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Exploring the Microfoundations of International Community: Toward a Theory of Enlightened Nationalism[1]

Calvert W. Jones
City College of New York

This paper challenges conventional wisdom about the drivers of international community at the individual level. Presenting new data and a novel natural experiment approach to the study of cross-border contact and international community, it tests some of the key microfoundations of international relations theory about how a sense of shared international community may arise and evolve among individuals. The hypotheses are tested using survey data from a large sample ($n = 571$) of American study abroad students in a range of universities across a treatment and a control group. Surprisingly, findings do not support the main hypothesis that cross-border contact fosters a sense of shared international community. However, the second hypothesis drawn from the liberal paradigm, suggesting that cross-border contact lowers threat perceptions, is strongly supported. The "Huntingtonian" hypothesis that cross-border contact heightens nationalism also garners wide support. The paper concludes with a discussion of the implications for theory and future research, especially the potential of rethinking the drivers of international community at the individual level to rely less on a sense of shared identity and essential sameness, and more on a feeling of "enlightened nationalism" and appreciation for difference.

Does cross-border contact promote a sense of shared international community? At least since Kant, international relations (IR) scholars have theorized that intensifying cross-border contact, now seen as a defining feature of globalization, can build a feeling of shared international community among individuals, an expanding global culture with shared values, understandings, and norms of peaceful change (Carr 1940; Deutsch 1954, 1957; Adler and Barnett 1998). Realists, however, have been skeptical of these claims (Gaddis 1986; Walt 1987), and other scholars have suggested that cross-border contact may work in just the opposite way, accentuating cultural difference and rendering civilizational, national, and ethnic group allegiances more salient and global community more elusive (Huntington 1996). Although theory in these areas is rich, and valuable empirical investigations are available at the macro-level, the microfoundations of international community have received relatively less empirical attention. Until recently, efforts to test micro-level causal hypotheses have been rare.

This paper presents new data and a novel approach to these questions. To test hypotheses, I use a natural experiment to uncover the effects of cross-border contact across a large sample ($n = 571$) of American "study abroad" students. Not only is educational exchange one of the main types of cross-border contact favored by theorists of international community, but its institutional features in the United States make it well-suited to an experimental approach. The opportunity for a natural experiment arises from the common institutional framework for "study abroad" within American colleges, in which students are placed in foreign settings for either the fall or spring semester. The winter break between semesters provides a valuable window during which a treatment group of students just returning from a semester abroad can be compared with a control group of students who are about to begin one (Figure 1). Since all subjects are predisposed to participate, the design controls for self-selection, and because all subjects' attitudes are measured at the same time, it also controls for changing global political context and other temporal factors that might affect political attitudes and bias treatment effect estimates.

The natural experiment approach therefore overcomes common challenges to causal inference by taking advantage of a temporal window between phases of implementation for an intervention of interest (Cook and Campbell 1979). In this design, those subjects of a population who are treated first comprise the treatment group, while other segments of the same population, not yet treated, comprise the control group. Although treatment assignment is not explicitly random and supervised by the researcher, as it would be in a true experiment, a strong case can be made that the assignment is "as if" random and thus meets the requirements for a natural experiment (Dunning 2008). Not only is it plausible to expect that studying abroad in one semester or the other is primarily a matter of scheduling and unrelated to political attitudes, but the data collected support this claim, as the following sections will illustrate.

Experimental approaches have the potential to provide strong empirical evidence for the micro-level causal relationships posited by differing theories.[2] Indeed, in recent years, IR scholars have called for greater use of

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[2] See, for example, Hyde (2007) on how the presence of international observers affects election fraud, Grieco, Gelpi, Reifler, and Feaver (2011) on how international institutions affect American public support for war, and Mintz and Geva (1993) on the individual-level causal mechanisms that may explain the "democratic peace" phenomenon.

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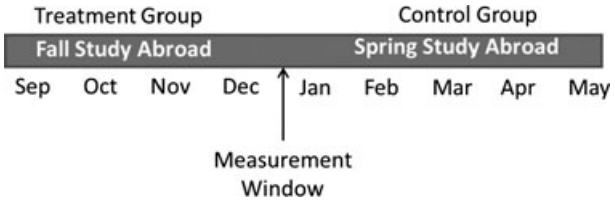

FIG. 1. Natural Experiment Design

experimental methods, not to replace existing approaches, but as a means of complementing them, generating new data, and suggesting possibilities for future research (Hyde 2010; McDermott 2011; Mintz, Yang, and McDermott 2011). But, like all research designs, they have limitations. Although experiments can provide significant internal validity, offering "an unrivaled capacity to demonstrate cause and effect," the relatively controlled environment and need to meet other experimental conditions may not provide strong evidence for generalizability and external validity (Druckman, Green, Kuklinski, and Lupia 2006:627). With such caveats in mind, the results in this paper are not offered as a means of assessing theory about international community in general, but rather as a more modest examination of some of their key causal claims about the effects of cross-border contact on individual attitudes. Such theory may be contingent on regional and historical context, of course, and may be assessed in a variety of ways. Yet, if hypotheses are supported in a natural experiment, then strong empirical evidence will have been added to our knowledge about the micro-level drivers of international community, consistent with the overall theory. If some hypotheses are not supported at the micro-level, this should not be taken as evidence for the theory's overall failure, though revisiting the microfoundations of the theory may be warranted.

Findings should be of interest for several reasons. First, the paper brings new empirical data to bear on an enduring question in IR theory: the implications of growing cross-border contact for international community. Second, because the paper uses a natural experimental approach, it should interest those who have called for more diverse methods in IR research. Although experimental studies have increasingly made contributions in other fields of political science, they are still relatively rare in the IR subfield. Finally, these results should interest sponsors and practitioners of educational exchange programs, since many such programs are based, explicitly or implicitly, on theory about the benefits of cross-border contact.

In the first section, I discuss the theoretical motivations for the study of cross-border contact and international community, and I derive several testable hypotheses at the individual level associated with differing perspectives. The next section presents the natural experiment, discusses survey design, and describes how variables were measured in order to test the hypotheses drawn from IR theory. In the third section, I present the empirical analysis, including descriptive statistics supporting the natural experiment, the results, and various checks of robustness. The last section offers conclusions and possible implications for future research.

Theory and Hypotheses

A rich body of theory concerns cross-border contact and its implications for international community. In this section, I offer a brief review of this theory, focusing for the purposes of the natural experiment at hand on extracting a set of testable micro-level hypotheses. In the eighteenth and nineteenth centuries, classical liberals saw growing cross-border contact as a social process associated with free trade, economic interdependence, and technological progress in communications and travel (Robertson 1769; Ricardo 1817; Buckle 1857–1861). By breaking down the artificial barriers separating people into different nations and hindering their natural affinities, contact could help foster and sustain international peace, they believed, and lead individuals to understand themselves as members of a larger international community. Kant ([1784] 1991) famously saw this possibility as a rational and natural step forward toward an improved cosmopolitan future.

These ideas continued to attract strong interest in the twentieth century, especially in the postwar years as opportunities for cross-border contact grew more accessible and diverse. Among IR scholars at this time, Karl Deutsch is perhaps most famous for having built on and developed the classical liberal tradition into a more concrete set of hypotheses, arguing that cross-border contact can foster a sense of shared international community at the individual level. Ordinary forms of cross-border contact, he argued, such as educational exchange and tourism, could produce such a sense of community among individuals, which he defined as "a matter of mutual sympathy and loyalties; of 'we-feeling', trust, and mutual consideration; of partial identification in terms of self-images and interests; of mutually successful predictions of behavior; and of cooperative action in accordance with it…" (Deutsch 1957:36)[3]

Within IR theory, Deutsch's ideas have been very influential in areas ranging from the study of political integration, transnational relations, and communication (Kelman 1965; Lindberg 1967; Haas 1970; Nye and Keohane 1971) to the "democratic peace" literature and the "English school" (Bull 1977; Russett 1993). Adler and Barnett, for example, have revived the notion of international community in an important work that updated Deutsch's original formulations with constructivist insights. In that work, the authors reiterate Deutsch's individual-level causal claims about cross-border contact and the growth of a sense of shared international community. "At the level of the individual," they argue, "community formation leaves its mark on the development of a 'we-feeling', trust, and mutual responsiveness, suggesting that transnational forces have altered the identities of people" (Adler and Barnett 1998:8). Thus, the first micro-level hypothesis drawn from theory is as follows:

> **Hypothesis 1:** *Cross-border contact fosters a sense of shared international community.*

Deutsch and like-minded theorists have also suggested that a sense of shared international community can foster expectations of peaceful change and cooperation. Thus, people in one country who feel a sense of shared international community with those in another should be less likely to see each other's nations as threatening as a result. Due to a "certain measure of common feeling as

[3] Although cross-border contact was naturally not the only mechanism Deutsch considered important for the growth of international community, he saw it as a very important one that could operate at the individual level of attitudes and values.

to what is just and reasonable in their mutual relations" (Carr 1940:202) and "dependable expectations of peaceful change" (Deutsch 1957:5), they should give one another the benefit of the doubt amid the conditions of uncertainty that prevail in an anarchic international system and could otherwise lead to conflict. Although theorists have not been quite as explicit in formulating individual-level hypotheses in this area, such hypotheses are implied. Therefore, the second micro-level hypothesis drawn from this paradigm is as follows:

Hypothesis 2: *Cross-border contact reduces the degree of perceived threat posed by the visited country.*

These hypotheses are also supported, of course, by conventional wisdom about the benefits of study abroad and educational exchange. Several famous student exchange programs were inspired by liberal assumptions about how cross-border contact could foster a sense of shared international community and ward off conflict. For example, after the First World War, the founders of the Institute of International Education, who later created the Fulbright program, "believed that we could not achieve lasting peace without greater understanding between nations—and that international educational exchange formed the strongest basis for fostering such understanding."[4] The founders of Erasmus, the EU's flagship program for educational exchange, similarly aimed to build a stronger sense of shared international community, which would "give students a better sense of what it means to be a European citizen."[5]

Realists, however, have long been skeptical of these claims about the growth of a sense of shared international community. For example, Walt (1987) argued that even if a sense of shared international community may arise among individuals in certain contexts, it is likely to be erratic and unreliable, dissolving in the face of a material threat. The concept of shared international community is therefore a "weak reed on which to rest a forecast" (1987:11). Similarly, reviewing the liberal notion that "people to people" contact promotes peace, Gaddis wryly concluded that "These are pleasant things to believe, but there is remarkably little historical evidence to validate them" (Gaddis 1986:112). A controversial alternative perspective has also arisen, drawing from social identity theory (Tajfel 1974) and research on ethnic conflict (Horowitz 1985). This perspective suggests that cross-border contact, rather than encouraging a sense of shared international community, promotes nationalism and increases the perception of cultural difference. For example, Huntington (1996:218) famously argued that growing contact across borders has more often intensified national identity, having "produced a deeper awareness of the differences between people and stimulated mutual fears," than it has fostered a sense of shared community. Therefore, the third micro-level hypothesis drawn from theory is as follows:

Hypothesis 3: *Cross-border contact increases nationalism.*

Although other intriguing hypotheses about the micro-level effects of cross-border contact are proposed in IR theory, especially in the constructivist school, these three hypotheses have been selected because they are some of the most well-known and influential.[6] The first two hypotheses have been drawn from the liberal school of thought with regard to international community, while the third has been drawn from a differing paradigm. The hypotheses themselves, however, are not presented as mutually exclusive, but rather as microfoundations drawn from differing broad-brush theoretical perspectives whose evaluation may shed light on the drivers of international community at the individual level.

