External threats and group identity - The effect of the Russian invasion in Ukraine on European Union identity

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Abstract

A major theory from social psychology claims that external threats can strengthen group identities and foster cooperation. This paper exploits the 2014 Russian invasion in Ukraine as a sudden increase in the perceived military threat for eastern European Union member states. Comparing low versus high-threat member states in a difference-in-differences design, I find a sizable positive effect on EU identity. It is associated with higher trust in EU institutions and support for common policies. Lower level identities are not affected and regional variation in the effect supports distance to Russia and the size of Russian minorities as driving high-threat status.

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1 Introduction

For most of human history people have lived in small groups of up to 150 individuals, yet the most important units of political and economic organization today are much larger. Which forces keep those units together and allow them to cooperate at a larger scale? The German sociologist Georg Simmel (2010) hypothesized in his seminal work that heterogeneous groups "will easily break apart unless a danger, shared by all, forces them together" . The more heterogeneous a political unit is with regard to history, language or ethnicity, the more relevant the existence of a joint group identity. Hence, we can ask whether those units like "republics, as voluntary associations of sub-groups and individuals, require a constant fear of an external threat to hold them together" (Montesquieu, 1777).

The role of external threats as an important aspect contributing to a stronger common group identity is highlighted by modern social psychology (e.g. Giles and Evans, 1985; Tajfel, Turner, Austin, and Worchel, 1979), but existing experimental evidence focuses mostly on social or status threats. Identifying the effect of external military threats is hard to achieve in an experiment, but also extremely challenging in a real-world setting. In most settings, the effect of a threat cannot be disentangled from the effect of conflict (Bauer, Blattman, Chytilová, Henrich, Miguel, and Mitts, 2016), serving in the military (Jha and Wilkinson, 2012), or occupation and destruction (Dell and Querubin, 2017). There is existing correlational evidence in political science, focusing on the relationship between the Cold War threat and presidential support as well as bipartisan consensus in the US, but it finds inconclusive results (Meernik, 1993; McCormick and Wittkopf, 1990; Wolfe, 1984).

This paper exploits the Russian invasion in Ukraine in 2014 as exogenous variation in the military threat for European Union (EU) member states. To achieve comparability, I focus on Eastern European member states that share experiences with Soviet rule during the Cold War. I show that among those states, the perceived military threat was much more salient for the Baltic countries Estonia and Latvia – the high-threat states – which feature a direct land border with Russia and a significant ethnic Russian minority population (see also Laitin, 1998). This enables me to implement a difference-in-differences design, where treated and control group initially exhibit similar trends in EU identity. I show that there are no problematic compositional changes, and my main specification uses a short event window to reduce the impact of other potentially biasing events.

Using large-scale individual-level survey data from Eurobarometer, I find that the increased external threat by Russia caused an overall increase in European identity in EU member states. Using the DiD specification, I find the effect to be statistically highly significant and also quite large, corresponding to more than three-fourths of the cross-country

standard deviation. In line with psychological theories, the stronger identity is not purely instrumental - related to higher benefits from protection - but also causes changes in psychological attitudes, in particular higher trust in EU institutions. Finally, highlighting the importance of identity and the in-group trust that it creates, there is also a positive effect on support for common EU policies.

The first contribution of this paper is to the emerging economics literature identifying causal sources of changes in identity using observational data. Depetris-Chauvin, Durante, and Campante (2020) show how shared experiences can foster a common national identity and reduce the risk of internal conflict, focusing on the effect of sport events. Fouka (2020) shows how repressive policies against an immigrant group in a foreign country can strengthen the identity of that group. Dehdari and Gehring (2019) document that repressive nation-building policies can contribute to the development of a stronger regional identity, and that this correlates with preferences against common central decision-making. The latter two contributions are similar to the degree that the shared group experiences that they consider as a treatment also contain a threat. This paper, to the best of my knowledge, is the first to propose an experimental design based on a natural experiment that allows distinguishing the effect of an external threat from actual conflict or repression.

I also contribute to a growing experimental economics literature emphasizing the importance of culture (e.g Bazzi, Fiszbein, and Gebresilasse, 2020; Desmet and Wacziarg, 2018; Giuliano and Nunn, 2016; Lowes, Nunn, Robinson, and Weigel, 2017), and highlighting the role of group identities for decision-making (see review in Kranton, 2016). Among others, a common identity decreases destructive behavior, increases trust and contributions to public goods (Chowdhury, Jeon, and Ramalingam, 2016; Charness, Cobo-Reyes, and Jiménez, 2014). An important insight from this literature is that group identity measured directly through questionnaires matches revealed preferences in experiments well (Attanasi, Hopfensitz, Lorini, and Moisan, 2016). My results emphasize the external validity and relevance of the experimental studies linking identity to trust and cooperation within groups. While identities are often based on deep-rooted historical factors, my study is evidence that not only experimental manipulations, but also real external shocks have the potential to affect identity in ways that directly influence actual policy preferences.

The third contribution is to the growing literature on nation-building as a pre-requisite for cooperation and common policies, related policies like education (e.g., Cantoni, Chen, Yang, Yuchtman, and Zhang, 2017; Cantoni and Yuchtman, 2013), and their consequences. I also relates to important contributions in political science (e.g., Anderson, 2006; Cederman, 2001; Weber, 1979) and in economic history. We can think of the external threat as reactivating historical memories of Soviet rule. Fouka and Voth (2016) and Ochsner and Roesel (2017)

show how, conditional on sub-national variation in historical exposure, current events influence purchases and voting behavior. Korovkin and Makarin (2019) show that within Ukraine itself, the Russian aggression had a negative effect on trade with Russia even in regions not directly affected by combat. This paper uses the similar historical exposure of Eastern EU member states to establish a valid treatment and control group, and exploits differences in current threat intensity to show an effect on identity, trust, and political cooperation.

Finally, I contribute to the public and political economics literature about fiscal federalism and the size-of-nations (Alesina and Spolaore, 1997; Desmet, Le Breton, Ortuño-Ortín, and Weber, 2011; Dreher, Gehring, Kotsogiannis, and Marchesi, 2017; Gehring and Schneider, 2020, 2018). For a long time, economists assumed preferences about the vertical allocation of power in multi-level governance systems as fixed or at least pre-determined. Understanding how identity affects preferences is a crucial aspect to decide about optimal institutional design and policy choices. In the European Union specifically, questions about futher integration are at the core of the political and academic debate (Dolls, Fuest, Heinemann, and Peichl, 2016). Heterogeneous preferences (Alesina and Wacziarg, 1999) and a weak common EU identity (Ciaglia, Fuest, and Heinemann, 2018) are reasons why some functions that are normally centralized remain the responsibility of lower-level units (Alesina, Angeloni, and Schuknecht, 2005). This study documents how exogenous external events that foster the feeling of belonging to a joint group can lead to a meaningfully stronger identity, and increase support for common centralized policies in federal systems.

2 Threats, identity and cooperation

A formal definition of identity helps to think conceptually about the effect of shocks on identity. Given that objective heterogeneity is larger within than between groups (Desmet, Ortuño-Ortín, and Wacziarg, 2017), this alone is not sufficient to explain support for common states or policies in size-of-nation models (e.g., Alesina and Spolaore, 1997). Instead, we can think of the strength of the identity of an individual i as part of a group j as the *perceived* distance in attributes k to a prototypical group member:

$$I^{i,j} = 1 - \left(\sum_{k \in K} \omega_k (p_k^i - p_k^j)^2 \right)^{1/2} .$$

(1)

The p_k represents attributes of i, and the prototypical group member. The set of attributes K comprises objective differences like language, regional origin or skin color, or deep-rooted attributes like culture and norms. The degree to which they influence identity

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depends on the weights ω_k assigned to each attribute. Group identity is stronger if an individual puts more weight on attributes she shares with other group members compared to those that differ.

External shocks influence identity by changing those weights. This idea that identity is context dependent is emphasized in economic philosophy by Amartya Sen (2007) and in social psychology, for instance by self-categorization theory. (Turner, Oakes, Haslam, and McGarty, 1994, p.458)) explain that context-dependence "is not a sign that the true identity of the person is being distorted by external circumstances." To the contrary, identity needs to be adaptive to be "accurate and useful."

Evolutionary psychology argues that the optimal size of groups needed for finding and sharing food or providing a social safety net is "different from that required for optimal mutual defense" (Brewer, 2000, p.122). Outside events like an external threat favor cooperation in larger groups. This cooperation can be enhanced by a threat for two reasons. The instrumental motive highlighted in social exchange theory suggests that people optimize rationally and support more cooperation at a larger level if its value increases – in our case the importance of protection and security offered by being an EU member.

The other channel, which I highlight in this paper is the strengthening of group identities. A stronger group identity causes group members to internalize group goals and regard them as part of their own utility function. Moreover, it fosters mutual trust, which increases the willingness to cooperate. Trust allows large groups to work well, in particular in times of crisis, by establishing a norm of diffuse reciprocity where people act in the interest of the group beyond cases where reciprocity can be enforced directly. This mechanism is even evident at a biological level. De Dreu, Greer, Handgraaf, Shalvi, Van Kleef, Baas, Ten Velden, Van Dijk, and Feith (2010) show that higher levels of the neuropeptide oxytocin – associated with feeling closer to a group – promote in-group trust and cooperation.

We can regard a military threat as a conflict that has not yet materialized yet, but will do so with a certain probability. In experiments, realistic threats were shown to turn people "into vigorous protagonists of what their in-group stands for" (Stollberg, Fritsche, and Jonas, 2017, p.390), and increase "the collective response of in-group trust" (Fritsche, Moya, Bukowski, Jugert, de Lemus, Decker, Valor-Segura, and Navarro-Carrillo, 2017, p.125). When the group is perceived to be threatened, people tend to do what is good for the group (Weisel and Zultan, 2016), even when that means personal sacrifice.

3 Background: Russia, EU and the Ukraine crisis

The Ukraine crisis allows exploiting the differential effect of a credibly exogenous, unexpected shock with a suitable treatment and control group. Eastern European Union member states were all connected to Europe in some way or the other for centuries, so that there is a pre-existing feeling of being European. They are also comparable with regard to having experienced Russian rule and the Russian army (see Ochsner, 2017), based on half a century in the Warsaw Pact or the Soviet Union until its dissolution in 1991 (see Figure 1b and timeline in Figure 1a). Slovenia and Croatia are the exception, they were part of Yugoslavia. After a little more than a decade of independent states in Eastern Europe (Figure A.6b), the expansion of the EU to the east dramatically increased when ten Eastern states were becoming EU members in 2004 (Figure A.6c), and two more in 2007. Afterwards, Ukraine and Belarus remained the last independent states in between the EU and Russia (Figure 1c).

This expansion into its former sphere of influence was seen increasingly critically by Russia. Despite explicit warnings by Russia about closer EU associations with Ukraine, the EU started negotiations about an Association Agreement even with Ukraine in 2012.[1] On February 18, 2014, the pro-European Maidan revolution succeeded and the pro–Russian Ukrainian president fled the country. Two days later, Russia started invading Crimea, culminating in the formal annexation on March 18th. This was a huge shock. Russia had intervened in case of secessionist regions (Chechnya) and when Russian minorities were in danger (Georgia), but this was the first forceful annexation since WW2 in this part of the world. As The Economist describes, eastern EU member states started to take the further Russian military actions as a much more serious threat to their security and territorial integrity.[2]

Relating back to the theoretical considerations, this external shock would strengthen identity if it increases the weights of attributes that all group members have in common. In psychology terms, other members of other EU states "will be recategorized as 'us' in contrast to 'them'" (Turner et al., 1994, p.456). The threat "should reduce perceptions of intergroup dissimilarities" (Vezzali, Cadamuro, Versari, Giovannini, and Trifiletti, 2015, p. 521) and increase the alignment with overarching entities (Gaetner, 2012)). This increase in identity is at least partly not a conscious decision, but reflects ""automatic processes" and "a largely automatic attempt to restore a subjective sense of control" (Fritsche, Jonas, and Kessler, 2011, p.101-102).

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[1] See https://www.theguardian.com/world/2013/sep/22/ukraine-european-union-trade-russia.
[2] See https://www.economist.com/briefing/2014/03/06/sixes-and-sevens.

(a) Timeline: Reappearance of Russian threat

Dec 08, 1991
Dissolution of the Soviet Union
and Warsaw Pact

Aug 26, 1999
Russian intervention
in Chechnya

Aug 2008
Russia-Georgia war

Feb 20, 2014
Russian invasion of Crimea

Feb 18, 2008
Begin Negiotiations Ukraine-
EU Association Agreement

May 01, 2004
EU accession of
10 Eastern states

Feb 18, 2014
Success of pro-EU
Maidan Revolution
in Ukraine

Jan 01, 2007
EU accession of
Bulgaria and Romania

Pre-treatment   Post-treatment

(b) Europe 1988

(c) Europe 2013

UKRAINE

Legend
EEC member states
USSR
Warsaw Pact member states

Legend
EU member states
Russia
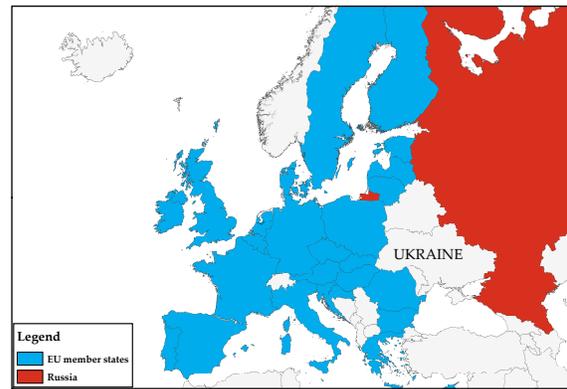
(d) Perceived Protection Offered by the EU
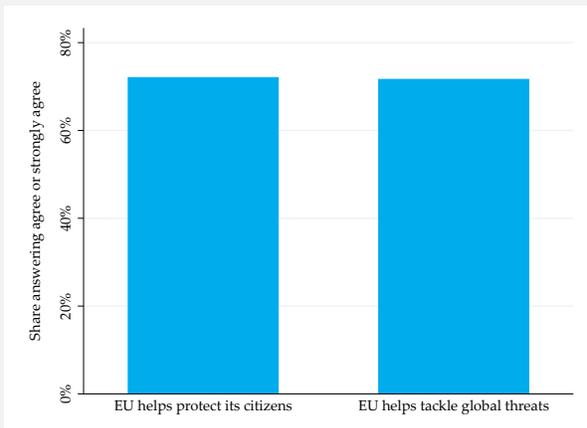
(e) EU identity: all EU member states

EU helps protect its citizens   EU helps tackle global threats

Pre-treatment   Post-treatment
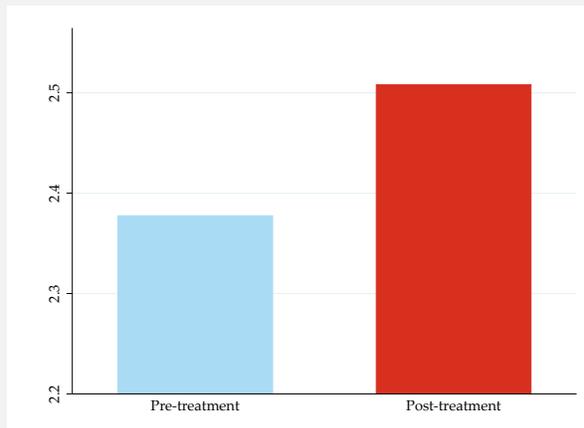
Figure 1: Expansion of the EU

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As people in the EU are members of multiple groups – cities, nation states, the European Union as the overarching territorial entity – which group identity do we expect to strengthened by the threat? Social psychology allows some predictions, summarized in Figure B.1. The Group-Based Control Theory hypothesizes that when personal control is endangered by a threat, individuals will identify more with groups that they perceive as valuable to restore their sense of control (Correll and Park, 2005). The Comparative Fit in self-categorization theory highlights the salience of a group in comparison with the out-group that poses the threat. Relative Accessibility emphasizes groups associated with values that are endangered by the out-group. Based all on those criteria, it seems plausible that EU instead of national or lower-level identities are strengthened. Descriptive evidence in Figure A.2a shows that in Eastern Europe the European Union is often associated with values that based on past experience would be threatened by a Russian occupation: peace, individual freedom, democracy and human rights are often named as one of the top three values associated with the EU.

