Why National and International Legitimacy Are Linked:
Effects of Social Trust

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Recent public opinion research has established an empirical regularity of unusual stability and strength: individual perceptions of the legitimacy of national and international institutions are highly linked. The conventional interpretation is that citizens draw on perceptions of domestic institutions when forming opinions about international institutions. This article proposes an alternative mechanism, privileging social trust as an antecedent factor influencing both national and international legitimacy perceptions. Using original survey data on citizen attitudes in four countries in relation to five international institutions, the article shows that social trust functions as an antecedent factor, while granting weak support for the conventional wisdom. The article suggests three broader implications: social trust has more far-reaching consequences for international cooperation than previously understood; political efforts to affect the legitimacy of international institutions are constrained by deep-rooted personal beliefs; and a comparative approach is central to the study of public attitudes toward international institutions.

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Legitimacy in the eyes of the people is central for international institutions. If people widely believe that an international institution is lacking in legitimacy, this may seriously undermine its viability and effectiveness (Dai 2005; Franck 1990; Hurd 2007; Martin 2000). Similarly, if international institutions possess extensive authority, but lack legitimacy in society, this contributes to a democratic deficit in global governance (Buchanan and Keohane 2006; Dahl 1999; Held and Koenig-Archibugi 2005; Zürn 2000). Increasingly attentive to the importance of legitimacy for international institutions, International Relations (IR) scholars are beginning to systematically study its determinants, tracking long-standing efforts in Comparative Politics, Political Theory, and Sociology to better understand the sources of legitimacy (Beetham 1991; Easton 1975; Suchman 1995; Uslaner 2002; Weber [1922]1987).¹

This emerging literature on legitimacy in IR has encountered an empirical regularity of unusual stability and strength: individuals' perceptions of the legitimacy of national and international institutions are highly linked (Ares, Ceka and, Kriesi 2016; Armingeon and Ceka 2014; Dellmuth and Tallberg 2015; Hartevedt, van der Meer and, de Vries 2013; Sattler and Urpelainen 2012; Schlipphak 2015; Voeten 2013). When citizens regard domestic institutions as legitimate, they typically consider international institutions legitimate as well. Conversely, when citizens lack faith in domestic institutions, they rarely view international institutions as legitimate. This finding is consistent across international institutions, time, alternative operationalizations of legitimacy, and surveys. Moreover, it is substantively important: the perceived legitimacy of domestic institutions is usually the strongest predictor of an international institution’s legitimacy, even when controlling for other relevant factors such as social identity, economic considerations, and political awareness.

¹ This article relies on a sociological or empirical understanding of legitimacy, where legitimacy is conceptualized as the perception or belief that an institution’s authority is appropriately exercised (e.g., Caldeira and Gibson 1995; Hurd 2007; Weber [1922]1978). This is different from a normative understanding, where an institution’s legitimacy is derived from its conformance to philosophical values such as justice and democracy (Buchanan and Keohane 2006).
However, existing research is hard-pressed to explain why national and international legitimacy perceptions are linked. The conventional interpretation is that individuals rely on heuristics when evaluating international institutions: since citizens know little or nothing about international institutions, they use their perceptions of the legitimacy of domestic institutions as proxies when evaluating their international counterparts (e.g., Armingeon and Ceka 2014; Dellmuth and Tallberg 2015; Harteved, van der Meer, and de Vries 2013). Yet this mechanism has not been empirically tested – on its own or against possible competing accounts.

In this article, we propose an alternative mechanism, privileging social trust as an antecedent factor influencing the legitimacy perceptions of both domestic and international institutions. Social trust, sometimes referred to as interpersonal or generalized trust, captures an individual’s predisposition in terms of tending to trust other people or not. Drawing on social psychology, we theorize social trust as a stable personality trait that affects people’s general tendency to perceive of political institutions as legitimate. If this mechanism is at work, the causal chain does not start with citizens’ perceptions of the legitimacy of domestic institutions, as the conventional wisdom holds. Instead, it begins with individuals’ tendency to trust others, which in turn affects their perceptions of both domestic and international institutions, explaining the empirical link between the two.

To evaluate our argument and the conventional wisdom, we draw on original survey data in four countries: Germany, Sweden, the United Kingdom (UK), and the United States (US). The survey focuses on five international institutions with varying issue-area orientation and membership scope: United Nations (UN), International Monetary Fund (IMF), World Trade Organization (WTO), European Union (EU), and North American Free Trade Agreement (NAFTA). This design allows us to offer the first systematic and comparative analysis of the link between domestic and international legitimacy perceptions. We examine
the causal pathways linking national and international legitimacy using causal mediation analysis.

The findings strongly endorse our argument. The association between national and international legitimacy is weakened when social trust is taken into account, indicating that social trust is an important cause of this link. By contrast, the results show only weak support for the conventional explanation. The indicators typically used for political awareness in existing research, education and political interest, do not condition the effect of national on international legitimacy. A third, comparatively poorer measure of political awareness, media exposure, has such an effect among the Swedish respondents, providing partial but weak support for the conventional interpretation. These findings are robust across four of the five international institutions, indicating that the analysis captures general dynamics in global governance, while particularities in US attitudes toward multilateral cooperation affect the results for NAFTA. These findings suggest that social trust has more far-reaching implications than previously understood, that political efforts to affect the legitimacy of international institutions are constrained by deep-rooted personal beliefs, and that a comparative approach is central to the study of public attitudes toward international institutions.