Limitations of Earlier Studies

Although Deutsch and the early integrationists sought to measure international community, they focused on tracking transaction flows in trade, tourism, student exchange, and other areas of interstate linkage, rather than testing individual-level hypotheses about causation.[7] More recently, Adler and Barnett (1998) have called for an empirical research agenda built on Deutsch's ideas, less concerned with integration per se than with the concept of a "security community," the most advanced form of international community described by Deutsch. Yet, while valuable macro-level studies have emerged, missing from the literature has been a focused assessment of Deutsch's more basic causal hypotheses at the micro-level. By contrast, social psychological approaches to IR theory have explored the individual level of analysis, and cross-border contact in particular, but these studies are not typically situated within the literature on international community. Ithiel de Sola Pool, for example, identified a number of studies examining how foreign study affects attitudes, but found them overly normative in character, with many focusing on whether students return with "friendly" or "hostile" attitudes toward the host country, rather than whether hypotheses derived explicitly from IR theory are supported (Pool 1965). As a result, Pool called for more theoretically driven research.

Many studies continued to focus, however, on identifying the benefits of international student exchange, rather than testing IR theory. Some studies, for example, report that foreign study promotes international understanding (Carlson and Widaman 1988), global civil engagement (Paige, Fry, Stallman, Josić, and Jon 2009), and world-mindedness (Douglas and Jones-Rikkers 2001). At the same time, however, other studies offer no support for these hypotheses (Marion 1974) and still others suggest foreign study instead triggers processes of self-discovery (Singh 1962). Several investigations of the EU's Erasmus exchange program have also offered mixed findings, with some suggesting that the program fosters a sense of shared European identity (King and Ruiz-Gelices 2003) and others finding that it does not, when self-selection is taken into account (Sigalas 2010; Wilson 2011). In some ways, such results are not surprising; they are consistent with the notoriously mixed empirical record on the famous "contact" hypothesis in social psychology (Allport

[4] See Institute of International Education (IIE) history, available online at http://www.iie.org/en/Who-We-Are/History.

[5] See Erasmus program history, available online at http://ec.europa.eu/education/lifelong-learning-programme/doc80_en.htm.

[6] Beyond the liberal tradition discussed generally above, it is also worth mentioning that cross-border contact has played a fundamental role in constructivist theorizing, though its role is often conceived differently in terms of discourse, social interaction, and interpretive "meaning-making." Broadly put, processes of cross-border contact are believed capable of shaping interests, identities, and perceptions of threat, which in turn render state behavior meaningful and anarchy "what states make of it" (Wendt 1992).

[7] See, for example, Deutsch (1954, 1957), Lindberg (1967), and Nye (1968).

1954) proposing that intergroup contact can reduce out-group prejudice, now saddled with a growing set of qualifiers.[8] Indeed, in a recent study, Kuhn (2012) suggests that educational level may be an important qualifier for Deutsch's hypotheses about the effects of transnational contact. Using Eurobarometer survey data, she finds that highly educated people are more likely to feel a strong sense of European identity and argues that programs like Erasmus, which tend to attract better educated students, may thus "miss their mark" since they do not focus on less educated youth for whom transnational contact may make a real difference in strengthening European identity.

In the case of foreign study as a type of cross-border contact assumed to cause attitude change, another reason for the mixed empirical results may be that a strong experimental research design has rarely been used. Many studies, for instance, use a post-test only approach, with no control group, focusing only on returning students (Paige et al. 2009). Stronger studies employ a "stay-at-home" control group, defined as a group of students who have chosen not to study abroad (Kafka 1968; Carlson and Widaman 1988; Douglas and Jones-Rikkers 2001). In such studies, however, self-selection remains a key challenge to causal inference because students who choose to study abroad are likely to be different from students who do not, as the studies above on Erasmus suggest. Finally, some studies employ a longitudinal design (Marion 1974), which can provide valuable insights and significant internal validity. However, a longitudinal design may also be vulnerable to bias from over-time factors that covary with the experience of studying abroad, unless a difference-in-differences or other approach with a control group is also employed. Attitudinal changes in the pre- and post-treatment groups could result from a range of factors that change over time, varying with the treatment of cross-border contact, such as age and international political climate. A natural experiment approach in which all subjects are predisposed to study abroad and attitudes are measured at the same time, while it has its own limitations, can nevertheless help to address some of these methodological problems and thus add to our knowledge.

A final limitation of earlier studies, from the perspective of IR scholars, concerns attitude measurement. Many studies use operational constructs to measure subjects' attitudes that are not drawn from IR theory, or else only loosely inspired by the familiar liberal paradigm described above. As a result, the relevance of such findings to IR theory is not always clear, even if their practical relevance to governments, private sponsors, and other interested parties is well established. In addition, the constructs that are often used, such as "world-mindedness" (Sampson and Smith 1957) and "desire for international peace" (Carlson and Widaman 1988), appear to invite social desirability bias. Since educational exchange programs often promote desirable goals such as these, and students may be eager to show that the goals have been met, social desirability bias is a likely threat to causal inference in studies that use such constructs, potentially inflating estimates of how foreign study affects attitudes.

[8] See, for example, Pettigrew (1998). Conditions and qualifiers that have been suggested over the years include equal status, authority support, and common goals.

Research Design

Any effort to test micro-level hypotheses drawn from IR theory about the implications of cross-border contact for international community introduces a number of questions. What populations should be selected? What kind of cross-border contact should be examined? How should we measure a sense of shared international community? How sensitive to timing, political events, or personal characteristics might such a feeling be? While the theory above provides some guidance, significant methodological challenges remain. Once a population and type of cross-border contact have been selected, how can the causal effects of cross-border contact be estimated effectively? As the discussion above indicates, the challenges can be difficult to overcome in practice.

Two key threats to causal inference arise. First, many people involved in cross-border contact, as Deutsch and other theorists described the phenomenon, "self-select" into the experience. As discussed above, a study focusing on those subjects alone, or comparing them with "stay-at-home" control groups, would face great difficulty in disentangling the effects of cross-border contact from pre-existing factors that led the subjects to engage in the experience of cross-border contact in the first place, such as prior interest in travel and warmth toward international community. Second, factors that vary over time in concert with the treatment, such as age, maturity level, and global political context, may also affect attitudes in these areas, regardless of whether subjects self-select into an experience of cross-border contact or not. As a result, a longitudinal study in which the same subjects are compared before and after such an experience might face difficulty in separating out the causal effects of the experience from the effects of a range of other factors that co-vary with the experience over time. In a true experiment, of course, subjects would be randomly assigned to an experience of cross-border contact as a "treatment," so that the causal effects of that experience might be estimated without such confounding factors.

To test these hypotheses, I use a natural experiment involving a large population of American college students who opted to study abroad.[9] Why investigate study abroad samples in this context? Educational exchange is a central mechanism of cross-border contact emphasized by theorists, and today it offers rich opportunities for empirical research, especially through natural experiments. According to *Open Doors 2011*, the total number of American students abroad rose to 270,604 in the 2009–2010 academic year, a four-fold increase from 1987 to 1988.[10] Worldwide, study abroad programs are also gaining in popularity. According to a 2009 UNESCO report on trends in global higher education (Altbach, Reisberg, and Rumbley 2009), more than 2.5 million students are studying outside their home countries, a 53% increase since 1999, and this number is expected to rise to 7 million by 2020.

The natural experiment is based on the fact that many American college students study abroad in semester-long phases, the scheduling of which is not likely to be related to attitudes concerning community and identity. As Figure 1 illustrates, the design mirrors those "phased"

[9] On natural or quasi-experiments generally, see Cook and Campbell (1979), a classic. For a more recent overview of their use in political science, see Druckman et al. (2006) or Dunning (2008). On the use of experiments in the IR subfield, see Mintz et al. (2011) and McDermott (2011), or Hyde (2010).

[10] The *Open Doors* reports are published by the IIE.

natural or quasi-experiments that have been used effectively in other areas, especially development studies, in which a treatment is administered in stages over a population. The window in between stages provides an opportunity to compare treatment and control groups, controlling for self-selection and other factors. In this study, during the interim period between semesters, in December 2008 and January 2009, a large sample of students ($n = 571$) enrolled at eleven universities across the country were surveyed. Those having just returned from a fall semester abroad comprised the treatment group, while those about to go abroad for their spring semester comprised the control group. Hypotheses about cross-border contact were assessed by comparing the groups' survey responses, using regression to estimate average treatment effects.

This approach relies on the key identifying assumption that selection into the treatment or control was "as if" random (Cook and Campbell 1979)—an assumption that is carefully evaluated in the following section. If this assumption holds, and it is true that the decision to study abroad in one semester or another is unconfounded, then, as in a true experiment, the treatment is more easily identified as the cause of any significant differences in attitudes that appear. As a result, hypotheses about the effects of cross-border contact at the individual level can be tested.

As a caveat, cross-border contact is clearly a complex phenomenon. I focus on one type of contact, foreign study, which is emphasized by theorists of international community. I also examine a particular population, American college students, because the institutional features of their foreign study programs enable a natural experiment. Their motives and opportunities for choosing a particular program or destination are likely to be diverse, and the treatment group's experiences abroad are also likely to be varied based on the country visited, their social interactions, their knowledge of the local language, and many other factors. Precisely because of such complexity, a natural experiment can be quite valuable in estimating average treatment effects. The approach offers one valuable way to gain traction on a complex phenomenon of interest to IR scholars, contributing to knowledge by providing empirical evidence that should help in assessing the causal microfoundations of well-known theory.

Data and Measurement

The data come from an original survey of American undergraduates at eleven colleges across the country, spanning New England, the Midwest, and the South. An available sample of colleges was used. The sample frame consisted of students who chose to study abroad in either the fall semester of 2008 or the spring semester of 2009. In the break between semesters, in December 2008 and January 2009, students were invited by their study abroad coordinators to take the survey via an email containing a link to the survey. The survey was administered online, and all responses were anonymous. It was developed and piloted by the author to test the hypotheses above, and the data were collected by the author for this purpose alone. More information about dependent variables can be found in Table 1, and further detail on the survey and natural experimental design can be found in Appendix 1.