Undoubtedly, NATO is extremely important as an alliance offering protection for Eastern European states against Russia. This is not a problem for identifying the effect of the threat on European identity. It is sufficient that being an EU member compared to being outside the union is associated with reducing the threat. Figure 1d shows that more than 70% of individuals agree that the European Union offers protection for its citizens and helps to tackle global threats. The editors of the Journal of Baltic Security, highlight that there are "two major security providers: the EU and the NATO (p.4). Moreover, being a member of the EU increases the relative chance that other EU members would push for NATO to fulfill article 14 in case of an actual crisis. Judged ex-post, the EU did also act, for instance by jointly imposing severe sanctions against Russia - despite being economically costly and for those reasons politically controversial (see Table C.2).[3]

4 Data and Identification

4.1 Identity measurement

I measure European Union identity using direct questions from Eurobarometer surveys. Their regular surveys are conducted twice a year – in May and November – in all member states, and comprise a representative sample (about 1000 face-to-face interviews) for each state. Some questions are asked every time, others only once a year. Measuring group identity directly explains behavior in coordination games well (Attanasi et al., 2016). Outside the

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[3] In particular in the Baltic states agreement to the question whether the EU offers "adequate protection of external borders" increased by nearly 20% between 2016 and 2018.

lab, prior research shows that perceived identity measured with such questions is associated with revealed identity measures like voting behavior (Dehdari and Gehring, 2019) and internal conflict (Depetris-Chauvin et al., 2020).[4]

My main measure *EU identity* asks how attached the respondent feels to the EU on a 4-point Likert scale, the most common survey measure of identity. As alternative measures *Sense of EU citizenship* is an alternative framing of the same question type, whereas *European vs. national identity* weighs European against national identity. This latter question can be problematic as a stronger EU identity does not have to come at the cost of a weaker national identity (Gehring, 2020), which is why I prefer *EU identity* as my main measure. The attachment question is also asked separately about lower-level identities, which I use to explore a potential effect on those.

Moreover, I make use of questions about trust to verify a higher willingness to cooperate is purely driven by rational optimization, or actually related to a more unconscious psychological change. Moreover, this helps to investigate whether identity really is likely to fosters cooperation by increasing mutual in-group trust. As a kind of placebo test, I investigate answers to purely economic questions that should not be affected by the Russian threat. Finally, To investigate willingness to cooperate,I measure political support for common policies at the EU level, both related directly to defense policy, but also support for common foreign policy and EU enlargement as more general measures.

As a first step to evaluate my hypothesis, I consider the pure time-series correlation before and after Crimea. Figure 1e shows the average value of my main measure *EU identity* during the entire pre- compared to the post-treatment period for the EU as a whole and restricted to Eastern member states. We can see that, indeed, there is a clear positive correlation: identification with the EU is considerably higher after the Crimea incident highlights the external threat posed by Russia. The next section explains my quasi-experimental design to establish a causal effect.

5   Identification: Differences in threat intensity

I implement a difference-in-differences approach exploiting differences in threat intensity between eastern EU member states. I define Estonia and Latvia - the high-threat states – as the treatment group and seven others - the low-threat states - form the control group. I exclude Slovenia and Croatia, which were part of Yugoslavia, and do thus not share the

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[4] One concern would be if respondents in member states that depend more on EU protection would overstate their identity in an attempt to make protection in case of a crisis more likely. I assess this as unlikely, and Eurobarometer does not actively communicate its association with EU institutions.

same experiences with Russian rule during the Cold War. Figure 2b distinguishes the seven low-threat states in light blue from the two "treated" high-threat states in darker blue.

My argument for this distinction is based on two main aspects. First, the two high-threat states have a direct land-border with mainland Russia (Figure 2c), which clearly increases the perceived risk of an invasion. Second, they feature by far the largest ethnic Russians minority groups (Figure 2c), which played an important role justifying the Russian invasion in Ukraine and Georgia.

It is obvious from public statements that the Baltic countries are perceived as being exposed to a higher risk (e.g. highlighted in a speech by Barack Obama in 2014 in Estonia). The one critical decision is whether to assign the third Baltic country, Lithuania, as high- or low threat. My decision is first based on the importance of the actual land border for military strategic considerations. Experts speculating about a Russian attack highlight that "a large-scale short-notice Russian invasion could reach the capitals of Estonia, Latvia, [...] within a few days" (Larrabee, Pezard, Radin, Chandler, Crane, and Szayna, 2017, p.8). A "greater difficulty" is assigned for reaching Lithuania. Moreover, the size of the Lithuanian Russian minority is magnitudes smaller at just 4.8% (Figure 2b).

To validate my choice, I turn to online-based proxies for changes in the salience of the threat posed by a potential Russian invasion. To illustrate the perceived severity of the shock in general, Figure D.1 shows a large spike in overall google search trends in the high-threat states for five topics associated with the Russian threat after the Crimea invasion. Figure 2e shows that this increase is much larger in the high-treat states, with Lithuania being closer to the next highest low-threat state than to Estonia. Hence, these media-based measures support the two arguments to assign high-threat status to Estonia and Latvia based on geography and the size of Russian minority populations.[5]

To estimate a causal effect, we need to assume that without the Russian invasion the trends in EU identity would have developed the same way in low and high-threat states. There are two pre-treatment observations for *EU identity* prior to 2014 that I use to assess common pre-trends. Figure 2f illustrates that prior to 2014, the levels of EU identity were similar in low-and high-threat states, and the trends indistinguishable.

In addition to common trends, the DiD design assumes commmon shocks: that other events after the Russian interference in Ukraine did not decisively affect identity differently in low-versus high-threat states within my event window. The most obvious potentially biasing event is the refugee crisis starting in fall 2015, which led to tensions between EU institutions and some eastern member states like Hungary and Poland. As those are in the control low-threat group, this could bias my estimates towards finding a relatively stronger EU identity

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[5] Nonetheless, section G.1 shows that the results are robust to assigning high-threat status to Lithuania.

in the high-threat states. For that reason, I choose an event window for my main specification that ends in summer 2015.

(a) Shorter event window for estimation

(b) Classification in high-threat and low-threat EU member states

(c) Threat salience highest with large Russian minorities and Russian land border

(d) Russian threat intensity by member state based on Google Trends (2013-2014 difference)

(e) Russian threat intensity high vs low-threat states based on Google Trends

(f) Raw change in EU identity based on Eurobarometer surveys

Figure 2: The effects of the increased Russian threat on EU identity

Notes: Sources of Figure 2c is identified based on Eurobarometer. Figure 2e is based on average Google Trends scores for the interest in 5 topics: Russian Armed Forces, Russia, Vladimir Putin, Ukraine, and Crimea (normalized by interest in Russia or Ukraine).

Finally, changes in the composition of the population in high- versus low-threat states could bias the estimate. By restricting the event period as outlined above, the potential for drastic compositional changes is low. Table A.5 shows the balancedness in levels and trends over the event period. There are no significant trend differences for all except one aspect. High-threat states seem to age somehow faster, potentially due to higher out-migration. This could create a bias in either direction. The effect might be upward biased if it is stronger on older cohorts who have personal memories of Soviet rule. It might be downward biased as younger respondents have a stronger EU identity. Table G.2 and Figure G.2 assess the size of these potential biases. It turns out both are of similar magnitude but small, and the net bias in all likelihood negligible. To account for compositional changes, all specifications control for socio-demographic factors. Moreover, I focus on the responses by members of the majority population in Estonia and Latvia in this paper.[6]

Looking at EU identity after the Ukraine shock, Figure 2f suggests a stronger increase in the high-threat states. I analyze this systematically using the following DiD equation

$$y_{i,c,t} = \beta_0 + \beta_1 HighThreat_c \times D_t^{2014} + X'_{i,t}\theta + \delta_c + \lambda_t + \epsilon_{i,c,t},$$

where $y_{i,c,t}$ is the outcome for individual i in country c in year t, i.e. their response to a particular survey question. $High\_Threat_c$ is a dummy variable equaling 0 for low-threat states, and 1 for Estonia and Latvia. D_t^{2014} equals 0 prior to the treatment, and 1 afterwards. The interaction, β_3, then measures the treatment effect, the impact of the increased Russian threat on EU identity. $X_{i,t}$ is a set of individual characteristics such as gender, age, education level, and labor market status. State (δ_c) and year (λ_t) fixed effects capture state- and year-specific factors, including the main terms forming the interaction.

Table A.1 - A.3 provide question texts and availability of questions by date. Table A.4 shows descriptive statistics. To ease interpretation, all outcomes $y_{i,t}$ are standardized.

6 Results

6.1 Results for EU identity

Figure 3 panel A, shows the main results on European identity in panel A. *EU identity* refers to my preferred measure asking about closeness to the EU on a continuous Likert-scale. Using the main DiD specification with individual-level controls, state and time-fixed effects yields a coefficient of 0.15, about 15% of a standard deviation. It is also highly significant with

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[6] A robustness test shows that the main results are robust to including the Russian minority members, however.

p-value smaller than 0.01 (see Table F.1 for details).[7] Figure A.1, showing the distribution of answers pre- and post-treatment, indicates that the increase in identity is driven by a shift of respondents towards expressing a stronger identity across the whole distribution. The coefficients of the two alternative EU identity are very similar in magnitude and significance, highlighting that this main results is not driven by selecting a particular question type.

6.2 Mechanisms, consequences, alternative measures and levels

Figure 3 panel B to E provide results that help to understand the mechanisms behind the increase in identity, potential confounders, and the link to willingness to cooperate. Panel B, *Psychological attitudes*, examines the psychological response that should theoretically be associated with increased group identity under threat. It shows that the stronger EU identity is indeed associated with an increase in trust in the EU in general, but also European institutions like the parliament and the European commission as the main executive organ of the EU. Generally people also feel more positive about their state's future in the EU.

This highlights two aspects. First, that the increase in stated identity is not driven by purely by instrumental motivation. Rather, these psychological changes highlight the automatic or subconscious effect of the threat also highlighted in psychology. Second, it is in line with the hypothesis that one purpose of a stronger group identity under threat is a strengthening of in-group trust, which should increase the willingness to cooperate at the larger group level.

The second category *Economic perceptions* serves the purpose of a placebo, as it could capture whether other changes that affect low-and high-threat states differently might drive the result. It is theoretically possible that a stronger group identity also leads to a more positive perception of economic opportunities associated with the group, but this is unlikely for very specific technical questions. The results in panel C are all insignificant. In particular the very specific questions about the EU's impact on inflation and unemployment (one positive, one negative) also have point estimate that are extremely close to zero, suggesting no potentially biasing differences between treated and control group.

Finally, we want to know whether there is evidence linking the stronger identity to a higher willingness to cooperate. My aim is not to disentangle the relative contribution of trust versus a higher internalization of group goals through the stronger identity versus instrumental motivations. There are no reliable statistical methods to do this with any degree of precision. My aim is more modest: to show that the evidence is in line with my

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[7] For comparison with the DiD estimates, a simple pre/post comparison within the high-threat states, shows a very similar increase in EU identity of 15.3%, further that the estimates using two-way fixed effects can be meaningfully interpreted.

Figure 3: Main results, mechanisms, consequences, alternative measures and levels
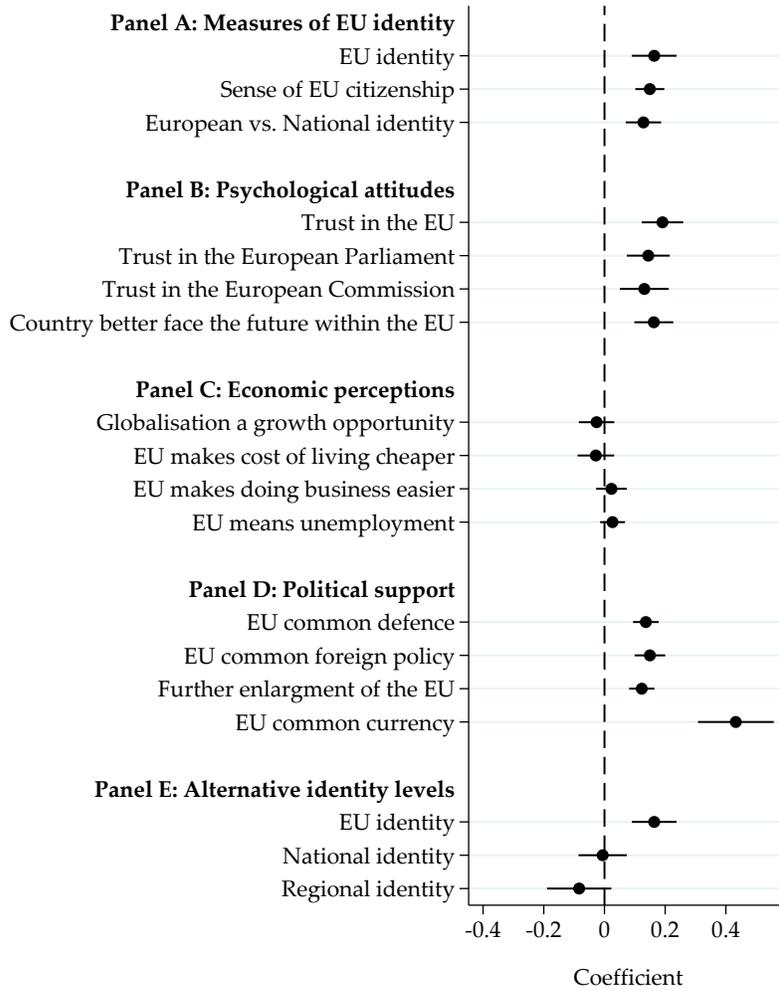
Notes: Figure displays the DiD coefficient measuring the impact of the increased Russian threat, and corresponding 90% confidence interval. All outcomes are standardized. The regressions included the following control variables: gender, age, education level, labor market status, type of area of living (urban vs. rural), marital status, household composition, time fixed effects, and member state fixed effects. Standard errors are clustered at the regional level. The number of the pre-treatment measurements is between two and five, the number of post-treatment observations between one and three. The number of observation for EU identity is 24,885, for the other outcomes ranges from 25,569 to 68,408. Table F.2 shows detailed results.

suggested mechanisms. Also note that the questions I use on political support correspond to the willingness to cooperate; actual cooperation in a specific are will still depend on weighting its benefit against its costs.

The *Political support* results in panel D show a clear and significant increases in support for the four common EU policies that are asked about in the surveys. The first question

about a common defense policy is most clearly related to the purpose of the group as offering protection against the threat. In addition, there is a similar increase in more general support for a common foreign policy. Finally, even support for further enlargement of the EU is strengthened, suggesting that the stronger identity and higher trust also foster support for more general common policies.[8]

6.3 Identity at lower levels

Panel E shows the results for alternative levels within the EU's federal structure. There is no effect on national or regional identity. This is in line with the social psychology theories highlighting that identification should increase with the group that is salient in the discussion of the threat and perceived as potentially useful when the threat materializes. It is also in line with the third alternative EU identity matter, which forces respondents to choose between European versus national identity. To the best of my knowledge, this is novel evidence showing the real world relevance of those mechanisms.

