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Rallying around the EU flag: Russia's invasion of Ukraine and attitudes toward European integration^{***}

Abstract

This paper uses a survey among students at European universities to explore whether Russia's invasion of Ukraine has affected attitudes toward European integration. Some respondents completed the survey *just before* Russia's assault on February 24, 2022, and some did so *just afterwards*, thus delivering a quasi-experimental design situation, which we exploit. Our results suggest that the ominous news about the Russian attack increased the participants' interest in EU politics, consolidated their attachment to the EU, and made them more mindful and appreciative of the benefits of deeper European integration. In effect, the war so close to the EU Eastern border provoked a rally around the supranational EU flag, with convergence of public opinion toward shared European values.

Keywords: European integration, attitudes, external threat, rally around the flag, Ukraine, Russia. JEL: F02; F5; H77; N44; Z18.

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1 Introduction

The presence of an external military threat can serve as a powerful catalyst of political integration. Germany became a unified country largely in response to the French hegemony over Europe under Napoleon. Similarly, Italy's unification helped counter the Habsburg domination over Northern Italian regions. After several largely-peaceful decades, Europe has been confronted with a threat of aggression following Russia's invasion of Ukraine on February 24, 2022. Although the European Union (EU) has refrained from getting directly involved in the conflict, it has extended support to Ukraine by imposing unprecedentedly severe economic sanctions on Russia, and by providing the attacked country with financial resources and weapons. Moreover, there has been a non-negligible prospect of the conflict spilling over also to other European countries, most notably the neighboring Baltic states and Poland. This has legitimately created a large echo across the continent and beyond, reminding people that peace is fragile again in Europe.

In this paper, we explore whether the recent turn of events has influenced people's attitudes towards European integration. There are various reasons why attitudes may have changed as a consequence of the Russian attack on Ukraine. First, individuals may devote more interest to EU politics since decisions at the European level—on sanctions, financial support, etc. have a direct impact on their lives. Second, the experience of a smaller country being attacked by its bigger neighbor may make them aware of the necessity of intra-European cooperation, especially on matters such as military defense and external policy. Third, the fact that Ukraine is a democracy, while Russia is not (Boese et al. 2022) may remind them of the values represented by the EU—if only because observing events in non-democratic Russia, where protests against the war are severely suppressed, reminds Europeans of the freedom and values protected by the EU. Hence, the Russian aggression may result in a "rally around the flag" effect, with individuals instinctively feeling more attached to the common European cause in the face of an external threat.

The aggression occurred while the project of European integration has been under strain for more than a decade, challenged by the Eurozone crisis of 2010, the migration crisis in 2015, the Brexit vote in 2016, and the steady rise in support for Eurosceptic parties.¹⁰ Yet, Russia's

¹⁰ Popular support for Eurosceptic parties has increased from 15% to 35% between 1992 and 2019 (Rooduijn et al., 2019).

invasion of Ukraine on February 24, 2022, has brought a challenge of a different nature for the EU: an outright war in the immediate neighborhood of member countries that was hardly expected following the democratization of the formerly communist states and reunification of Europe. Although no EU country has been directly attacked, the threat of what has been qualified as a "civilizational" war, i.e., a war of individual and social values, remains quite serious. In this recent and unusual geopolitical context, we employ data from our own online survey to explore empirically whether the Russian aggression against Ukraine has induced a shift in attitudes towards enhanced European integration.

Our survey was conducted among students of various European universities in early 2022. The survey happened to be launched shortly before February 24, 2022 and remained open until mid-March 2022. This particular timing allows us to analyze in a quasi-experimental framework whether the news about the Russian aggression, *ceteris paribus*, affected participants' responses to the various questions in the survey. Using an *unexpected event during survey design* (as in Muñoz et al., 2020), we identify the effect of the Russian invasion by comparing answers from before and after the launch of the war in the early morning of February 24, 2022.

This paper contributes to the literature on the determinants of public attitudes towards European integration (Gabel,1998; Tucker et al., 2002; Rohrschneider, 2002; Karp et al., 2003; Christin, 2005; Schuck and de Vreese, 2006; McLaren, 2007; Garry and Tilley, 2009; Boom-gaarden et al., 2011; Hobolt, 2012; Freire et al., 2014; Nielsen, 2016; Gehring, 2022). The paper most closely related to ours is Gehring (2022), who analyses the impact of Russia's 2014 occupation of Crimea on attitudes towards Europe. Using Eurobarometer survey data from 2012 to 2014, Gehring identifies the effect of the annexation through a difference-in-difference design that compares "high-threat" countries of Estonia and Latvia to other "low-threat" (Eastern) European member states. Gehring reports a sizable differential increases in EU identity and support for European integration in Estonia and Latvia.

Our analysis complements and extends Gehring's (2022) findings in four ways. First, we compare attitudes a few days before and after the Russian attack, minimizing the influence of policy responses to the attack. In Gehring's study, attitudinal changes in the two Baltic states in the aftermath of the occupation of Crimea may have partly been driven by how countries' governments responded to this event. Second, while Gehring analyzed the effects of an occupation that did not result in numerous casualties, we consider the effects of an outright war in

an EU neighborhood country. Third, we observe attitudinal changes for respondents who were mainly from Western European countries (the majority of our respondents are German, French and Belgian), whose countries were not directly targeted by the Russian aggression (although there was a non-negligible possibility that the conflict could escalate into a Russia-NATO war if Russia attacked the Baltic countries, Poland, or another NATO member state). In the framework used by Gehring, all our countries would be "untreated". Finally, while Gehring's samples are representative of the entire populations of the countries considered, our respondents are Erasmus students-a younger, more educated, more informed about EU values (due to own personal experience via university exchange in an EU country) and (perhaps) more pro-European segment of the population (Hakhverdian et al. 2013; Kuhn 2012; Mitchell 2015). Based on the premise that the effects of the war on support for European integration should be greater for individuals who are less pro-European to begin with, and higher in high-threat countries, such as Russia's neighbors and former Soviet republics, any effects observed on Western European Erasmus students can be seen as a lower bound estimate of the effects on the European population as a whole. In sum, we add to Gehring's important work by asking whether the 2022 Russian invasion affected EU citizens' orientations towards the EU immediately and beyond citizens in Russia's neighbor countries in the Baltic.

We also contribute to the recent literature using unexpected events during surveys for causal inference (Nussio et al., 2019; Larsen et al., 2020; Muñoz et al., 2020; Van Hauwaert and Huber, 2020; Bol et al., 2021; Giani and Meon, 2021; De Vries et al., 2021). These papers use the fact that major and unexpected events, such as terrorist attacks or the COVID-19 pandemic, happened while a survey was in the field, to infer the causal impact of the event on outcomes collected in the survey. On this account, our paper is closest to Larsen et al. (2020), Asadzade and Izadi (2022), Dräger et al. (2022), and Gutmann et al. (2022). Studying EU support through an unexpected event during survey design, Larsen et al. (2020) show that the 2016 Berlin terrorist attacks had positive effects on attitudes towards the EU in Germany. Asadzade and Izadi (2022) leverage a survey among students in the United States which, similarly to ours, happened to be in the field when Russia invaded Ukraine on February 24, 2022. They show that the Russian invasion raised the short-run inflation expectations of experts (academic economists) but did not affect, in the short-run at least, the inflation expectations of the general public.