The Domestic-International Legitimacy Link

Recent years have seen the emergence of growing empirical literature on the legitimacy of international institutions. While not all studies have been explicitly framed in terms of legitimacy, they all use measures of public attitudes toward international institutions – trust, confidence, and support – relevant to an understanding of legitimacy. A large part of this research explores public attitudes toward the EU, but contributions on other international institutions are becoming increasingly common. Perhaps the most intriguing finding in this
literature concerns the association between national and international legitimacy perceptions. In this section, we briefly review central contributions that illustrate the stability and strength of this empirical regularity.\textsuperscript{2}

A first example from the EU literature is Muñoz, Torcal and Bonet (2011), who explore whether trust in national institutions fosters or hinders trust in the institutions of the EU. Existing research offers both expectations and this article aims to adjudicate the issue based on data from the European Social Survey for all EU member states for the period 2004-2008. They find that individual trust in national parliaments positively shapes individual trust in the European Parliament, and that this is the strongest predictor for trust in the European Parliament, all else equal.

Harteveld, van der Meer, and de Vries (2013) arrive at similar results using Eurobarometer data for 2009 for all EU member states. They examine three alternative explanations of trust in the EU: rational evaluations of the democracy and performance of the EU, territorial identity, and trust in domestic institutions. While they find support for all three explanations, trust in domestic institutions has by far the greatest impact. The predicted trust in the EU for a person with high trust in domestic institutions is 50 percentage points higher than for a citizen with low trust in domestic institutions.

A third example from research on the EU is Armingeon and Ceka (2014), who seek to explain the decline in support for the EU during the recent economic recession. They analyze whether the drop in support is related to the EU’s imposition of austerity reforms, the performance of the national economy, or trust in the national government. Using data from 133 national surveys from the 27 EU member states at the time, they find that the drop in support for the EU is best explained by citizens’ trust in national governments. All else equal,

\textsuperscript{2} One is hard-pressed to find any study that includes measures of the perceived legitimacy of domestic institutions in the analysis and does not report strong effects. Only very few works report a reverse relationship using measures at the country level, while the relationship remains positive at the individual level (Sánchez-Cuenca 2000; Kritzinger 2003; Muñoz, Torcal, and Bonet 2011)
the probability of trusting the EU is 50 percent higher for citizens who trust their national government compared to those who do not.

Inspired by the strength and consistency of this finding in the EU, several recent contributions examine the national-international legitimacy link in other international institutions. Schlipphak (2015) explores the determinants of public support for the African Union (AU) and the Union of South American Nations (UNASUR). He tests three alternative models, privileging economic gains, socio-psychological dynamics, and trust in domestic institutions, based on data from the Afrobarometer and Latinobarometer in 2009. In both regions, Schlipphak finds the strongest effects for trust in domestic institutions. Moving from the lowest to the highest category of the trust variable makes citizens two times more likely to express a positive evaluation of the regional organization.

Exploring determinants of confidence in the UN, Dellmuth and Tallberg (2015) test the explanatory power of three models, focusing on institutional performance, interest representation, and confidence in domestic institutions. Using World Values Survey data from 1999-2001 on 26 countries worldwide, Dellmuth and Tallberg, too, find more support for confidence in domestic institutions than for any alternative explanation. Again, the effect is substantively large: for a one-unit increase in their index of domestic confidence, the odds of more confidence in the UN increase by as much as 71 percent.

Next to these articles, a range of other contributions arrive at similar findings in different settings. Johnson (2011) examines explanations of trust in the UN, WTO, and IMF, and finds that trust in the domestic government (a control variable in her model) has the strongest effect of all. Sattler and Urpelainen (2012) demonstrate how government trust interacts with economic performance and treaty conditions to shape the likelihood of citizens voting yes or no to new EU treaties in national referenda. Voeten (2013), finally, arrives at similar findings in an analysis of trust in international courts. Based on data from the Eurobarometer in 2007
and the Afrobarometer in 2008, he demonstrates that trust in the European Court of Justice (in EU member states) and the International Criminal Court (in Uganda) first and foremost is associated with trust in domestic courts.

In sum, there is remarkable consistency across existing contributions that an individual’s perception of the legitimacy of domestic institutions is a robust and strong – usually the strongest – predictor of that individual’s perception of the legitimacy of international institutions. This finding holds for different data sources and points in time. It is consistent across different types of national and international institutions. It is robust across multiple specifications of legitimacy: trust, support, and confidence.

The Conventional Wisdom

In existing literature, the strong association between national and international legitimacy is commonly interpreted ad hoc to be a function of citizens’ poor awareness of international institutions. In this vein, Harteveld, van der Meer, and de Vries (2013) suggest that the association between trust in national and European institutions is a result of a “logic of extrapolation,” where experiences in the domestic context are used to form opinions about the EU. Similarly, Armingeon and Ceka (2014, p. 82) conclude that “support for the EU is derived from evaluations of national politics and policy, which Europeans know far better than the remote political system of the EU.” Dellmuth and Tallberg (2015, p. 471) advance the same interpretation of their finding in the UN: “For many citizens, IOs are complex and distant organizations, whose legitimacy is best approached via heuristics and cues derived from the more familiar national political context.” Schlipphak (2015: 367), finally, echoes this account in his work on the AU and UNASUR, when claiming that this link reflects “general satisfaction with or broad trust in domestic political actors that is extrapolated to a more diffuse trust of political actors operating at other levels beyond the national level.”
This interpretation follows in the steps of a large literature about the use of heuristics in attitude formation. Public opinion scholars have long argued that most citizens have low-quality opinions. While low-quality opinions are volatile and based on no or partial knowledge, high-quality opinions are stable, consistent, informed, and connected to abstract principles and values (Chong and Druckman 2007, p. 103). The implication is that citizens may rely on cognitive heuristics to help them form attitudes toward political institutions. A heuristic is a mental shortcut that allows an individual to form a judgment and make a decision more efficiently (Simon 1957; Kahneman, Tversky and Slovic 1982).

