for instance, Elizabeth Levy Paluck and Donald P. Green found only a

single randomized field intervention that had sampled adults outside of North America and none that had been conducted with people in different countries.[15] Some cross-cultural interventions have been published in the years since their review appeared.[16–19] Nevertheless, a 2018 follow-up review that Paluck and Green conducted with Seth A. Green found that only two contact interventions had attempted to reduce prejudice against foreigners and that both of these interventions were conducted within a single nation.[20]

In recent years, new virtual contact interventions have emerged that do not require face-to-face interaction and are more amenable to cross-cultural application.[21] Some of these approaches have involved attempting to foster constructive contact by portraying out-groups in a positive light in mass media.[19,21,22] For example, Paluck studied the value of a radio program in Rwanda that modeled healthy contact between Hutu and Tutsi ethnic groups by depicting everyday interactions between their members;[19] Edward Schiappa and his colleagues improved heterosexual people's attitudes toward gay men by showing positive portrayals of gay men in films and television shows;[22] and Lindsey Cameron and her colleagues reduced British children's anti-refugee prejudice through fictional stories that described friendly interactions between refugees and British citizens.[23] Other interventions have used Internet chat rooms or collaborative projects to bring people together.[24–27] For example, Diane Boehm and her associates attempted to reduce ethnocentrism through a collaborative online project between American and English-speaking Polish students.[25] Still other interventions have asked participants to imagine a positive interaction with an out-group to which they had had little exposure.[26–28]

Yet even these virtual contact interventions face limitations when applied cross-culturally.[29,30] For example, many media-based interventions rely on actors or celebrities to depict out-groups—in one intervention, Schiappa and his colleagues presented clips from television shows such as *Queer Eye for the Straight Guy*[22]—and people may not generalize their positive impressions of these celebrities to more typical members of an out-group. Imagined contact interventions have a related limitation: People must draw from their existing stereotyped perceptions of the out-group they are imagining. Americans may be more likely to imagine Pakistanis praying in a mosque than playing soccer with friends, even if they are asked to think of "interesting and unexpected things" about Pakistanis. Chat rooms and collaborative online projects resolve these limitations by engineering real interactions between typical people from two groups, but they face a different set of limitations, such as requiring that groups speak the same language. Also, the content of chat-room conversations depends on what people ask each other, and research from social psychology shows that people tend to ask questions aimed at reinforcing rather than contradicting stereotypes.[31,32]

Introducing the Diary Contact Technique

To complement these existing interventions, we introduce the DCT, which involves two steps. In the first step, investigators collect unfiltered diary entries from members of different cultures in each group's native language. In the second step, investigators randomly assign a different sample of participants from each culture to read either daily diary entries from an in-group individual (someone from their own culture) or translated diary entries from an out-group individual. Before participants start reading diaries and after they have completed reading the full set of entries, they rate the extent to which they endorse specific stereotypes associated with the out-group. By comparing the pre- and postintervention survey results, researchers can determine whether reading an out-group individual's diary entries reduced belief in commonly held cross-cultural stereotypes, compared with reading diary entries by an individual from one's own culture.

The DCT has a number of logistical features that make it a promising 21st-century contact intervention. For example, diary entries can be distributed online, which makes the DCT easy to implement in geographically distant places.

"The DCT allows participants to see people of other cultures in counter-stereotypical situations"

Further, by randomly assigning out-group and in-group diary entries to participants, researchers can test whether reading diary entries written by members of a particular out-group reduces stereotypes more than reading diary entries from someone in one's own community would.

The DCT has several other features that make it promising as a bias-reduction intervention. Several studies suggest that reading about typical people within a culture—rather than celebrities or actors—should increase the likelihood that people will generalize their positive impressions of the author to the entire out-group rather than viewing the diary writer as an exception to the prevailing stereotype.[33–37] Reading at length about the everyday life of a particular person in an out-group culture may also increase the extent to which people perceive members of out-group cultures as individuals rather than as part of a homogeneous category.[37] Finally, viewing an out-group individual in a wide range of situations that contradict people's existing stereotypes highlights the commonalities between cultures and undermines pervasive stereotypes.[38]

We are particularly interested in this last aspect of the DCT. We suggest that because the situations depicted in diaries portray elements of life that are shared by people around the world (such as meals and family gatherings), reading about these cross-cultural commonalities should reduce the cultural distance that people feel between themselves and members of an out-group. In addition, the DCT allows participants to see people of other cultures in counter-stereotypical situations (such as when Americans read about Pakistanis playing sports or reading poetry, or Pakistanis read about Americans spending time with their parents),

which should also reduce cultural distance. In previous investigations, feeling less cultural distance has been linked to better acculturation,[39,40] improved cross-cultural collaboration,[41] and willingness to personally visit a foreign country.[42] In line with these findings, we hypothesize that perceived cultural distance could be a key mediator in the DCT's efficacy. To the extent that reading diaries about a foreign culture leads to a reduction in perceived cultural distance, it should also facilitate decreases in negative stereotyping of out-groups.

Study Design

To prepare our test of whether the DCT can reduce negative stereotypes of other cultures, we had several individuals from Pakistan and the United States complete diary entries every day for a week. Then, with the diarists' permission, we assigned the entries to a new set of Pakistani and American participants under the guise of a social memory study. The Pakistanis and Americans in the second group read one diary entry per day over the course of a week. Half of the participants from each culture read entries from someone of their same culture, and half read entries from someone of the other culture. Before and after reading the full set of entries, participants filled out a survey meant to assess how much they endorsed specific stereotypes of the other culture and the amount of cultural distance they perceived. We compared the pre- and postintervention survey results to see if reading the diaries reduced perceived cultural distance and whether this diminution increased positive feelings about the other group.

Laying the Groundwork

Before testing the intervention or procuring diary entries, we first needed to gather data on the stereotypes that Pakistanis and Americans held about each other so that we could generate survey items that assessed beliefs commonly held in the real world. We collected these data by conducting semistructured interviews with volunteers other than those who later participated in the intervention. The interviews included a fixed list of questions but also allowed interviewers to ask other questions that naturally arose.

Participants & Procedure for Identifying Common Stereotypes. We gathered our interview data from 18 Americans (11 women, seven men; mean [*M*] age = 25.78 years) and 12 Pakistanis (all men; M_{age} = 28.82 years). Americans were from Maryland, and Pakistanis were from Islamabad, Rawalpindi, Lahore, Sahiwal, and Abbottabad. Only men were available for our Pakistani interviews. Consultants from the United States and Pakistan helped us design the interviews. The resulting set of questions generally focused on participants' perceptions of the other culture, with an emphasis on perceived similarities and differences between the two cultures. One question, for example, asked participants to list some positive and negative traits that their friends and neighbors associated with people from the other culture. See the Supplemental Material for a thorough description of the interviews, a list of questions, and quotes from participants. Not all participants within these focus groups brought up the same topics, but each group did bring up recurring stereotypes about the other culture, as we discuss next.

Pakistani Stereotypes of Americans. Previous research has found that the Pakistani culture values tighter adherence to norms than does American culture, with less tolerance of social deviance.[43,44] In our interviews, Pakistanis appeared to strongly endorse this divide, perceiving a large gap between American and Pakistani norms. Many of them regarded Americans as having loose moral norms and assumed that such attributes stemmed in part from a lack of both religion and a sense of family obligation. When asked what images come to mind when thinking about Americans, for example, Pakistanis rarely reported visions of Americans having dinner with their families, dressing formally at their workplaces, or attending church, and some participants suggested that American children would often publicly humiliate their parents, because they did not live according to any particular set of rules.