Gutmann et al. (2022) find that the attitudes of the Austrian public towards globalization were not affected by the Russian invasion of Ukraine.

Finally, our paper relates to the literature on "rally around the flag" effects (Mueller, 1970; Mueller, 1973; Baker and Oneal, 2001; Hetherington and Nelson, 2003; Kuijpers, 2019). The "rally around the flag" phenomenon refers to short-run increases in the popularity of incumbents in response to (international) crises, mostly in the form of military or security threats. A striking example is the popularity boost by George W. Bush after September 11, 2001, whose approval rating increased from 51% on September 10 to 86% on September 15 (Hetherington and Nelson, 2003). Similarly, according to official Russian polls, Vladimir Putin enjoyed a substantial boost to his popularity following Russia's annexation of Crimea in 2014 (Hale, 2022). One common explanation for the rally effect is the public's desire for national unity in the face of a common external threat. Consequently, this literature has focused on how the popularity of *national* leaders is affected by imminent threats to the *nation*.¹¹ We extend the notion of a rally effect from the idea of national unity to supranational unity: in our case, the "flag" is the supranational EU one and the trigger event is Russia's war of aggression against Ukraine. Thus, we ask whether EU citizens rallied behind the EU (rather than their nation) in the face of an event that was not a direct military attack against one of their nations, but that was still perceived as a common threat-perhaps not only to people's personal security but to what they perceive as the European community's shared values.

Our results reveal that the Russian attack had an immediate effect on attitudes towards European integration. In particular, interest in EU politics, support for deeper European integration, perceived benefits of EU membership for one's country and personal attachment to Europe increased significantly in the days following the attack. They are, thus, in line with a rally around the EU flag effect that consolidated public opinion in the face of the current threat on democratic values and European unification.

¹¹ Recently, a similar effect was also observed as a result of the Covid-19 pandemic (Johansson et al., 2021; Kritzinger et al., 2021; Schraff, 2021).

2 Data and Methodology

2.1 Survey Organization and Design

The data used in this study were collected as part of the European Students Mobility Experience Survey (EUSMES). The original objective of this survey was to investigate the impact of participating in a semester abroad on students' attitudes and sense of identity. The survey took place in two rounds: the first round in spring 2021, and the second round in spring 2022.¹²

The second round of the survey was launched on February 21, 2022. On or shortly after that date, administrations of participating universities sent out an email to students who had just completed an Erasmus stay, inviting them to participate in the survey. For instance, JGU Mainz (Germany) sent out the invitation on February 21, TU Darmstadt (Germany), University of Lille (France), and WU Vienna (Austria) on February 22, KU Leuven (Belgium) on February 23, and GU Frankfurt (Germany) on February 25.¹³ Students received a link to a set of survey questions about their identification with Europe, their interest in Europe, as well as their support for a deepening of European integration. The complete set of EU/Europe-related questions and answer options is given in Table 1.¹⁴ Participation in the survey was voluntary, and students were invited to complete the questionnaire by March 13, 2022.

2.2 Russia's Attack on Ukraine

Russian aggression towards Ukraine dates back to 2014, when Russia illegally annexed Crimea and started supporting separatist fighters in the South-Eastern provinces of Donetsk and Luhansk. The period between 2014 and 2022 was marked by sporadic low-intensity hostilities between the Ukrainian Army and Russia's proxy forces (and, occasionally, regular army units).

In the fall and winter of 2021/22, a massive buildup of Russian troops and equipment could be observed along the Russian and Belorussian borders with Ukraine, under the pretense of military exercises. In the course of January and February, intense diplomatic activity and frequent meetings of Western policymakers with the Russian leadership tried to deescalate the

¹² A complete list of the universities participating in the survey is given in Appendix F.

¹³ For privacy reasons, we could not ask any questions that could serve to identify individual students (alone or in combination with other answers). Therefore, we do not have the university names, only the country in which the university is located, and we cannot use the (limited) information on the date when the survey was sent to the students.

¹⁴ To enhance comparability, several of these questions were taken from existing surveys like the European Social Survey (ESS) or the International Social Survey Programme (ISSP).

tensions. Although the Western secret services warned repeatedly that an attack was very likely and even imminent, Russian officials kept denying to have any such intentions. This is why the information that Russian troops had crossed the border of Ukraine in the early morning on February 24, 2022, and were heading towards the Ukrainian capital Kyiv, took most observers by surprise.

Question	Abbreviation	Answer options
Do you mostly think of yourself as a	Think of oneself	• Only citizen of my country (0)
citizen of your country, or as Euro-	as European	Mainly citizen of my country (1)
pean?		• Equally citizen of my country and Euro-
		pean (2)
		 Mainly European (3)
		• Only European (4)
		• I do not know.
How strongly do you feel attached	Feel attached to	not attached at all (0)
to Europe?	Furope	• little attached (1)
		• moderately attached (2)
		• rather attached (3)
		 strongly attached (4)
		• I do not know
How alcooly do you follow politico at	Follow ELL polition	• Yony closely (4)
the El Level 2	Follow EU polítics	• Very Closely (4)
the EU level?		• closely (3)
		• sometimes (2)
		• rarely (1)
		• not at all (0)
Generally speaking, would you say	Country benefits	 greatly benefits (4)
that your country benefits from or	from EU	 largely benefits (3)
does not benefit from being a mem-		 somewhat benefits (2)
ber of the European Union?		 benefits only a little (1)
		does not benefit at all (0)
		• I do not know.
		 My country is not a member of the Eu-
		ropean Union.
Generally speaking, would you say	Personally benefit	greatly benefit (4)
that you personally benefit or do not	from EU	• largely benefit (3)
benefit from being a citizen of the		• somewhat benefit (2)
European Union?		• benefit only a little (1)
		• do not benefit at all (0)
		• I do not know
		• Lam not a citizon of the European Lin
My country chould provide financial	Linensiel support	IOII.
wy country should provide infancial		• strongly disagree (0)
support for EU member states ex-	IOF EU members	• disagree (1)
periencing great economic and fi-		• neither agree nor disagree (2)
nancial difficulties.		• agree (3)
		 strongly agree (4)
		• I do not know.
		• My country is not a member of the Eu-
		ropean Union.
Should European unification be	European unifica-	 European unification should be pushed
pushed further in order to establish	tion pushed fur-	further. (4)
a joint government soon, or has Eu-	ther	• (3)
ropean unification already gone too		• (2)
far?		• (1)
		• European unification has already done
		too far. (0)
		• I do not know

Table 1: Questions on European integration asked in the EUSMES survey. The numbers in brackets in the third column (not disclosed to participants) indicate the categorical ordering assigned to the different answers, with higher values reflecting a stronger interest in Europe, a stronger attachment to Europe, or a more favorable attitude towards Europe. Histograms of these variables, distinguishing between before and after Russia's invasion, are shown in Appendix A.

2.3 Descriptive Statistics

Between the opening of the second round of the survey on February 21, 2022 and its closing on March 13, 2022, 1087 students completed the questionnaire.¹⁵ Time stamps allow identifying the exact point in time at which each respondent completed the survey. Figure 1 shows the evolution of responses over time: around half of the participants completed the survey through February 23, and the remaining half filled out the questionnaire afterwards.



