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## European solidarity in times of crisis: the role of information and media use

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### ABSTRACT

COVID-19 has important implications for European solidarity. In this study, it is proposed to consider the role of information and media use for citizens' attitudes towards European solidarity given the accelerated information supply alongside an increase in information-seeking behaviour among citizens. These factors have previously received little attention in the extant literature. In particular, we examine three dimensions of transnational solidarity (fiscal, medical and border solidarity) and present results from a four-wave panel survey conducted in the Netherlands between April and July 2020. It will be shown that solidarity support changes as the pandemic unfolds. Variation in general media use is only marginally related to solidarity, possibly due to an increase in media use during the pandemic. Yet, there are some effects at the media outlet level, particularly for newspaper reading. This research note highlights important implications for future research on European solidarity during and in the aftermath of crises.

**KEYWORDS** COVID-19; European solidarity; information; media exposure; public opinion; survey

COVID-19 has had many unprecedented and far-reaching consequences for human lives, economies and democracy. In the European Union (EU), one additional aspect concerns transnational solidarity between member states and their citizens. Italy was the first country to be severely hit by the pandemic, but had initially received little attention from other member states or from the European Commission as the latter admitted afterwards.<sup>1</sup> Moreover, and with the rapid growth of cases, intra-European

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borders had been closed, which temporarily restricted EU citizens' freedom of movement. Simultaneously, bilateral medical assistance was taking place with, for example, German hospitals treating patients from France, the Netherlands or Italy.<sup>2</sup> Later on, public discourse was dominated by questions concerning transnational financial support (e.g. see Ferrera *et al.* 2021). These developments underline the great need to understand citizens' attitudes towards European solidarity in times of crisis, and we argue that information and media play a key role in this context. These factors have thus far received little attention in the extant literature on European solidarity, although media coverage is vital for public opinion formation in times of crisis (e.g. Boomgaarden and de Vreese 2007). Media are capable of changing the public's knowledge about (Marquart *et al.* 2019) and attitudes towards the EU (e.g. Azrout *et al.* 2012; Maier and Rittberger 2008) and may reduce the EU's perceived 'democratic deficit' (Desmet *et al.* 2015). EU media coverage typically increases around crises (van Noije 2010) and may have important effects for EU public opinion during the COVID-19 crisis as well. We expect that the more citizens learn about the crisis and the EU's role in handling the pandemic, the better they are able to formulate opinions about European solidarity. We therefore investigate the relationship between media use and attitudes towards European solidarity by analysing data from a four-wave panel survey conducted in the Netherlands between April and July 2020 and derive important implications for future research on European solidarity during and in the aftermath of crises.

### **The role of information and media use for citizens' support for European solidarity**

European solidarity can take place on several levels (local, regional, national, EU) and may refer to different actors expressing solidarity, including citizens, politicians, institutions and member states (see Ciornei and Recchi 2017; Ferrera 2017; Lahusen and Grasso 2018). While a plethora of conceptualisations and operationalisations exists in the literature, European solidarity is often studied from a transnational perspective and can be divided into several categories. Some of the most prominent categories comprise fiscal solidarity, i.e. citizen support for assisting other EU member states financially (e.g. Gerhards *et al.* 2018; see also Vasilopoulou and Talving 2020) and welfare state solidarity, i.e. support for 'those in need – unemployed, sick and the elderly – regardless of where they live in the EU' with the aim to reduce social inequalities among European citizens (Gerhards *et al.* 2018: 4; see also Kuhn and Kamm 2019). As outlined above, these two forms of solidarity matter particularly in the

context of COVID-19. Additionally, we extend the concept of social solidarity, which can be perceived as a broader term for welfare state solidarity (see Sangiovanni 2013), also to include intra-EU mobility (Raspotnik *et al.* 2012: 5), given that some intra-European borders were closed at the peak of the pandemic. In this research note, we therefore conceive of European solidarity as transnational solidarity (see also Ciornei and Recchi 2017), particularly with respect to transnational fiscal, medical (welfare state) and border (social) solidarity, and study citizen support for transnational solidarity among EU member states during the COVID-19 pandemic.

European solidarity has received considerable attention from public opinion scholars (e.g. Gerhards *et al.* 2018; Grasso and Lahusen 2019) and has been subject to many recent studies concerning the Eurozone crisis (e.g. Ciornei and Recchi 2017; Kleider and Stoeckel 2019), the so-called 'refugee crisis' (e.g. Gerhards *et al.* 2018; Koos and Seibel 2019) and Brexit (e.g. Baglioni *et al.* 2019). When trying to explain varying patterns of solidarity among European citizens, scholars have identified several important factors, including the macroeconomic context (Koos and Seibel 2019; Vasilopoulou and Talving 2020), feelings of European identity (e.g. Kuhn and Kamm 2019; Nicoli *et al.* 2020), cross-border interactions (Ciornei and Recchi 2017), post-materialist values (e.g. Gerhards *et al.* 2016), and political ideologies (e.g. Kleider and Stoeckel 2019) alongside political interest and knowledge (e.g. Armingeon 2020; Lahusen and Theiss 2019).