Pakistani interviewees also viewed Americans as feeling superior to other cultures and being intentionally ignorant of cultural diversity. Some Pakistanis, for instance, argued that Americans

believed whatever the media showed them regarding other cultures. And some saw Americans as exploiting other cultures for resources without considering the ramifications of their actions. As one person said, "Americans have humanity, but only for themselves."

American Stereotypes of Pakistanis. Americans typically regarded Pakistanis as having little warmth (in other words, as being aggressive, unfriendly, and inflexible in their moral attitudes), an opinion reflected in their stereotypes of Pakistanis as terrorists and religious extremists. As was true of Pakistanis, American interviewees also perceived a large gap between the cultures' norms. Many American interviewees assumed that Pakistanis lacked freedom, citing family- and religion-imposed prohibitions on the way that women dress and the education and careers that people could choose.

We note that our interviews asked about Americans' perceptions of "Middle Easterners" and not Pakistanis. Pakistan is in South Asia, but a survey that we conducted of 502 Americans indicated that most Americans (71.6%) believe that Pakistan is a Middle Eastern nation. To be sure that our approach was reasonable, we also conducted a follow-up survey of 98 Americans to test whether Americans ascribed these stereotypes to Pakistanis specifically. This survey supported our approach. For example, 76% of participants believed that quotes about Middle Easterners from our interviews characterized Pakistanis (as a comparison, only 30% believed that quotes about Americans from our interviews characterized Pakistanis). More information about this survey is available in the Supplemental Materials.

Step 1: Gathering Diary Entries

Participants. We collected 20 sets of diaries from 10 American (five women, five men; M_{age} = 24.50 years) and 10 Pakistani (five women, five men; M_{age} = 24.25 years) undergraduate and graduate students over the course of a week. Participants came from a range of urban, suburban, and rural backgrounds. Diary writers thought they were taking part in a study called "Understanding Everyday Life" and were asked to share their everyday experiences to help

researchers gain insight into students' daily lives. After completing the diaries, participants, who were paid the equivalent of $20, were told the true aim of the study and were asked whether their diaries could be used in an intervention to reduce stereotypes. All participants gave permission.

Participants wrote the diary entries in their native language. Before diaries were included in the intervention, Pakistani diary entries were translated into English, and English diaries were translated into Urdu, by individuals who were native Urdu speakers and fluent English speakers. The translations allowed us to assign Pakistani diary entries to Americans and vice versa. The accuracy of the translations was confirmed in a separate step, in which an independent set of translators translated each set of diary entries back into the entries' original language.

Procedure. On signing up, participants provided their age and gender. At 5 p.m. on each subsequent day, they received a link to a Qualtrics survey where they were prompted to list up to six significant locations that they had visited over the previous 24 hours. Writers were asked to be specific enough that a reader would understand where they had been but general enough that each location was meaningful: listing a country or city as a location would be too broad but listing their desk as a location would be too narrow. "My house" and "a lecture hall" were given as two examples of appropriate entries. After listing locations, participants were prompted to give more information about each location, one at a time. They were asked to tell the story of what they did at the location and how they experienced it, as if they were writing in their own diary. They were specifically asked to include information about why they were there, who they were with, what they were doing, and what they were thinking and feeling. Participants were encouraged to be detailed in their responses and were told that a good response should be at least several sentences long.

Across the 140 diary entries (seven per writer), responses had an average length of 327.27 words (standard deviation [SD] = 204.50), a median of 260 words, and a range from 54 to 1,410 words. American and Pakistani diary lengths were similar: a mean of 336.51 words (SD = 216.81) and 381.03 words (SD = 192.53), respectively, $t(1, 138) = 0.533$, $p = .600$. (For more information about the statistics in this article, see note A.) Table 1 shows two typical diary entries.

Table 1. Sample Pakistani & American diary entries

Country	Diary entry
Pakistan	**Home, 6:30 a.m.** The day started as usual. Woke up to say my prayer, recited the holy Quran, took a short walk, then had breakfast and left for Jamia. It was a pleasant morning.
	Jamia (Religious University), 7:45 a.m. Upon reaching the univ[ersity], we learned that a scholar was coming from Karachi who is very intelligent, learned, respectable. The whole class was excited, and we decorated the Jamia and arranged special seating in his honor.
	Religious Lecture, 8:30 a.m. When the scholar arrived, we greeted him and the lecture started. He delivered a very comprehensive lecture. It was about oneness of God and prophethood. Everyone listened quietly. The lecture affected our hearts very well. His delivery was such that [of] the [people] attending many were in tears. The lecture then ended.
	Class 1, 10:00 a.m. Our classes then started. The instructor taught us a new subject and we were already very tired and were not very interested in the lesson.
	Class 2, 12:00 p.m. After that, our recitation class started and we read by turns. Then the learning day ended and I returned home, exhausted.
	Home, 2:00 p.m. I was very tired as I reached home. Had lunch, said my prayer and then went [and] lied down, intending to sleep. I started thinking of the lecture and how influential it was and as I thought about it, I fell asleep.
United States	**Physical Therapy Job, 9:00 a.m.** I woke up a bit late for work but it ended up okay. Work was busy so it went by really fast. I was working with one of my coworkers that I get along well with, so work was also enjoyable.
	Bar, 5:00 p.m. Home is about an hour drive so after that I met my parents at my sister's work. We just sat at the bar and chatted. She got to visit us a few times while working. It was really great to talk to [my] parents and sister; we had a really great time now that I was able to relax since my class is over.
	Home, 8:00 p.m. My boyfriend originally came over my house and hung out with my family for a bit. We invited some of our mutual friends to come over to his house, so we left for there. Friends came over and we had a few beers and watched some episodes of *South Park*. It was very nice to have friends come over.

"stereotypes about Pakistanis and Americans were exaggerated in most cases"

Coding the Diaries. We trained two research assistants to code the diary entries—assigning numbers to various features—so that we could explore differences in how Pakistani and American diarists lived their lives. One coder was a female Pakistani American, the other a male European American.

We were particularly interested in two questions. First, did the diaries depict situations that were universal? We assumed that if diary readers saw people in other cultures in familiar situations, they would perceive less cultural distance between Pakistan and the United States. To determine whether the diaries depicted universal situations, we developed several codes assessing whether diary writers (a) described locations that were universal (equally prevalent across cultures); (b) mentioned events that were out of the ordinary versus mundane (defined as occurring in most people's daily life, such as doing laundry or grocery shopping); and (c) spoke of universal activities, specifically spending time with family or eating meals. In coding the entry from a given day, for instance, a coder would indicate whether the diary writer referred more to mundane or to nonmundane events.

Second, did diaries reflect the stereotypes that people in Pakistan and the United States held about each other? The coding was designed to show whether Pakistanis' and Americans' stereotypes were actually accurate. It also provided some preliminary information about the extent to which the thoughts and behaviors of the diarists matched or countered stereotypes. After the intervention, these data would help us to determine whether the countering of stereotypes in the diaries was necessary for the intervention to work.

Americans who had participated in the earlier semistructured interviews had tended to view Pakistanis as aggressive and constrained (obedient to the rules of authority figures).