According to previous interpretations of the domestic-international link, perceptions of legitimacy vis-à-vis domestic institutions may function as such a heuristic for the formation of attitudes toward international institutions. According to these accounts, citizens are most familiar with, and have most developed attitudes toward, the central political institutions at the national level, notably, the domestic government and legislature. These are the institutions that feature most prominently in national news media and that citizens engage with through national elections. In comparison, global governance institutions are distant, less well covered in news media, and less open for citizen engagement. Individuals may therefore use their legitimacy perceptions of the domestic institutions they know as a proxy for their legitimacy perceptions of the international institutions they know less well.

If this mechanism is at play, we would expect the association between domestic and international attitudes to be particularly strong among the politically unaware (Karp, Banducci and Bowler 2003; Druckman and Nelson 2003). Political awareness means having a developed understanding of politics as a result of following news and social media about political events, discussing politics with friends, and having the education to make sense of complex political processes (Luskin 1990; Delli Carpini and Keeter 1996). Citizens with a higher level of political awareness should have more developed knowledge of international
institutions, be better able to form distinct judgments about each institution, and therefore rely less on perceptions of domestic institutions as a heuristic when forming opinions about international institutions.

To examine this explanation systematically, we will test the hypothesis that the effect of domestic on international legitimacy perceptions is weaker among relatively more politically aware citizens (political awareness hypothesis).

The Argument: Social Trust as an Antecedent Factor

Our alternative argument builds on a different rationale. What if the link between domestic and international legitimacy perceptions is not a result of citizens using the first to form attitudes about the second, but a product of a third factor – an omitted variable – affecting both? Drawing on research in social psychology, we theorize social trust as such an antecedent factor.

We define trust as an enduring individual predisposition in terms of tending to trust other people or not. Social trust is claimed to have positive effects on a number of normatively desirable social and political outcomes (for overviews of the literature in sociology and political science, see Misztal 1996; Delhey and Newton 2003). At the individual level, citizens who believe that most other people in society can be trusted are more inclined to be honest and altruistic (Fukuyama 1995), support democratic institutions (Brehm and Rahn 1997), participate more in politics (Putnam 2000), and to be more tolerant toward minorities (Uslaner 2002). At the societal level, countries, regions, or cities with more trusting people tend to have better working democratic institutions (Putnam 1993), have greater economic equality (Rothstein and Uslaner 2005), and be more willing to push for the creation of multilateral institutions (Rathbun 2011).
In line with this literature, we expect social trust to shape both domestic and international legitimacy perceptions. While trust is a general belief about the trustworthiness of other people in society, legitimacy perceptions are directed at specific international institutions. We build on recent research showing that social trust systematically affects confidence in domestic political institutions – the common empirical measure for legitimacy perceptions. People who are trusting are more likely to expect good intentions from other people, making it easier to have confidence in political institutions involving rule by, of, and for the people (Brehm and Rahn 1997). This relationship has been established in a range of studies measuring social trust and legitimacy perceptions at the individual level (e.g., Freitag and Bühlmann 2009; Newton and Zmerli 2011), and at the aggregate country level (e.g., Inglehart 1997; Newton and Norris 2000).

We join those who locate the sources of this effect at the individual level, with the socio-psychological dynamics of persons (Newton and Zmerli 2011; Uslaner 2002). Glanville and Paxton (2007) refer to this approach as the “psychological propensity model.” It claims that trust is a core personality characteristic that is mainly learned early in life and linked to other traits, such as a sense of control in life, a belief in inter-personal cooperation, and an agreeable, optimistic, and conscientious disposition (Evans and Revelle 2008; Uslaner 2002). Uslaner (2002) refers to such trust as moralistic, because it is rooted in generalized moral judgments about the inherent trustworthiness of others. Rotter (1980, p. 1), similarly, describes it as the “generalized expectancy held by an individual that the word, promise, oral or written statement of another individual or group can be relied on.” This model suggests that individuals are psychologically consistent in their trust in people. They are either more or less generally trusting of others. Understood this way, social trust best explains differences between individuals, not across particular objects of trust.
The implication of this logic is that the causal chain leading to perceptions of international institutions does not start with confidence in domestic institutions. Instead, citizens’ attitudes toward both domestic and international institutions are ultimately derived from their general trust predisposition. If a citizen’s confidence is consistently high or low for all institutions, domestic as well as international, the result will be strong associations across institutions in the aggregate. This mechanism suggests that social trust functions as an antecedent factor simultaneously affecting citizens’ attitudes toward domestic and international institutions. We refer to this as the social trust hypothesis.

Research Design

To examine the hypotheses, we collected a novel data set based on a public opinion survey conducted online in December 2014 and January 2015. Since existing large-scale surveys, such as the World Values Survey, do not yield the measures necessary for testing the relative explanatory power of our hypotheses, we designed a cross-country and cross-institutional survey to enable such a rigorous assessment. The survey covered five international institutions: EU, IMF, NAFTA, WTO, and UN. This selection ensures variation in issue-area orientation (finance, trade, and multi-issue) and membership scope (regional and global), allowing us to explore the scope conditions of our argument. At the same time, these are all institutions that possess extensive authority in their respective domains and are known to citizens in the member states at a basic level (cf., Gallup International Association 2012), making it meaningful to inquire about perceptions of legitimacy.