7 Treatment intensity, persistence, and robustness

7.1 Differences in threat intensity within-high-threat states

The main distinction between high-and low-threat states was based on distance to Russia and the share of ethnic Russians. While this argument was backed up by qualitative evidence and in line with the Google trends data, we can further verify its plausibility by using sub-national variation between regions within the high-threat states. To do that, I compute the distance to the Russian mainland border and the share of Russians at the regional level. Figures 4a and 4b visualizes the units in this analysis, and show the relative proximity and the share of the Russians minority by region. I then estimate

$$EUidentity_{i,r,t} = \beta_0 + \beta_1 D_t^{2014} + \beta_2 Intensity_r + \beta_3 D_t^{2014} \times Intensity_{r,t} + X'_{i,t}\theta + \delta_j + \epsilon_{i,r,t},$$

where $EUidentity_{i,t}$ is the outcome for individual i in region r in year t, i.e. their response to the survey question on *EU identity*. D_t^{2014} equals 0 prior to the treatment, and 1 afterwards, and $Intensity_r$ captures the share or distance at the regional level. β_3 capture the interaction between both: differences in the effect of the threat conditional on $Intensity_r$. State (δ_c)

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[8] It would be extremely interesting to observe the willingness to cooperate in other unrelated areas like fiscal or social policy, but there is no available data that can be used for my purpose.Unfortunately Eurobarometer does not ask consistently about other policies during the event window.

fixed effects capture state-specific factors.[9]
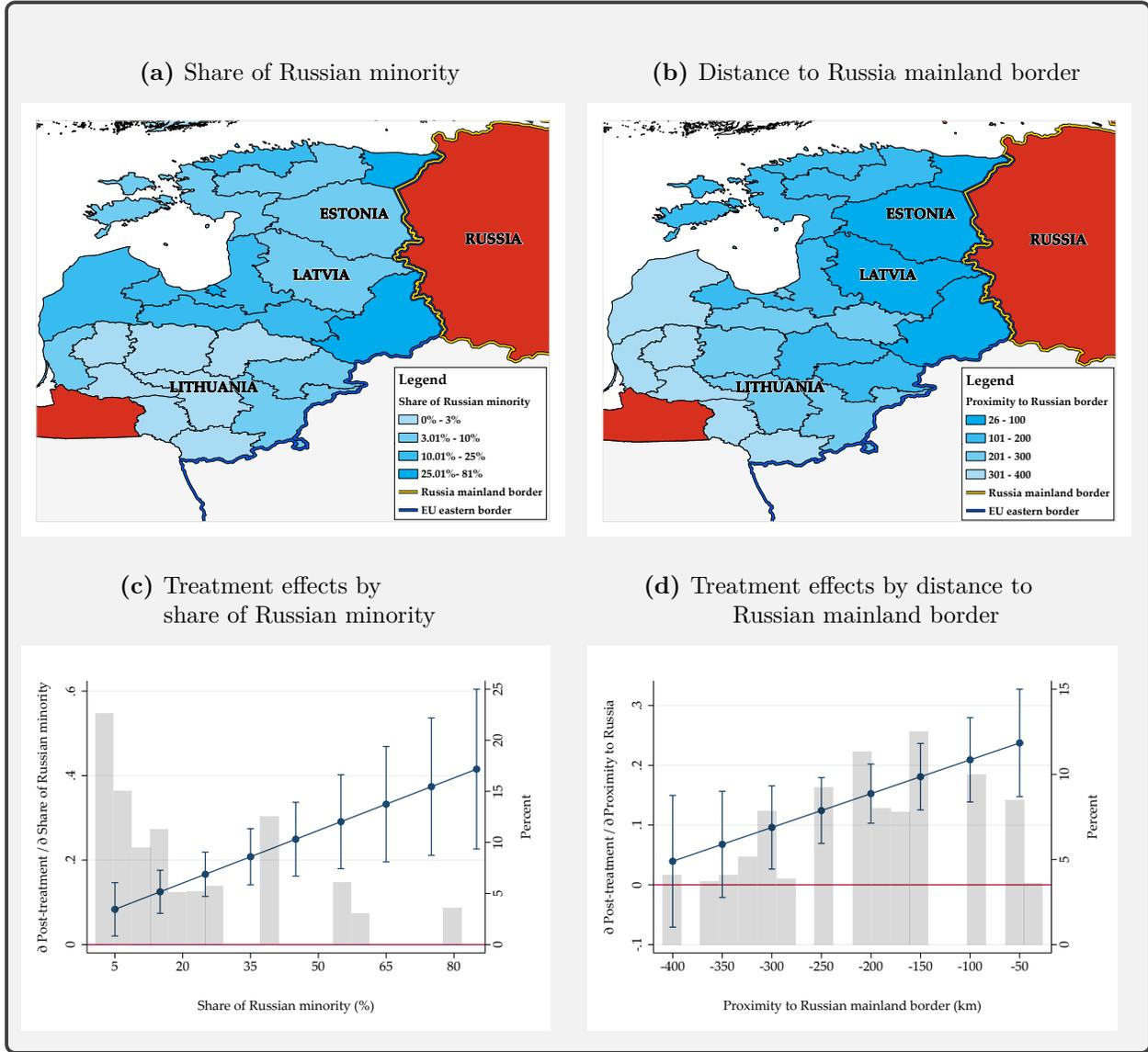
Figure 4: Heterogeneous treatment effects

Notes: The dependent variable is *EU identity*, standardized. Figure shows marginal effects of the post-treatment indicator at selected levels threat-intensity within the high-threat states. The outcome variable is standardized. Threat intensity refers to the regional share of Russian minority (Figure 4c) and the proximity to Russia (Figure 4d). Underlying bar charts are histograms of those two variables. Full results are presented in Table F.3. The 95%-confidence intervals are based on robust standard errors.

Figures 4c and 4d plot the marginal effects of the increased Russian threat conditional on the distance and the share: $\frac{\partial EU\ Identity}{\partial D^{2014}} = \beta_1 + \beta_3 Intensity$. I find that, in line with the assumption about the salience of the threat, the effect is larger the shorter the distance to

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[9] Table F.3 shows that the results are robust to using region fixed effects instead.

Russia and the higher the share of ethnic Russians. Table F.3 provides the full regression results, showing that the interaction effect is also statistically significant.

7.2 Persistence

Russia's actions in Ukraine might have permanently altered the probabilities assigned to a conflict with Russia. Alternatively, it is possible that when the events become less salient, the perceived threat and identity decreases again. Estimating persistence reliably is complicated by the fact that with a longer window estimation becomes more noisy as other factors can play a larger role. Figure 5a shows a specification with all leads and lags, expanding the event window from 2012 to 2018. The figure shows a rather stable effect, suggesting a possibly permanent shift in identity. However, the estimates become considerably less precise over time.

7.3 Robustness

Figure 5b shows that the main effect on *EU identity* is robust to variations in the DiD specification. Among others, it is robust to adding country-year level control variables in four different dimensions – capturing potential changes that differ between treatment and control states and overlap with the treatment. Interacting the individual controls with the year-FE to account for time-varying effects conditional on treatment status is also unproblematic.

Moreover, I estimate standard errors in different ways. Clustering at the state level works, but the number of cluster is small. Wild cluster bootstrap approaches severely under-reject when the number of treated clusters is smaller than five, but randomization inference seems to be a feasible alternative (Conley and Taber, 2011; MacKinnon and Webb, 2016). I use three versions, randomizing at the state, at the region, and at the individual level. The results are robust to all those alternatives. Finally, the main result holds with the extended event window.Further tests in the appendix Table G.3 shows that the results are also not driven by specific states in the control group, leaving out one state at a time. Table G.4 illustrates that Eurozone membership is not biasing the results. Appendix C assesses potential confounding events.

(a) Persistence with Leads and lags (2012 - 2018)
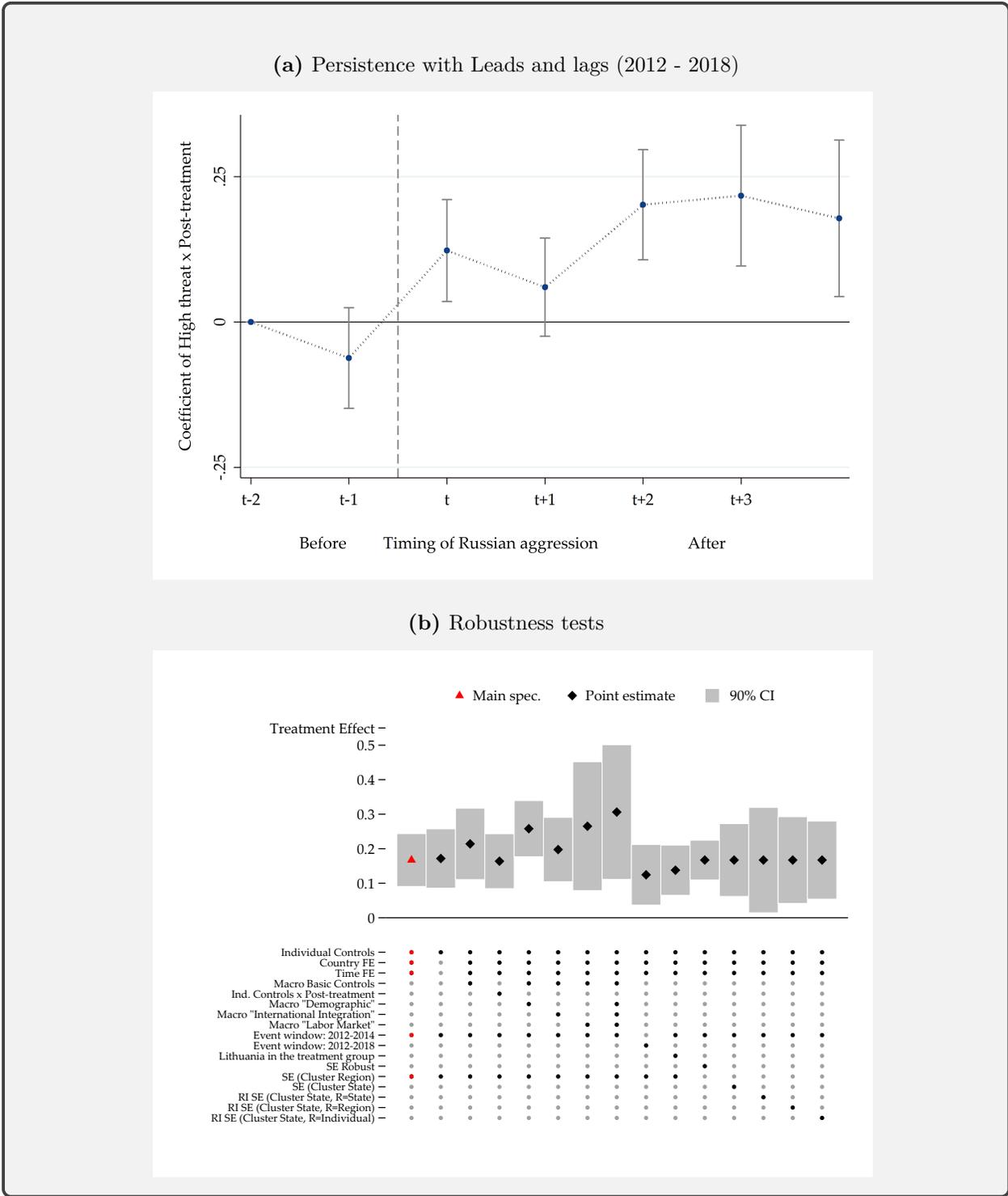
(b) Robustness tests

Figure 5: Event window (2012-2018) and robustness tests

Notes: Figure 5a displays coefficients and 90% confidence intervals from regressions of *EU identity* on leads and lags of the interaction of time dummy variable and *High Threat* using the main specification from Figure 3. Standard errors are clustered at the regional level. Table F.5 provides regressions results for the event window (2012-2018). RI refers to randomization inference, implemented using the Stata package *ritest* (Hess, 2019). The "R=" refers to the level at which the treatment was randomized). All detailed results are presented in Appendix F.

8 Conclusion

This paper contributes to the emerging economic literature on the origins of group identities, as well as to the existing broader social science literature. Adding to the scarce evidence from observational data to assess changes in identity (Depetris-Chauvin et al., 2020; Dehdari and Gehring, 2019; Fouka, 2020), the results foster our understanding of how important events are able to influence identity and associated preferences in the real world. The results also provide an empirical validation of the importance of the threat-mechanism, which was emphasized theoretically and tested experimentally in social psychology and behavioral economics. They show that not only social threats, but also real military threats – hard to emulate in an experiment – have a sizable and consistent effect using a large sample. The estimations use a simple, but transparent and effective identification strategy, exploiting differences in threat perception and the timing of the Eurobarometer surveys.

The first main result is that the external military threat posed by Russia causes a significant increase in common European Union identity. This is, to the best of my knowledge, the first causal non-experimental evidence allows disentangling the effect of an external threat from other events like war, serving in the military, or occupation. The effect is also of a meaningful size. To put it into perspective, the increase accounts for more than three-fourths of the standard deviation between EU member states in the cross-section. The effect seems to persist and remain rather stable over time when expanding the event window.

The second main result is that a stronger common group identity goes along with more trust in common institutions and higher support for common policies at a central level. The fact that trust in common institutions also increases significantly signals that the increase in identity also reflects a psychological change, in line with proposed mechanisms by psychologists. This is a crucial insight for understanding nation-building and the stability of nations (Alesina and Spolaore, 1997; Desmet et al., 2011; Fearon and Laitin, 2003), as well as the allocation of power in federal systems (Dreher et al., 2017; Rodden, 2004). It also matters more broadly for understanding the role of group identity for cooperation within groups (Alesina and La Ferrara, 2005; Ferrara, 2003), support for common institutions (Alesina and Giuliano, 2015) and redistribution.

With regards to the EU specifically, the results suggests that the existence of an out-group that threatens in-group members can have a unifying effect. It must be noted, however, that this is an effect on the willingness-to-cooperate. Whether it fosters real cooperation will depend on the costs of cooperation and the ability of political institutions to achieve feasible compromises. It seems possible that outside threats in other areas, like Brexit or trade conflicts, might also contribute to a higher common identity.

Bibliography

Alesina, A., I. Angeloni, and L. Schuknecht (2005). What does the European Union do? *Public Choice 123*(3-4), 275–319.

Alesina, A. and P. Giuliano (2015). Culture and institutions. *Journal of Economic Literature 53*, 898–944.

Alesina, A. and E. La Ferrara (2005). Ethnic diversity and economic performance. *Journal of Economic Literature 43*, 762–800.

Alesina, A. and E. Spolaore (1997). On the number and size of nations. *The Quarterly Journal of Economics 112*(4), 1027–1056.

Alesina, A. and R. Wacziarg (1999). Is Europe going too far? In *Carnegie-Rochester Conference Series on Public Policy*, Volume 51, pp. 1–42. Elsevier.

Anderson, B. (2006). *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. Verso books.

Attanasi, G., A. Hopfensitz, E. Lorini, and F. Moisan (2016). Social connectedness improves coordination on individually costly, efficient outcomes. *European Economic Review 90*, 86 – 106.

Bauer, M., C. Blattman, J. Chytilová, J. Henrich, E. Miguel, and T. Mitts (2016). Can war foster cooperation? *Journal of Economic Perspectives 30*(3), 249–74.

Bazzi, S., M. Fiszbein, and M. Gebresilasse (2020). Frontier culture: The roots and persistence of" rugged individualism" in the united states. *Econometrica (forthcoming)*.

Brewer, M. (2000). *Social Identity Processes: Trends in Theory and Research*, Chapter 8: Superordinate Goals Verus Superordinate Identity as Bases of Intergroup Cooperation, pp. 118–131. Sage.

Cantoni, D., Y. Chen, D. Y. Yang, N. Yuchtman, and Y. J. Zhang (2017). Curriculum and ideology. *Journal of Political Economy 125*(2), 338–392.

Cantoni, D. and N. Yuchtman (2013). The political economy of educational content and development: Lessons from history. *Journal of Development Economics 104*, 233 – 244.

Cederman, L.-E. (2001). *Constructing Europe's Identity: the External Dimension*. Lynne Rienner Publishers.

Charness, G., R. Cobo-Reyes, and N. Jiménez (2014). Identities, selection, and contributions in a public-goods game. *Games and Economic Behavior 87*, 322–338.

Chowdhury, S. M., J. Y. Jeon, and A. Ramalingam (2016). Identity and group conflict. *European Economic Review 90*, 107 – 121.

Ciaglia, S., C. Fuest, and F. Heinemann (2018). What a feeling?! How to promote European identity. *EconPol Policy Report*.

Conley, T. G. and C. R. Taber (2011). Inference with 'difference in differences' with a small number of policy changes. *The Review of Economics and Statistics 93*(1), 113–125.

Correll, J. and B. Park (2005). A model of the ingroup as a social resource. *Personality and Social Psychology Review 9*(4), 341–359.

De Dreu, C. K., L. L. Greer, M. J. Handgraaf, S. Shalvi, G. A. Van Kleef, M. Baas, F. S. Ten Velden, E. Van Dijk, and S. W. Feith (2010). The neuropeptide oxytocin regulates parochial altruism in intergroup conflict among humans. *Science 328*(5984), 1408–1411.

Dehdari, S. H. and K. Gehring (2019). The origins of common identity: Evidence from Alsace-Lorraine. *CESifo Working Paper No. 7949*.

Dell, M. and P. Querubin (2017). Nation building through foreign intervention: Evidence

from discontinuities in military strategies. *Quarterly Journal of Economics, 1, 64.*.

Depetris-Chauvin, E., R. Durante, and F. R. Campante (2020). Building nations through shared experiences: Evidence from African football. *American Economic Review 110*(5), 1572–1602.