Therefore, we concentrated on those stereotypes. We instructed research assistants to record the number of interpersonal interactions that diary writers mentioned (as a proxy for low aggression/high warmth) and indicate whether the diary writer mentioned following the lead of an authority figure (as a proxy for constraint). The Pakistanis we had interviewed tended to view Americans as immoral, irreligious, and disrespectful of other cultures. Research assistants therefore coded whether diary entries mentioned religion, as well as whether they mentioned either of two behaviors that people in highly religious cultures might find immoral: drinking alcohol and spending time with romantic partners before marriage. We also developed codes relating to how often diary writers referenced their own country positively or negatively. Finally, we coded for how many situations Americans and Pakistanis mentioned in their diary entries. These codes allowed us to assess whether Pakistani and American stereotypes corresponded to real differences between the countries. Our coding manual is available at https://osf.io/xstc7/.

Table 2 shows the results of our coding and the reliability of the assessments (that is, the extent of interrater agreement). Diary writers indeed wrote about universal places and events. More than 70% of entries described locations that were common to both cultures, and more than 90% described mundane situations. Featured in many entries were meals (mentioned in more than 80% of entries) and family time (mentioned in more than 50% of entries), which appeared at similar rates across cultures.

The coding also revealed that stereotypes about Pakistanis and Americans were exaggerated in most cases. For example, Americans did mention religion less than Pakistanis did, and mentioned spending time with unmarried romantic partners and engaging in alcohol consumption more. However, they noted these latter two behaviors in just a minority of their

Table 2. Characteristics of American & Pakistani diary entries (140 total entries)

Variable	United States	Pakistan	Reliability
Number of locations (*M*)	3.37	3.70	.98
Entries describing universal locations	73%	70%	.98
Positivity of entries (*M*)	3.10	3.10	.70
Entries describing following authority figures	4%	11%	1.00
Entries describing mundane situations	93%	96%	.65
Number of interpersonal interactions described (*M*)	2.26	2.70	.66
Entries that describe meals	83%	84%	.84
Entries that describe spending time with a romantic partner	33%	0%	.89
Entries that describe spending time with family	43%	66%	.78
Entries that refer to religion	1%	50%	.87
Entries that refer to alcohol	17%	0%	.78
Entries that positively reference country	3%	3%	1.00
Entries that negatively reference country	0%	1%	1.00

Note. Reliability coefficients are Krippendorf's alphas: 1.00 reflects perfect agreement between coders, and scores higher than .80 indicate strong agreement.

diary entries, with 33% of entries referring to time spent with romantic partners and 17% of entries speaking of alcohol. Similarly, Pakistanis described following the dictates of authority figures more than Americans did, but only 11% of Pakistani entries spoke of these kinds of interactions. Other stereotypes—such as the view that Pakistanis lack warmth—did not bear out at all in the diaries: Pakistanis and Americans made a similar number of positive statements and described a similar number of social interactions in their entries, suggesting equivalent levels of warmth. In sum, our coding did reveal differences and some stereotypical behaviors across people of the two countries but also captured frequent references to common situations and positive social events.

Step 2: Intervention

Participants. Two hundred seventeen participants signed up for our study, and 200 completed it; the participants lost to follow-up did not differ appreciably from the other participants in demographics or attitudes, according to initial measures. We used a power analysis to ensure that we recruited a sufficiently large sample to detect real effects of our intervention if they were there. Our power analysis suggested that our sample had approximately an 80% chance of detecting effects of $f = .25$,

an effect size similar to that of many other interventions summarized in Paluck and Green.[15] Logistical restrictions in Pakistan prevented us from gathering a larger sample.

Of the final 200 participants, 100 were American and 100 were Pakistani, and the two groups did not differ in age or gender. The Americans were undergraduate and graduate students at a large mid-Atlantic university; 50 were men, 50 were women, and their mean age was 21.08 years ($SD = 4.61$). The Pakistanis were also undergraduate and graduate students; 51 were men, 49 were women, with a mean age of 21.70 years ($SD = 3.14$). They attended various universities in two cities, with 73 in Islamabad and 27 in Abbottabad. Most participants had grown up in the region in which they were recruited and came from a range of urban, suburban, and rural backgrounds. Participants who completed the study were paid the equivalent of $40.

Design. Participants received a set of diary entries from one of the 20 writers over the weeklong intervention. Assignment was quasi-random: rather than selecting which volunteers would read diaries from an American or a Pakistani purely randomly, we made sure that an equal number of American and Pakistani participants received in-group or out-group diaries.

The same was true for gender, although we were not focused on gender in our analyses. Each reader received diary entries from just one writer over the course of the study.

Recruitment & Initial Survey Procedure. We recruited participants via paper flyers (in Pakistan and the United States), classroom announcements (only in Pakistan), and an online forum where students could sign up to participate in studies (only in the United States). The recruitment materials stated the seven-day study was related to social memory. Volunteers who expressed interest in the study were assigned an ID number and told that they would be receiving diary entries from a randomly selected individual they had not previously met and that, over the course of the study, they would be asked questions about how well they remembered the diary entries. This e-mail also included a link to the initial online survey for those who remained interested in the study. Beyond posing the questions that gave us baseline measurements for each of our dependent variables (stereotypes and perceptions of cultural distance), this initial survey included a consent form and asked about demographics. The demographic items asked participants to identify their religion and also to indicate their income level (using a scale of 1 to 5, with 1 = *low-income group* and 5 = *high-income group*).

Intervention Procedure. We enrolled participants who successfully completed the initial survey. On each subsequent day at 5 p.m.—a time at which research assistants were consistently available to send out diaries—these participants received a Qualtrics link to a page where they could view their diary writer's entry and then, on a separate page, recall as much as they could of it, as would be expected for a study ostensibly testing social memory. Each diary entry was headed with the diary writer's name, nationality, and age (although, to preserve anonymity, these did not correspond to the writer's real name and age). Participants were asked to complete each diary summary before midnight on the day they received the link. After having read all seven entries, participants received a final survey by e-mail that again assessed stereotypes and perceived cultural distance. Then they were paid and told the true purpose of the study.

Survey Design & Measures

As we have noted, participants completed the survey twice: once before the intervention (reading the week's worth of diaries) and once after. We assessed whether contact through diaries could reduce perceived cultural distance and in that way reduce stereotyping, as follows.

Cultural Distance. Our approach to cultural distance differs somewhat from approaches used in past investigations of that variable. In most previous investigations, researchers have examined distance by comparing objective features of the cultures in question, such as their geographic or linguistic proximity.[1,45] In our study, however, we were more concerned with people's perceptions of cultural distance. There is some precedent for measuring distance subjectively,[39,40,46,47] although those studies relied on one-item subjective measures. We chose to use a four-item index of perceived cultural distance instead, to maximize reliability. Three of these survey items—rated by participants on a scale of 1 to 5—were "How similar is life between the United States and Pakistan?" (with 1 = *very dissimilar* and 5 = *very similar*), "How close do you feel to American [or Pakistani] people?" (with 1 = *very distant* and 5 = *very close*), and "How familiar do you feel with Pakistani [or American] people?" (with 1 = *very unfamiliar* and 5 = *very familiar*). The fourth item was pictorial: participants indicated which of seven sets of circles that varied in overlap represented the relationship between Pakistani and American people.[48]

Items were reverse-coded so that higher scores indicated greater cultural distance. The scores were then transformed to a standard scale and averaged to form an index of perceived cultural distance.

Stereotypes. As we noted earlier, stereotype-related items in the survey were specific to each culture and based on the results of the semistructured interviews conducted prior to the intervention. Some survey items assessed stereotypes by measuring people's endorsement

of stereotype-relevant adjectives, whereas other items measured people's endorsement of stereotype-relevant statements. In all surveys, participants answered questions about stereotypes relating to their own group as well as to stereotypes relating to out-group individuals.