Figure 1: Evolution of responses to the EUSMES survey, round 2. Blue bars indicate the number of responses through February 23, 2022. Red bars indicate the number of responses between February 24, 2022, and March 13, 2022.

¹⁵ A small share (6.5 %) of participants indicated that, while studying at a European university, they did not have European citizenship. Since we wanted to identify the effect of the Russian invasion on the attitudes of EU citizens, we dropped these responses from the sample.

Of which country do you hold citi- zenship?	dummy before/after Russian invasion of Ukraine		
	0	1	Total
	Ū		rotar
Austria	34	9	43
Belgium	220	136	356
Bulgaria	0	1	1
Czech Republic	0	1	1
Finland	2	2	4
France	95	35	130
Germany	227	219	446
Hungary	1	1	2
Ireland	2	0	2
Italy	5	35	40
Lithuania	1	1	2
Netherlands	4	4	8
Poland	4	26	30
Portugal	2	1	3
Romania	3	2	5
Slovak Republic	1	0	1
Slovenia	0	1	1
Spain	4	7	11
Sweden	1	0	1
Total	606	481	1087

Table 2: Citizenship of participants completing the EUSMES survey, round 2, before (dummy = 0) and after (dummy = 1) February 24, 2022.

Note: Responses of citizens without European citizenship were removed from the sample.

While we sent out the survey link to all university administrations at the same time, we had no direct control over the actual date on which the link was passed on to the respective universities' students—let alone the day on which students decided to complete it (if at all). This implies that the share of respondents who participated in the survey before and after February 24, 2022 may differ across countries. Table 2 indicates that this is indeed the case, with participation being tilted towards the early phase in Belgium and France and towards the later phase in Italy and Poland. In our empirical analysis, we control for this asymmetry. The table also makes clear that although citizens of 19 EU member countries responded to the survey, 13 of these countries accounted for less than 12 individual respondents each (and together these 13 countries make up less than 4% of our sample). Thus, only six countries in our sample had 30 or more respondents where we could possibly compare responses across time meaningfully, and three of these are dominant, with 446 respondents from Germany, 356 from Belgium, and 130 from France.

Table 3 presents the descriptive statistics on survey questions used in our analysis. The upper panel presents the responses received in the two survey rounds (note that we use round 1 of our survey only in one of our robustness checks). The lower panel compares the responses received in the period before and after the start of the Russian invasion of Ukraine. The last column reports p-values for t-tests of the differences between the means for the two rounds and between the control and treatment groups in round 2. Further information on the distribution of the responses in the control and treatment groups is reported in the Appendix Figure A1, while Appendix Figure A2 reports the evolution of mean responses by day throughout the survey period.

Approximately 2/3 of the respondents were women (both across the board as well as by country), which corresponds to the typical proportion of female students participating in Erasmus exchange programs.¹⁶ The average student is 23 years old. A very small, but statistically significant difference in the age and gender composition of the pre- and post-invasion samples in round 2 can be observed, which is why we control for these variables in our regressions.¹⁷ Note, finally, that the total number of replies in round 2 differs across questions, ranging from 1086 ('Follow EU politics') to 865 ('European unification pushed further'). However, the rate of replies given after the Russian invasion relative to that given before the invasion is quite stable (hovering around 80 percent). It is thus quite unlikely that our results are driven by differences in response rates.

¹⁶ The European Commission database of Erasmus+ participants shows a stable share of 60-61 % of female participants from 2014 to 2017 (European Commission, 2019).

¹⁷ Age and gender were the only socio-demographic individual characteristics collected in the survey, apart from nationality.

	Round 1			R	t-test		
			Std.de			Std.d	
Variable	Obs.	Mean	<i>V.</i>	Obs.	Mean	ev.	p-value
Gender: female	538	0.632	0.482	706	0.650	0.477	0.431
Gender: male	306	0.360	0.480	370	0.340	0.474	0.380
Gender: prefer not to say	7	0.008	0.090	11	0.010	0.100	0.666
Age	850	23.32	2.440	1,086	23.29	2.300	0.777
Follow EU politics	850	0.486	0.227	1,086	0.525	0.234	0.0003
European unification pushed							
further	707	0.682	0.266	865	0.664	0.249	0.167
Country benefits from EU	820	0.748	0.214	1,061	0.781	0.206	0.0007
Personally benefit from EU	831	0.794	0.208	1,052	0.824	0.199	0.002
Think of oneself as European	835	0.436	0.186	1,056	0.439	0.194	0.709
Feel attached to Europe	837	0.748	0.244	1,070	0.774	0.235	0.017
Financial support for EU mem-							
bers	793	0.719	0.205	1,015	0.725	0.208	0.523

	Round 2						
	Before invasion (cont-			After invasion (treat-			
		rol)		r	nent)		t-test
			Std.de			Std.d	
Variable	Obs.	Mean	<i>V.</i>	Obs.	Mean	ev.	p-value
Gender: female	384	0.634	0.482	322	0.669	0.471	0.220
Gender: male	220	0.363	0.481	150	0.312	0.464	0.077
Gender: prefer not to say	2	0.003	0.057	9	0.019	0.136	0.0117
Age	605	23.07	1.881	481	23.56	2.713	0.0004
Follow EU politics European unification pushed	605	0.483	0.230	481	0.577	0.228	0.0000
further	471	0.641	0.247	394	0.692	0.250	0.003
Country benefits from EU	585	0.770	0.211	476	0.795	0.199	0.049
Personally benefit from EU	586	0.818	0.196	466	0.832	0.202	0.266
Think of oneself as European	589	0.425	0.199	467	0.456	0.186	0.010
Feel attached to Europe Financial support for EU mem-	591	0.756	0.247	479	0.796	0.217	0.005
bers	558	0.715	0.199	457	0.739	0.218	0.069

Table 3: Responses to survey questions: descriptive statistics.

Note that attitudinal questions were rescaled to range between 0 and 1. 'Before invasion' refers to responses received before February 24, 2022, 'After invasion' refers to responses received after this date. Responses of citizens without European citizenship were removed from the sample. The last column reports p-values of t-tests for differences in means between the two groups.