Desmet, K., M. Le Breton, I. Ortuño-Ortín, and S. Weber (2011). The stability and breakup of nations: a quantitative analysis. *Journal of Economic Growth 16*(3), 183.

Desmet, K., I. Ortuño-Ortín, and R. Wacziarg (2017). Culture, ethnicity and diversity. *American Economic Review, 107(9), 2479-2513.*.

Desmet, K. and R. Wacziarg (2018). The cultural divide. *NBER WP 24630*.

Dolls, M., C. Fuest, F. Heinemann, and A. Peichl (2016). Reconciling Insurance with Market Discipline: a Blueprint for a European Fiscal Union. *CESifo Economic Studies 62*(2), 210–231.

Dreher, A., K. Gehring, C. Kotsogiannis, and S. Marchesi (2017). Information transmission within federal fiscal architectures: Theory and evidence. *Oxford Economic Papers 70*(1), 243–265.

Fearon, J. D. and D. D. Laitin (2003). Ethnicity, insurgency, and civil war. *American Political Science Review 97*(1), 75–90.

Ferrara, E. L. (2003). Kin groups and reciprocity: A model of credit transactions in Ghana. *American Economic Review 93*(5), 1730–1751.

Fouka, V. (2020). Backlash: The unintended effects of language prohibition in US schools after World War I. *Review of Economic Studies 87*(1), 204–239.

Fouka, V. and J. Voth (2016). Collective remembrance and private choice: German-Greek conflict and consumer behavior in times of crisis. *Stanford Center for International Development Working Paper No. 587*.

Fritsche, I., E. Jonas, and T. Kessler (2011). Collective reactions to threat: Implications for intergroup conflict and for solving societal crises. *Social Issues and Policy Review 5*(1), 101–136.

Fritsche, I., M. Moya, M. Bukowski, P. Jugert, S. de Lemus, O. Decker, I. Valor-Segura, and G. Navarro-Carrillo (2017). The great recession and group-based control: Converting personal helplessness into social class in-group trust and collective action. *Journal of Social Issues 73*(1).

Gaetner, S., D. J. (2012). *Handbook of Theories of Social Psychology*, Volume 2, Chapter 48: The Common Ingroup Identity Theory. SAGE Publications.

Gehring, K. (2020). Overcoming history through exit or integration - Deep-Rooted sources of EU support and Euroscepticism. *CESifo Working Papers No. 8129*.

Gehring, K. and S. Schneider (2020). Regional resources and democratic secessionism. *Journal of Public Economics 181*.

Gehring, K. and S. A. Schneider (2018). Towards the greater good? EU commissioners' nationality and budget allocation in the European Union. *American Economic Journal: Economic Policy 10*(1), 214–39.

Giles, M. W. and A. S. Evans (1985). External threat, perceived threat and group identity. *Social Science Quarterly 66*(1), 50–67.

Giuliano, P. and N. Nunn (2016). Understanding cultural persistence and change. *NBER Working Paper No. 23617*.

Hess, S. (2019). RITEST: Stata module to perform randomization inference and permutation tests. Statistical Software Components, Boston College Department of Economics.

Jha, S. and S. Wilkinson (2012). Does combat experience foster organizational skill? Evidence from ethnic cleansing during the partition of South Asia. *American Political Science Review 106*(04), 883–907.

Korovkin, V. and A. Makarin (2019). Conflict and inter-group trade: Evidence from the 2014 Russia-Ukraine crisis. *mimeo.*

Kranton, R. E. (2016). Identity economics 2016: Where do social distinctions and norms come from? *American Economic Review 106*(5), 405–09.

Laitin, D. D. (1998). *Identity in Formation: The Russian-speaking Populations in the Near Abroad.* Cornell University Press.

Larrabee, F. S., S. Pezard, A. Radin, N. Chandler, K. Crane, and T. S. Szayna (2017). *Russia and the West after the Ukrainian crisis: European vulnerabilities to Russian pressures.* Rand Corporation.

Lowes, S., N. Nunn, J. A. Robinson, and J. L. Weigel (2017). The evolution of culture and institutions: Evidence from the kuba kingdom. *Econometrica 85*(4), 1065–1091.

MacKinnon, J. G. and M. D. Webb (2016). Wild bootstrap inference for wildly different cluster sizes. *Journal of Applied Econometrics (published online).*

McCormick, J. M. and E. R. Wittkopf (1990). Bipartisanship, partisanship, and ideology in congressional-executive foreign policy relations, 1947-1988. *The Journal of Politics 52*(4), 1077–1100.

Meernik, J. (1993). Presidential support in congress: Conflict and consensus on foreign and defense policy. *The Journal of Politics 55*(3), 569–587.

Montesquieu, M. d. (1777). *Complete Works of M. de Montesquieu.* T. Evans and W. Davis.

Ochsner, C. (2017). Dismantled once, diverged forever? A quasi-natural experiment of red army misdeeds in post-WWII Europe. *Ifo Working Paper No. 240.*

Ochsner, C. and F. Roesel (2017). Activating history – the Turkish sieges of Vienna, anti-Turkish campaigns, and the rise of right-wing populism. *CESifo Working Paper 6586.*

Rodden, J. (2004). Comparative federalism and decentralization: On meaning and measurement. *Comparative Politics*, 481–500.

Sen, A. (2007). *Identity and Violence: The Illusion of Destiny.* Penguin Books India.

Simmel, G. (2010). *Conflict and the Web of Group Affiliations.* Simon and Schuster.

Stollberg, J., I. Fritsche, and E. Jonas (2017). The groupy shift: Conformity to liberal in-group norms as a group-based response to threatened personal control. *Social Cognition 35*(4), 374–394.

Tajfel, H., J. C. Turner, W. G. Austin, and S. Worchel (1979). An integrative theory of intergroup conflict. *Organizational Identity: A Reader*, 56–65.

Turner, J. C., P. J. Oakes, S. A. Haslam, and C. McGarty (1994). Self and collective: Cognition and social context. *Personality and social psychology bulletin 20*(5), 454–463.

Vezzali, L., A. Cadamuro, A. Versari, D. Giovannini, and E. Trifiletti (2015). Feeling like a group after a natural disaster: Common ingroup identity and relations with outgroup victims among majority and minority young children. *British Journal of Social Psychology 54*(3), 519–538.

Weber, E. (1979). *Peasants into Frenchmen: Modernization of Rural France, 1870-1914.* London: Chatto and Windus.

Weisel, O. and R. Zultan (2016). Social motives in intergroup conflict: Group identity and perceived target of threat. *European Economic Review 90*, 122–133.

Wolfe, A. (1984). *The Rise and Fall of the Soviet Threat: Domestic Sources of the Cold War Consensus.* South End Press.

Appendix A   Sources and descriptive statistics

Table A.1: Variables description (i.)

Variable	Question	Categories/Scale	Source
DiD Variables			
High threat		0 = BG, CZ, HU, LT, PL, RO, SK; 1 = LV, EE	own coding
Post-treatment		0 for years 2011-2013; 1 for years 2014 and 2015	own coding
Dependent Variables			
EU identity	"Please tell me how attached you feel to the EU"	4 = very attached; 3 = rather attached; 2 = not very attached; 1 = not attached at all; standardized with mean 0 and standard deviation 1	Eurobarometer 2012(May), 2013(Nov), 2014(Nov), 2015(Nov)
Sense of EU citizenship	"For each of the following statements, please tell me to what extent it corresponds or not to your own opinion: you feel you are a citizen of the EU"	4 = yes, definitely; 3 = yes, to some extent; 2 = no, not really; 1 = no, definitely not; standardized with mean 0 and standard deviation 1	Eurobarometer 2012, 2013, 2014, 2015
European vs. National identity	"Do you see yourself as...?"	1 = "(NATIONALITY) and European" or "European and (NATIONALITY)" or "European only"; 0 = "(NATIONALITY) only"; standardized with mean 0 and standard deviation 1	Eurobarometer 2012(May), 2013, 2014, 2015
Trust in the EU	"For each of the following media and institutions, please tell me if you tend to trust it or tend not to trust it: the EU"	1 = tend to trust; 0 = tend not to trust; standardized with mean 0 and standard deviation 1	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Trust in the European Parliament	"Please tell me if you tend to trust or tend not to trust these European institutions: the European Parliament"	1 = tend to trust; 0 = tend not to trust; standardized with mean 0 and standard deviation 1	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Trust in the European Commission	"Please tell me if you tend to trust or tend not to trust these European institutions: the European Commission"	1 = tend to trust; 0 = tend not to trust; standardized with mean 0 and standard deviation 1	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Country better face the future within the EU	"Please tell me to what extent you agree or disagree with each of the following statements: (OUR COUNTRY) could better face the future outside the EU"	1 = totally agree; 2 = tend to agree; 3 = tend to disagree; 4 = totally disagree; standardized with mean 0 and standard deviation 1	Eurobarometer 2012(Nov), 2013, 2014, 2015
Globalisation a growth opportunity	"Please tell me to what extent you agree or disagree with each of the following statements: globalisation is an opportunity for economic growth"	4 = totally agree; 3 = tend to agree; 2 = tend to disagree; 1 = totally disagree; standardized with mean 0 and standard deviation 1	Eurobarometer 2012, 2013, 2014, 2015

Notes: Description of survey questions from the Eurobarometer. For variables with more than 2 categories, the values of the categories are reversed compared to the original question categories so that higher values indicate stronger agreement.

Table A.2: Variables description (ii.)

Variable	Question	Categories/Scale	Source
Dependent Variables			
EU makes cost of living cheaper	"Please tell me to what extent you agree or disagree with each of the following statements: the EU makes the cost of living cheaper in Europe"	4 = totally agree; 3 = tend to agree; 2 = tend to disagree; 1 = totally disagree; standardized with mean 0 and standard deviation 1	Eurobarometer 2013, 2014, 2015(May)
EU makes doing business easier	"Please tell me to what extent you agree or disagree with each of the following statements: the EU makes doing business easier in Europe"	4 = totally agree; 3 = tend to agree; 2 = tend to disagree; 1 = totally disagree; standardized with mean 0 and standard deviation 1	Eurobarometer 2013, 2014, 2015(May)
EU means unemployment	"What does the EU mean to you personally? (multiple answers possible)"	1 = Unemployment (marked); 0 = Unemployment (not marked); standardized with mean 0 and standard deviation 1	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Support the EU common defence	"Please tell me for each statement, whether you are for it or against it: a common defence and security policy among EU Member States"	1 = for; 0 = against; standardized with mean 0 and standard deviation 1	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Support the EU common foreign policy	"Please tell me for each statement, whether you are for it or against it: a common foreign policy of the 28 Member States of the EU"	1 = for; 0 = against; standardized with mean 0 and standard deviation 1	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Support further enlargment of the EU	"Please tell me for each statement, whether you are for it or against it: further enlargement of the EU to include other countries in future years"	1 = for; 0 = against; standardized with mean 0 and standard deviation 1	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015
Support EU common currency	"Please tell me for each statement, whether you are for it or against it: a European economic and monetary union with one single currency, the euro"	1 = for; 0 = against; standardized with mean 0 and standard deviation 1	Eurobarometer 2011(Nov), 2012, 2013, 2014, 2015

Notes: Description of survey questions from the Eurobarometer. For variables with more than 2 categories, the values of the categories are reversed compared to the original question categories so that higher values indicate stronger agreement.

Variable	Question	Categories/Scale	Source
Control Variables			
Age	"How old are you?"		Eurobarometer
Gender: female	"Gender"	1 = female; 0 = male	Eurobarometer
Rural area or small towns	"Would you say you live in a...? Rural area or village; Small or middle sized town"	1 = marked; 0 = not marked	Eurobarometer
Large town)	"Would you say you live in a...? Large town"	1 = marked; 0 = not marked	Eurobarometer
Education level 1	"How old were you when you stopped full-time education: up to 15 years or no education"	1 = marked; 0 = not marked	Eurobarometer
Education level 2	"How old were you when you stopped full-time education: 16-19 years"	1 = marked; 0 = not marked	Eurobarometer
Education level 3	"How old were you when you stopped full-time education: 20 years and older; still studying"	1 = marked; 0 = not marked	Eurobarometer
Marital status: single	"Which of the following best corresponds to your own current situation?"	1 = single, divorced or separated, widow; 0 = married or remarried, single living with a partner	Eurobarometer
Retiree	"What is your current occupation?"	1 = retired or unable to work through illness; 0 = else	Eurobarometer
Labor market status: employed	"What is your current occupation?"	1 = employed or self-employed; 0 = else	Eurobarometer
Labor market status: unemployed	"What is your current occupation?"	1 = unemployed or temporarily not working; 0 = else	Eurobarometer
Labor market status: inactive	"What is your current occupation?"	1 = responsible for ordinary shopping and looking after children, student, retired or unable to work through illness; 0 = else	Eurobarometer
Language of the questionnaire: Russian		1 = Russian language of the questionnaire; 0 = else	Eurobarometer
GDP per capita growth	GDP per capita (GDP per capita in 2010=100)		World Bank
Inflation rate	Inflation, consumer prices (annual %)		World Bank
Youth unemployment rate	Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estimate)		World Bank
Legislative election held in the year		1 if there was a legislative election in the country in this year; 0 otherwise	Database of Political Institutions (DPI)
Member of the Eurozone		1 if the country is the member of the Eurozone; 0 otherwise	own coding
Share of Russian minority	Russian speaking population as % of total population according to the 2011 Census (NUTS-3 regions)		Statistics Estonia (population by mother tongue), Statistics Latvia (population by main language spoken at home), Statistics Lithuania (population by ethnicity)
Proximity to Russia mainland border	Minus distance from NUTS-3 regions centroids to Russia mainland border		Author's computations using GeoPandas

Notes: Description of control variables.

Table A.4: Descriptive statistics

	Obs.	Mean	Std. Dev.	Min.	Max.
DiD Variables					
High threat	132118	0.19	0.39	0.00	1.00
Post-treatment	132118	0.67	0.47	0.00	1.00
Dependent Variables					
EU identity	76997	2.54	0.88	1.00	4.00
Sense of EU citizenship	121582	2.79	0.93	1.00	4.00
European vs. national identity	112401	0.58	0.49	0.00	1.00
Trust in the EU	115180	0.54	0.50	0.00	1.00
Trust in the European Parliament	112172	0.60	0.49	0.00	1.00
Trust in the European Commission	107105	0.59	0.49	0.00	1.00
Country better face the future within the EU	106848	3.01	1.04	1.00	5.00
Globalisation a growth opportunity	99205	2.67	0.83	1.00	4.00
EU makes cost of living cheaper	38843	2.18	0.87	1.00	4.00
EU makes doing business easier	61101	2.81	0.83	1.00	4.00
EU means unemployment	132118	0.11	0.31	0.00	1.00
Support the EU common defence	121339	0.85	0.35	0.00	1.00
Support the EU common foreign policy	118056	0.77	0.42	0.00	1.00
Support further enlargment of the EU	113747	0.62	0.49	0.00	1.00
Support EU common currency	120363	0.59	0.49	0.00	1.00
Control Variables					
Age	125555	47.42	17.83	15.00	99.00
Gender: female	125555	0.53	0.50	0.00	1.00
Rural area or small town (ref. level)	125555	0.70	0.46	0.00	1.00
Large town	125555	0.30	0.46	0.00	1.00
Education level 1 (ref. level)	125555	0.10	0.30	0.00	1.00
Education level 2	125555	0.55	0.50	0.00	1.00
Education level 3	125555	0.35	0.48	0.00	1.00
Marital status: single	125555	0.35	0.48	0.00	1.00
Number of children in the household	125555	0.47	0.91	0.00	25.00
Labor market status: employed (ref. level)	125555	0.54	0.50	0.00	1.00
Labor market status: unemployed	125555	0.08	0.28	0.00	1.00
Labor market status: inactive	125555	0.38	0.48	0.00	1.00
GDP per capita	125555	14826.94	4200.03	7019.17	23349.57
Inflation rate	125555	1.59	1.76	-1.54	5.79
Youth unemployment rate	125555	19.66	6.50	6.73	34.06
Legislative election held in the year	125555	0.32	0.47	0.00	1.00

Notes: This table presents the following statistics for the outcomes, treatment and control variables: Number of Observations, Average Value, Standard Deviation, Maximum and Minimum Value. The sources and description of the variables can be found in Tables A.1- A.3

Table A.5: Balance table: pre- vs. post-treatment trend differences, event window 2012-2014

	Low threat		High threat			
	Pre-treatment (mean)	Post-treatment (mean)	Pre-treatment (mean)	Post-treatment (mean)	Trend difference (estimate)	Trend difference (p-value)
Age	44.90	46.33	43.72	47.68	2.673	0.014
Gender: female	0.52	0.52	0.55	0.55	0.007	0.727
Rural area or small town (ref. level)	0.70	0.71	0.72	0.69	-0.050	0.193
Large town	0.30	0.29	0.28	0.31	0.050	0.193
Education level 1 (ref. level)	0.11	0.11	0.05	0.05	0.002	0.791
Education level 2	0.55	0.54	0.48	0.45	-0.023	0.458
Education level 3	0.34	0.35	0.46	0.50	0.020	0.497
Marital status: single	0.37	0.34	0.42	0.40	0.010	0.718
Number of children in the household	0.44	0.45	0.53	0.52	-0.027	0.613
Labor market status: employed (ref. level)	0.50	0.52	0.55	0.56	-0.012	0.597
Labor market status: unemployed	0.10	0.09	0.08	0.07	-0.005	0.513
Labor market status: inactive	0.40	0.39	0.37	0.38	0.017	0.476

Notes: This table presents the average values of the individual socio-economic characteristics in high-threat and low-threat EU member states, in the Pre-treatment period (2012-2013) and in the Post-treatment period (2014). The sample includes waves used in the baseline estimation: 2012(May), 2013(Nov), 2014(Nov). The description of the variables can be found in Tables A.1 and A.2. To test whether the differences in age could be biasing the treatment effect estimate, I also estimate results separately for three age groups in Table G.2. There is a consistent positive effect, which is largest for the oldest age group.