We conducted the survey in Germany, Sweden, the UK, and the US. This country selection has three distinct advantages. First, all are democracies. Holding levels of democracy constant improves the equivalence of cross-national measures, since legitimacy for political institutions may mean different things to citizens of democracies and autocracies
Second, the four countries vary in terms of political systems, allowing us to assess the scope conditions of the results. Germany and the US are federal states, whereas Sweden and the UK are unitary states.

Third, all four countries have very high levels of Internet penetration (over 80 percent), enabling the online survey to generate data representative for the bulk of the population, thus increasing our confidence in the external validity of the findings.

Within these countries, samples were drawn from YouGov online panels. YouGov is a well-reputed global survey company frequently used by social scientists (Berinsky, Huber and Lenz 2012). It relies on targeted quota sampling with the aim to achieve representative samples at the end of the fieldwork. The samples for our survey were matched to the full populations of the four countries using age, education, gender, and party identification. A total of 602 interviews were conducted in Sweden, 657 in Germany, 653 in the UK, and 628 in the US. YouGov invited the target group to participate in the study through e-mail, informing the respondents about the length of the study and offering monetary incentives to participate. Those deciding to participate could access the survey through a link and answer the questions online.

**Operationalization**

The ten-minute questionnaire included items about legitimacy perceptions of domestic and international institutions and their potential correlates. To measure international institutions’

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3 To identify federal and unitary states, we rely on the common definition that federal states constitutionally guarantee the autonomy and tax power of provinces, whereas unitary states do not.

4 Moreover, prominent national surveys nowadays rely on YouGov, among them the British Election Study.

5 For a detailed discussion of the sampling procedure for YouGov’s online panels, see Ansolabehere and Schaffner (2014). In the US, an additional criterion was ethnicity.

6 YouGov’s incentive program is points-based. Point values are determined by survey length and are allocated upon survey completion. Respondents can use these points either for participation in prize draws or for a cash payment.

7 See Appendix A for the exact question wording. Appendix B shows descriptive statistics and correlations between all variables.
legitimacy, we use a question about citizen confidence in international institutions. Confidence is an established measure for the perceived legitimacy of both domestic (e.g., Caldeira 1986; Bühlmann and Kunz 2011; Brehm and Rahn 1997) and international political institutions (e.g., Caldeira and Gibson 1995; Norris 2000; Dellmuth and Tallberg 2015), and typically used synonymously with trust in political institutions. Confidence refers to a reservoir of goodwill toward an institution that is largely independent of short-term satisfaction with its outputs (Easton 1975; Gibson, Caldeira, and Baird 1998; Tyler 2006). Thus, confidence has a broad conceptual overlap with the definition of legitimacy as the belief or perception that an institution’s authority is appropriately exercised (Caldeira and Gibson 1995; Hurd 2007; Weber [1922]1978).

We asked the respondents to indicate their confidence in an IO on a quasi-continuous scale from no confidence at all (0) to complete confidence (10). The resulting variable international confidence ranges from 0 to 10, with higher values indicating greater confidence in an IO. Figure 1 depicts the weighted mean international confidence and the respective 95 percent confidence intervals across institutions and countries. The results reveal interesting variation, illustrating the value of a comparative design. The UN enjoys most legitimacy in all countries except the US, where the WTO and NAFTA enjoy about as much confidence. The WTO is the institution with the second-most confidence in all countries with the exception of the US, where NAFTA enjoys slightly more confidence. Whereas the IMF is considered as legitimate as the EU in Sweden, it enjoys less confidence than the EU in Germany, but more confidence than the EU in the UK. Comparing across countries, Swedish respondents tend have most confidence in international institutions and American respondents least confidence. This variation may reflect national historical legacies, as Sweden traditionally has been a

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8 We use survey weights to make sure that our analyses are based on nationally representative samples. YouGov creates a variable denoting the optimal weight that should be assigned to each observation in order to achieve nationally representative results. Figure 1 depicts weighted means and confidence intervals estimated through nonparametric bootstrapping.
staunch supporter of multilateral cooperation, while the US has been dominant within, but still ambivalent toward, multilateral cooperation (Patrick and Foreman 2002; Ruggie 2005).

**FIGURE 1 Mean Confidence in International Institutions in Four Countries**

![Graph showing mean confidence in international institutions across four countries: NAFTA, EU, WTO, IMF, and UN. The x-axis represents international confidence, and the y-axis represents the countries. The graph includes markers for Sweden, UK, Germany, and US.](image)

*Notes:* Weighted mean values with respective 95% confidence bounds, based on bootstrapped standard errors. Dotted line shows mean confidence across groups. The question about confidence in the EU was only asked in Germany, Sweden, and the UK, and the question about confidence in NAFTA only in the US.

We examined item non-response for the confidence measure to control for the possibility that citizens know little or nothing about international institutions. As much as 92 percent of

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9 We test whether respondents’ characteristics are correlated with item non-response, regressing a dummy variable (1=response) on age, gender, education, and fixed effects for international institutions. The coefficients of age, gender, and education are statistically significant and positive. However, as the dependent variable is relatively unequally distributed, we rely on effect sizes as well. Simulations changing the independent variables from their minimum to their maximum (cf. King, Tomz, and Wittenberg 2000) show that differences in response probabilities are about two percent for each of the three variables, which is an extremely small effect. We interpret this as an indication that our data is missing at random (Rubin 1976).
the respondents gave a substantive answer to the question about the UN and about 95 percent to the question about the EU. About 81 percent of the respondents chose to indicate their confidence in NAFTA, and roughly 77 percent of the respondents indicated a confidence level for the IMF and the WTO. Although the selection of the ‘don’t know’ option is not a direct measure of political knowledge of these international institutions, it gives an indication of whether a respondent is well-informed or little informed. Hence, we draw the tentative conclusion that a large majority of the respondents are familiar with the five international institutions at a basic level, with most people being familiar with the UN and the regional institutions.10

Both hypotheses require a measure of perceptions of the legitimacy of national political institutions. We create this measure using responses to a question about respondents’ confidence in the national government. National confidence is based on the same question formulation and answer scale as the question about confidence in international institutions.