To test the first hypothesis, the concept of shared international community was operationalized as a range of dimensions drawn directly from theory, where it is commonly defined in terms of shared values and understandings, feelings of warmth, and trust, echoing Deutsch's original formulation (1957:36). More recently, for example, Adler and Barnett have given "shared identities, values, and meanings" among individuals as a defining characteristic of international community (1998:31). Hedley Bull also defined his concept of "international society" in terms of common understandings and values and saw cross-border contact as a driving force behind its emergence (1977:54). Thus, the concept of shared international community was operationalized as a range of dimensions corresponding directly to the definitions of the concept given by IR theorists, including perceptions of shared values, perceptions of shared understandings, feelings of warmth, and trust. While there may be other ways to measure a sense of shared international community, of course, it is useful to take theorists at their word as a first step in evaluating microfoundations.

To tap the perception of shared values, respondents were given a list of items, drawn from a similar question on the World Values Survey, and asked to mark whether they thought the people from their study abroad country valued the item much more than they do; more than they do; about the same as they do; less than they do; or much less than they do. Items included "family," "the right to question authority," "religion," "gender equality," "ethnicity," and "the rule of law." A composite measure was constructed to indicate the overall degree of perceived similarity versus difference. Respondents were then given a list of concepts, such as "right and wrong," "a successful life," and "democracy," and asked to what extent they feel they and the people of their study abroad country understand these concepts similarly (or differently). A composite measure was constructed indicating the overall degree of perceived similarity versus difference.

To measure warmth, respondents were asked how warmly they felt toward the culture of their study abroad countries, using the standard "feeling thermometer" employed in the World Values Surveys. Finally, the survey measured two types of trust: generalized and situational.[11] To measure generalized trust, respondents were asked: "On the following scale, how would you place the people from your study abroad country in terms of their trustworthiness?" where 1 = not at all trustworthy and 7 = very trustworthy. To measure situational trust, respondents were asked how comfortable they would feel asking a fellow patron at a café in their study abroad country to watch over a laptop, while they used the restroom.

To assess the second hypothesis, respondents were asked to imagine three hypothetical scenarios involving threat, following in the tradition of other experimental work in IR in which such scenarios have been used effectively to measure attitudes toward war, cooperation, and other phenomena.[12] Subjects were asked how threatening they would consider their study abroad country if it were to (i) grow more economically powerful than the United States; (ii) build a more advanced and sophisticated military; or (iii) develop the next generation of nuclear

[11] The generalized trust measure was adapted from a recent study (Niu, Xin, and Martins 2010) that measured subjects' perceptions of the trustworthiness of their own national population versus other populations, and the situational trust measure invoked a concrete reference point, as suggested by Hardin (2006).

[12] See, for example, Beer, Healy, Sinclair, and Bourne (1987), Schafer (1997), Mintz (2004), and Grieco et al. (2011).

TABLE 1. Measurement Details and Summary Statistics for Dependent Variables

Dependent Variable	*Description*	*Sample Mean [St. Dev.]*			*Min*	*Max*
		Total	*Control*	*Treatment*		
H_1: Shared international community						
Belief in shared values	Aggregate score; 10-item scale; lower scores indicate lesser belief in shared values	−1.28 [5.67]	−0.43 [5.30]	−2.14 [5.90]	−18	10
Belief in shared understandings	Aggregate score; five-item scale; lower scores indicate lesser belief in shared understandings	2.13 [3.74]	2.53 [3.45]	1.72 [3.98]	−9	10
Warmth toward culture of country	Thermometer rating (1–100); lower scores indicate lower feeling of warmth	81.89 [13.32]	82.31 [11.70]	81.45 [14.89]	11	100
Generalized trust	Scale ranging from 1 (not very trustworthy) to 7 (very trustworthy)	5.16 [1.14]	5.16 [1.04]	5.15 [1.24]	2	7
Situational trust	Four-point scale measuring how comfortable respondents would feel asking a patron to watch over a laptop in a café in their study abroad country	2.11 [0.95]	1.99 [0.86]	2.21 [1.03]	1	4
H_2: Threat perception						
If study abroad country became economic superpower?	Scale ranging from 1 (not threatening at all) to 7 (very threatening)	3.03 [1.55]	3.22 [1.58]	2.84 [1.50]	1	7
If study abroad country had more advanced military?	Same as above	3.43 [1.67]	3.62 [1.64]	3.25 [1.67]	1	7
If study abroad country's scientists developed next generation of nuclear weapons?	Same as above	3.95 [1.74]	4.26 [1.72]	3.63 [1.71]	1	7
H_3: Nationalism						
Nationalism	Aggregate score; seven-item scale; lower scores indicate lower nationalism	5.22 [4.38]	4.72 [4.66]	5.73 [4.01]	−10	14
Pride in America	Aggregate score; eight-item scale; lower scores indicate lower pride in America	5.25 [4.48]	4.79 [4.62]	5.71 [4.29]	−10	16
Feeling of warmth toward American culture	Thermometer rating; lower scores indicate lower feeling of warmth	74.94 [18.73]	72.43 [19.96]	77.45 [17.09]	1	100
Belief in American national cohesion	Belief that Americans have a lot in common; scale ranging from 1 (very little) to 7 (quite a lot)	4.06 [1.35]	3.82 [1.33]	4.31 [1.32]	1	7
Identification with the American nation	Scale ranging from 1 (not closely at all) to 7 (very closely)	5.10 [1.36]	4.94 [1.35]	5.28 [1.35]	1	7
Belief in American national superiority	Aggregate score; five-item scale; lower scores indicate lesser belief in national superiority	−2.28 [3.26]	−2.35 [3.34]	−2.20 [3.18]	−10	10

weapons. Respondents marked their answers on a scale ranging from 1 = not threatening at all to 7 = very threatening. These hypothetical scenarios were devised to present a "hard case" for the liberal perspective in an effort to take realist skepticism about the concept of shared international community seriously. Thus, the scenarios seek to confront subjects with conditions that realists would consider objectively threatening, since they involve material power shifts in favor of the study abroad country. If a sense of shared international community emerges out of contact *and* facilitates peace in the ways theorists expect, then treated subjects should be less likely to find their host countries threatening.

The dependent variables for the third hypothesis tapped a range of dimensions linked to nationalism and the salience of national identity. First, Kosterman and Feshbach's widely used measure for nationalism (1989) was adapted to a seven-item scale, including statements such as "I love my country," "It is not very important to me to serve my country," and "I am proud to be an American." Second, a national pride scale was adapted from the International Social Survey Program (ISSP). This focused on domain-specific pride, asking respondents whether they feel proud of America in specific substantive areas. Next, respondents were given the same feeling thermometer, used above, to rate their feelings of warmth toward American culture. To gauge perceptions of American national cohesion, respondents were asked to rate how much they feel they have in common with other Americans on a scale ranging from 1 = very little in common to 7 = quite a lot in common. To tap personal identification with the American nation, respondents were asked to what extent they identify with "the American nation" vis-à-vis the global community, Western Europe,

and other possibilities for cultural identification, using a scale from 1 = not closely at all to 7 = very closely. Finally, an attitude scale from the ISSP was used to measure the extent to which respondents consider America superior to other nations.

Empirical Analysis

In the entire sample of students ($n = 571$) across the eleven colleges and universities, 285 were in the control group and 286 were in the treatment group. Like many online survey tools, the one used in this study recorded answers to individual questions submitted, so that even respondents who failed to complete the survey provided substantial data for analysis. Overall, the survey tool counted 777 views by respondents, among whom 670 began the survey and 490 completed it. (After cleaning the data, the total number of observations in the sample, including those who began the survey but did not complete it, was 571, as reported above.) Thus, there were 180 "drop-outs," who began but did not complete the survey, providing a completion rate of 73% for the sample as a whole. More importantly, completion and drop-out rates were not significantly different across treatment and control groups. In the treatment group, 246 completed the survey and 65 dropped out, and in the control group, 245 completed it and 59 dropped out. Response rates could not be calculated because lists identifying the total number of students receiving an email invitation at each college from their study abroad coordinators were not available to the researcher.

Table 2 presents descriptive statistics on participant characteristics, including gender, income bracket, political orientation, amount of prior international experience, amount of prior exposure to study abroad country, whether a parent is a citizen of the study abroad country, and whether the decision was made to live with a host family in the study abroad country. In the overall sample, 77% of respondents were female, and most were also college juniors. The mean level of prior international experience was 3–6 months, and the mean amount of time spent in the chosen study abroad country prior to studying abroad was less than a month. The most popular destinations were Spain, France, Italy, and the UK, and the most common college majors were business, political science, languages, and international studies. These sample characteristics mirror general characteristics of American study abroad students reported by *Open Doors 2011*. In 2009–2010, the report estimated that 63.5% of Americans studying abroad were female, and among undergraduates, the majority were juniors. The most common fields of study were business administration and the social sciences, and the leading destination countries were the same as in the sample—Spain, France, Italy, and the UK.

Table 2. Descriptive Statistics

		Sample Mean [St. Dev.]			*Difference in Means [St. Error]*	
Variable	*Description*	*Total*	*Control*	*Treatment*	*Difference in Raw Means*	*Controlling for University Fixed Effects*
Gender	Indicator for being female (0 or 1)	0.77 [0.42]	0.76 [0.42]	0.78 [0.42]	0.02 [0.04]	−0.002 [0.04]
Income	Indicator for income bracket (Scaled 1–7)	4.52 [1.19]	4.46 [1.19]	4.58 [1.20]	0.12 [0.11]	0.10 [0.11]
Political orientation	Indicator for political orientation (Scaled 1–6)	3.63 [1.05]	3.65 [1.15]	3.78 [1.10]	0.13 [0.10]	0.12 [0.11]
Prior international experience	Total amount of time spent outside of the United States prior to September 2008 (Scaled 1–8)	4.05 [2.16] (~3–6 months)	4.04 [2.14] (~3–6 months)	4.06 [2.19] (~3–6 months)	0.03 [0.20]	−0.12 [0.20]
Prior exposure	Total amount of time spent in study abroad country prior to September 2008 (Scaled 1–8)	1.61 [1.07] (Less than a month)	1.63 [1.09] (Less than a month)	1.58 [1.05] (Less than a month)	−0.05 [0.10]	−0.09 [0.10]
Parent	Indicator for a parent being from host country (0 or 1)	0.02 [0.16]	0.03 [0.18]	0.02 [0.15]	−0.01 [0.02]	−0.01 [0.02]
Host family	Indicator for choosing to live with a host family (0 or 1)	0.41 [0.49]	0.38 [0.49]	0.44 [0.50]	−0.05 [0.05]	−0.01 [0.05]
Class year	Pearson $\chi^2(3) = 26.27$; $p = .000$					
Freshman	Indicator for being a freshman (0 or 1)	0.003 [0.06]	0.007 [0.08]	0 [0]	−0.007 [0.005]	−0.005 [0.005]
Sophomore	Indicator for being a sophomore (0 or 1)	0.09 [0.28]	0.13 [0.34]	0.05 [.21]	−0.08 [0.02]***	−0.07 [0.02]***
Junior	Indicator for being a junior (0 or 1)	0.71 [0.46]	0.73 [0.45]	0.69 [0.47]	−0.04 [0.04]	−0.09 [0.04]**
Senior	Indicator for being a senior (0 or 1)	0.20 [0.40]	0.14 [0.34]	0.30 [0.44]	0.13 [0.03]***	0.16 [0.03]***

Notes. * Significant at 10%; ** significant at 5% *** significant at 1%, two tailed.