Table A.6: Balance table: pre-treatment vs post-treatment, extended even window 2012-2018 (incl. refugee crisis)

	Low threat		High threat			
	Pre-treatment (mean)	Post-treatment (mean)	Pre-treatment (mean)	Post-treatment (mean)	Trend difference (estimate)	Trend difference (p-value)
Age	44.98	48.48	43.86	50.24	2.895	0.006
Gender: female	0.52	0.53	0.55	0.55	0.003	0.796
Rural area or small town (ref. level)	0.70	0.71	0.72	0.67	-0.061	0.028
Large town	0.30	0.29	0.28	0.33	0.061	0.028
Education level 1 (ref. level)	0.11	0.11	0.05	0.05	0.006	0.438
Education level 2	0.55	0.57	0.49	0.47	-0.031	0.189
Education level 3	0.34	0.32	0.46	0.47	0.025	0.382
Marital status: single	0.36	0.32	0.41	0.39	0.009	0.596
Number of children in the household	0.45	0.46	0.54	0.52	-0.025	0.425
Labor market status: employed (ref. level)	0.50	0.55	0.54	0.56	-0.029	0.146
Labor market status: unemployed	0.11	0.08	0.09	0.07	0.007	0.364
Labor market status: inactive	0.40	0.37	0.37	0.37	0.022	0.324

Notes: This table presents the average values of the individual socio-economic characteristics in high-threat and low-threat EU member states, in the Pre-treatment (2012-2013) and in the Post-treatment period (2014-2018). The description of the variables can be found in Tables A.1 and A.2
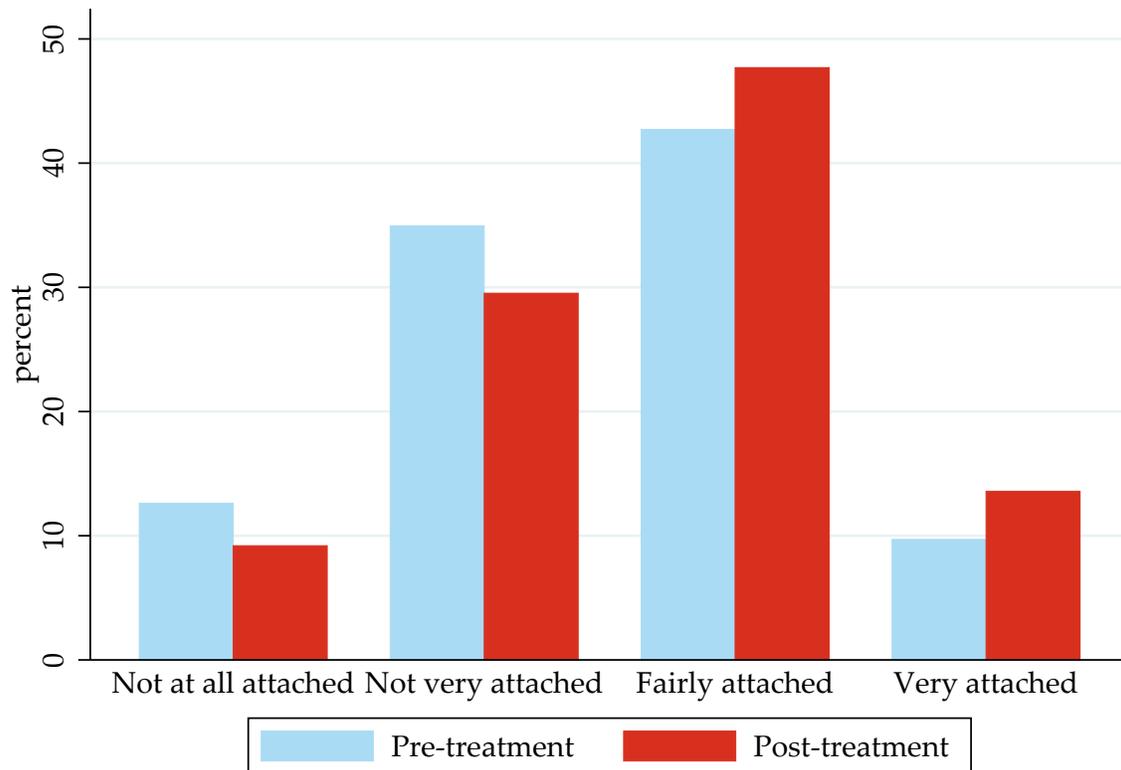
Figure A.1: Distribution of changes in EU identity in high-threat EU member states pre- vs. post-treatment

Notes: Figure shows the percent distribution of the responses to the EU identity statement in high-threat EU member states.

(a) Values Associated With EU
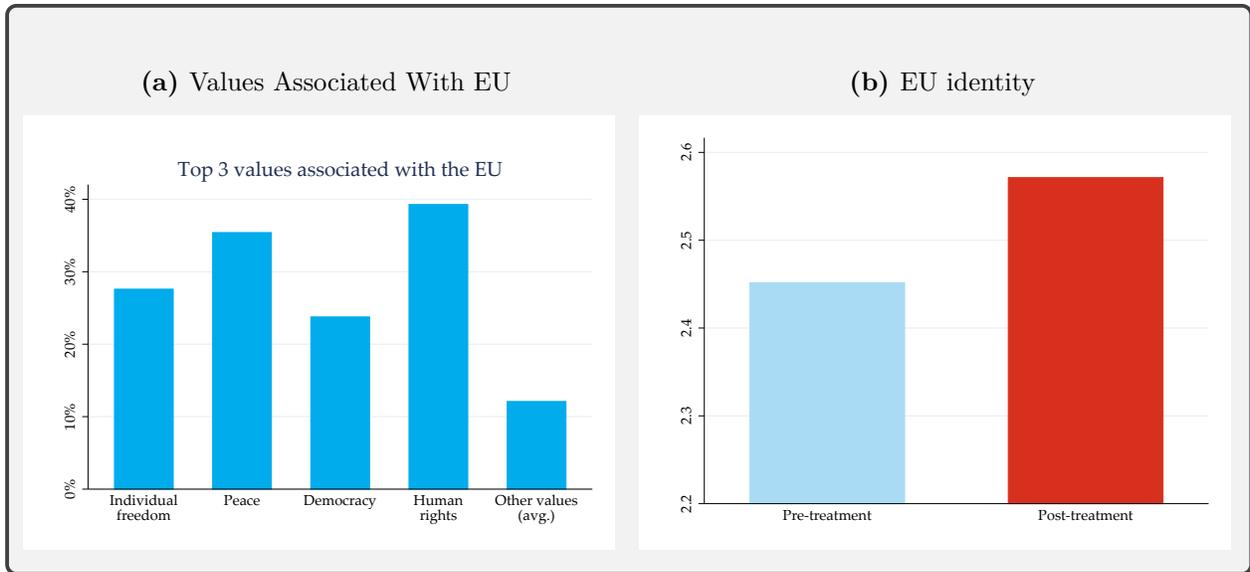
(b) EU identity

Figure A.2: Perceived EU Values and EU identity in EU Eastern Member States

Notes: Figure A.2a shows the fraction of respondents in the pre-treatment period in Eastern European EU member states who selected given values representing EU. Figure A.2b shows the fraction of respondents in the pre-treatment period in Eastern European EU member who agreed with the statements. Pre-treatment period includes years 2012-2013, and post-treatment period includes years 2014-2018.

Figure A.3: Increase in perceived adequacy of EU actions in the area of the protection of external borders (2016-2018)
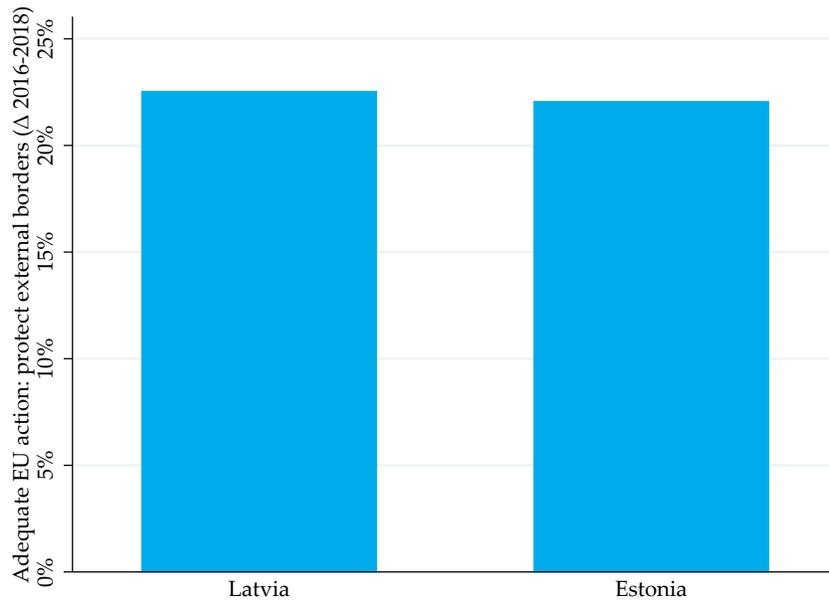
Notes: Figure shows the 2016-2018 increase in the percentage of respondents who perceived EU actions in the area of the protection of external borders as adequate.

Figure A.4: Increase in perceived adequacy of EU actions in the area of security and defense policy (2016-2018)
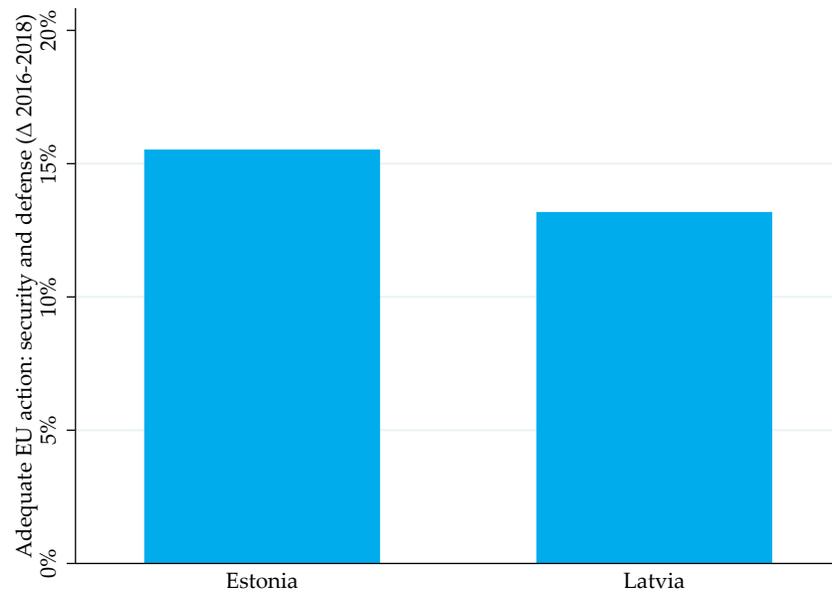
Notes: Figure shows the 2016-2018 increase in the percentage of respondents who perceived EU actions in the area of security and defense policy as adequate.

Figure A.5: Top EU security challenges: security of external borders and war (March 2015)
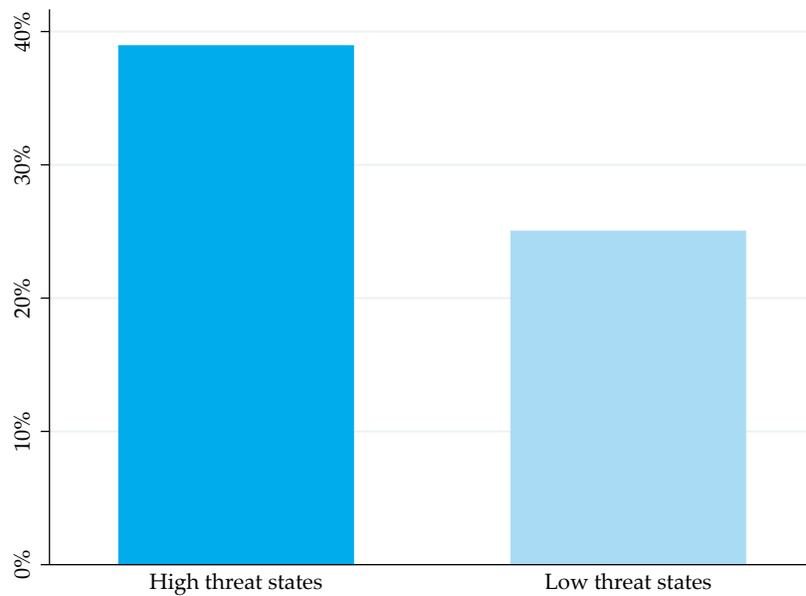
Notes: Figure shows the percentage of respondents who selected "Insecurity of the EU's external borders" or "Civil wars and wars" as one of the three most important current security challenges for the EU citizens.