Because the Pakistanis who participated in the semistructured interviews tended to view Americans as immoral and as feeling superior to and being ignorant of other cultures, our survey measured how Americans and Pakistanis perceived Americans on those dimensions. To assess views of American morality, the survey asked participants to rate the extent to which they would describe Americans as "moral" and "sincere" using a 5-point scale anchored at 1 (*not at all*) and 5 (*extremely*) for each of those adjectives. To assess the extent to which participants thought Americans felt culturally superior to or were ignorant of other cultures, the survey asked participants to rate their agreement with the phrases "The U.S. is only concerned with enhancing its own wealth" and "Americans like to dominate other cultures" using a 5-point scale anchored at 1 (*strongly disagree*) and 5 (*strongly agree*).

American interview participants tended to view Pakistanis as antisocial and as lacking freedom. Therefore, we measured how American and Pakistani participants perceived Pakistanis' warmth and their freedom to make decisions about their lives. To assess Pakistani warmth, the survey asked participants to rate the extent to which they would describe Pakistanis as "warm" and "friendly" in the same scale format with which they rated American morality. To measure perceptions of Pakistani freedom, we had participants rate their agreement with the statement "Pakistanis are too dependent on their family" and "Pakistanis lack the freedom to make important life choices," applying the same scale format used to rate American cultural superiority and ignorance.

Responses to the two adjectives relating to Pakistani sociality correlated with each other; this was also true of the responses to the two statements relating to Pakistani personal freedom,

the two adjectives relating to American morality, and the two statements relating to Americans' sense of cultural superiority and ignorance of other cultures. We therefore collapsed the eight items into four indices for all analyses of survey data. (In a sort of shorthand, we refer to these indices as measures of Pakistani warmth, Pakistani freedom, American morality, and American ignorance.) See the Supplemental Material for more details on these indexes and for three additional kinds of measurements we took but did not analyze (as well as the reasons we did not analyze them).

Data Analyses & Results

Analytic Strategy

One American participant provided incomplete responses and was excluded from analyses. We noted several differences between Pakistani and American participants that could have confounded the outcomes. For instance, Pakistani participants used higher numbers on the scales. They were also more likely to identify with a formal religion and rated their incomes to be significantly lower than the Americans did. What is more, Pakistani and American participants started the intervention on different days. We statistically controlled for each of these differences in our analyses so that they did not influence our tests of the intervention's effectiveness.[43,49] Our Supplemental Materials describe these differences—and the statistical tests we used to control for them—in more depth.

As we have stated, we hypothesized that the intervention condition, in which participants from one culture read diaries from people of the other culture, would significantly decrease perceived distance between the cultures and that this decrease would then lead to lower endorsement of harmful stereotypes. We evaluated these predictions with several statistical tests.

First, we determined whether being in the intervention condition produced a significant change in perceived cultural distance between the start and finish of the experiment. We made this

determination using a 2 × 2 × 2 (Time × Participant Country × Condition) repeated-measures analysis of variance (ANOVA). For the purposes of the ANOVA, Time 1 (T1) is the baseline, before the reading of diary entries, and Time 2 (T2) is after diary entries have been read. If a participant read diary entries written by a member of his or her own group, the participant was considered part of the in-group condition; if a participant read diary entries written by a member of the out-group, the participant was considered part of the out-group condition. In other words, we examined whether and how much perceived cultural distance changed after people read diaries of members of a foreign culture versus their own culture and whether this change varied for American and Pakistani participants.

We then applied a set of tests to determine how the intervention condition's effect on participants' perceived cultural distance mediated stereotyping. Our initial approach used Preacher and Hayes's PROCESS macro (a kind of moderated mediation analysis),[50] and we followed those analyses with a supplemental set of Monte Carlo simulations. The PROCESS macro allowed us to test whether perceived cultural distance mediated differences between the out-group and in-group conditions in endorsements of a particular stereotype at the conclusion of the study, whereas the Monte Carlo simulations allowed us to test whether cultural distance mediated changes in stereotypes over the course of the intervention for people who read out-group diary entries. The Supplemental Materials contain more details about the analyses we performed.

Did Cultural Distance Change?
The analyses supported our prediction that reading diary entries from the out-group would reduce cultural distance, compared with reading diary entries from one's own cultural group. Our ANOVA found a Time × Condition interaction, $F(1, 188) = 6.08$, $p = .015$, $d = 0.32$. Pakistani participants who received out-group diary entries showed reduced feelings of cultural distance between the beginning (T1) and the end (T2) of the intervention ($M_{T1} = 2.48$ versus $M_{T2} = 2.38$; standard error [SE] at T1 = .08 versus

$SE_{T2} = .09$), $F(1, 46) = 5.35$, $p = .024$. Americans displayed the same pattern ($M_{T1} = 2.32$ versus $M_{T2} = 1.99$; $SE_{T1} = .10$ versus $SE_{T2} = .10$), $F(1, 47) = 6.74$, $p = .010$. In contrast, people who read their own culture's diaries showed no change ($ps > .634$). The pattern did not significantly differ across Americans and Pakistanis ($p = .343$), suggesting that the intervention had similar effects on perceived cultural distance for both cultures. The change in perceived cultural distance also remained significant ($p < .016$) in subsequent ANOVAs, including tests that examined participant gender and diary writer gender, which did not significantly moderate the interaction ($ps > .475$).

Did Changes in Cultural Distance Catalyze Changes in Stereotyping?
We also found evidence that reduced cultural distance facilitated reductions in the stereotypes we examined. By virtue of reduced cultural distance, American participants who read Pakistani diaries viewed Pakistanis as warmer and as having more freedom at the end of the intervention, compared with Americans who read American diaries. Similarly, Pakistani participants who read American diaries viewed Americans as more moral and less culturally superior and ignorant at the end of the intervention, compared with Pakistani participants who read Pakistani diary entries.

Table 3 summarizes these effects in terms of confidence intervals (CIs). The moderated mediation CIs represent the results of our PROCESS analyses and indicate whether participants in the out-group conditions showed greater reductions in stereotypes over time compared with participants in the in-group conditions, as a function of their perceived cultural distance. The Monte Carlo CIs are derived from Monte Carlo simulations and indicate whether participants in the out-group conditions significantly changed their stereotyping over time, as a function of perceived cultural distance. Figure 1 summarizes the full moderated mediations and displays the indirect and direct effects assessed by these analyses. Figure 1's caption gives a detailed explanation of how to interpret the figure's components.