Demographic differences between the treatment and control groups are generally not statistically significant, comparing both raw differences in means and differences in means controlling for university fixed effects (Table 2). Thus, within universities, those opting to study abroad in the fall are not significantly different along these dimensions from those opting to study abroad in the spring. Not surprisingly, participants across the two groups also opted to study abroad in the same countries, especially the UK, Italy, France, and Spain, as Figure 2 illustrates. The distributions in host country are not significantly different across the two groups (Pearson $\chi^2(55) = 50.13$; $p = .67$), nor are these distributions significantly different when countries are grouped into larger geographic regions (Pearson $\chi^2(6) = 13.51$; $p = .17$). Finally, the distributions in college major are not significantly different (Pearson $\chi^2(9) = 13.51$; $p = .14$). As expected, the groups are balanced along a wide range of observable characteristics, supporting the key identifying assumption that the decision to study abroad in Spring or Fall is unconfounded.

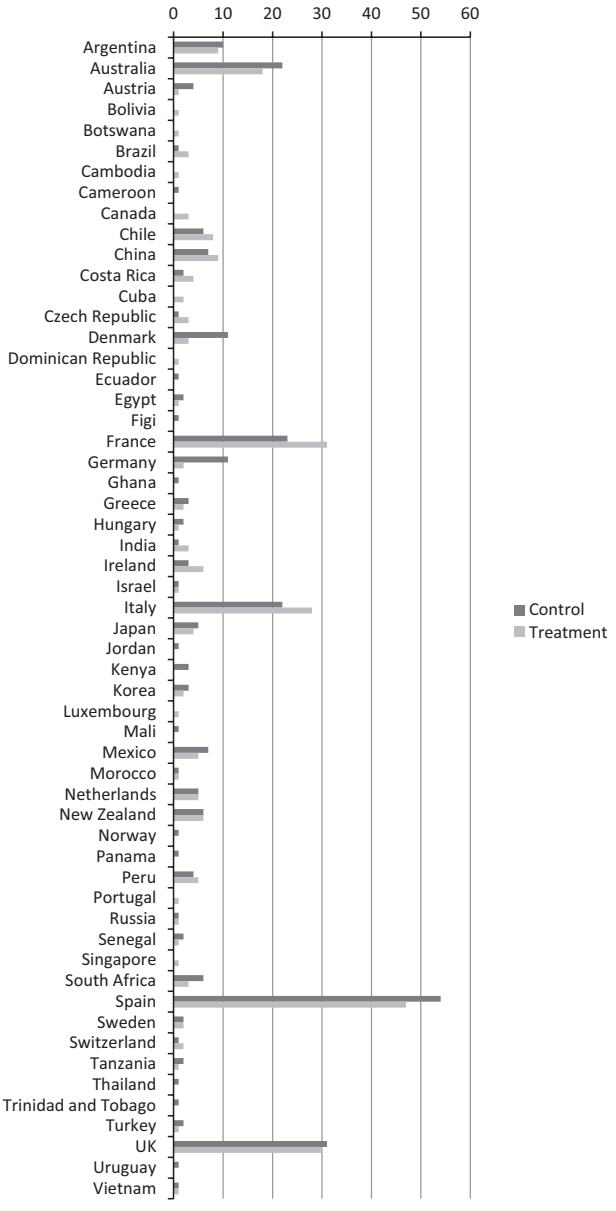

Fig. 2. Distribution of Destination Countries Across Control and Treatment (Pearson $\chi^2(55) = 50.13$; $p = .67$)

There are, however, two differences worth discussing. First, the distributions for class year are significantly different, with more seniors in the treatment group and more sophomores in the control group. One plausible explanation is that seniors prefer to be present for graduation activities in the spring semester, while sophomores may need their fall semester to decide on a major. The distributions of participants by university affiliation are also significantly different (Pearson $\chi^2(10) = 51.93$, $p = .000$), with some universities leaning toward one semester or another. This is not surprising because universities have different scheduling options for study abroad. In Appendix 3, these differences are confirmed: selection-into-treatment models and *F*-test results illustrate that university affiliation and class year affect assignment to treatment or control groups. To address these possible sources of bias, regressions control for university fixed effects and class year to ensure that any treatment effects found cannot be attributed to these differences. A within-group estimation strategy is therefore used.

Results and Discussion

Despite the intuitive plausibility of the claim that cross-border contact fosters a sense of shared international community and its long pedigree in IR theory, the results do not generally support the first hypothesis. As Table 3 shows, treated subjects did not feel significantly warmer toward the culture of their host country and did not believe they shared fundamental values with its people any more than the control group. In fact, treated subjects felt they had significantly *fewer* values in common (Cronbach's $\alpha = .71$) and were more likely to say their understandings of key concepts were *different* from the people of their host country (Cronbach's $\alpha = .70$). For both dependent variables, studying abroad was associated with negative treatment effects, significant at the .05 level in the opposite direction from that predicted by the first hypothesis. The columns in Table 3 show that these negative treatment effects were consistent across various specifications controlling for a wide variety of factors, including university, class year, major, gender, and host country.

In addition, treated subjects did not indicate any significantly higher levels of generalized trust vis-à-vis the populations in their host countries. The only dimension showing notable change in the direction proposed by the hypothesis was situational trust. Compared with the control group, treated subjects were more willing to trust a stranger in a café in their study abroad country to watch over a laptop while they went to the restroom. The precise nature of trust in the international community may be an intriguing candidate for further analysis. Overall, since most students selected countries in Western Europe, the results for Hypothesis 1 are surprising from the Deutschian perspective. Deutsch argued that a sense of shared international community is most likely to arise when the people involved share a history and culture that facilitate communication. Because of America's shared history with Europe, it seems most likely that, if cross-border contact produces a sense of shared international community anywhere, it should do so among these allied countries.

At the same time, strong support was found for the second hypothesis inspired by the liberal paradigm that cross-border contact reduces the degree of perceived

Table 3. Effects of Studying Abroad on Belief in Shared International Community (H_1)

Dependent Variables	*(1)* *Base Model (OLS)*	*(2)* *Adds University Fixed Effects (OLS)*	*(3)* *Adds Full Set of Controls[†] (OLS)*	*(4)* *Ordered Probit*
Belief in shared values	−1.71 (0.50)***	−1.74 (0.53)***	−1.92 (0.54)***	n.a. (n.a.)
Belief in shared understandings	−0.81 (0.34)**	−0.90 (0.35)**	−0.74 (0.38)*	−0.23 (0.11)**
Warmth toward culture of host country	−0.85 (1.24)	−1.30 (1.28)	−0.02 (1.36)	n.a. (n.a.)
Generalized trust	−0.01 (0.10)	−0.03 (0.11)	0.02 (0.11)	0.05 (0.12)
Situational trust	0.22 (0.09)**	0.19 (0.09)**	0.18 (0.09)*	0.27 (0.13)**
Controls				
Controls for university fixed effects?	No	Yes	Yes	Yes
Other controls[†]	No	No	Yes	Yes

(Notes. Standard errors in parentheses. The number of observations ranged from 446 to 495. OLS = ordinary least squares.
*Significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.
[†]Full set of controls includes, in addition to university fixed effects, class year, college major category, destination country, gender, income, political orientation, prior amount of international experience (if any), prior exposure to study abroad country (if any), whether a parent is a citizen of the study abroad country, and whether the subject opted to live with a host family in the study abroad country).

threat posed by the country in question. Treated subjects found their study abroad countries *less threatening* than did the control subjects, as shown in Table 4. In the case of a hypothetical nuclear threat posed by the host country, the negative treatment effect was remarkably consistent, remaining significant at the .01 level across all regression specifications. Significance levels for the other two threat scenarios fluctuated to some extent as further controls were added to the model, but the general effect is clear: treated subjects found their host countries less threatening.

Strong support was also found for the third "Huntingtonian" hypothesis that cross-border contact enhances nationalism. Treated subjects scored significantly higher on the nationalism attitude scale (Cronbach's $\alpha = .81$). They were also considerably prouder of America along a range of dimensions, including American literature, achievements in the arts, armed forces, athletic accomplishments, and political influence (Cronbach's $\alpha = .73$). After reporting no increased feelings of warmth toward their study abroad countries, they used the same thermometer to report significantly higher levels of warmth toward American culture. The mean level of warmth reported by treated subjects was about five degrees higher compared to controls. This positive treatment effect was significant at the .01 level and represented a shift of about a quarter of a standard deviation in the overall distribution of thermometer scores among subjects. Treated subjects also identified more closely with the American nation and believed more readily that Americans have a great deal in common with one another.

Overall, these results are intriguing. Although further research is needed to clarify the relationships among these main effects and the mechanisms at play, a few preliminary thoughts can be offered. First, although the main hypothesis that cross-border fosters a sense of shared international community was not supported, while the third hypothesis that it enhances nationalism was, treated subjects did not return with a heightened sense of national *superiority* vis-à-vis other nations, as we might expect if contact unleashed the competitive dynamic that Huntington proposed. The scale measuring belief in national superiority (Cronbach's $\alpha = .70$) showed no significant differences, suggesting that treated subjects felt more nationalistic and proud of their country without feeling superior to other nations. Written comments from students in the treatment group are suggestive in this sense:

- One of the most interesting parts about my study abroad experience was that I valued my American identity more while abroad than I ever have while at home in the states. Being put in situations that questioned the values that I associate with being an American really allowed me insight into why I think the way I do and why I appreciate living in America.
- I love America; I think it is one of the greatest nations ever created. I realize that we have a lot of problems and make horrible mistakes. However, at the end of the day, we still have people that risk their lives to come to our nation to be continually degraded and work the worst jobs for the lowest pay because it is still a better life for them. The fact that people will do this means that we still are the land of opportunity for many and, no matter what we do, I am still proud to live in a country that stands for that.
- Oftentimes, Americans forget that what works for them does not work for everyone, and the United States is a young and inexperienced country compared to nations centuries and millenia old. However, the United States has achieved freedom and hope for many in ways unparalleled by past generations, and its history is an example of one solution for present and future problems. Combining patriotism and humility, any American citizen will have the tools to innovate positive change even if it is unorthodox from the Western perspective of democracy.

These comments do not suggest competitiveness so much as a deeper appreciation for what subjects feel is positive about their own country, tempered by a certain humility. Thus, they hint at a different mechanism through which national identity is affirmed, perhaps one that is more akin to the ways in which Mill and other political philosophers have viewed communication across lines of difference as a means of building a tolerant public sphere.[13]

In addition, consistent with the liberal paradigm and contrary to realist expectations, treated subjects saw their study abroad countries as significantly *less threatening* than did their control counterparts, given identical hypothetical situations in which their study abroad countries had surpassed the United States in terms of material power. A

[13] See Mutz (2004) for an excellent overview of theory in this area.