(a) Europe 1988

(b) Europe 1995

(c) Europe 2004

(d) Europe 2013
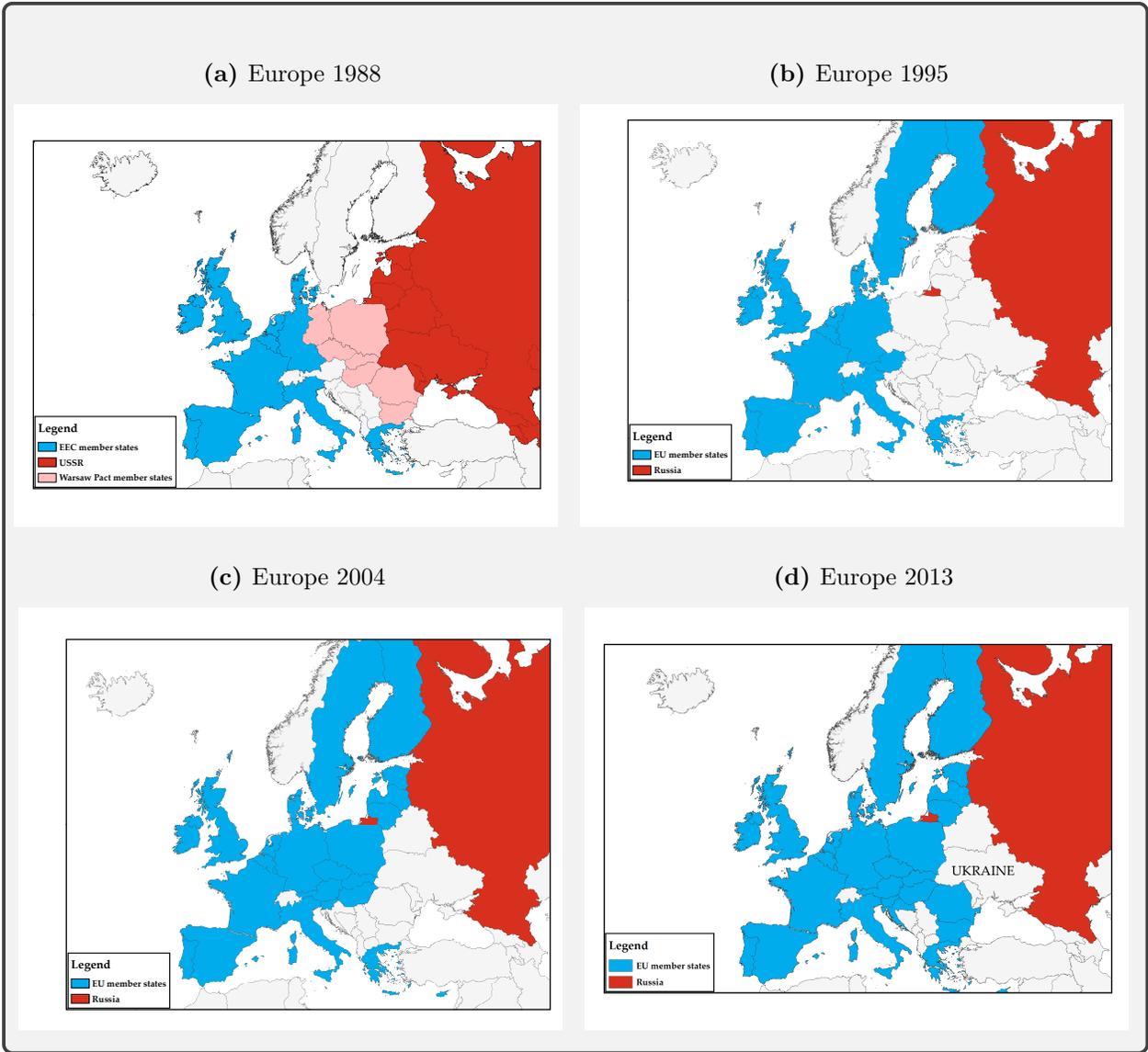
Figure A.6: Expansion of the EU

Appendix B   Psychological theories

(a) Insights From Social Psychology Theories of Group Identity

Evolutionary Theory: optimal group size depends on context. Higher level and larger groups more useful for defense and **protection under threat**. Group identity is a mechanism to internalize group goals and establish trust to enable cooperation.

Realistic Conflict Theory: which groups have **shared goals** under threat.

Self-Categorization Theory: social identity is context dependent.

- Comparative Fit: Threat influences identity of group that is made **salient** through contrast created by potential conflict.
- Relative Accessibility: past experiences and current needs influence values and goals; identification is dependent on whether a group **shares values and goals** under threat.

Group-Based Control Theory: personal control is lowered by threat; individuals identify with groups perceived as offering **protection under threat** in order to restore sense of control.

(b) Application to Eastern European Member States

Salience: Threat increases salience of potential conflict; salience of EU increases by media contrasting Russia against EU. Post-Crimea EU sanctions against Russia enforce salience of EU.

Shared Goals and Values: salient goal becomes defense against Russia. This is a shared goal with EU, which is perceived as defending against global threats and offering protection. Due to past experience, Russia threatens values such as individual freedom, peace, democracy, and human rights, which are associated with the EU.

Protection Under Threat: EU is perceived as offering some protection for its citizens and helping to tackle global threats by a clear majority.

Figure B.1: Psychological Theories and the Russian Threat to EU Member States

Appendix C Confounding events and policy changes
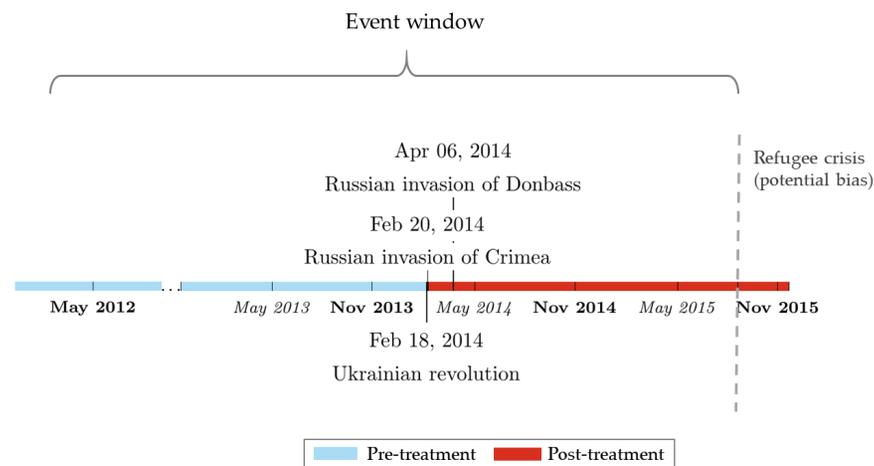
Table C.1: Potential confounding events within event period and afterwards

Event	Date	Potential effect on EU identity	Differential effect on treatment and control states	Proposed solution
Latvia and Lithuania join the Eurozone	1/1/2014 and 1/1/2015	Positive, strengthening the sense of belonging and codependency towards the EU	Yes: affects Latvia only	Replication of the results using Eurozone dummy and extending post-treatment period (Table G.4)

Event	Date	Potential effect on EU identity	Differential effect on treatment and control states	Proposed solution
Winter Olympics in Sochi	2/7/2014-2/23/2014	Negative, presenting the image of a successful Russia may have weakened the EU appeal	No	-
Plans for Nabucco gas pipeline aborted	6/2014	Negative, EU energy security appears weakened, especially in Bulgaria	Yes: The pipeline would've diversified the sources for gas in Europe (especially in BG)	Leave-one-out test (Table G.3)
OECD announces that the accession process of Russia is suspended	3/13/2014	Positive, rally round flag effect.	No	-
Voting Right of the Russian delegation to the Council of Europe suspended	4/10/2014	Positive, rally round flag effect.	No	-
European Parliament elections	5/22/2014-5/25/2014	Positive, taking part in the elections of the parliament could have icreased the feeling of belonging to the EU	No	-
Oil price decline of 68%	6/2014-12/2015	Not likely	No	-

Event	Date	Potential effect on EU identity	Differential effect on treatment and control states	Proposed solution
US president Barack Obama's visit to Poland and Estonia	6/3/2014 and 9/3/2014	Not clear, might weaken effect on EU identity if it signals other options	Potentially if high-threat states care more	Estimated effect would then be a lower bound
Proclamation of caliphate by the Islamic State of Iraq and the Levant	6/29/2014	Potentially also a threat, but not as large	No	-
Flight MH17 shot down in Ukraine	7/17/2014	Positive, rally round flag effect.	No	-
NATO adopts Readiness Action Plan to strengthen collective defence during a NATO summit in Wales	9/5/2014	Not likely, might weaken effect on EU identity if it signals other options	NATO measures focused on countries on the periphery of the alliance, but not only high-threat (especially EE, LT, LV, PL)	Unlikely. If yes, my results could be a lower bound for the lower bound of the true effect
Charlie Hebdo and November terrorist attacks in Paris	1/7/2015 and 11/13/2015	Unlikely	No	-

Event	Date	Potential effect on EU identity	Differential effect on treatment and control states	Proposed solution
Refugee crisis in Europe: Germany stops following the Dublin EU regulations for asylum seekers and calls for a reform of the EU asylum system	Sum 2015	Negative, unfavorable view of solution proposed by the EU, German unilateralism	Yes (a refugee crisis in HU, rise of xenophobia in CZ, HU, PL and SK)	Main estimation period ends before the refugee crisis (the May 2015 wave), replication of the results with longer post-treatment period (Table F.5)
Iranian nuclear deal signed in Vienna	7/14/2015	Unlikely, effect depending on perception of Iran	No	-
The beginning of Russia's intervention in Syria	9/30/2015	Unlikely, could have a rally round the flag effect, but also damage EU image due to its indecisiveness	No	-
Paris Agreement signed as a global attempt to deal with climate change	12/12/2015	Positive, showing a favorable image of multilateralism	No	-
United Kingdom votes to leave the EU	6/23/2016	Positive: increased awareness of costs of leaving the EU	No	-
Donald Trump elected president of the United States	11/8/2016	Positive: decreased trust in the US, increased need for the EU's self-reliance	No	-

Table C.2: Sanctions related to the Russian invasion in Ukraine in 2014 - sending a signal of EU wide cooperation as response to crisis.

Date	Description
3/5/2014	EU introduced freezing of assets of former Ukrainian officials
3/17/2014	EU introduced travel bans and freezing of assets against individuals involved in Crimea annexation
7/31/2014	EU introduced embargo on arms and related material, controls on export of equipment for oil industry, and restrictions on financial instruments
12/18/2014	EU banned investments in Crimea

Appendix D Measuring Russian threat using Google Trends

We use Google Trends to analyse the demand for news regarding the Russian invasion in high-threat and low-threat EU member states. Figure D.1 shows the interest in five topics related to Russia threat in high-threat EU member states based on Google Trends data. Google Trends defines a topic as a group of terms that share the same concept in any language. Additionally, Google Trends topics capture all search terms related to the given topic. We collected the data from Google Trends in the following way. First, we downloaded the 'Interest over time' monthly data on the 5 topics separately for the 9 Eastern EU member states. The topics are "Russian Armed Forces", "Russia", "Vladimir Putin", "Ukraine", and "Crimean Peninsula". Then we calculated the average interest in the 9 countries for each topic. Finally, we calculated the average of interest in 5 topics. The measure is an index scaled on a range of 0 to 100. We observe the peak of the intensity of the Russian threat in March 2014. Figure D.1 shows that the demand for news regarding the 5 topics increased substantially following the invasion of Crimea.

Figure D.1: Russian threat perception in high-threat states (2011-2015)
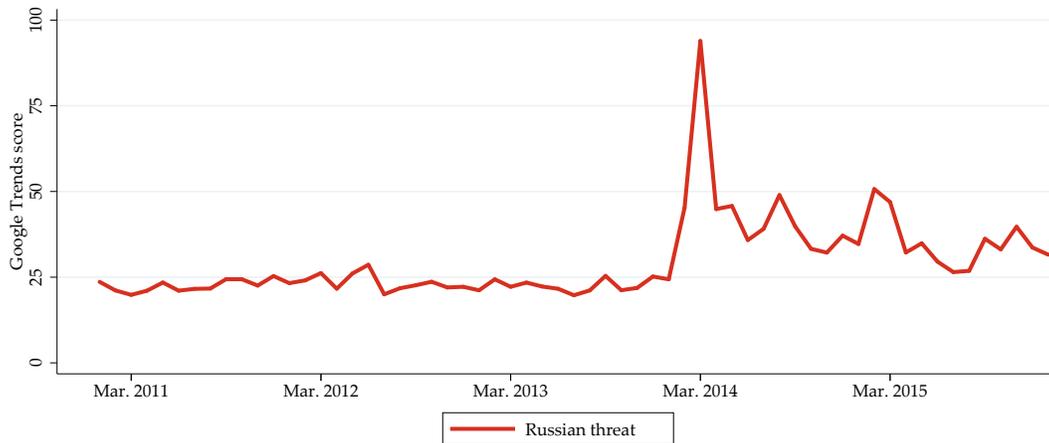
Notes: Figure shows the average intensity of searches for 5 topics ("Russian Armed Forces", "Russia", "Vladimir Putin", "Ukraine", and "Crimean Peninsula") in Eastern EU member states.

Additionally, we analyze the relative popularity of the 5 topics ("Russian Armed Forces", "Russia", "Vladimir Putin", "Ukraine", and "Crimean Peninsula") to compare the salience of the Russian threat in the high-threat and low-threat EU member states between 2011 and 2015 (Figure D.2). We collected the data in the following way. For each year of the studied period, we downloaded Google Trends 'Interest by region' data on each of the topic. Then,

we divided the member state scores of three first topics ("Russian Armed Forces", "Russia", "Vladimir Putin") by the Russia's score and multiplied it by 100. We did the same for two last topics ("Ukraine", "Crimean Peninsula") but this time divided it by the Ukraine's score. Hence, the measure may be interpreted as a popularity of the topics relative to the popularity of the topics in Russia or Ukraine in a given year. Finally, we calculated the average score for high-threat and low-threat EU member states. Figure D.2 shows that before the Russian invasion of Crimea the interest in these topics was larger in high-threat than in low-threat EU member states, but it followed a similar trend in both groups of countries. In 2014, the relative popularity of the topics related to Russian threat increased in both groups, but the increase was substantially larger in high- than in low-threat EU member states.

**Figure D.2:** Russian threat perception high- vs. low-threat states (2011-2015)
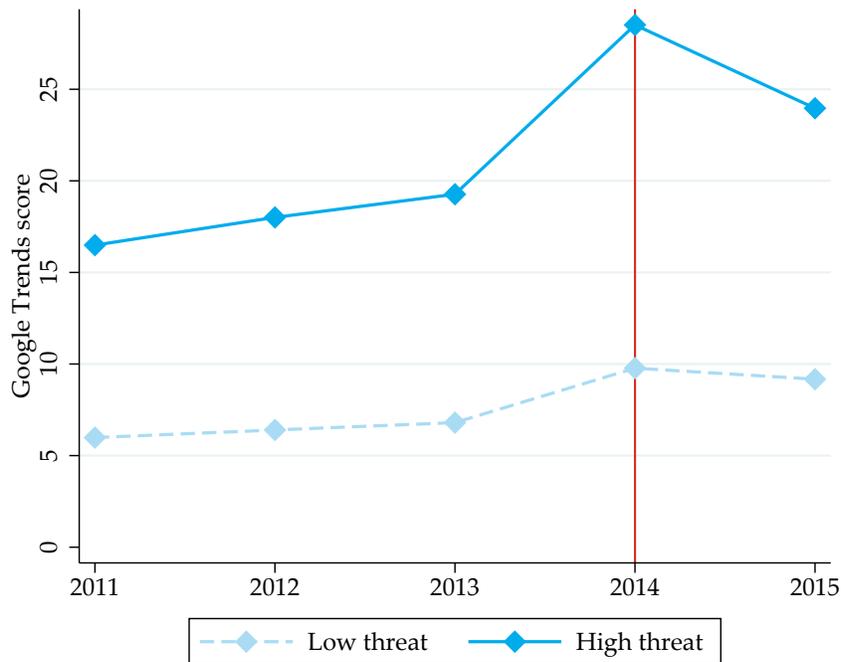
Notes: Figure shows the average relative popularity of 5 topics ("Russian Armed Forces", "Russia", "Vladimir Putin", "Ukraine", and "Crimea") in high-threat and low-threat EU member states. The first three topics are normalized to Russia (Russia=100) and the last two topics are normalized to Ukraine (Ukraine=100)

Finally, we show that the increase in the perceived Russian threat immediately after the invasion of Ukraine varied substantially across countries (see Figure D.3). It was the highest in Latvia and Estonia, countries that share border with mainland Russia and have large Russian minorities. It was still relevant but much lower for Lithuania, and overall negligible for the remaining eastern EU member states.

Figure D.3: Increase in Russian threat intensity (2013-2014 difference)
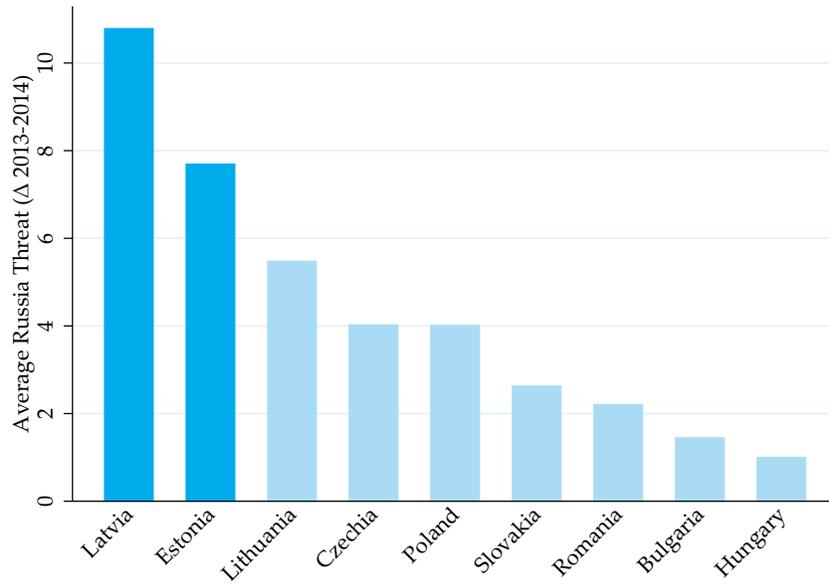
Notes: Figure shows the raw difference in average relative popularity of 5 topics ("Russian Armed Forces", "Russia", "Vladimir Putin", "Ukraine", and "Crimea") between 2013 and 2014. The first three topics are normalized to Russia (Russia=100) and the last two topics are normalized to Ukraine (Ukraine=100).