To test the political awareness hypothesis, we use several measures. Political awareness is a multifaceted and complex phenomenon, consisting of a mix between the motivation to gather political information and individual cognitive ability to process the information (Zaller 1992). To capture political awareness, we therefore rely on three measures pertaining to education, political interest, and information gathering. Education is often used as an indicator for a person’s cognitive ability to process new political information (Zaller 1992; Delli Carpini and Keeter 1996). We code education based on country-specific variables on a four-point scale, ranging from ‘no formal qualifications or primary school’ (1), ‘secondary education’ (2), and ‘post-secondary non-tertiary education’ (3) to ‘tertiary education (4). In addition, we include a measure tapping political interest. This measure is based on a question about the frequency with which respondents discuss politics with friends: ‘frequently’ (3),

10 Gallup International Association (2012) reports similar results.
‘occasionally’ (2) or ‘never’ (1). It is based on the assumption that individuals who talk about politics more frequently are more likely to have developed skills to comprehend new political information (Gabel and Scheve 2007). Education and political interest are the two most commonly used indicators for political awareness in existing literature, following in the steps of Zaller (1992). Last, we include a measure media exposure capturing how often people report that they follow different news media. It ranges on a scale from ‘frequently’ (3) to ‘occasionally’ (2) to ‘never’ (1). While media exposure contributes positively to people’s political awareness (Neuman 1986), extensive evidence suggests that it is the poorest of the three measures (Price and Zaller 1993; Zaller 1992, p. 334; Strömbäck and Shehata 2010). Still, we include media exposure in order to provide a fair and broad test of the political awareness hypothesis. The observable implication of this hypothesis is that the effect of domestic legitimacy on international legitimacy should be stronger among the politically less aware, as they are more likely to rely on their confidence in domestic institutions as a heuristic.

To test the social trust hypothesis, we rely on a conventional measure of social or generalized trust. Inspired by the European Social Survey (2014) and recent scholarship (Newton and Zmerli 2011), we measure social trust based on a question whether the respondent would say that ‘most people can be trusted’ (10) or that ‘you can’t be too careful’ (0). This measure captures the extent to which people trust each other and people they do not personally know (Brehm and Rahn 1997). Mean trust is highest in Sweden (5.5, N=1972) and the UK (5.3, N=2179), and lowest in Germany (4.3, N=2362) and the US (4.9, N=2004).11 The observable implication of the social trust hypothesis is that social trust should increase confidence in both domestic and international institutions, and that the effect of national on

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11 The numbers are weighted means with the aim to estimate the population mean.
international legitimacy should decrease when testing simultaneously for an effect of social trust.

In addition, the analysis includes several exogenous variables. To begin with, we include variables tapping satisfaction with specific aspects of the domestic government to investigate whether satisfaction with government procedures (Zmerli 2010) and performances (Torgler 2008) shapes confidence in national and international institutions. The variable *satisfaction with government performance* measures whether a person agrees (1) or disagrees (0) that their government is doing a good job. *Satisfaction with government procedures* captures whether a person agrees (1) or disagrees (0) that their government’s decisions are democratic.

We also include a variable tapping *cosmopolitan identity*. People with a cosmopolitan orientation identify more with groups or individuals in other countries or world regions, are more aware of transboundary problems, and consider international institutions better suited to address these problems than national governments (Norris 2000; Ecker-Ehrhardt 2016). People with a cosmopolitan identity may therefore be more likely to have confidence in international institutions. We measure *cosmopolitan identity* through a question about territorial identity (Hooghe and Marks 2005), where people could rank-order whether they identify most with the world, their world region, their country, or their subnational territory. We code a dichotomous variable 0 if people rank either their subnational or national territory first or second, and their world region or the world third or fourth; and 1 if people rank either their world region or the world first or second and their subnational or national territory third or fourth. About 20 percent of the respondents are cosmopolitans, whereas 80 percent have a national identity.

Finally, *Age* enters the analysis as a continuous variable, and *gender* as a dichotomous measure (1=female).
Model Specification

To test the hypotheses, we examine the causal pathways linking confidence in domestic and international institutions through structural equation modeling (SEM). Since the dependent variable international confidence is quasi-continuous, we use least squares regression. The social trust hypothesis receives empirical support if the positive effect of confidence in national institutions on confidence in international institutions decreases when taking into account the effect of social trust on both confidence measures. We examine this by estimating the following equations both with and without social trust, calculating the difference in coefficients for national confidence:

\[ M_i = \alpha_{i0} + \alpha_1 X_i + \xi_i V_{i1} + \epsilon_i \]  
\[ Y_i = \beta_{i0} + \gamma X_i + \beta_1 M_i + \xi_i W_{i2} + \epsilon_i \]

\( Y_i \) refers to international confidence for each respondent \( i \), \( X \) to social trust, \( M \) to national confidence, and \( V \) as well as \( W \) to vectors for individual-level controls. \( \alpha_0 \) and \( \beta_0 \) are intercept terms and \( \epsilon \) refers to a regression residual. The coefficients \( \alpha_1 \) and \( \beta_1 \) are used to assess the statistical significance and strength of the supposed indirect effect of social trust on confidence in international institutions via confidence in national institutions. \( \beta_1 M_i \) is used to denote the level of confidence in government, which can have values from 0 to 10. We then use causal mediation analysis, a form of SEM (Imai, Keele, and Tingley 2010; Imai, Keele, and Yamamoto 2010), to illustrate the size of the direct effect of social trust on international confidence compared to the mediated effect of social trust on international confidence through national confidence.