TABLE 4. Effects of Studying Abroad on Perceptions of Threat Posed By Study Abroad Country (H_2)

Dependent Variables	*(1)* *Base Model (OLS)*	*(2)* *Adds University Fixed Effects (OLS)*	*(3)* *Adds Full Set of Controls[†] (OLS)*	*(4)* *Ordered Probit*
Economic threat?	−0.38 (0.14)***	−0.36 (0.15)**	−0.25 (0.17)	−0.16 (0.12)
Conventional military threat?	−0.38 (0.15)**	−0.37 (0.16)**	−0.29 (0.17)*	−0.25 (0.12)**
Nuclear threat?	−0.63 (0.15)***	−0.62 (0.16)***	−0.61 (0.18)***	−0.43 (0.11)***
Controls				
Controls for university fixed effects?	No	Yes	Yes	Yes
Other controls[†]	No	No	Yes	Yes

(Notes. Standard errors in parentheses. The number of observations ranged from 464 to 495.
*Significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.
[†]Full set of controls includes, in addition to university fixed effects, class year, college major category, destination country, gender, income, political orientation, prior amount of international experience (if any), prior exposure to study abroad country (if any), whether a parent is a citizen of the study abroad country, and whether the subject opted to live with a host family in the study abroad country).

provocative question follows: if treated subjects did not feel a sense of shared international community with their study abroad countries, what accounts for their lessened view of the threat posed by those same countries? One possibility is that treated subjects simply returned with stronger expectations of continued American hegemony.

But there are other possibilities, as well. Perhaps a different conception of international community is needed, one that relies less on the realization of fundamental similarities, shared outlooks, and the warmth of human kinship—Hedley Bull's "common culture or civilization" (1977:54), Deutsch's "we-feeling" (1957:36)—and more on the conviction that cultural differences may be profound but need not be threatening. Thus, it may be that cross-border contact does tend to increase nationalism and perception of difference, as Huntington predicted, but in ways that mitigate rather than exacerbate underlying fears. This idea of community, then, would be more akin to earlier classical liberal perspectives[14] emphasizing civility and tolerance than to more recent understandings of international community that draw from social psychology and emphasize the growth of a shared identity or common culture.

Recent criticism of the "contact" hypothesis would appear to support this alternative perspective. In a fascinating intellectual history of the hypothesis' origins, Bramel (2004) shows how it arose on the basis of an assumption of "no difference" among groups. In the wake of the Second World War, social psychologists aimed to show that the hostile beliefs on which anti-Semitism, racism, and other types of prejudice rested were fundamentally irrational, with little or no basis in reality because of basic similarities across all human groups. Intergroup contact was believed to reduce prejudice because it would reveal these essential similarities and show that groups were more culturally similar to one another than their members imagined. But, of course, this logic relies on the assumption that such beliefs about difference are indeed false. According to Bramel, even Allport acknowledged that the hypothesis could only apply in cases where there was no basis in reality for intergroup enmity or dislike, and where group differences were thus a kind of fiction that contact would expose. To the extent that the concept of community in IR theory relies on a similar logic, it may need to be re-assessed in favor of one that assigns a greater role to national identity and pride in difference.

[14] For example, Buckle (1857–1861:126–7) argued that increased contact promoted a sense of mutual respect among different peoples, if not a sense of "we-ness" and a shared identity, as Deutsch and later theorists would suggest.

Robustness Checks and Interaction Effects

Average treatment effects were generally robust to a wide variety of controls, including gender, income level, class year, and prior international experience, as Tables 3–5 and the extended tables in Appendix 4 show. Main effects were also not sensitive to alternative regression specifications using robust clustered standard errors (Appendix 5) or matching by propensity score (Appendix 6). Further analysis of the data investigated potential interactions between studying abroad and covariates, such as whether the subject chose to live with a host family and amount of prior international experience. When these interactions were added to the regression equation, however, none of their coefficients were significant.

The data do not allow reliable conclusions to be drawn about interactions with country because the number of observations per country was not sufficiently high, but two significant interactions were found with level of development. First, the positive treatment effect on feelings of warmth toward American culture was greater for students whose study abroad experience involved a lesser developed country. Second, those who opted for developed countries displayed a larger negative treatment effect in threat perception than those who chose lesser developed countries. While the level of development variable was not part of the hypotheses for this research and no conclusions can be drawn, these findings point to a need for further study of this potentially powerful moderating variable.

Limitations

Two limitations are also worth discussing. First, data collection coincided roughly with the election and inauguration of President Obama. Fortunately, an experimental approach using a treatment and control group subject to the same historical event is helpful in limiting the bias that might arise. If the event affected students' political attitudes similarly across treatment and control, then no bias arises, but if one group was influenced differently, then bias may indeed arise. Although it is difficult to rule this possibility out, no evidence could be found in the data to suggest that the event affected the groups in

Table 5. Effects of Studying Abroad on Nationlism (H_3)

Dependent Variables	*(1) Base Model (OLS)*	*(2) Adds University Fixed Effects (OLS)*	*(3) Adds Full Set of Controls† (OLS)*	*(4) Ordered Probit*
Nationalism	1.01 (0.39)**	0.93 (0.42)**	0.91 (0.44)**	0.25 (0.11)**
Pride in America	0.92 (0.40)**	0.90 (0.42)**	0.86 (0.45)*	0.23 (0.11)**
Feeling of warmth toward American culture	5.01 (1.72)***	4.82 (1.79)***	4.93 (1.92)**	n.a. (n.a.)
Belief in American national cohesion	0.49 (0.12)***	0.47 (0.13)***	0.65 (0.14)***	0.58 (0.12)***
Identification with the American nation	0.34 (0.12)***	0.30 (0.13)**	0.37 (0.14)***	0.37 (0.12)***
Belief in American national superiority	0.15 (0.30)	0.19 (0.31)	0.42 (0.32)	0.17 (0.11)
Controls				
Controls for university fixed effects?	No	Yes	Yes	Yes
Other controls†	No	No	Yes	Yes

(Notes. Standard errors in parentheses. The number of observations ranged from 449 to 487.
*Significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.
†Full set of controls includes, in addition to university fixed effects, class year, college major category, destination country, gender, income, political orientation, prior amount of international experience (if any), prior exposure to study abroad country (if any), whether a parent is a citizen of the study abroad country, and whether the subject opted to live with a host family in the study abroad country).

significantly different ways.[15] Still, future research ought to replicate the experiment to investigate if and how main effects may be contingent on world-historical context.

Another limitation, as discussed for experimental approaches in general, is external validity. Given that an available sample of American university students was used, and respondents self-selected into taking the survey, the extent to which the findings can be generalized to all study abroad programs or other forms of cross-border contact involving different populations should be investigated in future work. In this study, the main contribution has been to take advantage of a natural experiment with significant internal validity that can shed light on important micro-level causal relationships posited by theory. I have used a large population ($n = 571$) of Americans across multiple colleges, majors, and study abroad country destinations to enhance generalizability within one nationality (Americans) and type of cross-border contact (foreign study). Such a large and diverse sample of subjects in the "real world" represents a step toward external validity beyond traditional laboratory experiments in which the subjects are typically college students from a single university, often drawn from a single psychology or political science class. The question of generalizability, however, remains an important one for further study through replication of the natural experiment and other methods.

Conclusions

This paper presents new data and a novel approach to the study of international community at the individual level. The results are not intended as a "final say" on theory in these areas, but rather more modestly as a means of assessing and potentially refining micro-level causal claims. The central aim of the paper has been to enrich our knowledge of the implications of growing cross-border contact for international community with empirical evidence at the micro-level. The results suggest several possibilities for theoretical development and further empirical work.

First, the findings support the basic liberal claim, and subsequently constructivist one, that cross-border contact matters, in this case by influencing identities and perceptions of threat. Perhaps the most intriguing finding in this regard is that cross-border contact actually reduced subjects' perceptions of threat, consistent with the theory, and that it did so in hypothetical conditions that many realists would consider objectively threatening. This certainly supports the argument that anarchy can be mitigated through transnational forces of contact and communication, such as the type of cross-border contact examined here.

Yet the findings also suggest that the changes associated with cross-border contact are not captured as fully as they might be by existing theory. Surprisingly, the first hypothesis that cross-border contact promotes a sense of shared international community was not supported, despite its wide endorsement among IR theorists and educators. By contrast, the third "Huntingtonian" hypothesis that cross-border contact increases nationalism garnered wide support. Treated subjects were prouder to be American, warmer toward American culture, and otherwise attached to national identity. Indeed, Huntington's (2004) more recent claim that young American elites are "de-nationalized," and related concerns that American national identity is in crisis, may be premature. Tellingly, among the things, the treated subjects felt they valued "much more" than the people of their study abroad countries were the rights of individuals, the rule of law, and the right to question authority—values at the heart of American-style liberal democracy. A potential puzzle remains: if certain ordinary types of cross-border contact successfully reduce, on average, perceptions of threat, as these findings suggest and liberal IR theorists expect, what explains this outcome, if not the building of a sense of shared international community as commonly defined by those same theorists?

In this sense, the findings may offer a modest challenge to basic theoretical assumptions about what social forces produce global order. While treated subjects were

[15] For example, in the case of nationalism, no relationship was found with the time at which students took the survey (Appendix 7). Figure A7.1 reveals no uptick in aggregate nationalism scores around the date of the Obama inauguration (January 20, 2009), or any other sensitivity to time apart from the days on which the survey reminders were sent. Nor was any relationship apparent when examining only the treatment or the control group; trend lines indicate no differences between the two groups as the inauguration neared. Public opinion data from June 2006, June 2008, and January 2009 also suggest that national pride did not rise generally in the United States (Figure A7.2).

significantly more *nationalist*, they were also *less* likely to consider their study abroad countries threatening under all three hypothetical conditions of objective threat. No evidence was found that they had become intolerant or closed-minded; they were not believers in their own nation's superiority over other nations. Perhaps it is nationalism, in an evolved form and despite its checkered history in the twentieth century, that is helping to maintain order today more readily than the much-touted idea of global citizenship. In a world where globalization threatens to homogenize, nationalism, by stimulating pride and assuaging cultural insecurity, may be evolving into a peace-promoting norm, and the concept of international community may need refinement as a result. If this is correct, theorists of international community would be right about the main effect, but wrong about the mechanism. As predicted, growing cross-border contact may indeed encourage peace-promoting norms and a sense of community, just not through the generation of a shared identity. Rather, for Americans at least, it may do so by cultivating an enlightened form of nationalism. As one treated subject wrote, "Combining patriotism *and humility*, any American citizen will have the tools to innovate positive change even if it is unorthodox from the Western perspective of democracy."[16] Future work may build fruitfully on this natural experiment approach to explore the implications of cross-border contact for identities, attitudes, and values in other areas of IR theory.