There have been **200,000** violent civilian casualties from US-involved wars in Afghanistan, Pakistan, and Iraq over the last 20 years

71.6% of Americans surveyed believe that Pakistan is a Middle Eastern nation

77%
Americans surveyed who would sign up for DCT without compensation

Table 3. Effects of condition (reading out-group or in-group diaries) on stereotyping as mediated by changes in perceived cultural distance

Moderated mediation results (indicating whether perceived cultural distance mediated differences between the out-group and in-group conditions in endorsements of a particular stereotype at the conclusion of the study)				
	Trait			
Type of analysis	Pakistani warmth	Pakistani freedom	American morality	American ignorance
Overall moderated mediation fit	[−.09, −.003]	[−.11, −.002]	[.01, .11]	[−.25, −.004]
Americans in out-group condition versus Americans in in-group condition	[.001, .06]	[.003, .08]	[−.05, .007]	[−.13, .02]
Pakistanis in out-group condition versus Pakistanis in in-group condition	[−.05, .002]	[−.05, .02]	[.004, .09]	[−.28, −.02]
Monte Carlo results (indicating whether cultural distance mediated changes in stereotypes over the course of the intervention for people who read out-group diary entries)				
Americans in out-group condition before versus after reading Pakistani diaries	[.01, .15]	[.01, .21]		
Pakistanis in out-group condition before versus after reading American diaries			[.0003, .11]	[−.30, −.001]

Note. Numbers in brackets represent confidence intervals, or probabilistic margins of error for the analytic results. If both values are negative, there is at least a 95% probability that the true value falls within the interval and is negative, and if both values are positive, there is at least a 95% probability that the true value falls within the interval and is positive. If one value is positive and the other is negative, the effect is not statistically significant. The table shows that people in the out-group condition, who read diaries from the other culture, perceived less distance between the cultures after reading diaries, which led them to engage in less stereotyping than people in the in-group condition did. Compared with their original views, perceiving less cultural distance prompted Americans to see Pakistanis as warmer and freer and Pakistanis to see Americans as more moral and less ignorant of other cultures.
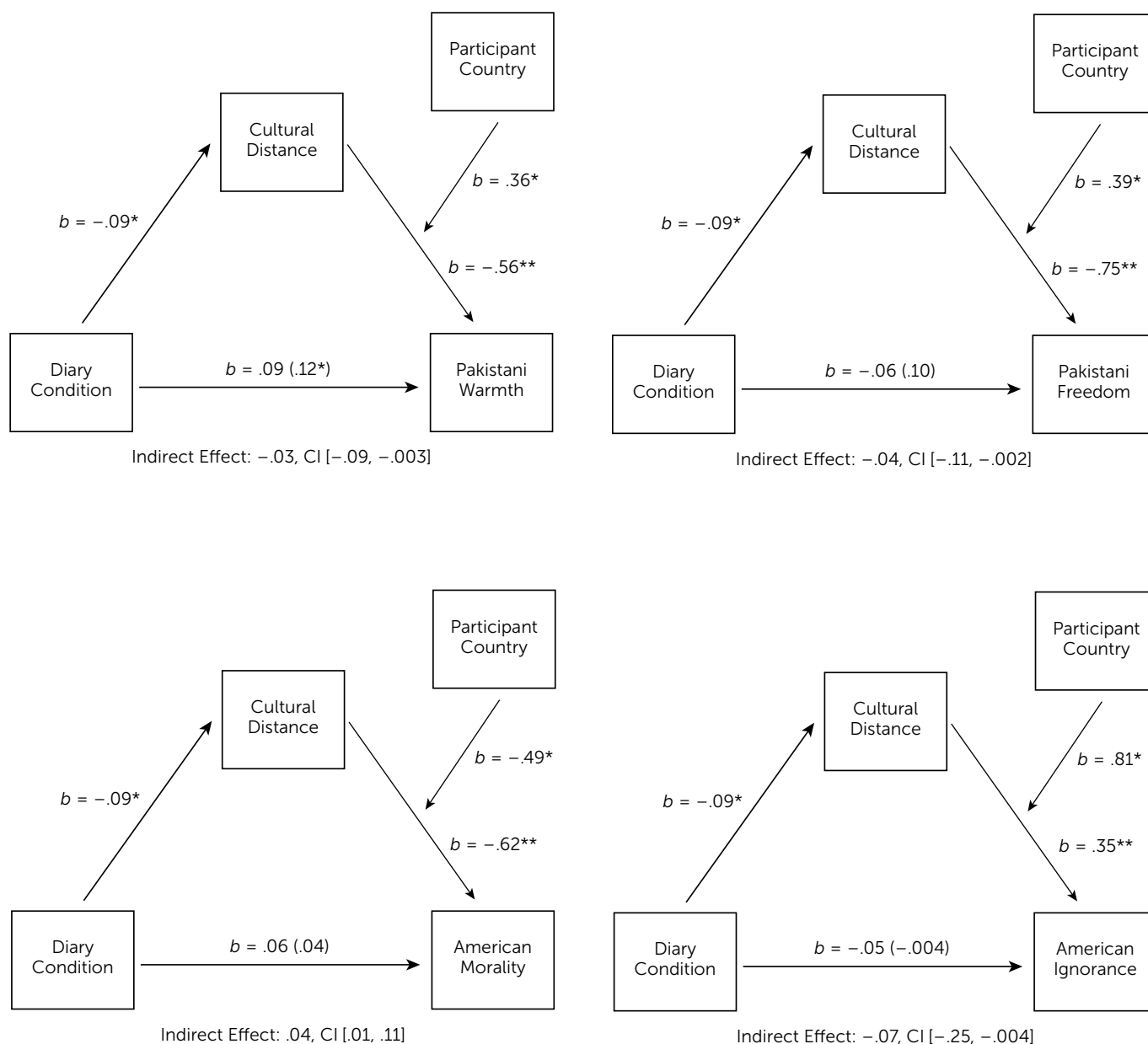
Discussion

The world is increasingly interconnected, but it is also still regularly disrupted by conflict between groups. The hostility fueling these conflicts can be exacerbated when the mass media stereotype people from different cultures. We argue that these negative out-group stereotypes could be reduced by an intervention that encourages people to learn about out-group members' real experiences in daily life, which are often diverse and, contrary to stereotyping, much like the daily lives of the people who stereotype them. In this article, we introduce the DCT as such an intervention and provide initial support for the method's efficacy through a study of Pakistanis and Americans.

After seven days of reading real diary entries written by a randomly assigned individual from the other culture, participants in the out-group condition reported less perceived cultural distance between Pakistan and the United States, whereas no such change occurred for participants who read diary entries written by a person from their own culture. Before conducting the study, we had identified common negative stereotypes of each culture

through in-depth interviews of Pakistanis and Americans not involved in the study. The reductions in perceived cultural distance mediated a decrease in these negative out-group stereotypes. As a result of the reduced sense of cultural distance, Pakistanis who read American diaries, but not those who read Pakistani diaries, changed their views of Americans, perceiving them as more moral and less dismissive of other cultures than was the case before they read the diaries. Americans who read Pakistani diaries likewise came to perceive Pakistanis as friendlier and freer to make life decisions than they had originally thought. The change in stereotyping was country-specific (for example, Pakistanis changed their beliefs regarding Americans but not regarding Pakistanis), indicating that the participants who revised their views did not become more positive about people in general, only about people sharing the nationality of the diary writer.

It is impressive that unfiltered diaries were able to induce these attitude changes. Many interventions aimed at reducing bias toward other cultures present situations or images that are purposely manipulated to run counter to stereotypes. Our diaries, however, contained a wide

Figure 1. The effects of reading diaries on perceived cultural distance & the four tested stereotypes

Indirect Effect: −.03, CI [−.09, −.003]

Indirect Effect: −.04, CI [−.11, −.002]

Indirect Effect: .04, CI [.01, .11]

Indirect Effect: −.07, CI [−.25, −.004]

Note. Each plot corresponds to a different stereotype. Moderated mediation analyses confirmed our hypotheses that reading diary entries from someone in another culture could lead people to perceive less cultural distance between themselves and the other group and that this reduction would, in turn, lead to less stereotyping of the out-group. These plots show the findings for each stereotype separately.