The political awareness hypothesis receives empirical support if the positive effect of national on international confidence is smaller among the politically aware. We add an
interactive term between national confidence and the political awareness indicators to equation 2, where Z refers to the variables tapping political awareness:

\[ Y = \beta_0 + \gamma X_i + \beta_1 M_i + \beta_2 Z_i + \beta_3 MZ_i + \xi W_{12} + \varepsilon_i \]  

(3)

Results

We begin by exploring the bivariate relationship between confidence in national and international institutions. Figure 2 depicts the correlation between the two confidence measures \((r=0.4222, p=0.000, N=8533)\). Despite the moderately high correlation, the observations are fairly widely spread across all values of the variables, indicating that quite a few people have relatively strong confidence in their government but relatively weak confidence in international institutions, and vice versa. Examining the country-specific correlations reveals interesting variation as well (Table 1). In Sweden and the UK, national and international confidence are only weakly correlated, whereas they are moderately highly correlated in Germany and the US. These differences are driven by the relatively weak correlation between national and international legitimacy in the context of the EU, whereas the correlations are moderately high for the global institutions and highest in the context of NAFTA.
TABLE 1  Bivariate Correlations Between National and International Confidence

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>Sweden</th>
<th>UK</th>
<th>US</th>
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</thead>
<tbody>
<tr>
<td>Pearson’s r</td>
<td>0.65***</td>
<td>0.17***</td>
<td>0.26***</td>
<td>0.61***</td>
</tr>
<tr>
<td>N</td>
<td>2,370</td>
<td>1,950</td>
<td>2,201</td>
<td>2,012</td>
</tr>
<tr>
<td></td>
<td>UN</td>
<td>IMF</td>
<td>WTO</td>
<td>EU</td>
</tr>
<tr>
<td>Pearson’s r</td>
<td>0.44***</td>
<td>0.44***</td>
<td>0.45***</td>
<td>0.33***</td>
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<tr>
<td>N</td>
<td>2,318</td>
<td>1,967</td>
<td>1,934</td>
<td>1,807</td>
</tr>
</tbody>
</table>

Notes: Country-specific and institution-specific analysis of correlation depicted in Figure 2.

Next, we test the social trust hypothesis by estimating equations (1) and (2).\footnote{Appendix C details all regression results in greater detail. All models include fixed effects for international institutions, yet we choose not to report them here for the sake of efficiency.} We compute both unstandardized (Figures 3a and 3b) and standardized coefficients (Figures 3c
and 3d). To begin with, it is worth noting that overall fit is excellent, with an $R^2$ of about 0.56 percent for model 3a and about 0.59 percent for model 3b, suggesting that the overall model explains close to 60 percent of the variation in international confidence. Figure 3a shows the results of the estimation without social trust. A one-unit increase in national confidence increases international confidence by about 0.34 on a scale from 0 to 10. When adding social trust in Figure 3b, the size of the coefficient of national confidence drops by about 12 percent to about 0.30. A one-unit increase on the trust scale raises confidence in national institutions by 0.14 and in international institutions by 0.18, corroborating the expectation that social trust is an antecedent of both national and international confidence. The standardized regression coefficients in Figure 3d show that the effect of social trust on international confidence is the second largest after the effect of national confidence, and the effect of social trust on national confidence is the second largest after the effect of satisfaction with government performance.

To express these relationships in terms of the proportion of the effect of social trust mediated through national confidence, we conduct causal mediation analysis. We calculate total, direct, and indirect effects of social trust by estimating the sampling distribution of the effects through bootstrapping and then using information from the bootstrap sampling distribution to generate confidence intervals for the conditional indirect effect (Preacher, Rucker, and Hayes 2007). We depict the results in Figure 4. The first estimate in Figure 4 shows the average causal mediation effect (ACME), that is, the effect that social trust has on international confidence. The total direct effect of social trust on international confidence when national confidence is held constant is: $\tau_i = \mathbb{E}\{\delta(x) + \zeta(1-x)\}$.

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13 The total, direct, and indirect effects of social trust are obtained as follows. $Y(x, m)$ is used to denote the potential outcome that would result if the independent and mediating variables equal $x$ and $m$, respectively. The regression analysis thus yields an average causal mediation effect or indirect effect among all people in the population of which the analysis sample of respondents $i$ can be considered as representative: $\delta(x) = \mathbb{E}\{Y_i(x, M_i(10)) - Y_i(x, M_i(0))\}$, where the independent variable $x$ runs from its minimum to its maximum value [0, 10] and the mediator has potential values from 0 to 10. Similarly, averaging the direct effect of M on Y across all people in the total population yields the average direct effect: $\zeta(x) = \mathbb{E}\{Y_i(10, M_i(x)) - Y_i(0, M_i(x))\}$, for $x = [0, 10]$. Unlike the indirect effect, the controlled direct effect is defined in terms of specific values of the mediator rather than its potential values $M_i(10)$ or $M_i(0)$. For example, $\zeta(10)$ represents the direct effect of social trust on confidence in international institutions while holding the level of confidence in domestic institutions constant at the level that would be realized among people that think that most people can be trusted. The total direct effect of social trust on international confidence when national confidence is held constant is: $\tau_i = \mathbb{E}\{\delta(x) + \zeta(1-x)\}$. 