Finally, when looking at attitudes about the EU, we observe increases between the two waves: the t-tests are significant except for 'Think of oneself as European' and 'Financial support for EU members'. For 'European unification should be pushed further' we see a small but insignificant fall. Such increases are in line with our expectations: participating in an Erasmus exchange is likely to make students more pro-European. When comparing the pre- and post-inva-

sion subsamples, we see again improvements in pro-European feelings, this time across all attitudinal questions. Most of these increases are statistically significant: the exceptions are 'Financial support for EU members' which is only significant at 10%, and 'Personally benefit from EU' which is not significant. These increases also tend to be larger than those observed between the two survey rounds. Hence, the descriptive statistics suggest that the news about the Russian invasion of Ukraine made the participating students more pro-European.¹⁸

2.4 Model Specification

We estimate variants of the following regression equation:

(1)
$$y_{ict} = \beta \ d_i^{UKR} + \sum_k \delta_k x_{k,i} + \alpha_c \ country_c + \gamma \ trend_t + \varepsilon_{ict}$$

where y_{ict} is the answer of individual *i* who is a citizen of country *c* at time *t* to a specific survey question. The variable d_i^{UKR} is a dummy that equals zero if individual *i* completed the survey through February 23, and one if the respondent completed the survey later. $x_{k,i}$ collects key individual characteristics that might have an impact on the respondent's attitudes: gender and age. $country_c$ denotes a set of citizenship country dummies, which control for the possibility that a respondent's attitude may vary with her or his citizenship-but also for the fact that national university administrations sent out the survey at slightly different points in time.¹⁹ The variable $trend_t$ is a linear trend term that counts the days since the beginning of the survey, thus varying from 1 to 21. While this trend is correlated with d_i^{UKR} by definition, including it safeguards against a common limitation of unexpected events during survey designs, namely, the presence of unrelated time trends (Muñoz et al., 2020). Although the time window we study is short, it is conceivable that individuals who took longer to respond to the invitation to the survey differ systematically from those who responded more swiftly. If so, we might see a trend in individuals' orientations towards the EU. Yet, unlike the hypothesized changes related to the Ukraine war, this should materialize as a gradual trend rather than as a sudden shift. Another reason for including a time trend is that it allows us to isolate the effect of the invasion itself

¹⁸ The survey also contained a field allowing the respondents to enter any additional comments. Most of these praised their Erasmus experience or commented (mainly positively) on the survey. Only one remark, "Help Ukraine", received on March 8, 2022, directly referred to the ongoing Russian invasion of Ukraine.

¹⁹ Given the (exogenously) staggered participation, including such dummies is extremely important: if we omitted them, the alleged "Ukraine effect" might simply reflect systematic differences in attitudes across countries. Note that there is a small but important difference between the two motivations for including citizenship dummies: while the "country effect" argument suggests including a dummy for citizenship to account for the historical and cultural traditions of students brought up in different countries, the "staggered participation" argument suggests using dummies for home universities. However, as the overwhelming majority of respondents holds citizenship of the country in which their home university is located, our choice is of little consequence for the estimation results. We use citizenship dummies in the main specification, and country of home university dummies in a robustness test.

from those of policy reactions which took place in the days around the invasion. The European Union reacted promptly to the aggression: it imposed a first set of sanctions on February 23, in response to Russia's recognition of the non-government-controlled areas of Donetsk and Luhansk, and additional sanctions were announced on February 25, February 28, and March 2 in response to the start of the war.²⁰ Finally, ε_{ict} is the standard error term, and β , δ_k , α_c , γ are the parameters to be estimated, with the coefficient of the "Ukraine invasion" dummy (β) being at the core of our analysis.

All survey questions are measured on five-point scales, with higher values indicating stronger attachment to, higher interest in, or a more favorable perspective on European integration. While we are aware that the resulting values of the dependent variable y_{ict} do not have a cardinal interpretation, we report results obtained estimating equation (1) by OLS, with all outcome variables re-scaled to range between 0 and 1 to ease interpretation. In subsequent estimations, we vary both the nature of the dependent variable and the estimation approach. All regressions feature robust standard errors.

Interpreting the estimate of β as a causal effect rests on two important assumptions (Muñoz et al., 2020). First, there should be no systematic difference between those who participated in the survey before vs. after the event, other than exposure to the information that Russia had invaded Ukraine. As explained above, the date at which the survey was sent out was chosen by the administrations of the participating universities, thus exogenously to the students and to the researchers. The emails received by students, inviting them to participate, mentioned a survey on European Student Mobility Experience, without any reference to attitudes towards European integration (the inviting email is reproduced in Appendix F). Moreover, we control for country dummies, age, gender, and a linear time trend. There is therefore little reason to expect the students who have completed the survey before the Russian attack to be different from those who have completed it after.

Second, the actual timing of the Russian invasion needs to have been unanticipated. If the event were anticipated, some of the reaction might have occurred before. We believe the invasion on

²⁰ An overview of EU sanctions can be found on the website of the Council of the European Union at https://www.consilium.europa.eu/en/policies/eu-response-ukraine-invasion/. The timely and robust response by the EU (and other Western allies) may have further galvanized the support for the EU and European values; the time trend allows us to distinguish such second-order effect from the first-order of the external threat. While isolating the direct effects of the aggression from those of policy responses to it, the inclusion of the time trend implies that we may underestimate the full effect of the invasion and of EU policy responses to it on EU attitudes.

February 24th indeed meets this condition: while it was preceded by months of increasing tensions, the scale or timing of invasion were not known. In fact, few analysts predicted a fullscale invasion before it actually unfolded: the general expectation was that the buildup of troops alongside Ukrainian borders was to serve to apply leverage on Ukraine and NATO. Inasmuch as a military confrontation was expected, most such predictions spoke of a limited incursion. In this case, our estimate may represent a lower bound, capturing only the surprise component of the actual invasion, while the impact of the gradual escalation in the preceding months would have already been internalized by the respondents. To state it differently, the tensions could have had an effect on attitudes already, but until the invasion *actually* happened, there was a degree of uncertainty if they might translate into an open conflict, and how bad that conflict would be.²¹ What we are measuring is thus the effect on attitudes of resolving the uncertainty about the nature and scope of conflict.

3 Regression Results

3.1 Main Results

Figure 2 shows the estimates of the coefficient \Box —the "Ukraine invasion" effect—for the questions listed in Table 1, including 90 and 95% confidence intervals. We report results from three specifications: the left panel in the figure displays the estimates from a specification that includes solely d_i^{UKR} . The panel in the middle adds the individual-level control variables and the citizenship dummies. The third model, our full model as specified in equation (1), adds the linear trend. The complete regression tables are relegated to Appendix B.

²¹ Another way to assess the degree of surprise (and, methodologically, exogeneity) is by looking at Google searches: the frequency of googling related terms after 1 January 2022 and the date of our survey reveals that the frequency only spikes on 24 February 2022 (see, for example, "Russie, Ukraine, Guerre" in France: https://trends.google.com/trends/explore?date=2022-01-01%202022-03-13&geo=FR&q=Russie%20Ukraine%20guerre).



Figure 2: Estimates of the "Ukraine invasion" effect. Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Coefficients for the Russian invasion dummy in the left panel are from bivariate regressions containing just the dummy for having taken the survey after February 23rd, 2022. Coefficients for the Russian invasion dummy in the panel in the middle are from models additionally including gender and age and a full set of citizenship country dummies. The models in the third panel additionally include a count variable for day of the interview. Only EU citizens are included. All outcome variables were measured on five-point scales and have been re-scaled to range from 0 to 1. 95% (thick, gray) and 90% (thin, black) confidence intervals shown. Full regression tables are reported in Appendix B.

The coefficients displayed in the rightmost panel of Figure 2 (full model) suggest that information about Russia's attack on Ukraine *did* influence individuals' attitudes towards the EU. Specifically, participants completing the survey on February 24, 2022, and later were more likely to express higher interest in EU politics, to advocate a deepening of European integration, and to have a positive perspective on mutual financial support. Moreover, these participants were more likely to state that their country benefits from the EU, and that they personally feel attached to Europe. By contrast, information on the Russian attack apparently did not significantly affect the assessment of individual benefits from European integration and the personal identification with Europe.