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[16] Emphasis added.

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Appendix 1

Details of Survey and Natural Experiment

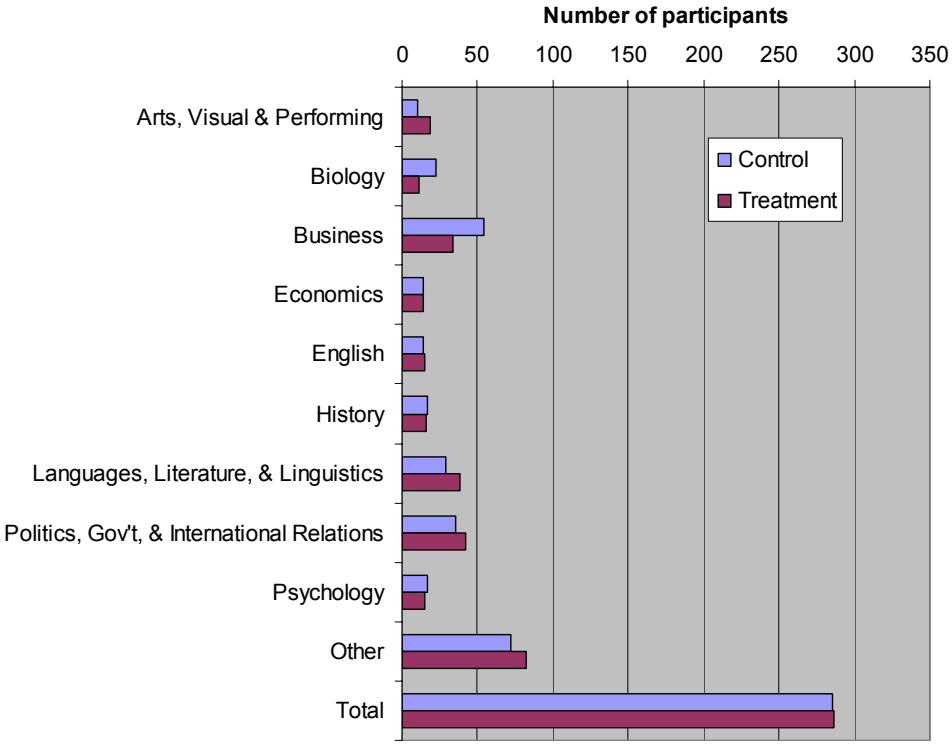
Constructed in the fall of 2008, the survey adapted question types and attitude scales used to measure similar variables in previous survey research, as discussed in the body of the paper. The questionnaire is available upon request. Approval of each survey question, the statement of informed consent accompanying the survey, and the overall research design was then obtained from this institution's Institutional Review Board (IRB). Following protocol, and the interests of study abroad coordinators consulted about the project, the survey did not elicit any personally identifying information from respondents.

In keeping with the natural experimental research design, the sample frame consisted of students who chose to study abroad in either the fall semester of 2008, or the spring semester of 2009. During the break between semesters, in December 2008 and January 2009, study abroad coordinators at the eleven colleges that agreed to participate in the study sent email invitations to those students involved in study abroad programs who fell within this sample frame, and were thus eligible for the study. The survey itself also confirmed that those completing it were actually eligible for the study. Accordingly, those just returning from a fall semester abroad were considered a treatment group, while those about to leave for a semester abroad were considered a control group. The survey was administered online, respondents self-selected into taking it, and all responses were anonymous. Over the course of the winter break, study abroad coordinators sent several reminder emails to their students urging them to complete the survey.

Both the initial email invitations and subsequent reminders were sent by study abroad coordinators at each college, not by the researcher, which was a condition for IRB approval. As a result, lists identifying the total number of students receiving an email invitation at each college were not available to the researcher, and response rates could not be calculated. Since the survey was administered online, though, an analysis of completion rates could be conducted and compared across the two groups to assess balance, the main condition for causal inference in this natural experimental design. Like many online survey tools, the one used in this project recorded answers to individual questions submitted, so that even respondents who failed to complete the survey provided substantial data for analysis. Overall, the survey tool counted 777 views by respondents, among whom 670 began the survey and 490 completed it. (After cleaning the data, the total number of observations in the sample, including those who began the survey but did not complete it, was 571, as reported in the paper.) Thus, there were 180 "drop-outs," who began but did not complete the survey, providing a completion rate of 73% for the sample as a whole. More importantly, completion and drop-out rates were not significantly different across treatment and control groups. In the treatment group, 246 completed the survey and 65 dropped out, and in the control group, 245 completed it and 59 dropped out. Following convention in *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys* (Lenexa, KS: AAPOR, 2008), regressions used all data available for the given dependent variable. As a result, the number of observations is reported separately for each regression, and varies based on the number of respondents who provided data for the variables used in the particular specification.

Appendix 2

Distribution of College Major Categories Across Control and Treatment (*Pearson* $\chi^2(9) = 13.51$; $p = .14$)



Appendix 3

Selection into Treatment

As an additional check, selection-into-treatment models and *F*-tests were used to examine the ability of covariates to predict the probability of treatment assignment. Table 3.1A. in this appendix shows *F*-test results from running a regression of the treatment indicator on each covariate. As expected, only university affiliation and class year indicate any success in predicting treatment assignment. Table 3.2A. in this appendix shows selection-into-treatment models that cumulatively add covariates. Again, only when university and class year dummies are added do the models predict treatment assignment with any success.

TABLE A3.1. *F*-test Results

Covariates	*df, n*	*F*	*p*	R^2
Gender	1, 466	.11	.74	0.00
Income	1, 466	1.18	.28	0.00
Prior international experience	1, 466	.02	.89	0.00
Prior exposure	1, 466	.25	.62	0.00
Parent	1, 466	.66	.42	0.00
Host family	1, 539	.74	.39	0.00
University affiliation	10, 550	5.61***	0.00	0.01
Class year	3, 567	9.11***	0.00	0.05
Major category	9, 561	1.51	.14	0.02
Region	6, 534	1.51	.17	0.02
Country	55, 485	.9	0.68	0.09

Table A3.2. Selection into Treatment

Covariates	*Treatment on (1)*	*Treatment on (1), (2)*	*Treatment on (1), (2), (3)*	*Treatment on (1), (2), (3), (4)*	*Treatment on (1), (2), (3), (4), (5)*	*Treatment on (1), (2), (3), (4), (5), (6)*	*Same with c ontrols*	*Same with controls*	*Same with controls*	*Same with controls*
R^2	0.00	0.00	0.00	0.00	0.00	0.01	0.11	0.15	.19	0.20
F (df, n)	0.11 (1, 466)	0.63 (2,468)	0.42 (3,464)	0.40 (4, 463)	0.40 (5, 462)	0.48 (6, 461)	3.32 (16, 447)	4.15 (19, 444)	3.73 (23, 435)	3.24 (34, 429)
p	.74	.53	.74	.81	.85	.82	.00***	.00***	.00***	.00***
(1) Gender	0.019 (0.055)	0.016 (0.055)	0.016 (0.055)	0.015 (0.055)	0.014 (0.055)	0.023 (0.056)	0.001 (0.056)	0.017 (0.056)	.01 (.06)	0.016 (0.056)
(2) Income		0.021 (0.019)	0.021 (0.019)	0.021 (0.019)	0.020 (0.020)	0.020 (0.020)	0.018 (0.020)	0.024 (0.019)	.03 (.02)	0.033 (0.019)*
(3) International			0.001 (0.011)	0.003 (0.011)	0.003 (0.011)	0.003 (0.011)	−0.004 (0.012)	−0.004 (0.011)	−.001 (.01)	−0.000 (0.011)
(4) Priorexposure				−0.013 (0.023)	−0.010 (0.024)	−0.012 (0.024)	−0.017 (0.023)	−0.025 (0.023)	−.03 (.02)	−0.027 (0.023)
(5) Parent					−0.093 (0.145)	−0.096 (0.145)	−0.068 (0.142)	−0.042 (0.139)	−.08 (.14)	−.10 (0.144)
(6) Host family						−0.037 (0.039)	−0.018 (0.039)	0.002 (0.039)	−.01 (.04)	−0.011 (0.040)
Controls										
University dummies	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Class year dummies	No	No	No	No	No	No	No	Yes	Yes	Yes
College major dummies	No	No	No	No	No	No	No	No	Yes	Yes
Host region dummies	No	No	No	No	No	No	No	No	No	Yes

Appendix 4

Extended Results with Controls Added Stepwise

TABLE A4.1. Effects of Studying Abroad on Belief in Shared International Community (H_1)

Dependent Variables	*(1)* *ols*	*(2)* *ols*	*(3)* *ols*	*(4)* *ols*	*(5)* *ols*	*(6)* *ols*	*(7)* *ols*	*(8)* *ordered probit*
a. Belief in shared values	−1.71 (0.50)***	−1.74 (0.53)***	−1.81 (0.55)***	−2.02 (0.56)***	−2.10 (0.53)***	−1.99 (0.53)***	−1.92 (0.54)***	n.a.
	n = 495	*n* = 491	*n* = 491	*n* = 491	*n* = 491	*n* = 491	*n* = 464	
b. Belief in shared understandings	−0.81 (0.34)**	−0.90 (0.35)**	−0.92 (0.36)**	−0.90 (0.37)**	−0.96 (0.36)***	−0.94 (0.37)**	−0.74 (0.38)*	−0.23 (0.11)**
	n = 495	*n* = 491	*n* = 491	*n* = 491	*n* = 491	*n* = 491	*n* = 464	*n* = 464
c. Warmth toward culture of host country	−0.85 (1.24)	−1.30 (1.28)	−0.98 (1.31)	−1.55 (1.34)	−1.35 (1.34)	−0.49 (1.37)	−0.02 (1.36)	n.a.
	n = 466	*n* = 463	*n* = 463	*n* = 463	*n* = 463	*n* = 463	*n* = 440	
d. Generalized trust	−0.01 (0.10)	−0.03 (0.11)	−0.03 (0.11)	−0.01 (0.11)	−0.04 (0.11)	−0.02 (0.10)	0.02 (0.11)	0.05 (0.12)
	n = 495	*n* = 491	*n* = 491	*n* = 491	*n* = 491	*n* = 491	*n* = 464	*n* = 464
e. Situational trust	0.22 (0.09)**	0.19 (0.09)**	0.17 (0.10)*	0.14 (0.10)	0.15 (0.10)	0.21 (0.09)**	0.18 (0.09)*	0.27 (0.13)**
	n = 476	*n* = 472	*n* = 472	*n* = 472	*n* = 472	*n* = 472	*n* = 446	*n* = 446
Controls								
University dummies	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Class year	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Major category	No	No	No	Yes	Yes	Yes	Yes	Yes
Region dummies	No	No	No	No	Yes	No	No	No
Country dummies	No	No	No	No	No	Yes	Yes	Yes
Other controls[†]	No	No	No	No	No	No	Yes	Yes

(*Notes*. Standard errors in parentheses.
*Significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.
[†]Other controls include gender, income, political orientation, prior amount of international experience (if any), prior exposure to study abroad country (if any), whether a parent is a citizen of the study abroad country, and whether the subject opted to live with a host family in the study abroad country.)