The *b* values next to the arrows (unstandardized regression coefficients) indicate how much one variable is likely to change the other variable—for instance, how being in the out-group or in-group diary condition made a difference in perceived cultural distance among both American and Pakistani participants. The *b* values next to the arrow extending from the Participant Country box show that the diary reader's nationality influenced how strongly perceptions of cultural distance influenced trait assessments (the effect was strong only when the nationality of the diary reader differed from that of the diary writer).

The *b* value outside the parentheses on the arrow from the Diary Condition box to a stereotype-related trait indicates the total effect of the condition—the raw relation between being in the out-group condition and perceptions of a given trait; the number in the parentheses is the direct effect—the relation between being in the out-group condition and perception of a given trait once variance associated with cultural distance has been removed. The direct measures are given for completeness; however, they are not meaningful, because they are confounded by merging the measures for out-group stereotyping with measures for in-group stereotyping (such as Pakistanis' rating of Pakistani warmth).

The indirect effect noted at bottom is an estimation of the overall effectiveness of the intervention. In other words, did the data support our hypotheses? The confidence intervals (CIs) shown here and in the top row of Table 3 indicate that they did.

*p = .05. **p = .005.

range of situations and events, and some were consistent with prevailing stereotypes. American diarists, for instance, sometimes wrote about drinking alcohol and sleeping with casual romantic partners. Pakistani diarists sometimes wrote about religion and being disciplined by teachers. However, the authors intermingled these stereotype-congruent events with counter-stereotypic information and situations that highlighted the basic similarities between life in the United States and life in Pakistan. Providing this rich information about life in other cultures appears to be an effective way of reducing negative stereotypes of out-groups.

Our findings also support the effectiveness of virtual contact interventions. Although the DCT does not feature face-to-face contact—which was one of Allport's original conditions for successful contact[13]—it nonetheless reduced perceived cultural distance and broke down negative stereotypes in this study. Indeed, few studies have systematically assessed the necessity of Allport's conditions,[20] and our intervention's success suggests that these conditions may not always be essential for contact to reduce prejudice.

When & How to Apply the DCT: Information for Policymakers & Organizations

We consider the DCT to be a useful alternative for researchers who cannot logistically implement traditional contact-based interventions. If further research confirms its value, we can see many ways that policymakers can use the DCT to ease tensions between hostile groups. For example, teachers or school superintendents could implement a version of this program that encourages children to read the diary entries of similarly aged children from other cultures. Organizations with employees from diverse backgrounds could use diaries to build familiarity and comfort between their staff members. Nonprofits and advocacy groups could collect diary entries from members of the cultural groups that they represent and host these diary entries in an online database that allows people to learn about the daily lives of people from underrepresented groups. Governments could even create databases that would allow people in conflict-prone areas (such as Israel and Palestine) to learn about the lives of people whom they typically learn about only in news reports or on television. Even in the United States, political advocacy groups could consider using the diaries of people from liberal and conservative areas of the nation to break down political stereotypes and misconceptions. The intervention could also be useful for improving relations between citizens of the United States and immigrants.

One might wonder if people in these contexts would be willing to read the diaries of out-group individuals, given the time commitment required. However, a 350-person survey that we conducted of a nationally representative sample of Americans found that 77% of respondents would sign up for the intervention with no compensation, which suggests that many people are genuinely interested in reading the diaries of everyday individuals from around the world.

Although we emphasize that the DCT is particularly useful when groups are geographically distant and do not speak the same language, we note that it should also be effective among groups who live in the same region but are relatively unfamiliar with one another's norms and values. The intervention is useful in any context because it can be distributed online like other computer-mediated-communication interventions[24,30,51] or as hard copies. The DCT, moreover, is built to easily scale up to large numbers of participants, both in the real world and for research. Implementers need only to collect a suitable number of diary entries (we chose seven entries from 20 individuals) and make sure that participants in an intervention receive these diary entries on a regular basis.

We chose to e-mail an entry each evening over the course of the week, but other time frames may be appropriate, depending on an intervention's scope. Diaries can be custom curated, as they were in this study, or existing diaries can be adapted and hosted online if ethical approval is granted and the entries are clearly anonymous (see the work of David Broockman and Joshua Kalla[52] for an example). If given the opportunity, people around the world may even be willing to contribute their own online journals. These journals need only be translated, anonymized, and hosted on a publicly accessible domain.

When recruiting participants for research, implementers must choose whether to include a control group—perhaps individuals who are e-mailed diary entries written by people from their own culture or who are not e-mailed at all. But a control group is necessary only for projects that seek to scientifically test the efficacy of the DCT.

Limitations & Future Directions

Despite the intervention's promising results, we acknowledge a few limitations and several avenues for future research. For example, because our intervention lasted a week, we cannot be sure whether its effects persisted beyond that time, a limitation that Paluck and her colleagues found to characterize many interventions.[20]

We have a couple of reasons to suspect, however, that the effect may be durable. First, it provides real information about out-groups to people who have, by and large, had very little out-group contact. In the past, the interventions that have led to persistent effects are ones that have involved learning-based interactions with typical people from an out-group. For example, Broockman and Kalla have speculated that a canvassing intervention they used to reduce transphobia was successful because, even though the meetings were short, they gave people who generally do not have contact with openly transgender individuals the opportunity to learn about them firsthand.[52] Americans and Pakistanis also typically have very little contact,

and our diary entries were likely the first time that our volunteers had seen life in the other culture described from the standpoint of an ordinary citizen.

Second, the most durable prejudice-reduction responses are those that occur when people generalize their positive feelings toward out-group individuals encountered in a study to the out-group as a whole. According to past research,[36,53] such generalization is most likely to occur when contact occurs between "prototypical" group members.[53,54] Even though our sample consisted of students, their everyday lives were typical of people in their culture, involving such activities as mowing the lawn, playing video games, eating dinner with family, and going on picnics with their friends. Reading about such activities probably explains why participants in our study changed their views on Pakistanis and Americans in general rather than viewing the person whose diary entries they read as atypical.

Another limitation is that our reliance on a student sample makes it difficult to generalize our findings to the broader public. Generalizability is critical for effective interventions, and real-world interventions should be replicable across groups that vary in their socioeconomic, religious, and educational backgrounds. There is some evidence that the DCT would work in varied populations. For example, participants' socioeconomic status and religious affiliation did not moderate the effects in our sample, which suggests that the intervention's efficacy generalizes to different demographic groups. Nevertheless, until the DCT is validated in a more representative sample, we cannot be sure that this supposition is correct.

We are also aware that the DCT could be co-opted for nefarious ends. Organizations or governments could intentionally manipulate the content of diary entries to depict selected groups as hostile, which research shows can lead to escalating tensions and conflict.[55] Indeed, negative contact can often affect intergroup attitudes more powerfully than positive contact does.[56,57] We therefore emphasize that

using real diary entries—which earnestly depict universal everyday events—is key to the beneficial use of the DCT. Of course, real diary entries could potentially express hostility toward other groups, but that was not our experience. Pakistani diary writers in our study never expressed hostility toward Americans in their diaries and vice versa, which was likely a key part of why our intervention was successful.

Finally, we acknowledge that our measures targeted perceptions of cultural distance and specific negative stereotypes but did not test the intervention's effects on other attitudes (such as trust between the groups) or discriminatory behavior. We nevertheless consider our focus on perceived cultural distance and stereotypes to be important because it targets two pernicious misconceptions about out-group cultures: that out-group individuals possess several unlikeable qualities and that those qualities make such individuals fundamentally different from in-group members. Moreover, because explicit negative stereotypes tend to be correlated with prejudiced behaviors,[58] we consider it likely that the DCT paradigm would end up reducing those behaviors. For example, people who express negative rhetoric toward out-groups are also more likely to vote for politicians who advocate war against these groups[59] and less likely to help someone from an out-group when that person is in need.[60] Nevertheless, future researchers should directly test the scope of the DCT's effects, with a focus on determining whether they extend to reducing discriminatory behavior.