The statistically significant effects are substantial in magnitude. Recall that the outcome variables are all scaled to range from 0 to 1. Thus, for example, the Ukraine invasion dummy moves following EU politics on average by a tenth of the full scale, which corresponds to roughly two-

fifths of its observed standard deviation (of 0.24). Effects on European unification and attachment to Europe correspond to roughly a third of the observed standard deviations of these variables (of 0.25 and 0.24 respectively).²²

The difference between individual and societal aspects of the effect suggest that most respondents see the Russian invasion of Ukraine as an ominous event that affects the broader society, not just them individually. It also supports a *rally around the supranational EU flag* interpretation that goes beyond the traditional national rally account in the previous literature. It is driven by a geopolitical or "civilizational" threat, not any individual misfortunes or complaints.

3.2 Robustness Tests

Our main results suggest that the Russian invasion increased support for EU integration. In the following, we test for the robustness of this finding. The robustness checks include non-linear models (probit and ordered probit), the use of alternative control variables (controlling for country of home university rather than citizenship), the exclusion of countries with small numbers of observations, limiting the analysis to shorter time windows around the event, excluding specific days, additional trend controls, leveraging the fact that some respondents had participated in a first survey round the year before to construct a difference-in-difference design, and a set of "falsification tests" (Muñoz et al., 2020) on alternative outcomes that should be unaffected by the treatment.

Outcome variables in our empirical analysis are all measured on a five-point scale, with higher values indicating a more favorable perspective on European integration. While these variables do not have a cardinal interpretation, the linear model estimated in the previous section assumed exactly this. To check whether our main results are robust when properly accounting for the ordinal nature of our dependent variables, we ran various non-linear models whose detailed results are presented in Appendix C. First, we estimated *ordered probit models* on the five-point dependent variables, using the same covariates as in our full model, i.e., the individual-level control variables, country dummies and the linear time trend (see Table C1 in the Appendix). For a meaningful interpretation of the effects, we estimated the *average marginal effect* on the probability that the dependent variable takes its maximum (=4), i.e., the most positive orientation towards Europe/the EU (see Figure C1 in the Appendix). The regression coefficients

²² To put these effects into perspective, consider the headline finding in Gehring (2022) who reports a differential increase in EU attachment in the "high-threat" countries of Estonia and Latvia after Russia's annexation of Crimea of about 17% of its standard deviation.

and average marginal effects are significant for all outcome variables. Second, we constructed a *binary variable* that takes the value of one if respondents reveal a positive attitude towards European integration (i.e., responses taking a value of three or four) and a zero if they do not (responses of zero, one or two). Using these binary dependent variables, we estimated *probit models*. The results, presented in Appendix Table C2 and Figure C2, confirm the results from our benchmark regressions and underscore the substantive significance of the Russian invasion effect. For example, everything else equal, the predicted probability to agree that European unification should be pushed further increases by about 17 percentage points (from the average probability of 49.6% to 66.6%); the probability to feel (rather or strongly) attached to Europe increases by about 13 percentage points (from 70.1% to 82.5%); and the probability to see one's country (largely or greatly) benefitting from EU membership increases by about 8 percentage points (from 76.5% to 84.4%).

In the main specification, we used the country of *citizenship* as a control for an individual's response. As students may not study in their country of citizenship and get attached to their country of residence, we probed our results by using dummies for *home university* rather than dummies for country of citizenship.²³ Results, presented in Appendix Figure D1, confirm the conclusions of our benchmark specifications.

Another concern about the baseline findings might be that the estimates are driven by respondents from Eastern European countries who might feel particularly exposed to the possible spillover effects of the invasion of Ukraine by Russia. To address this, we restricted the sample to the three Western European countries from which the majority of participants came from— Germany, Belgium and France (see Table 2)—and re-estimated our linear model. The results for this restricted sample are very similar to those in Figure 2, see Appendix Figure D2. The war effect is statistically significant for following EU politics, deepening European unification and feeling attached to Europe with p<0.05, and with p<0.10 for country-wide benefits from European integration and approval of intra-European financial support. This indicates that the effect we find is not limited to new EU member states.

Next, we consider a range of checks related to how we define the relevant time window. A problem associated with how we define the treatment could be that some respondents filling

²³ Note that this also controls for the fact that the timing of responses was partly shaped by national universities' decisions on when to forward the questionnaire to their students, and the resulting correlation between country of home university and the Russian invasion dummy.

out the questionnaire shortly after the beginning of the Russian invasion might not have checked the news before taking our survey or, if they had, were still confused about what was really happening. To explore the robustness of our results with respect to this issue, we excluded responses from the day the invasion began, i.e., February 24. The results in Appendix Figure D3 are broadly similar to the benchmark results.

Our survey closed on March 13, i.e., 18 days after Russian troops invaded Ukraine. As we outlined previously, the political response by the EU (and other countries) was strong, with various unprecedented measures being imposed on Russia. Thus, it may be the case that late respondents in the survey answered questions based on a different information set than respondents right after the invasion. In particular, the later respondents' answers may already, at least partly, incorporate the response of European policymakers. Furthermore, those students that responded to the invitation to the survey only after a rather long period of, say, one or two weeks, might systematically differ from those who responded swiftly, for reasons unrelated to the war. To investigate these issues, we excluded late respondents, thus narrowing the bandwidth around the event as suggested in Muñoz et al. (2020), while excluding the linear trend from these models. As any such cut-off is arbitrary, we present results from three alternatives in Appendix Figures D4 (until February 26), D5 (until February 28) and D6 (until March 4). Results are similar to our "full" model from Figure 2-but stronger compared to the "intermediate" model in Figure 2. We conclude that, as indicated by the negative coefficient of the trend variable ("day") in the full linear model (see Appendix Table B3), there seems to be a tendency for late compliers to hold less positive orientations towards the EU. If this is not taken into account, either by studying a shorter window around the event or by including the linear trend (as in our main model), the war effect is underestimated.

The most extreme version of narrowing the bandwidth around the event is to include only the day before and the day of the invasion. This is a strong test of whether individuals reacted to the invasion immediately. To explore this, we re-estimated the full model only with responses from February 23 (controls) and February 24 (treatment)–see Figure D7 in the Appendix.²⁴ The effects observed when comparing only these two days are even stronger, and all except 'Think of oneself as European' are significant. This suggests that the students who filled out the survey on February 24 were affected immediately, and perhaps even more strongly than the students who filled it out later, as the news of invasion came as a surprise, or even a shock, to most.

²⁴ We are grateful to an anonymous referee for suggesting this additional robustness test.

Russia formally recognized Donetsk and Luhansk as independent states on February 21, and this was widely reported. Some students filling out the survey on this day may have been affected by this news: this would likely reduce the estimated effect, as some students could experience the rally around the flag effect already on that day.²⁵ Therefore, we also estimated our model excluding the responses from February 21. Figure D8 in the Appendix documents that the results are very similar to our benchmark findings, suggesting that the recognition of Donetsk and Luhansk did not affect the students' attitudes substantially.

To further probe whether our estimates could reflect the effect of the subsequent sanctions and other policies, we also estimated the full model with a quadratic rather than linear time trend (Figure D9 in the Appendix), and with the linear trend interacted with the treatment (Russian invasion) dummy (Muñoz et al., 2020).²⁶ The results, reported in Appendix Figures D9 and D10, respectively, in the Appendix, are again very similar to the benchmark set of results.