Table A4.2. Effects of Studying Abroad on Perceptions of Threat Posed by Study Abroad Country (H_2)

Dependent Variables	*(1)* *ols*	*(2)* *ols*	*(3)* *ols*	*(4)* *ols*	*(5)* *ols*	*(6)* *ols*	*(7)* *ols*	*(8)* *ordered probit*
a. Economic threat?	−0.38 (0.14)***	−0.36 (0.15)**	−0.32 (0.15)**	−0.30 (0.15)*	−0.29 (0.15)*	−0.21 (0.16)	−0.25 (0.17)	−0.16 (0.12)
	n = 495	n = 491	n = 491	n = 491	n = 491	n = 491	n = 464	n = 464
b. Conventional military threat?	−0.38 (0.15)**	−0.37 (0.16)**	−0.32 (0.16)**	−0.35 (0.17)**	−0.34 (0.17)**	−0.21 (0.17)	−0.29 (0.17)*	−0.25 (0.12)**
	n = 495	n = 491	n = 491	n = 491	n = 491	n = 491	n = 464	n = 464
c. Nuclear threat?	−0.63 (0.15)***	−0.62 (0.16)***	−0.59 (0.17)***	−0.66 (0.17)***	−0.65 (0.17)***	−0.56 (0.18)***	−0.61 (0.18)***	n.a.
	n = 495	n = 491	n = 491	n = 491	n = 491	n = 491	n = 464	
Controls								
University dummies	no	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Class year	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Major category	No	No	No	Yes	Yes	Yes	Yes	Yes
Region dummies	No	No	No	No	Yes	No	No	No
Country dummies	No	No	No	No	No	Yes	Yes	Yes
Other controls†	No	No	No	No	No	No	Yes	Yes

(*Notes.* Standard errors in parentheses.
*Significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.
†Other controls include gender, income, political orientation, prior amount of international experience (if any), prior exposure to study abroad country (if any), whether a parent is a citizen of the study abroad country, and whether the subject opted to live with a host family in the study abroad country.)

TABLE A4.3. Effects of Studying Abroad on Nationalism (H_3)

Dependent Variables	*(1) ols*	*(2) ols*	*(3) ols*	*(4) ols*	*(5) ols*	*(6) ols*	*(7) ols*	*(8) ordered probit*
a. Nationalism	1.01 (0.39)**	0.93 (0.42)**	0.87 (0.43)**	1.17 (0.43)***	1.14 (0.44)***	1.04 (0.44)**	0.91 (0.44)**	0.25 (0.11)**
	n = 487	n = 483	n = 483	n = 483	n = 483	n = 484	n = 484	n.a.
b. Pride in America	0.92 (0.40)**	0.90 (0.42)**	0.83 (0.43)*	1.27 (0.43)***	1.28 (0.44)***	1.11 (0.45)**	0.86 (0.45)*	0.23 (0.11)**
	n = 485	n = 481	n = 481	n = 481	n = 481	n = 481	n = 464	n = 464
c. Feeling of warmth toward American culture	5.01 (1.72)***	4.82 (1.79)***	5.31 (1.83)***	5.53 (1.90)***	5.59 (1.91)***	5.32 (1.91)***	4.93 (1.92)**	n.a.
	n = 469	n = 465	n = 465	n = 465	n = 465	n = 465	n = 449	
d. Belief in American national cohesion	0.49 (0.12)***	0.47 (0.13)***	0.54 (0.13)***	0.60 (0.13)***	0.63 (0.13)***	0.64 (0.14)***	0.65 (0.14)***	0.58 (0.12)***
	n = 489	n = 485	n = 485	n = 485	n = 485	n = 485	n = 464	n = 464
e. Identification with the American nation	0.34 (0.12)***	0.30 (0.13)**	0.31 (0.13)**	0.40 (0.14)***	0.39 (0.14)***	0.39 (0.14)***	0.37 (0.14)***	0.37 (0.12)***
	n = 470	n = 466	n = 466	n = 466	n = 466	n = 466	n = 463	n = 463
f. Belief in American national superiority	0.15 (0.30)	0.19 (0.31)	0.12 (0.32)	0.49 (0.32)	0.54 (0.32)*	0.50 (0.32)	0.42 (0.32)	0.17 (0.11)
	n = 484	n = 480	n = 480	n = 480	n = 480	n = 480	n = 464	n = 464
Controls								
University dummies	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Class year	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Major category	No	No	No	Yes	Yes	Yes	Yes	Yes
Region dummies	No	No	No	No	Yes	No	No	No
Country dummies	No	No	No	No	No	Yes	Yes	Yes
Other controls[†]	No	No	No	No	No	No	Yes	Yes

(*Notes*. Standard errors in parentheses.
*Significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.
[†]Other controls include gender, income, political orientation, prior amount of international experience (if any), prior exposure to study abroad country (if any), whether a parent is a citizen of the study abroad country, and whether the subject opted to live with a host family in the study abroad country.)

Appendix 5

Robust Clustered Standard Errors

Below are the results for all dependent variables, grouped by the hypothesis they were designed to assess, using robust clustered standard errors. Although the main regressions reported in the paper use a fixed effects approach, which controls for university fixed effects, class year, major category, and region or country destination, those units (individuals) with the same university affiliation *and* study abroad destination country may not be independent of one another in terms of their responses to survey questions, especially if they participated in the same study abroad program. All regressions were therefore repeated using robust clustered standard errors (clustering for each set of individuals with the same university affiliation and study abroad destination country). As a comparison with Tables 3–5 in the paper indicates, estimates were similar and in many cases identical, though standard errors were typically higher here, as might be expected.

Table A5.1. Effects of Studying Abroad on Belief in Shared International Community (H_1)

Dependent Variables	*(1)* *ols*	*(2)* *ols*	*(3)* *ols*	*(4)* *ols*	*(5)* *ols*	*(6)* *ols*	*(7)* *ols*	*(8)* *ordered probit*
Belief in shared values	−1.71 (0.53)***	−1.74 (0.53)***	−1.81 (0.54)***	−2.02 (0.53)***	−2.10 (0.50)***	−1.99 (0.49)***	−1.92 (0.47)***	−0.43 (0.10)***
	n = 495	n = 491	n = 491	n = 491	n = 491	n = 491	n = 464	n = 464
Belief in shared understandings	−0.81 (0.37)**	−0.90 (0.40)**	−0.92 (0.41)**	−0.90 (0.40)**	−0.96 (0.39)**	−0.94 (0.41)**	−0.74 (0.40)*	−0.23 (0.12)**
	n = 495	n = 491	n = 491	n = 491	n = 491	n = 491	n = 464	n = 464
Warmth toward culture of host country	−0.85 (1.18)	−1.30 (1.20)	−0.98 (1.22)	−1.55 (1.32)	−1.35 (1.27)	−0.49 (1.36)	−0.02 (1.30)	n.a.
	n = 466	n = 463	n = 463	n = 463	n = 463	n = 463	n = 440	
Generalized trust	−0.01 (0.10)	−0.03 (0.10)	−0.03 (0.10)	−0.01 (0.10)	−0.04 (0.10)	−0.02 (0.09)	0.02 (0.10)	0.05 (0.11)
	n = 495	n = 491	n = 491	n = 491	n = 491	n = 491	n = 464	n = 464
Situational trust	0.22 (0.09)**	0.19 (0.10)*	0.17 (0.10)*	0.14 (0.10)	0.15 (0.10)	0.21 (0.10)**	0.18 (0.10)*	0.27 (0.14)*
	n = 476	n = 472	n = 472	n = 472	n = 472	n = 472	n = 446	n = 446
Controls								
University dummies	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Class year	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Major category	No	No	No	Yes	Yes	Yes	Yes	Yes
Region dummies	No	No	No	No	Yes	No	No	No
Country dummies	No	No	No	No	No	Yes	Yes	Yes
Other controls†	No	No	No	No	No	No	Yes	Yes

(*Notes*. Robust clustered standard errors in parentheses.
*Significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.
†Other controls include gender, income, political orientation, prior amount of international experience (if any), prior exposure to study abroad country (if any), whether or not a parent is a citizen of the study abroad country, and whether or not the subject opted to live with a host family in the study abroad country.)

TABLE A5.2. Effects of Studying Abroad on Perceptions of Threat Posed by Study Abroad Country (H_2)

Dependent Variables	*(1) ols*	*(2) ols*	*(3) ols*	*(4) ols*	*(5) ols*	*(6) ols*	*(7) ols*	*(8) ordered probit*
Economic threat?	−0.38 (0.14)***	−0.36 (0.15)**	−0.32 (0.15)**	−0.30 (0.13)**	−0.29 (0.13)**	−0.21 (0.14)	−0.25 (0.13)*	−0.16 (0.09)*
	n = 495	n = 491	n = 491	n = 491	n = 491	n = 491	n = 464	n = 464
Conventional military threat?	−0.38 (0.16)**	−0.37 (0.17)**	−0.32 (0.17)*	−0.35 (0.16)**	−0.34 (0.16)**	−0.21 (0.17)	−0.29 (0.17)*	−0.25 (0.11)**
	n = 495	n = 491	n = 491	n = 491	n = 491	n = 491	n = 464	n = 464
Nuclear threat?	−0.63 (0.16)***	−0.62 (0.17)***	−0.59 (0.17)***	−0.66 (0.16)***	−0.65 (0.16)***	−0.56 (0.18)***	−0.61 (0.17)***	n.a.
	n = 495	n = 491	n = 491	n = 491	n = 491	n = 491	n = 464	
Controls								
University dummies	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Class year	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Major category	No	No	No	Yes	Yes	Yes	Yes	Yes
Region dummies	No	No	No	No	Yes	No	No	No
Country dummies	No	No	No	No	No	Yes	Yes	Yes
Other controls†	No	No	No	No	No	No	Yes	Yes

(*Notes.* Robust clustered standard errors in parentheses.
*Significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.
†Other controls include gender, income, political orientation, prior amount of international experience (if any), prior exposure to study abroad country (if any), whether or not a parent is a citizen of the study abroad country, and whether or not the subject opted to live with a host family in the study abroad country.)