(a) Increase in Russian threat intensity

(b) Increase in EU identity
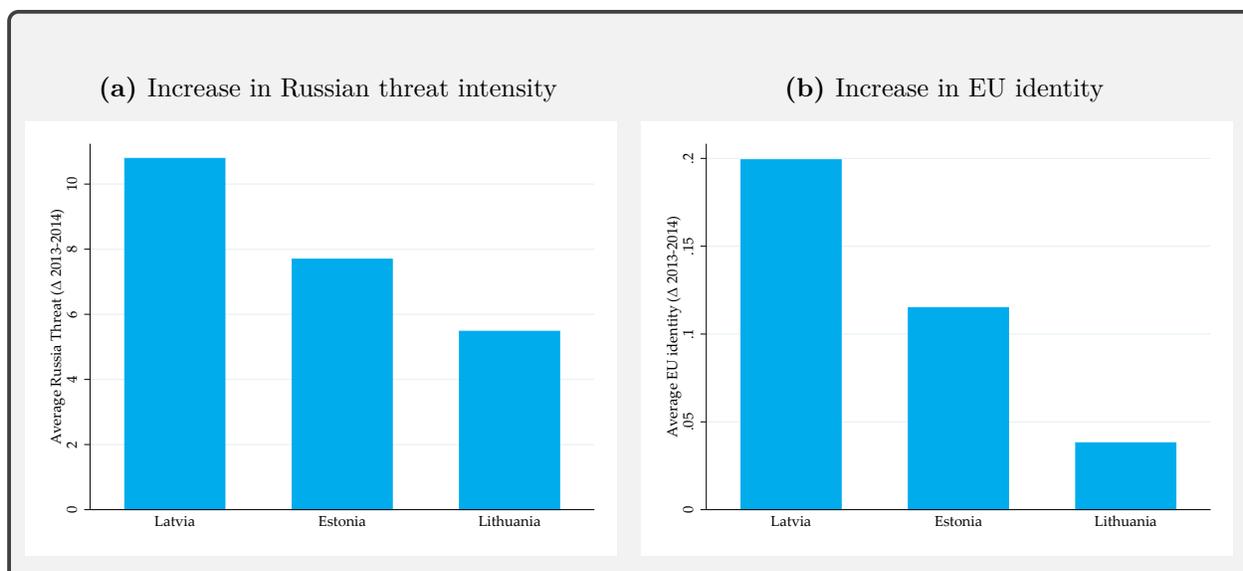
Figure D.4: Increase in Russia threat and increase in EU identity: descriptive statistics (2013-2014)

Notes: Figure D.4a shows the raw difference in average relative popularity of 5 topics ("Russian Armed Forces", "Russia", "Vladimir Putin", "Ukraine", and "Crimea") between 2013 and 2014 based on Google Trends. The first three topics are normalized to Russia (Russia=100) and the last two topics are normalized to Ukraine (Ukraine=100). Figure D.4b shows the raw difference in *EU identity* between 2013 and 2014 based on Eurobarometer.

Appendix E Putting size of effect into perspective

Table E.1: Putting effect size on EU identity into perspective

| Sample unit(s) | Russian Invasion of Ukraine, 2014 | | | |
	Nov 2013	Nov 2014	Raw diff.	Relative change (High Threat=100)
High-threat EU member states	2.499	2.657	0.158	100
	Brexit Referendum, 2016			
	Nov 2015	Nov 2016	Raw diff.	Relative change (High Threat=100)
Ireland	2.505	2.625	0.120	76
	Variation over time			
	2012	2015	Raw diff.	Relative change (High Threat=100)
EU	2.379	2.460	0.081	51
	Cross-country			
			Std. deviation	Relative (High Threat=100)
EU			0.193	122

Notes: Table displays average value of EU identity measure in selected countries. The last column shows raw difference or cross-country standard deviation expressed as index relative to change in EU identity in high-threat EU member states between 2013 and 2014. Identity ranges from 1 to 4.

Appendix F Full regression results

Table F.1: Full DiD results: EU identity (2012-2014 event window)

	(1) EU identity Coef./SE/p-value	(2) EU identity Coef./SE/p-value	(3) EU identity Coef./SE/p-value	(4) EU identity Coef./SE/p-value
High threat × Post-treatment		0.172 (0.051) [0.001]	0.167 (0.046) [0.001]	0.214 (0.062) [0.001]
Post-treatment	0.185 (0.038) [0.001]	0.018 (0.030) [0.562]		
Country FE	yes	no	yes	yes
Time FE	no	no	yes	yes
Country characteristics	no	no	no	yes
Adj. R-Squared	0.07	0.04	0.07	0.07
N	4695	24884	24884	24884

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. Column 1 shows the pure time-variation, columns 2 - 4 the DiD coefficients (High-Threat dummy not displayed in column 2). *EU identity* is standardized with mean 0 and variance 1. All regressions control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. Member state characteristics include GDP per capita growth, inflation rate, youth unemployment rate, and a dummy for legislative elections held.

Table F.2: Full results for all outcome variables (2012 - 2014)

Measures of EU identity

	(1) EU identity Coef./SE/p-value	(2) Sense of EU citizenship Coef./SE/p-value	(3) European vs. National identity Coef./SE/p-value
High threat ×	0.164	0.149	0.128
Post-treatment	(0.045)	(0.029)	(0.035)
	[0.001]	[0.000]	[0.001]
Country FE	yes	yes	yes
Time FE	yes	yes	yes
Adj. R-Squared	0.07	0.12	0.09
N	24884	59194	50392

Psychological attitudes

	(1) Trust in the EU Coef./SE/p-value	(2) Trust in the European Parliament Coef./SE/p-value	(3) Trust in the European Commision Coef./SE/p-value	(4) Country better face the future within the EU Coef./SE/p-value
High threat ×	0.191	0.144	0.131	0.163
Post-treatment	(0.041)	(0.043)	(0.049)	(0.039)
	[0.000]	[0.001]	[0.009]	[0.000]
Country FE	yes	yes	yes	yes
Time FE	yes	yes	yes	yes
Adj. R-Squared	0.06	0.04	0.05	0.04
N	60208	58439	55564	45215

Economic perceptions

	(1) Globalisation a growth opportunity Coef./SE/p-value	(2) EU makes cost of living cheaper Coef./SE/p-value	(3) EU makes doing business easier Coef./SE/p-value	(4) EU meaning: unemployment Coef./SE/p-value
High threat ×	-0.026	-0.029	0.023	0.027
Post-treatment	(0.036)	(0.037)	(0.031)	(0.025)
	[0.465]	[0.439]	[0.456]	[0.290]
Country FE	yes	yes	yes	yes
Time FE	yes	yes	yes	yes
Adj. R-Squared	0.05	0.08	0.07	0.04
N	47931	37785	37070	68405

Political support

	(1) EU common defence Coef./SE/p-value	(2) EU common foreign policy Coef./SE/p-value	(3) Further enlargment of the EU Coef./SE/p-value	(4) EU common currency Coef./SE/p-value
High threat ×	0.136	0.150	0.123	0.433
Post-treatment	(0.026)	(0.031)	(0.025)	(0.076)
	[0.000]	[0.000]	[0.000]	[0.000]
Country FE	yes	yes	yes	yes
Time FE	yes	yes	yes	yes
Adj. R-Squared	0.03	0.05	0.06	0.15
N	63309	61754	59311	62646

Alternative identity levels

	(1) EU identity Coef./SE/p-value	(2) National identity Coef./SE/p-value	(3) Regional identity Coef./SE/p-value
High threat ×	0.164	-0.006	-0.083
Post-treatment	(0.045)	(0.048)	(0.064)
	[0.001]	[0.902]	[0.200]
Country FE	yes	yes	yes
Time FE	yes	yes	yes
Adj. R-Squared	0.07	0.09	0.08
N	24884	25568	25574

Notes: Table shows detailed regression results for Figure 3. Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized.In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. We also control for time fixed effects and member state fixed effects.

Table F.3: Full results conditional on share of Russian minority and distance to Russia border within high-threat states (2012-2014)

	Share of Russian minority			Proximity to Russia		
	(1)	(2)	(3)	(4)	(5)	(6)
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
Post-treatment	0.038	0.063	0.080	0.278	0.266	0.311
	(0.037)	(0.037)	(0.038)	(0.057)	(0.057)	(0.062)
	[0.304]	[0.090]	[0.034]	[0.000]	[0.000]	[0.000]
Post-treatment	0.006	0.004	0.004			
× Share of	(0.001)	(0.001)	(0.001)			
Russian minority	[0.000]	[0.003]	[0.011]			
Post-treatment				0.001	0.001	0.001
× Proximity				(0.000)	(0.000)	(0.000)
to Russian border				[0.016]	[0.025]	[0.007]
Country FE	no	yes	no	no	yes	no
Region FE	no	no	yes	no	no	yes
Adj. R-Squared	0.06	0.08	0.09	0.06	0.08	0.09
N	7562	7562	7562	7562	7562	7562

Notes: Dependent variable is *EU identity*. All outcomes are standardized. Regressions coefficients with robust standard errors in parentheses and p-values in square brackets. Regressions are only conducted for the high-threat states Latvia, Lithuania and Estonia. *Share of Russian minority* is a continuous variable defined as the share of Russian minority in region's population. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. In columns 2 and 5, we additionally control for member state fixed effects. In columns 3 and 6, we additionally control for region fixed effects (NUTS-3 level).

Table F.4: Full DiD results: EU identity (2012-2014 event window) - robust to adding further country-level controls

	(1) EU identity Coef./SE/p-value	(2) EU identity Coef./SE/p-value	(3) EU identity Coef./SE/p-value	(4) EU identity Coef./SE/p-value	(5) EU identity Coef./SE/p-value
High threat ×	0.214	0.258	0.198	0.265	0.306
Post-treatment	(0.062)	(0.049)	(0.056)	(0.112)	(0.117)
	[0.001]	[0.000]	[0.001]	[0.021]	[0.011]
Country FE	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes
Baseline country characteristics	yes	yes	yes	yes	yes
Demographics	no	yes	no	no	yes
International integration	no	no	yes	no	yes
Labor market	no	no	no	yes	yes
Adj. R-Squared	0.07	0.07	0.07	0.07	0.07
N	24884	24884	24884	24884	24884

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. We also control for time fixed effects, member state fixed effects, and state characteristics including GDP per capita growth, inflation rate, youth unemployment rate, and a dummy for legislative elections held. Depending on the column we also control for sets of macro control variables: demographics (age dependency ratio, rural population (% of total population), crude birth rate, and life expectancy), financial flows (exports (% of GDP), and FDI inflows (% of GDP)), and labor market (female labor force participation rate, and GINI index). The event period covers the Eurobarometer waves spring 2012 until autumn 2014.

Table F.5: Full DiD results: EU identity (2012-2014 event window) - average effect with longer post-treatment period (2012-2018)

	(1) EU identity Coef./SE/p-value	(2) EU identity Coef./SE/p-value	(3) EU identity Coef./SE/p-value	(4) EU identity Coef./SE/p-value
High threat × Post-treatment		0.127 (0.057) [0.030]	0.125 (0.053) [0.021]	0.181 (0.047) [0.000]
Post-treatment	0.213 (0.044) [0.001]	0.099 (0.026) [0.000]		
Country FE	yes	no	yes	yes
Time FE	no	no	yes	yes
Adj. R-Squared	0.09	0.04	0.07	0.08
N	10974	58519	58519	58519

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. The pre-treatment period includes observation from 2012-2013. The post-treatment period includes observations from 2014-2018. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. We also control for time fixed effects and member state fixed effects.

Table F.6: Full DiD results: EU identity (2012-2014 event window) - Lithuania in the high-threat group

	(1) EU identity Coef./SE/p-value	(2) EU identity Coef./SE/p-value	(3) EU identity Coef./SE/p-value	(4) EU identity Coef./SE/p-value
High threat × Post-treatment		0.144 (0.045) [0.002]	0.138 (0.044) [0.002]	0.144 (0.050) [0.005]
Post-treatment	0.149 (0.028) [0.000]	0.004 (0.034) [0.899]		
Country FE	yes	no	yes	yes
Time FE	no	no	yes	yes
Country characteristics	no	no	no	yes
Adj. R-Squared	0.08	0.04	0.07	0.07
N	7562	24884	24884	24884

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. The treatment group consists of Estonia and Latvia. Individual characteristics include gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. State characteristics include GDP per capita growth, inflation rate, youth unemployment rate, and a dummy for legislative elections held.

Table F.7: Full DiD results: EU identity (2012-2014 event window) - including Russian minority

| | (1) | (2) | (3) | (4) |
| | EU identity | EU identity | EU identity | EU identity |
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
russia_border_cntry_rus=2		0.140	0.137	0.174
×		(0.042)	(0.042)	(0.054)
Post-treatment		[0.001]	[0.002]	[0.002]
Post-treatment	0.185	0.017		
	(0.038)	(0.030)		
	[0.001]	[0.568]		
Country FE	yes	no	yes	yes
Time FE	no	no	yes	yes
Country characteristics	no	no	no	yes
Adj. R-Squared	0.07	0.04	0.06	0.07
N	4695	25869	25869	25869

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. We also control for time fixed effects and member state fixed effects. The pre-treatment waves include 2012(May), and 2013(Nov). The post-treatment waves include 2014(Nov) and 2015(Nov). Compared to the main Table F.1, this table includes respondents chose Russian language of the questionnaire in Estonia and Latvia.

Table F.8: Full DiD results: EU identity (2012-2014 event window) - robust to alternative standard errors

| | (1) | (2) | (3) | (4) | (5) | (6) |
| | Robust | Cluster Region | Cluster State | RI Cluster State, R=State | RI Cluster State, R=Region | RI Cluster State, R=Individual |
	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value	Coef./SE/p-value
High threat ×	0.167	0.167	0.167	0.167	0.167	0.167
Post-treatment	(0.035)	(0.046)	(0.057)	(0.078)	(0.067)	(0.063)
	[0.000]	[0.001]	[0.018]	[0.065]	[0.038]	[0.030]
Country FE	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes
Adj. R-Squared	0.07	0.07	0.07	0.07	0.07	0.07
N	24884	24884	24884	24884	24884	24884

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets. All outcomes are standardized. In the first column, we calculated robust standard errors (Stata command *vce(robust)*). In the second column, we calculated standard errors clustered at the regional level. In the third column, we calculated standard errors clustered at the member state level. In the fourth column, we calculated standard errors clustered at the member state level using randomization inference by assigning treatment at the member state level. In the fifth column, we calculated standard errors clustered at the member state level using randomization inference by assigning treatment at the regional level. In the sixth column, we calculated standard errors clustered at the member state level using randomization inference by assigning treatment at the individual level. Stata package *ritest* was used for randomization inference (Hess, 2019). In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. We also control for time fixed effects and member state fixed effects. The event period covers the Eurobarometer waves spring 2012 until autumn 2014.

Appendix G   Additional results

Table G.1: Pure over-time comparison within each high-threat member (2012-2014 event window) state

	(1) Lithuania Coef./SE/p-value	(2) Estonia Coef./SE/p-value	(3) Latvia Coef./SE/p-value
Post-treatment	0.093	0.111	0.197
	(0.041)	(0.042)	(0.043)
	[0.024]	[0.008]	[0.000]
Adj. R-Squared	0.04	0.06	0.05
N	2867	2883	2797

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. Table shows pure time variation in EU identity within each High Threat EU member states separately. All regressions control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children.