One may be concerned that the most pro-European individuals self-selected into participating in the survey after the Russian attack. To mitigate this concern, we exploited the fact that some of the students who participated in the February/March 2022 round of the EUSMES survey had already responded to the same set of questions in the first round, which took place between May 25 and June 6, 2021. Restricting our attention to this subsample allows computing first differences between participants' replies in the two rounds, and to explore whether information on the Russian assault on Ukraine influenced the change of attitudes over time. Depending on the specific question, the reduction of sample size is quite substantial, from between 864 and 1085 ("full model" with complete round 2 sample) to between 214 and 278 observations. Appendix Figure D11 illustrates the results of this change in sample and specification. Given the smaller sample size, it is not surprising that fewer variables exhibit a significant effect of the Ukraine dummy. However, we still observe a significant influence of the dummy on participants' interest in EU politics and their assessment of their country's benefits from European integration. Note that the magnitude of the point estimates is very much in line with the benchmark model.

Finally, we tested the validity of our identification strategy by conducting "falsification tests" (Muñoz et al., 2020): we re-estimated our main model, using outcome variables that should be unaffected by the Russian invasion of Ukraine. Specifically, we used a set of questions on stu-

²⁵ We are grateful to an anonymous referee for suggesting this additional robustness test.

²⁶ We are grateful to an anonymous referee for suggesting this additional robustness test.

dents' past Erasmus experience—for instance, how much they socialized with people of different nationality groups or how satisfied they were with their Erasmus stay overall—which should be exogenous to Russia's invasion. In Appendix Figure E1, we show the results across our three specifications. Out of 18 coefficients, only one is statistically significant with p<0.05; and none even remotely so when using our full specification. Hence, the results do not indicate a significant difference between those students who completed the survey *before* the Russian attack and those who completed it *afterwards*. Finally, we consider the six remaining attitudinal questions (e.g., on globalization and immigration) included in the survey. Appendix Figure E2 shows that, again, we do not find an effect of the Ukraine war dummy on any of these. Hence, the news of the Russian invasion galvanized the students' attitudes and feelings about Europe, but have not affected their views on globalization (Gutmann et al., 2022, report a similar finding for Austria).

4 Conclusion

This paper provides some early evidence that, as a consequence of Russia's invasion of Ukraine, attitudes towards Europe have become more positive. Considering Erasmus students from various European universities, we find significantly higher attachment to Europe and support for European integration in the immediate aftermath of the invasion. Even though the respondents in our sample are not representative of the entire EU population—they are younger, more educated, and generally more pro-European than average, and most of them originate from three Western European countries (Germany, Belgium and France) not directly threatened by a Russian invasion—their attitudes have changed significantly since the beginning of the war.

Intuitively, thus, if a positive effect on pro-EU attitudes is observed for students from lowerthreat countries, who are already pro-European to begin with (Hakhverdian et al., 2013; Kuhn, 2012), one may expect even higher effects for the general population in Western Europe, for whom the role of the EU may suddenly have become more visible, appreciative and potentially protective, and even higher effects for more-at-threat countries such as Poland and the Baltic states.²⁷ Similarly, the recent change in the public sentiment in Sweden and Finland in favor of abandoning their neutral status and joining the NATO, is in line with our findings. In that sense,

²⁷ A recent Eurobarometer survey confirms this point, finding that the public support for the EU has reached its highest level since 2007 (Eurobarometer, 2022). This shift of opinion is very consistent with our own (causally identified) results.

our results, obtained in a quasi-experimental setting, are likely lower-bound effects of the true effect on the European population at large.

Our analysis suggests that some benefits of supra-national integration have become more obvious as a consequence of the Russian invasion of Ukraine: there are limits to what each national government can do when faced with a military threat from a larger and more powerful country. In contrast, even small countries can be relatively safe from aggression when they are members of broader international alliances such as the European Union and NATO. Furthermore, the EU's coordinated response in the form of sanctions and direct aid to Ukraine has much better potential to make a difference than unilateral actions by individual countries.

It seems that, with respect to shifting attitudes towards European integration, the Russian aggression has backfired: rallying around the supranational EU flag has been the response of EU societies to Russia's largely unexpected and ominous war against Ukraine.

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Appendix A: Distribution of Outcome Variables Before and After Russia's Invasion of Ukraine

Figure A1: Histograms with distribution of outcome variables before and after Russia's invasion of Ukraine



a's invasion after Russia's invasion

Follow EU politics



Country benefits from EU





Think of oneself as European



Financial support for EU members



European unification pushed further



$\begin{array}{c} 60 \\ - \\ 40 \\ - \\ 20 \\ - \\ 0 \\$

after Russia's invasion

Personally benefit from EU





Feel attached to Europe

before Russia's invasion



after Russia's invasion



Note: Y-axis indicates percentages. Re-scaled versions of the outcome variables shown (range from 0 to 1), as used for the linear regressions.

21feb2022 -22feb2022 -23feb2022 -24feb2022 -25feb2022 -27feb2022 26feb2022 28feb2022 01mar2022 02mar2022 03mar2022 04mar2022 05mar2022 06mar2022 07mar2022 08mar2022 10mar2022

Figure A2: Means of outcome variables per day



2mar2022 3mar2022

11mar2022

09mar2022

day

Appendix B: Regression Tables for Main Results

Table B1: Bivariate linear model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Follow EU poli-	European unifi-	Country benefits	Personally bene-	Think of oneself	Feel attached to	Financial sup-
	tics	cation pushed	from EU	fit from EU	as European	Europe	port for EU
		further			-	-	members
Ukraine war	0.095***	0.051**	0.025*	0.014	0.031**	0.041**	0.024+
	(0.014)	(0.017)	(0.013)	(0.012)	(0.012)	(0.014)	(0.013)
Constant	0.48***	0.64***	0.77***	0.82***	0.43***	0.76***	0.71***
	(0.0094)	(0.011)	(0.0087)	(0.0081)	(0.0082)	(0.010)	(0.0084)
Observations	1086	865	1061	1052	1056	1070	1015
R ²	0.041	0.010	0.0037	0.0012	0.0062	0.0074	0.0033

Robust standard errors in parentheses; p < 0.10, p < 0.05, p < 0.01, p < 0.01, p < 0.001.