Table A5.3. Effects of Studying Abroad on Nationalism (H_3)

Dependent Variables	*(1)* *ols*	*(2)* *ols*	*(3)* *ols*	*(4)* *ols*	*(5)* *ols*	*(6)* *ols*	*(7)* *ols*	*(8)* *ordered probit*
Nationalism	1.01 (0.35)***	0.92 (0.34)***	0.87 (0.34)**	1.17 (0.34)***	1.14 (0.34)***	1.04 (0.35)***	0.91 (0.37)**	0.25 (0.10)***
	n = 487	n = 483	n = 483	n = 483	n = 483	n = 483	n = 464	n = 464
Pride in America	0.92 (0.38)**	0.90 (0.38)**	0.83 (0.38)**	1.27 (0.40)***	1.28 (0.40)***	1.11 (0.41)***	0.86 (0.41)**	0.23 (0.10)**
	n = 485	n = 481	n = 481	n = 481	n = 481	n = 481	n = 464	n = 464
Feeling of warmth toward American culture	5.01 (1.51)***	4.82 (1.60)***	5.31 (1.67)***	5.53 (1.71)***	5.59 (1.75)***	5.32 (1.78)***	4.93 (1.79)***	n.a.
	n = 469	n = 465	n = 465	n = 465	n = 465	n = 465	n = 449	
Belief in American national cohesion	0.49 (0.12)***	0.47 (0.13)***	0.54 (0.13)***	0.60 (0.13)***	0.63 (0.13)***	0.64 (0.14)***	0.65 (0.15)***	0.58 (0.12)***
	n = 489	n = 485	n = 485	n = 485	n = 485	n = 485	n = 464	n = 464
Identification with the American nation	0.34 (0.12)***	0.30 (0.11)**	0.31 (0.11)**	0.40 (0.12)***	0.39 (0.12)***	0.39 (0.13)***	0.37 (0.13)***	0.37 (0.11)***
	n = 470	n = 466	n = 466	n = 466	n = 466	n = 466	n = 463	n = 463
Belief in American national superiority	0.15 (0.36)	0.19 (0.36)	0.12 (0.38)	0.49 (0.37)	0.54 (0.38)	0.50 (0.43)	0.42 (0.42)	0.17 (0.15)
	n = 484	n = 480	n = 480	n = 480	n = 480	n = 480	n = 464	n = 464
Controls								
University dummies	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Class year	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Major category	No	No	No	Yes	Yes	Yes	Yes	Yes
Region dummies	No	No	No	No	Yes	No	No	No
Country dummies	No	No	No	No	No	Yes	Yes	Yes
Other controls†	No	No	No	No	No	No	Yes	Yes

(*Notes.* Robust clustered standard errors in parentheses.
*Significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.
†Other controls include gender, income, political orientation, prior amount of international experience (if any), prior exposure to study abroad country (if any), whether or not a parent is a citizen of the study abroad country, and whether or not the subject opted to live with a host family in the study abroad country.)

Appendix 6

Matching by Propensity Score

Below are the results using matching by propensity score. Tables 6.1–6.3A.–A. display the average treatment effect on the treated, the number of observations, and a *t*-statistic. The propensity score model used all covariates to match each treated individual with its nearest match in the control group in terms of propensity score (propensity to be treated, given all covariates). Four matching estimates are displayed per dependent variable, allowing a comparison of results using different options in the matching procedure. Results are again roughly similar to the original estimates, with most estimates by matching corresponding in significance and the direction of the effect to the regression estimates reported in the original tables.

TABLE A6.1. Effects of Studying Abroad on Belief in Shared International Community (H_1)

Dependent Variables				
Belief in shared values				
ATT	−2.24***	−2.23***	−1.89***	−1.91***
N	433	432	432	433
t-stat	−3.10	−3.06	−3.39	−3.44
Belief in shared understandings				
ATT	−0.51	−0.53	−.68**	−.67**
N	433	432	432	433
t-stat	−1.02	−1.06	−1.83	−1.81
Warmth toward culture of host country				
ATT	1.12	1.07	−1.46	−1.45
N	414	413	413	414
t-stat	0.63	0.60	−1.09	−1.08
Generalized trust				
ATT	−.02	−.03	.03	.04
n	433	432	432	433
t-stat	−0.10	−0.20	0.22	0.35
Situational trust				
ATT	.24**	.22**	.19**	.20**
n	415	414	414	415
t-stat	1.77	1.67	1.98	2.08
Matching options				
Common support required?	No	Yes	Yes	No
With replacement?	Yes	Yes	No	No

(*Notes.* *significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.)

TABLE A6.2. Effects of Studying Abroad on Perceptions of Threat from Study Abroad Country (H_2)

Dependent Variables				
Economic threat?				
ATT	−0.44**	−0.43**	−0.34***	−0.36***
n	433	432	432	433
t-stat	−2.04	−2.01	−2.21	−2.30
Conventional military threat?				
ATT	−0.36*	−0.35*	−0.41***	−0.43***
n	433	432	432	433
t-stat	−1.57	−1.51	−2.45	−2.56
Nuclear threat?				
ATT	−0.91***	−0.90***	−0.66***	−0.67***
n	433	432	432	433
t-stat	−3.98	−3.89	−3.83	−3.94
Matching options				
Common support required?	No	Yes	Yes	No
With replacement?	Yes	Yes	No	No

(*Notes.* *significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.)

Table A6.3. Effects of Studying Abroad on Nationalism (H_3)

Dependent Variables				
Nationalism				
ATT	1.13**	1.20**	.82**	.77**
N	433	432	432	433
t-stat	2.03	2.15	1.88	1.76
Pride in America				
ATT	1.14**	1.22**	.85**	.78**
N	433	433	432	433
t-stat	1.98	2.12	1.91	1.76
Feelings of warmth toward American culture				
ATT	4.40*	4.65*	3.77**	3.60**
N	419	417	417	419
t-stat	1.48	1.55	2.01	1.90
Belief in American national cohesion				
ATT	0.49***	0.49***	0.51***	0.50***
N	433	432	432	433
t-stat	2.77	2.80	3.89	3.80
Identification with the American nation				
ATT	0.26*	0.29*	0.28**	0.27**
n	432	432	431	432
t-stat	1.36	1.50	2.08	1.94
Belief in American national superiority				
ATT	0.32	0.36	0.17	0.15
N	433	432	432	433
t-stat	0.74	0.84	0.53	0.46
Matching options				
Common support required?	No	Yes	Yes	No
With replacement?	Yes	Yes	No	No

(*Notes.* *significant at 10%; **significant at 5%; ***significant at 1%, two-tailed.)

Appendix 7

Additional Robustness Checks

Additional robustness checks examined the sensitivity of the data to timing, especially the potentially distortionary impact of the election and inauguration of President Obama. Figure A7.1 below shows that the date of the inauguration did not affect the two groups in substantially different ways in terms of their reported levels of nationalism. Figure A7.2 suggests that nationalism as a whole did not change significantly for the country between 2006 and 2009.

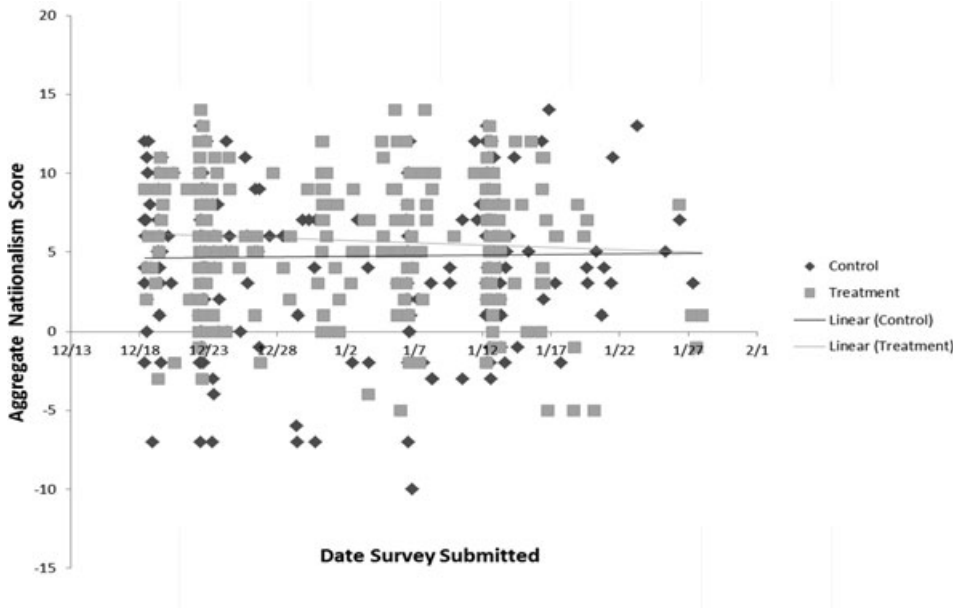


Fig. A7.1. The Figure Below Shows Each Participant's Aggregate Nationalism Score Plotted Against the Date at Which the Participant Completed and Submitted the Survey. (Columns in the Data Indicate an Increased Number of Submissions on the Days the Survey was Sent out to the Sample, Including Reminders.) No Evidence can be Found of a Relationship between Reported Feelings of Nationalism and the Inauguration of President Obama on January 20, 2009. The Regression Lines also Suggest the Treatment and Control Groups were not Affected in Substantially Different Ways by this Event

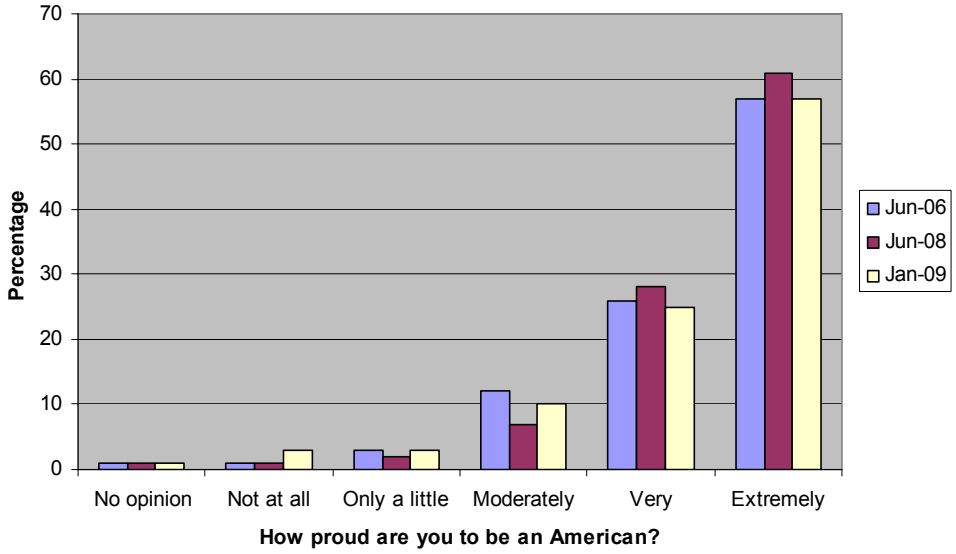


FIG. A7.2. Public Opinion Polls on Nationalism. The June 2006 Data Come from Telephone Interviews Conducted by the Gallup Organization with a National Adult Sample of 1002. The June 2008 Data Come from Telephone Interviews Conducted by Opinion Research Corporation with a National Adult Sample of 1026. The January 2009 Data Come from Telephone Interviews Conducted by Opinion Research Corporation with a National Adult Sample of 1245. All Data Provided by the Roper Center for Public Opinion Research, University of Connecticut