Future researchers should also examine whether the DCT can be scaled up to larger samples around the world and whether DCT-driven reductions in prejudice toward one culture might spill over to attitudes toward people in additional cultures—for example, whether Americans who read about Pakistanis then view Egyptians more favorably. And investigators should explore whether factors we have not addressed—such as individual differences or diary content—might moderate the efficacy of the DCT. We also encourage researchers to test the DCT in samples of people who hold more strongly to stereotypes than our volunteers did (and so are potentially less open to change), as

well as in regions where seemingly unresolvable conflicts are occurring. In one past intervention, Israelis and Palestinians who were encouraged to adopt a more malleable mind-set about out-group members showed a reduction in prejudice.[16,17] Given that reading diary entries appears to facilitate a broader and more flexible view of people in other cultures, the DCT could exert a similarly positive effect.

Investigators would also do well to more deeply examine the psychological mechanism behind our effects. Reading a foreign person's diaries may reduce stereotypes via several routes. It could (a) provide information that personalizes members of the other group,[37,61] (b) provide descriptions that run counter to stereotypes,[38] or (c) emphasize common connections.[1,39–42] We consider it most likely that a combination of (b) and (c) operated in this study, which would explain why shrinking of perceived cultural distance mediated our effects. Nevertheless, our study was not designed to tease apart competing mechanisms, and research into the true mechanism behind our findings should be fruitful.

Conclusion

The DCT contributes to a growing set of virtual interventions meant to reduce the biases that can poison relations between groups. As is true of many virtual-contact interventions, ours did not have our participants interact directly. However, their indirect interactions through diary entries appear to have produced many of the same positive effects as previous interventions that relied on face-to-face contact—perhaps because diaries provide rich, personal, and authentic information about the everyday experiences and situations of people around the world.

Reducing intercultural conflict in today's interdependent world is arguably one of the most important challenges facing social science. The DCT intervention, which is theoretically rooted and logistically convenient, offers a way to do just that. It applies social psychological theory to intergroup relations in a way that could ease seemingly intractable disputes.

endnote

A. Editors' note to nonscientists: For any given data set, the statistical test used—such as the chi-square (χ^2), the t test, or the F test—depends on the number of data points and the kinds of variables being considered, such as proportions or means. The p value of a statistical test is the probability of obtaining a result equal to or more extreme than would be observed merely by chance, assuming there are no true differences between the groups under study (that is, the null hypothesis). Researchers traditionally view $p < .05$ as the threshold of statistical significance, with lower values indicating a stronger basis for rejecting the null hypothesis. In contrast to the case with p values, a large F value is a sign of significance. In addition to the chance question, researchers consider the size of the observed effects, using such measures as Cohen's d or Cohen's h. Cohen's d or h values of 0.2, 0.5, and 0.8 typically indicate small, medium, and large effect sizes, respectively. When confidence intervals are given, a 95% confidence interval indicates that there is less than a 5% probability that a result would fall outside the range indicated in brackets.

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author note

supplemental material

- https://behavioralpolicy.org/publications/
- Methods & Analyses

references

1. Shenkar, O. (2001). Cultural distance revisited: Towards a more rigorous conceptualization and measurement of cultural differences. *Journal of International Business Studies, 32,* 519–535.

2. Marx, K., & Engels, F. (1959). *The communist manifesto* (S. Moore, Trans.). New York, NY: New York Labor News.

3. Friedman, T. L. (2005). *The world is flat: A brief history of the twenty-first century.* New York, NY: Macmillan.

4. Levitt, T. (1993). The globalization of markets. *Harvard Business Review, 61,* 92–102.

5. Pieterse, J. N. (2015). *Globalization and culture: Global mélange.* Lanham, MD: Rowman & Littlefield.

6. Crawford, N. C. (2016). *Update on the human costs of war for Afghanistan and Pakistan, 2001 to mid-2016.* Retrieved from Watson Institute for International and Public Affairs website: http://watson.brown.edu/costsofwar/files/cow/imce/papers/2015/War%20in%20Afghanistan%20and%20Pakistan%20UPDATE_FINAL.pdf

7. Wike, R. (2013). What Pakistan thinks. Retrieved from http://www.pewglobal.org/2013/05/10/what-pakistan-thinks/

8. Pew Research Center. (2013, October). Few Americans trust Pakistan. Retrieved from http://www.pewresearch.org/fact-tank/2013/10/23/few-americans-trust-pakistan/

9. Lauzen, M. M., Dozier, D. M., & Horan, N. (2008). Constructing gender stereotypes through social roles in prime-time television. *Journal of Broadcasting & Electronic Media, 52,* 200–214.

10. Seiter, E. (1986). Stereotypes and the media: A re-evaluation. *Journal of Communication, 36*(2), 14–26.

11. Bakshy, E., Messing, S., & Adamic, L. A. (2015, June 5). Exposure to ideologically diverse news and opinion on Facebook. *Science, 348,* 1130–1132. https://doi.org/10.1126/science.aaa1160

12. Colleoni, E., Rozza, A., & Arvidsson, A. (2014). Echo chamber or public sphere? Predicting political orientation and measuring political homophily in Twitter using big data. *Journal of Communication, 64,* 317–332.

13. Allport, G. W. (1954). *The nature of prejudice.* New York, NY: Basic Books.

14. Harwood, J., Hewstone, M., Amichai-Hamburger, Y., & Tausch, N. (2013). Intergroup contact: An integration of social psychological and communication perspectives. *Annals of the International Communication Association, 36,* 55–102.

15. Paluck, E. L., & Green, D. P. (2009). Prejudice reduction: What works? A review and assessment of research and practice. *Annual Review of Psychology, 60,* 339–367.

16. Dweck, C. S. (2012). Mindsets and human nature: Promoting change in the Middle East, the schoolyard, the racial divide, and willpower. *American Psychologist, 67,* 614–622.

17. Halperin, E., Russell, A. G., Trzesniewski, K. H., Gross, J. J., & Dweck, C. S. (2011, September 23). Promoting the Middle East peace process by changing beliefs about group malleability. *Science, 333,* 1767–1769. https://doi.org/10.1126/science.1202925

18. Hameiri, B., Porat, R., Bar-Tal, D., Bieler, A., & Halperin, E. (2014). Paradoxical thinking as a new avenue of intervention to promote peace. *Proceedings of the National Academy of Sciences, USA, 111,* 10996–11001.

19. Paluck, E. L. (2009). Reducing intergroup prejudice and conflict using the media: A field experiment in Rwanda. *Journal of Personality and Social Psychology, 96,* 574–587.

20. Paluck, E. L., Green, S. A., & Green, D. P. (2018). The contact hypothesis re-evaluated. *Behavioural Public Policy,* 1–30. https://doi.org/10.1017/bpp.2018.25

21. Lemmer, G., & Wagner, U. (2015). Can we really reduce ethnic prejudice outside the lab? A meta-analysis of direct and indirect contact interventions. *European Journal of Social Psychology, 45,* 152–168.

22. Schiappa, E., Gregg, P. B., & Hewes, D. E. (2005). The parasocial contact hypothesis. *Communication Monographs, 72,* 92–115.