Table B2: Intermediate linear model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Follow EU	European unification	Country benefits	Personally benefit	Think of oneself as	Feel attached to	Financial support for
	politics	pushed further	from EU	from EU	European	Europe	EU members
Ukraine war	0.085***	0.045*	0.015	0.0018	0.017	0.035*	0.021
	(0.014)	(0.018)	(0.013)	(0.012)	(0.012)	(0.015)	(0.013)
Gender							
Male	0.064***	0.050**	0.012	-0.014	0.017	0.011	-0.0046
	(0.015)	(0.018)	(0.014)	(0.013)	(0.013)	(0.015)	(0.014)
Other	0.13*	0.13+	0.088	0.11**	0.081	0.0026	-0.039
	(0.057)	(0.076)	(0.057)	(0.039)	(0.068)	(0.083)	(0.12)
Age	0.0080**	0.0052	0.0026	-0.0024	0.0037	-0.0043	0.00099
	(0.0030)	(0.0033)	(0.0030)	(0.0034)	(0.0035)	(0.0036)	(0.0031)
Constant	0.40***	0.58***	0.75***	0.94***	0.37***	0.97***	0.69***
	(0.078)	(0.087)	(0.078)	(0.085)	(0.089)	(0.089)	(0.081)
Country	yes	yes	yes	yes	yes	yes	yes
dummies							
Observa-	1085	864	1060	1051	1055	1069	1014
tions							
R²	0.14	0.059	0.062	0.10	0.057	0.076	0.035

Table B3: Full linear model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Follow EU	European unification	Country benefits	Personally benefit	Think of oneself as	Feel attached to	Financial support for
	politics	pushed further	from EU	from EU	European	Europe	EU members
Ukraine war	0.099***	0.076**	0.056**	0.032+	0.034+	0.081***	0.045*
	(0.022)	(0.027)	(0.019)	(0.019)	(0.019)	(0.023)	(0.021)
Gender							
Male	0.064***	0.050**	0.012	-0.014	0.017	0.011	-0.0045
	(0.015)	(0.018)	(0.014)	(0.013)	(0.013)	(0.015)	(0.014)
Other	`0.14 ^{*´}	0.14+	0.10 ⁺	0.13**	0.087	0.021	-0.030
	(0.058)	(0.080)	(0.056)	(0.040)	(0.069)	(0.083)	(0.11)
Age	0.0079**	0.0048	0.0023	-0.0027	0.0035	-0.0046	0.00075
-	(0.0029)	(0.0034)	(0.0029)	(0.0033)	(0.0035)	(0.0035)	(0.0032)
Trend	-0.0022	-0.0048	-0.0060**	-0.0045*	-0.0025	-0.0069**	-0.0036
	(0.0026)	(0.0030)	(0.0021)	(0.0021)	(0.0022)	(0.0026)	(0.0023)
Constant	0.40***	0.60***	0.77***	0.96***	0.38***	`1.00 ^{***´}	0.70***
	(0.078)	(0.089)	(0.077)	(0.084)	(0.089)	(0.088)	(0.083)
Country	yes	yes	yes	yes	yes	yes	yes
dummies							
Observ.	1085	864	1060	1051	1055	1069	1014
R²	0.15	0.061	0.069	0.11	0.058	0.082	0.037

Appendix C: Results from Ordered and Binary Probit Regressions

Table C1: Regression table for ordered probit model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Follow EU	European unification	Country bene-	Personally ben-	Think of oneself	Feel attached	Financial support
	politics	pushed further	fits from EU	efit from EU	as European	to Europe	for EU members
Ukraine war	0.49***	0.33**	0.30**	0.19+	0.20+	0.38***	0.26*
	(0.11)	(0.12)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Gender							
Male	0.31***	0.24**	0.097	-0.069	0.090	0.069	0.0016
	(0.074)	(0.081)	(0.076)	(0.076)	(0.074)	(0.074)	(0.074)
Other	0.69*	0.69+	0.62	0.96*	0.50	0.15	0.061
	(0.30)	(0.42)	(0.38)	(0.46)	(0.37)	(0.42)	(0.34)
Age	0.039**	0.028	0.016	-0.016	0.017	-0.018	0.013
	(0.014)	(0.018)	(0.017)	(0.019)	(0.020)	(0.016)	(0.017)
Trend	-0.011	-0.020	-0.033**	-0.025*	-0.015	-0.034**	-0.018
	(0.013)	(0.013)	(0.011)	(0.012)	(0.012)	(0.012)	(0.013)
Cut1	-1.32***	-1.46**	-2.37***	-3.43***	-1.74***	-3.55***	-1.72***
	(0.39)	(0.46)	(0.46)	(0.51)	(0.50)	(0.43)	(0.46)
Cut2	-0.13	-0.85+	-1.73***	-2.93***	-0.046	-2.60***	-1.19**
	(0.38)	(0.45)	(0.44)	(0.51)	(0.51)	(0.43)	(0.46)
Cut3	1.08**	0.25	-0.76+	-1.92***	1.28*	-1.79***	-0.39
	(0.38)	(0.45)	(0.44)	(0.50)	(0.51)	(0.43)	(0.45)
Cut4	2.29***	1.27**	0.52	-0.70	2.62***	-0.79+	1.24**
	(0.39)	(0.46)	(0.44)	(0.50)	(0.53)	(0.43)	(0.45)
Country dummies	yes	yes	yes	yes	yes	yes	yes
Observations	1085	864	1060	1051	1055	1069	1014
Pseudo-R ² (McKel-	0.16	0.074	0.15	0.22	0.066	0.23	0.12
vev/Zavoina)							



Figure C1: Average marginal effects from ordered probit model

Note: Average marginal effects from ordered probit regressions on the probability to hold a maximum positive orientation towards Europe/the European Union (i.e., the dependent variable taking its maximum) on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Follow EU	European unification	Country bene-	Personally ben-	Think of oneself	Feel attached	Financial support
	politics	pushed further	fits from EU	efit from EU	as European	to Europe	for EU members
Ukraine war	0.42**	0.46**	0.30*	0.24	0.13	0.43**	0.32*
	(0.13)	(0.15)	(0.14)	(0.16)	(0.15)	(0.14)	(0.15)
Gender							
Male	0.44***	0.39***	0.013	-0.14	0.23*	0.016	-0.070
	(0.088)	(0.094)	(0.097)	(0.10)	(0.10)	(0.092)	(0.095)
Other	0.50	0.78+	0.58	0	0.31	-0.16	-0.17
	(0.39)	(0.45)	(0.55)	(.)	(0.49)	(0.43)	(0.41)
Age	0.061**	0.018	0.016	-0.015	0.061*	-0.021	-0.017
-	(0.021)	(0.020)	(0.023)	(0.030)	(0.026)	(0.021)	(0.021)
Trend	-0.00053	-0.035*	-0.031*	-0.028	-0.019	-0.038*	-0.033*
	(0.015)	(0.016)	(0.015)	(0.017)	(0.017)	(0.016)	(0.016)
Constant	-1.56**	-0.0037	0.98	2.41**	-2.20***	2.00***	1.32*
	(0.55)	(0.53)	(0.62)	(0.84)	(0.67)	(0.58)	(0.57)
Country dummies	yes	yes	yes	yes	yes	yes	yes
Observations	1073	857	1043	1026	1048	1057	1003
Pseudo-R ² (McKel-	0.16	0.091	0.052	0.14	0.079	0.12	0.050
vey/Zavoina)							



Figure C2: Average marginal effects for binary probit model

Note: Average marginal effects from (binary) probit regressions on the probability to hold a positive orientation towards Europe/the European Union on the Russian invasion dummy. Answers on the original fivepoint scales dichotomized as follows: Values 0, 1, and 2 recoded to 0; values 3 and 4 recoded to 1. That is, we took only those responses as support for European integration that explicitly reflected such a support, while coding answers at the mid-point as "no support". Specification follows the "full" model as shown in equation (1) in the main text. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.

Appendix D: Results from Robustness Checks for the Linear Model



Figure D1: Result with home university country dummies

Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text but includes dummies for home university countries (rather than citizenship countries). Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.





Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text, but includes only citizens of Belgium, France, and Germany. 95% (thin) and 90% (thick) confidence intervals shown.



Figure D3: Result without responses from February 24, 2022

Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text but excludes respondents who took the survey on February 24, 2022—that is, at the day of Russia's invasion of Ukraine. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.

Figure D4: Result with only responses from February 21 to February 26, 2022



Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text but excludes respondents who took the survey later than February 26, 2022 and drops the linear trend term. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.



Figure D5: Result with only responses from February 21 to February 28, 2022

Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text but excludes respondents who took the survey later than February 28, 2022 and drops the linear trend term. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.

Figure D6: Result with only responses from February 21 to March 4, 2022



Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text but excludes respondents who took the survey later than March 4, 2022 and drops the linear trend term. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.





Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text but includes only respondents who took the survey the day before (February 23) and the day of/after Russia's invasion of Ukraine (February 24) and drops the linear trend term. Note that the number of observations is much lower than in the main models: It ranges from 264 ('European unification pushed further') to 352 ('Follow EU politics'). Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.



Figure D8: Result without responses from February 21, 2022

Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text but excludes respondents who took the survey on February 21, 2022—that is, the day Vladimir Putin recognized the self-proclaimed Donetsk People's Republic and Luhansk People's Republic. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.



Figure D9: Result with additional quadratic trend term

Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text but includes a squared term for the count variable for day of the interview (in addition to the linear term). Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.



Figure D10: Result with interaction of trend term and Russian invasion dummy

Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text but includes a modified linear trend term centered around the event (i.e., it runs from -4 to +17, taking the value of 0 on February 24). Following Muñoz et al. (2020), this trend term is interacted with the Russian invasion dummy to assess whether the change on the outcome variables occurred immediately after the event. In this model, the coefficients for the Russian invasion dummy displayed above correspond to the treatment effect on the day of/after the event (i.e., when the running trend is 0). The coefficients are imprecisely estimated, but indicate strong immediate effects of the event. In contrast, none of the interaction terms between the trend and the Russian invasion dummy are statistically significant (with p<0.1 or smaller). Following Muñoz et al. (2020), this indicates that the effects of the invasion did not significantly change after February 24. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.



Figure D11: Result with first differences in attitudes as dependent variable

Note: Coefficients from linear regressions of orientations towards Europe/the European Union on the Russian invasion dummy. Specification follows the "full" model as shown in equation (1) in the main text. Dependent variable is the first difference in attitudes (among those who also participated in a previous round of the survey that was in the field from May 25, 2021, to June 6, 2021). Note that the number of observations is much lower than in the main models: It ranges from 214 ('European unification pushed further') to 278 ('Follow EU politics'). Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown.

Appendix E: Results for Further Outcome Variables

Bivariate model Intermediate mode Full model -0.00 0.00 0.02 Satisfaction with Erasmus 0.03 0.04 0.04 Socialize with home country nationals -0.04 0.03 0.03 Socialize with host country nationals --0.02 -0.01 -0.03 Socialize with other Europeans -0.03 0.03 -0.03 Socialize with people from other countries -0.03 0.02 0.00 Studied in classroom (vs. online) -.11 -.05 .0 .05 .1 -.1 -.05 .0 .05 1 -.1 -.05 .0 .05 .1

Figure E1: Results with Erasmus related variables as "placebo" outcomes

Note: Estimates of the "Ukraine invasion" effect. Coefficients from linear regressions on "placebo" outcomes, i.e., items on the past Erasmus experiences, on the Russian invasion dummy. Coefficients for the Russian invasion dummy in the left panel are from bivariate regressions containing just the dummy for having taken the survey after February 23rd, 2022. Coefficients for the Russian invasion dummy in the panel in the middle are from models additionally including gender and age and a full set of citizenship country dummies. The models in the third panel additionally include a count variable for day of the interview. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown. All outcome variables were measured on five-point scales and have been re-scaled to range from 0 to 1, in the direction of higher values meaning higher satisfaction/more socializing/more classroom teaching. Wording of the items:

- "How would you rate your overall satisfaction with your Erasmus stay?"
- "All things considered, globalization is a good thing for my country."
- "How much did you socialize with individuals from the following groups during your stay?"
 - "people from your home country"
 - o "host country nationals"
 - o "other Europeans"
 - "people from countries outside Europe"
- "During your Erasmus stay abroad, did courses predominantly take place in the classroom or in online mode?"



Figure E2: Result with other attitudinal items as outcome variables

Note: Estimates of the "Ukraine invasion" effect. Coefficients from linear regressions of "other" attitudes on the Russian invasion dummy. Coefficients for the Russian invasion dummy in the left panel are from bivariate regressions containing just the dummy for having taken the survey after February 23rd, 2022. Coefficients for the Russian invasion dummy in the panel in the middle are from models additionally including gender and age and a full set of citizenship country dummies. The models in the third panel additionally include a count variable for day of the interview. Only EU citizens included. 95% (thin) and 90% (thick) confidence intervals shown. All outcome variables were measured on five-point scales and have been rescaled to range from 0 to 1, in the direction of higher values meaning more pro-globalization/pro immigration/more trusting/less nationalist. Wording of the items:

- "All things considered, globalization is a good thing for the world."
- "All things considered, globalization is a good thing for my country."
- "Do you see yourself as a loser or a winner of globalization?"
- "Is your country made a worse or a better place to live by people coming to live there from other countries?"
- "Would you say that most people from other countries can be trusted, or that you can't be too careful in dealing with people from other countries?"
- "I would rather be a citizen of my country than of any other country in the world." (reversed)

Appendix F: Additional Information on the Survey

Participating universities

The following universities forwarded the link to the EUSMES study to students who had just completed an Erasmus exchange in winter/spring 2022: KU Leuven (Belgium), University of Lille (France), Johannes Gutenberg University Mainz (Germany), Goethe University Frankfurt (Germany), Technical University Darmstadt (Germany), University of Bologna (Italy), Cracow University of Economics (Poland), Poznań University of Economics and Business (Poland), Adam Mickiewicz University Poznań (Poland).

Invitation Email

Dear student,

In May 2021, we —a team of researchers from various European universities—invited you to participate in our European Student Mobility Experience Survey. We are now conducting the second (and final) round of this survey. Please note that your views are important, regardless of whether you participated in the Erasmus program or not.

Your answers will be very valuable for academic research and policymaking. We would therefore be grateful if you contributed to our scientific study by completing the short survey at this link:

European Student Mobility Experience Survey

The survey is conducted in basic English. It will take less than ten minutes, and it should be completed by March 13, 2022. Of course, your answers will be treated strictly anonymously.

We will later be happy to share the results of our study with you.

Thank you for participating!

And best wishes,

The European Student Mobility Experience Survey team

The European Student Mobility Experience Survey team

Ruxanda Berlinschi (KU Leuven, Belgium) Etienne Farvaque (University of Lille, France) Jan Fidrmuc (University of Lille, France) Philipp Harms (Johannes Gutenberg University Mainz, Germany) Alexander Mihailov (University of Reading, United Kingdom) Michael Neugart (Technical University of Darmstadt, Germany) Piotr Stanek (Cracow University of Economics, Poland) Nils Steiner (Johannes Gutenberg University Mainz, Germany)

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