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international confidence through national confidence. The average direct effect (ADE) refers to the direct effect of social trust on international confidence, controlling for national confidence. The total effect equals the sum of the ACME and the ADE. Substantively, the results from Figure 4 show that a substantial proportion – about a fifth – of the effect of national on international legitimacy can be explained by social trust as a third, antecedent factor (see Appendix D for more detailed results).

We examine the scope of our argument by performing country- and institution-specific analyses. Table 2 reveals that our results hold in all examined countries except for the US, and in all institutions except for NAFTA. With this exception, the results strongly endorse the social trust hypothesis.
FIGURE 3 Effect of Social Trust

Notes: All models include fixed effects for international institutions. Panels (a) and (b) show unstandardized coefficients, while panels (c) and (d) shows beta coefficients. *p < 0.05, **p < 0.01, ***p < 0.001. Panels (a) and (c): N = 7,663, R² = 55.71. Panels (b) and (d): N = 7,640, R² = 58.49.
To better understand the idiosyncrasies in the case of the US and NAFTA, we replicated the models depicted in Figure 3 for US citizens separately for all international institutions but the EU. In the case of NAFTA, the effect size is not substantially reduced when adding social trust (see Figure 3b), suggesting that people who have confidence in the US government are more likely to have confidence in NAFTA, irrespectively of their social trust. We find similar results for the link between national and international confidence among US citizens in the context of the UN (difference of 0.00), the IMF (0.01), and the WTO (0.02) (see Appendix E for detailed results). These findings suggest that there are particularities in US attitudes toward multilateral cooperation, rather than particularities in citizens’ confidence in NAFTA. This pattern may be related to a number of factors. To begin with, the US has experienced a decline in social trust since the 1960s, leading to relatively low levels of social trust compared to other industrialized democracies (Putnam 2000), although there is recent evidence of a reversed trend among those belonging to the “post-9/11 generation” (Sander and Putnam 2010). Moreover, among our four countries, US respondents have least confidence in
international institutions and are most influenced by their confidence in the national
government when forming opinions about international institutions.

To evaluate the political awareness hypothesis, we examine equation (3). Figure 5a-c
shows that the results for a conditioning effect of political awareness are mixed. Only the
interaction term between national confidence and media exposure is statistically significant.
The effect of national on international confidence is neither conditioned by education nor by
political interest. To illustrate the conditional effect of media exposure, Figure 6 shows that
the effect of confidence in government on confidence in international institutions decreases
the more often people gather information through news media. This negative effect suggests
that citizens who are relatively better informed about politics rely less extensively on
heuristics to form opinions about international institutions. Since media exposure is the least
preferable indicator for political awareness among the three measures we tested, we interpret
this as partial and rather weak support for the conventional interpretation of the national-
international legitimacy link.

<table>
<thead>
<tr>
<th>Germany</th>
<th>Sweden</th>
<th>UK</th>
<th>US</th>
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</thead>
<tbody>
<tr>
<td>Difference in effect size</td>
<td>0.04</td>
<td>0.05</td>
<td>0.03</td>
</tr>
<tr>
<td>Percentage change</td>
<td>–8%</td>
<td>–3%</td>
<td>–1%</td>
</tr>
<tr>
<td>N</td>
<td>2,183</td>
<td>1,681</td>
<td>1,936</td>
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<tr>
<td>Difference in effect size</td>
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<td>0.05</td>
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</tr>
<tr>
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<td>2,056</td>
<td>1,786</td>
<td>1,748</td>
<td>1,587</td>
</tr>
</tbody>
</table>

Notes: Differences in effect size of national confidence on international confidence from country-specific and
institution-specific estimations when adding social trust to the analyses depicted in Figure 3. All country-
specific models include fixed effects for institutions. The effect of national confidence on international
confidence is statistically significant in all models.
FIGURE 5  Conditional Effects of Political Awareness

Notes: All models include fixed effects for international institutions. Unstandardized coefficients. *p < 0.05, **p < 0.01, ***p < 0.001. Panel (a): N = 7,640, $R^2 = 58.53$. Panel (b): N = 7,679, $R^2 = 58.78$. Panel (c): N = 7,708, $R^2 = 60.78$. 

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Table 3 explores the country- and institution-specific results for the political awareness hypothesis. The finding that only media exposure moderates the effect of national on international confidence is consistent across all institutions except for NAFTA. The country-specific results indicate that this finding travels to Sweden, but not to Germany, the UK and the US. In the latter three countries, all interaction terms between the indicators for political awareness and national confidence are statistically insignificant for all international institutions. By contrast, in Sweden, the interaction terms between media exposure and national confidence are statistically significant for all institutions (see Appendix E for detailed results). Particularities of the countries’ media systems may play a role. For instance, low

\[ \text{ Exceptions are the interactive terms between: media exposure and national confidence in the WTO in the UK; and political interest and national confidence in the WTO in the US (see Appendix E).} \]
coverage of international institutions in the news could mean that greater media exposure would not necessarily translate into less reliance on heuristics. In sum, the results suggest weak evidence for the political awareness hypothesis.

Turning to the results for the control variables in Figures 3 and 5, the findings tie in with previous research showing that younger people tend to trust international institutions more (Norris 2000). Interestingly, the effect of cosmopolitan identity on international confidence is not robust across models, which contradicts findings in some previous research that cosmopolitans trust international institutions more (e.g., Torgler 2008; Dellmuth and Tallberg 2015).

Robustness checks

These results are robust across a range of alternative model specifications (see Appendix F). First, we replicate the baseline models including social trust and excluding any interaction terms by allowing for international confidence to affect national confidence, controlling for potential reverse causality. We do not find evidence of a reverse relationship.