23. Cameron, L., Rutland, A., Brown, R., & Douch, R. (2006). Changing children's intergroup attitudes toward refugees: Testing different models of extended contact. *Child Development, 77,* 1208–1219.

24. Amichai-Hamburger, Y., & McKenna, K. Y. (2006). The contact hypothesis reconsidered: Interacting via the Internet. *Journal of Computer-Mediated Communication, 11,* 825–843.

25. Boehm, D., Kurthen, H., & Aniola-Jedrzejek, L. (2010). Do international online collaborative learning projects impact ethnocentrism? *E-learning and Digital Media, 7,* 133–146.

26. Crisp, R. J., Stathi, S., Turner, R. N., & Husnu, S. (2009). Imagined intergroup contact: Theory, paradigm and practice. *Social and Personality Psychology Compass, 3,* 1–18.

27. Miles, E., & Crisp, R. J. (2014). A meta-analytic test of the imagined contact hypothesis. *Group Processes & Intergroup Relations, 17,* 3–26.

28. Turner, R. N., Crisp, R. J., & Lambert, E. (2007). Imagining intergroup contact can improve intergroup attitudes. *Group Processes & Intergroup Relations, 10,* 427–441.

29. Dixon, J., Durrheim, K., & Tredoux, C. (2005). Beyond the optimal contact strategy: A reality check for the contact hypothesis. *American Psychologist, 60,* 697–711.

30. Amichai-Hamburger, Y. (2012). Reducing intergroup conflict in the digital age. In H. Giles (Ed.), *The handbook of intergroup communication* (pp. 181–193). New York, NY: Routledge.

31. Snyder, M., Tanke, E. D., & Berscheid, E. (1977). Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology, 35,* 656–666.

32. Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology, 2,* 175–220.

33. Freud, S. (1961). *The interpretation of dreams* (J. Strachey, Ed. & Trans.). New York, NY: Science Editions. (Original work published 1900)

34. Allport, G. W. (1954). *The nature of prejudice.* Cambridge, MA: Addison-Wesley.

35. Abelson, R. P. (1959). Modes of resolution of belief dilemmas. *Journal of Conflict Resolution, 3,* 343–352.

36. Hewstone, M. (1989). Changing stereotypes with disconfirming information. In D. Bar-Tal, C. F. Graumann, A. W. Kruglanski, & W. Stroebe (Eds.), *Stereotyping and prejudice: Changing conceptions* (pp. 207–223). New York, NY: Springer.

37. Brewer, M. B., & Miller, N. (1988). Contact and cooperation. In P. Katz & D. Taylor (Eds.), *Eliminating racism: Profiles in controversy* (pp. 315–326). New York, NY: Springer.

38. Taylor, S. E., Fiske, S. T., Etcoff, N. L., & Ruderman, A. J. (1978). Categorical and contextual bases of person memory and stereotyping. *Journal of Personality and Social Psychology, 36,* 778–793.

39. Galchenko, I., & van de Vijver, F. J. R. (2007). The role of perceived cultural distance in the acculturation of exchange students in Russia. *International Journal of Intercultural Relations, 31,* 181–197.

40. Suanet, I., & Van de Vijver, F. J. R. (2009). Perceived cultural distance and acculturation among exchange students in Russia. *Journal of Community & Applied Social Psychology, 19,* 182–197.

41. Chen, G., Kirkman, B. L., Kim, K., Farh, C. I., & Tangirala, S. (2010). When does cross-cultural motivation enhance expatriate effectiveness? A multilevel investigation of the moderating roles of subsidiary support and cultural distance. *Academy of Management Journal, 53,* 1110–1130.

42. Ng, S. I., Lee, J. A., & Soutar, G. N. (2007). Tourists' intention to visit a country: The impact of cultural distance. *Tourism Management, 28,* 1497–1506.

43. Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., . . . Aycan, Z. (2011, May 27). Differences between tight and loose cultures: A 33-nation study. *Science, 332,* 1100–1104. https://doi.org/10.1126/science.1197754

44. Gelfand, M. J., Harrington, J. R., & Jackson, J. C. (2017). The strength of social norms across human groups. *Perspectives on Psychological Science, 12,* 800–809.

45. Kogut, B., & Singh, H. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies, 19,* 411–432.

46. Boyacigiller, N. (1990). The role of expatriates in the management of interdependence complexity and risk in multinational corporations. *Journal of International Business Studies, 21,* 357–381.

47. Lee, D.-J., & Jang, J.-I. (1998). The role of relational exchange between exporters and importers evidence from small and medium-sized Australian exporters. *Journal of Small Business Management, 36*(4), 12–23.

48. Gómez, Á., Brooks, M. L., Buhrmester, M. D., Vázquez, A., Jetten, J., & Swann, W. B., Jr. (2011). On the nature of identity fusion: Insights into the construct and a new measure. *Journal of Personality and Social Psychology, 100,* 918–933.

49. Hui, C. H., & Triandis, H. C. (1989). Effects of culture and response format on extreme response style. *Journal of Cross-Cultural Psychology, 20,* 296–309.

50. Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36,* 717–731.

51. Walther, J. B. (2009). Computer-mediated communication and virtual groups: Applications to interethnic conflict. *Journal of Applied Communication Research, 37,* 225–238.

52. Broockman, D., & Kalla, J. (2016, April 8). Durably reducing transphobia: A field experiment on door-to-door canvassing. *Science, 352,* 220–224. https://doi.org/10.1126/science.aad9713

53. Dovidio, J. F., & Gaertner, S. L. (1999). Reducing prejudice: Combating intergroup biases. *Current Directions in Psychological Science, 8,* 101–105.

54. Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2000). Reducing contemporary prejudice: Combating explicit and implicit bias at the individual and intergroup level. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 137–163). Mahwah, NJ: Erlbaum.

55. Kteily, N., Hodson, G., & Bruneau, E. (2016). They see us as less than human: Metadehumanization predicts intergroup conflict via reciprocal dehumanization. *Journal of Personality and Social Psychology, 110,* 343–370.

56. Barlow, F. K., Paolini, S., Pedersen, A., Hornsey, M. J., Radke, H. R., Harwood, J., . . . Sibley, C. G. (2012). The contact caveat: Negative contact predicts increased prejudice more than positive contact predicts reduced prejudice. *Personality and Social Psychology Bulletin, 38,* 1629–1643.

57. Paolini, S., Harwood, J., & Rubin, M. (2010). Negative intergroup contact makes group memberships salient: Explaining why intergroup conflict endures. *Personality and Social Psychology Bulletin, 36,* 1723–1738.

58. Talaska, C. A., Fiske, S. T., & Chaiken, S. (2008). Legitimating racial discrimination: Emotions, not beliefs, best predict discrimination in a meta-analysis. *Social Justice Research, 21,* 263–296.

59. Payne, B. K., Krosnick, J. A., Pasek, J., Lelkes, Y., Akhtar, O., & Tompson, T. (2010). Implicit and explicit prejudice in the 2008 American presidential election. *Journal of Experimental Social Psychology, 46,* 367–374.

60. Perry, R., Paradies, Y., & Pedersen, A. (2015). Religious ambivalence: Suppression of pro-social attitudes toward asylum seekers by right-wing authoritarianism. *The International Journal for the Psychology of Religion, 25,* 230–246.

61. Locksley, A., Borgida, E., Brekke, N., & Hepburn, C. (1980). Sex stereotypes and social judgment. *Journal of Personality and Social Psychology, 39,* 821–831.