Figure G.1: Leads and lags: EU identity (2012-2018 event window) - no macro controls
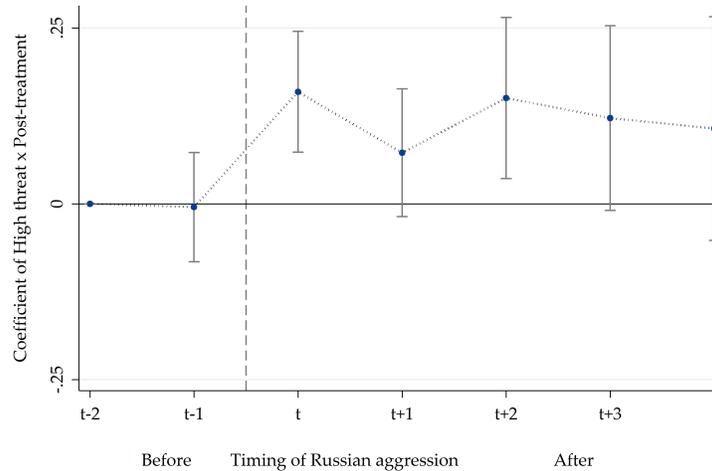
Notes: Figure displays coefficients and 90% confidence intervals from regressions of *EU identity* on leads and lags of the interaction of time dummy variable and *High Threat*. All outcomes are standardized. We control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. We also control for time fixed effects and member state fixed effects. Standard errors are clustered at the regional level.
Interpretation: With a longer event window, there are more overlapping other events that differ between high- and low threat states. Hence the estimates become noisier. State-year specific control variables help to account for these other changes, as in the baseline test in Figure 5a.This specification demonstrates that the estimates are significantly noisier compared to using the appropriate macro-controls-

Table G.2: DiD results for EU identity: estimate effect across age groups to assess bias due to age trend differences

	(1) 15-39 years old Coef./SE/p-value	(2) 40-64 years old Coef./SE/p-value	(3) 65 years old or more Coef./SE/p-value
High threat ×	0.090	0.180	0.321
Post-treatment	(0.044)	(0.061)	(0.105)
	[0.046]	[0.004]	[0.003]
Country FE	yes	yes	yes
Time FE	yes	yes	yes
Adj. R-Squared	0.04	0.07	0.09
N	8644	11184	5056

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). Outcome is standardized. Column 1 shows the results for respondents aged 15-39 years old, column 2 shows the results for respondents aged 40-64 years old, and column 3 shows the results for respondents aged 65 years old or older. All regressions control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children, time and member state fixed effects, as well as state characteristics including GDP per capita growth, inflation rate, youth unemployment rate, and a dummy for legislative elections held. The event period covers the Eurobarometer waves spring 2012 until autumn 2014.

Interpretation: The treated states have a somehow stronger aging trend (their average age increased by 2.673 years more than it increased in the control group). This could bias in the direction of our effect if older cohorts would react stronger to the increased threat towards expressing a stronger EU identity. To some extent, this is actually the case. Moving up from the second to the third age group in the table – an increase in average age of 20 years – leads to an effect that is about 0.14 stronger. A back-of-the-envelope calculation would thus suggest that the 2.673 years trend difference reflects at maximum a change of $\frac{2.673}{20} \times 0.14 = 0.019$.

Less younger people could also bias against our main effect as there are fewer younger people who have on average a stronger EU identity. A simple correlational exercise shows that each additional year of age decreases the EU identity by 0.0068. Thus, a relative faster aging in high-threat group would result in a downward bias of the treatment effect of $2.673 \times 0.0068 = 0.018$. Hence, these, arguably naive, exercises suggest that a net bias due to the age changes should would be 0.018 - 0.019 = -0.001. This would be a negligible bias against our main effect direction, which has an effect size of 0.167.

**Figure G.2:** Net potential bias due to age trend differences is negligible
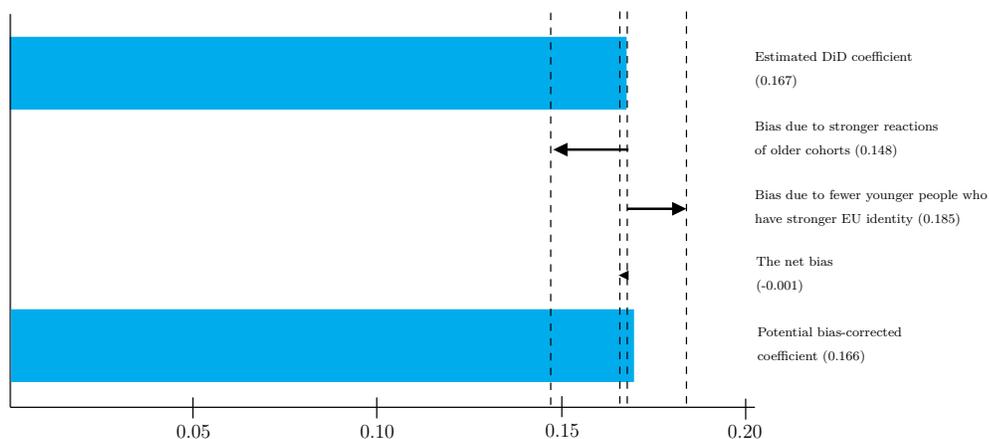
Table G.3: DiD results for EU identity: Robust to leave-one-out of control group test

	(1) w/o BG Coef./SE/p-value	(2) w/o CZ Coef./SE/p-value	(3) w/o HU Coef./SE/p-value	(4) w/o PL Coef./SE/p-value	(5) w/o RO Coef./SE/p-value	(6) w/o SK Coef./SE/p-value	(7) w/o V4 Coef./SE/p-value
High threat ×	0.125	0.160	0.168	0.172	0.191	0.178	0.184
Post-treatment	(0.043)	(0.049)	(0.048)	(0.048)	(0.047)	(0.049)	(0.068)
	[0.005]	[0.002]	[0.001]	[0.001]	[0.000]	[0.001]	[0.010]
Country FE	yes	yes	yes	yes	yes	yes	yes
Time FE	yes	yes	yes	yes	yes	yes	yes
Adj. R-Squared	0.07	0.05	0.08	0.06	0.07	0.07	0.06
N	21994	21925	21897	22202	22033	21931	13303

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. In each column we show the results after excluding one member state from the control group: Bulgaria in column 1, Czechia in column 2, Hungary in column 3, Lithuania in column 4, Poland in column 5, Romania in column 6, Slovakia in column 7. In column 8, we exclude 4 countries that belong to Visegrád Group (Czechia, Hungary, Poland, Slovakia). In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. We also control for time fixed effects and member state fixed effects. The event period covers the Eurobarometer waves spring 2012 until autumn 2014.

Table G.4: DiD results: EU identity (2012-2018 event window) - robust to controlling for Eurozone membership

	(1) EU identity Coef./SE/p-value	(2) EU identity Coef./SE/p-value	(3) EU identity Coef./SE/p-value	(4) EU identity Coef./SE/p-value
High threat ×		0.125	0.121	0.132
Post-treatment		(0.048)	(0.042)	(0.040)
		[0.011]	[0.005]	[0.001]
Post-treatment	0.168	0.049		
	(0.029)	(0.029)		
	[0.000]	[0.089]		
Country FE	yes	no	yes	yes
Time FE	no	no	yes	yes
Country characteristics	no	no	no	yes
Adj. R-Squared	0.08	0.04	0.07	0.07
N	6283	33119	33119	33119

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the regional level). All outcomes are standardized. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. We also control for time fixed effects, member state fixed effects, and a dummy for Eurozone membership. The pre-treatment waves include 2012(May), and 2013(Nov). The post-treatment waves include 2014(Nov) and 2015(Nov). Compared to the main Table F.1, this table includes an additional post-treatment year and controls for Eurozone membership. Lithuania and Latvia both joined the Eurozone during the even window.

G.1 Lithuania in the high-threat group

(a) Alternative definition high and low-threat states
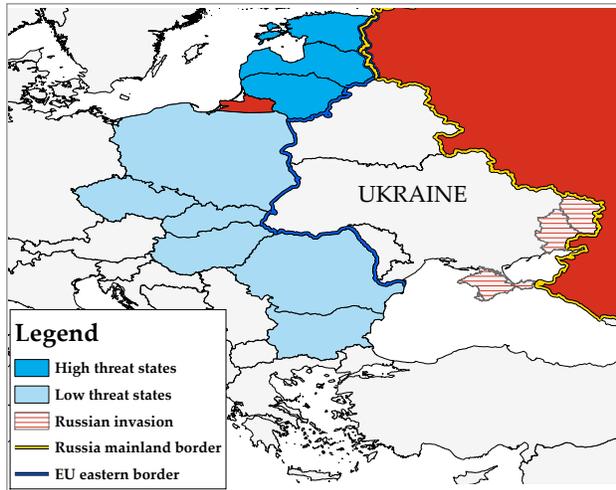
**(b)** EU identity (with Lithuania as high-threat state)
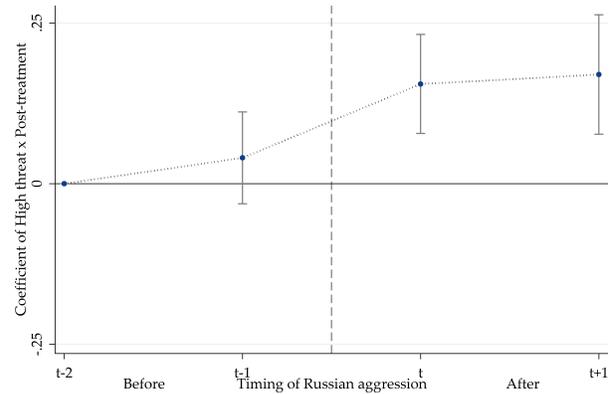
Figure G.3: The effects of an increased Russian threat on EU identity

Notes: Map in Figure G.3a shows the high-threat states in dark blue, and low-threat states in light blue. Figure G.3b displays coefficients and 90% confidence intervals from regressions of *EU identity* on leads and lags of the interaction of time dummy variable and *High Threat*. This reveals that also in this alternative specification there is no significant pre-trend. The regression included the following control variables: gender, age, education level, labor market status, type of area of living (urban vs. rural), marital status, household composition, GDP per capita, inflation rate, youth unemployment rate, legislative election held (dummy), member state and year fixed effects. Standard errors are clustered at the regional level.

Interpretation: These results show the robustness to using an alternative definition where Lithuania is considered low-threat. The high-threat group following this definition then consists of Estonia and Latvia. This is a plausible alternative definition as only Estonia and Latvia share border with mainland Russia and have large Russian minority. Given the the evidence from the perception of the threat based on Google Trends and shared experience of being part of the Soviet Union, the core definition captures high-threat states more accurately. Nonetheless, we can replicate the main effect using this alternative definition.
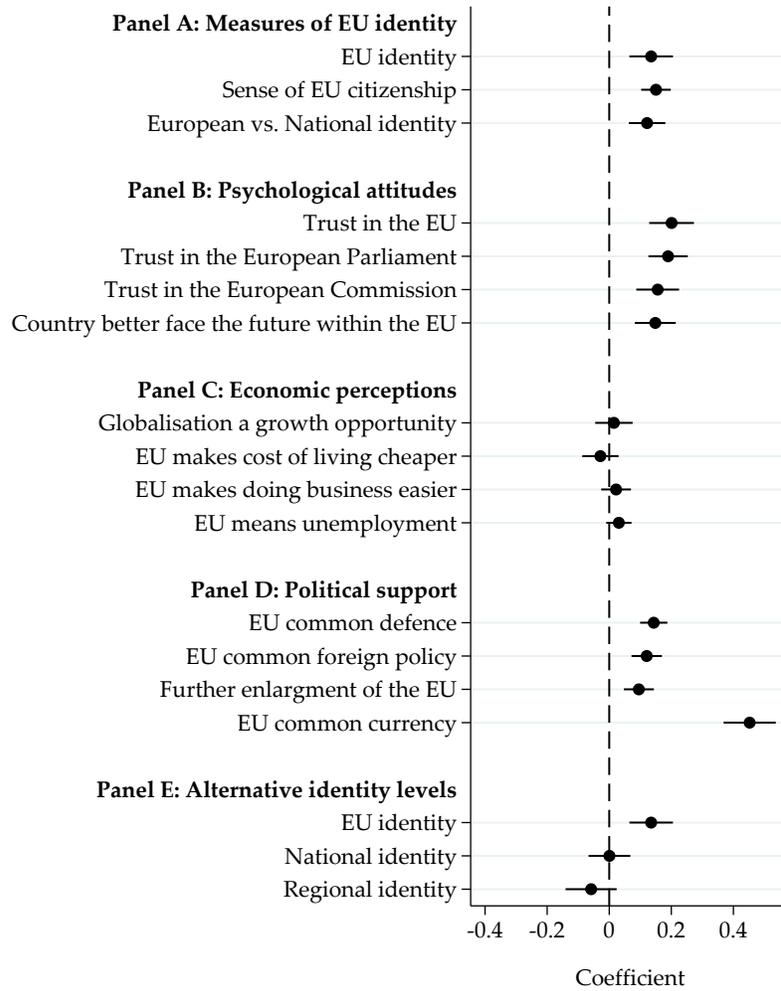
Figure G.4: Mechanisms and consequences (with Lithuania as high-threat state)

Notes: Figure displays the DiD coefficient together with its 90% confidence interval, based on standard errors clustered at the regional level. All outcomes are standardized. The treatment group consists of Estonia, Latvia, and Lithuania. All outcomes are standardized with mean 0 and variance 1. Regressions are based on the specification equivalent to Table F.6, column 4, and include the same individual and state-level control variables plus state and time fixed effects. The event period covers the Eurobarometer waves autumn 2011 until spring 2015.

G.2 EU identity and support for common policies

Table G.5: Pooled OLS model: stronger identity correlates with more support for common policies

	(1) Support for the EU Common Defense Coef./SE/p-value	(2) Support for the EU Common Foreign Policy Coef./SE/p-value	(3) Support for Further Enlargment of the EU Coef./SE/p-value
EU identity	0.189	0.258	0.193
	(0.067)	(0.062)	(0.068)
	[0.010]	[0.000]	[0.009]
Macro controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Adj. R-Squared	0.32	0.43	0.59
N	189	189	189

Notes: Table displays coefficients of four pooled country-level time-series regressions, with standard errors, clustered at the member state level, in parentheses and p-values in square brackets. EU identity and dependent variables are standardized with a mean of zero and a standard deviation of one. We control for year fixed effects and state characteristics including GDP per capita, inflation rate, youth unemployment rate, and a dummy for legislative elections held. The sample consists of 28 member states, and data are aggregated at the member state level. Standard errors, clustered at the member state level, are in parentheses and p-values in square brackets.

Table G.6: Fixed effects: stronger identity correlates with more support for common policies

	(1) Support for the EU Common Defense Coef./SE/p-value	(2) Support for the EU Common Foreign Policy Coef./SE/p-value	(3) Support for Further Enlargment of the EU Coef./SE/p-value
EU identity	0.224	0.260	0.213
	(0.038)	(0.054)	(0.053)
	[0.000]	[0.000]	[0.000]
Macro controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Adj. R-Squared	0.25	0.28	0.34
N	189	189	189

Notes: Table displays coefficients of four individual fixed-effects regressions, with standard errors, clustered at the member state level, in parentheses and p-values in square brackets. EU identity and dependent variables are standardized with a mean of zero and a standard deviation of one. We control for year fixed effects and state characteristics including GDP per capita, inflation rate, youth unemployment rate, and a dummy for legislative elections held. The sample consists of 28 member states, and data are aggregated at the state level.

Table G.7: Individual level correlations within-countries: stronger identity correlates with more support for common policies

	(1) Support for the EU Common Defense Coef./SE/p-value	(2) Support for the EU Common Foreign Policy Coef./SE/p-value	(3) Support for Further Enlargment of the EU Coef./SE/p-value
EU identity	0.234	0.266	0.221
	(0.014)	(0.014)	(0.013)
	[0.000]	[0.000]	[0.000]
Control variables	yes	yes	yes
Country FE	yes	yes	yes
Time FE	yes	yes	yes
Country FE x Time FE	yes	yes	yes
Adj. R-Squared	0.11	0.13	0.16
N	222784	218121	214480

Notes: Regressions coefficients with standard errors in parentheses and p-values in square brackets (clustered at the member state level). EU identity and dependent variables are standardized with a mean of zero and a standard deviation of one. In all regressions, we control for individual characteristics including gender, age, education level, labor market status, urban vs. rural areas in three categories, marital status, and presence of children. We also control for time fixed effects, member state fixed effects, interactions of time and member state fixed effects, and state characteristics including GDP per capita, inflation rate, youth unemployment rate, and a dummy for legislative elections held.