Second, we investigate social trust as an endogenous variable that may be affected by citizens’ perceptions of the quality of domestic institutions, which is a prominent argument in the literature on the determinants of social trust (Brehm and Rahn 1997; Rothstein and Stolle 2008). We replicate all models by testing for independent effects on trust of satisfaction with domestic government democracy and performance, respectively. While our results remain robust, we do find that satisfaction with domestic government performance positively affects social trust, indicating that governments through their performance may counteract low trust levels in society.
### TABLE 3  Conditional effects of political awareness indicators

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<th>US</th>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>-0.03</td>
<td>-0.05</td>
<td>-0.01</td>
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<tr>
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<td></td>
<td></td>
<td></td>
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<td>0.06</td>
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<td>-0.07</td>
</tr>
<tr>
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</tr>
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<td></td>
<td></td>
</tr>
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<td></td>
<td>-0.02</td>
<td>-0.24***</td>
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<tr>
<td><strong>Education * National confidence</strong></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>0.00</td>
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<tr>
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<td></td>
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<td><strong>Media exposure * National confidence</strong></td>
<td></td>
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<tr>
<td></td>
<td>-0.15**</td>
<td>-0.13**</td>
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</tr>
<tr>
<td>$R^2$=60.88</td>
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Notes: Unstandardized coefficients based on country- and institution-specific analyses of models depicted in Figure 5. *p < 0.05, **p < 0.01, ***p < 0.001. All country-specific models include fixed effects for institutions.
Third, we assess if the nature of domestic political systems matters for the explanatory power of the two hypotheses. Citizens in federal countries may be more used to thinking about levels of governance as interlinked (Hooghe and Marks 2003). To test this, we include a country-level measure that distinguishes between federal (1) and unitary states (0) and interact this dichotomous measure with national confidence. The results suggest that the effect of national on international confidence indeed is stronger in federal states. This finding leads us to further question the conventional wisdom that confidence in national institutions functions as a simple heuristic when forming opinions about international institutions. Instead, it suggests that citizens link national to international confidence based on an informed understanding of multi-level governance. Other results remain robust.

Fourth, legitimacy perceptions may be shaped by political ideology (Rohrschneider 2002; Mansfield and Mutz 2009). Consequently, we estimate all models by including a variable ideology based on a question about self-placement on a scale from ‘left’ (0) to ‘right’ (10). We do not find evidence for any effect of ideology on confidence in international institutions. The main results show all signs of robust and consistent estimators.

**Concluding Discussion**

Based on the assumption that most people know little about international institutions, existing literature typically interprets the strong effect of national on international legitimacy as a result of heuristics. This article has offered the first systematic and comparative analysis of this interpretation, and has advanced an alternative argument for why national and international legitimacy perceptions are linked.

The central result is that social trust functions as an antecedent factor, driving legitimacy perceptions in relation to both domestic and international institutions. Existing analyses are mistaken in assuming that the causal process starts with citizens’ confidence in
domestic institutions, which subsequently is extrapolated to international institutions. Rather, citizens with a trusting predisposition tend to conceive of both types of institutions as legitimate. The conventional interpretation that citizens use national institutions as proxies when evaluating international institutions receives only weak support. The two most common indicators of political awareness, education and political interest, do not condition the national-international legitimacy link. Only a third, less convincing indicator of political awareness, media exposure, shapes the association between national and international legitimacy in one of the four examined countries, Sweden.

These findings are consistent across four of the five international institutions we have analyzed. In the EU, IMF, WTO, and UN, social trust functions as an important antecedent source of both national and international legitimacy perceptions, while there is only weak support for a conditional effect of political awareness. These broad similarities across four very different international institutions suggest that our findings capture general patterns in global governance. However, neither of these results holds for US respondents in relation to NAFTA. This exception reflects particularities in US attitudes toward multilateral cooperation, rather than NAFTA per se.

The broader implications of these findings are threefold. First, our results suggest that social trust has broader political consequences that previously assumed. Research in Comparative Politics has already established that social trust is beneficial for political participation, civic mobilization, tolerance against minorities, quality of governance, economic growth, and other positive outcomes. The findings in this article demonstrate that these beneficial effects extend to the legitimacy of international institutions. We thereby join others who have identified consequences of social trust for international cooperation (Rathbun 2011). Given that popular legitimacy both has intrinsic value, as a precious component of
democratic governance, and facilitates effective problem-solving by paving the way for more ambitious policies and better compliance, this is an important finding.

Second, the results imply that the legitimacy of international institutions partly is explained by factors beyond the control of these institutions and their member governments. The past two decades have witnessed growing public contestation of international institutions, met by intensified efforts of these institutions to legitimize themselves (Brassett and Tsingou 2011; Zaum 2013). Through discursive and institutional legitimation efforts, international institutions have sought to convey the message that they rule democratically and help to solve real-world problems. By showing how legitimacy perceptions partly are anchored in stable personality characteristics, our findings suggest that such efforts to actively shape citizens’ attitudes toward international institutions are up against some deep-rooted constraints.

Third, this article underscores the importance of studying the patterns and sources of legitimacy comparatively across international institutions. Yet, so far, this is a rare occurrence, as a consequence of the fragmented nature of existing large-scale survey data such as the World Values Survey or the regional barometers. The comparative scope of the analysis suggests that citizens’ attitude formation is not systematically different across international institutions that differ in issue orientation and membership scope. At the same time, the analysis points to differences between US and European citizens in their attitudes toward multilateral cooperation, with implications for the legitimacy of international institutions. These findings underline the significance of expanding public opinion research on international institutions beyond its predominant focus on Europeans and the EU.
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