Few studies have investigated the extent to which attitudes towards European solidarity are influenced by information (but see Brändle and Eisele 2019), let alone the media. However, we argue that, in times of crisis, these factors are particularly important for two reasons: first, given the extraordinary scale of the pandemic, the information supply is rapid and dense, which makes it difficult to follow even for journalists and policy-makers, let alone European citizens. Likewise, media frames of solidarity may change quickly and may even evolve concurrently in short periods of time (see Wallaschek 2020). Second, and related, citizens are actively seeking out information and therefore turn to traditional and social media (e.g. Austin *et al.* 2012; Spence *et al.* 2006). For example, the European Broadcasting Union (2020) reported that during the first weeks of the COVID-19 pandemic, public broadcasting news programmes saw a surge in audience numbers across Europe, and overall news use increased substantially in the early stages of the pandemic (Kleis Nielsen *et al.* 2020). We therefore expect that information and media use play a crucial role in the preference formation of citizens towards European solidarity over the course of the crisis. Our central hypothesis is that general news use

positively correlates with support for solidarity among EU member states. Being exposed to more media information about the pandemic, its causes and its impact on Europe may increase support for European solidarity, as it may explain the advantages, necessity and feasibility of plans such as transferring patients to intensive care units in other countries.

## Methods

The data were collected as part of a larger panel survey organised at the Amsterdam School of Communication Research (ASCoR)<sup>3</sup> between April and July 2020 in the Netherlands<sup>4</sup> (Bakker *et al.* 2020). The survey covered a broad range of questions concerning the COVID-19 pandemic such as personal experiences with the virus, feelings, compliance with the safety/health measures, evaluations of the government's handling and related policies, trust in various institutions, attitudes towards European solidarity and various questions about the need of, search for and use of information from various sources. The Netherlands is an interesting case for several reasons: the country has been equally affected by COVID-19 as its European neighbours; some Dutch patients have been treated in Germany; its direct border with Belgium was temporarily closed by the latter; and the Dutch government has taken a prominent role in the discussion about financial help for affected countries as part of the so-called 'frugal four' (see Khan 2020).

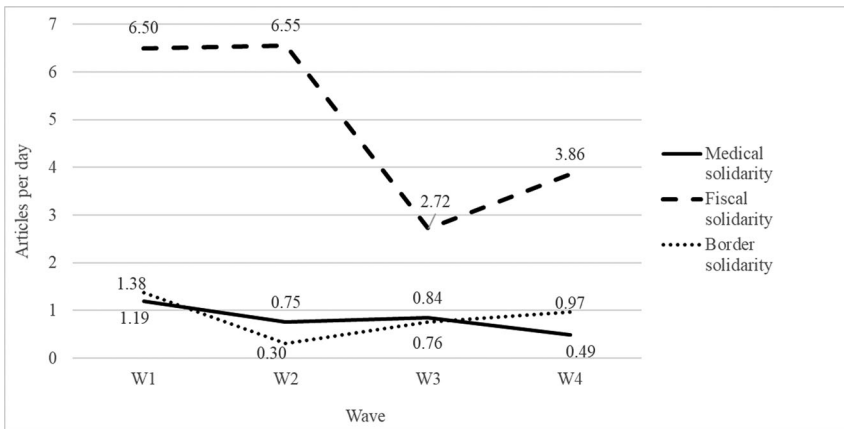
Online data collection was carried out by I&O Research, and the respondents were sampled from their database following light quotas. An initial sample of 3,750 respondents was representative of the Dutch population with regard to gender, age, region and education (based on data from Statistics Netherlands (CBS); see [Online Appendix A](#) for further descriptive information). The aim of the first wave was to collect responses from at least 1,500 respondents ( $N_{w1} = 1742$ , response rate = 46%). We report the findings from the first four waves of the panel survey ( $N_{w4} = 1094$ , panel attrition rate = 37%). In this research note, we are mainly interested in the potential effect of media use on attitudes towards solidarity, but we also report the findings of additional hypotheses and analyses that we pre-registered on [aspredicted.org](#) (follow [link](#)).

In order to test our central hypothesis (H1), we distinguish between use of television news, talk shows, newspapers, online news and social media, each category representing an additive index of three to six different outlets/platforms (measured as 8-point scales from 0 to 7 days a week). Regarding the dependent variables, our operationalisation of European solidarity taps attitudes (e.g. Ciornei and Recchi 2017; Koos and Seibel 2019; Vasilopoulou and Talving 2020) rather than behaviour

(e.g. Kuhn *et al.* 2018; Lahusen and Theiss 2019) or preferences for different hypothetical scenarios (e.g. Nicoli *et al.* 2020). We asked for agreement (seven-point scales) with three statements in random order: EU member states should ‘help other member states with economic problems’ (*fiscal solidarity*); ‘assist other member states in need of face masks, medical devices or other medical assistance’ (*medical solidarity*); ‘reopen their borders as quickly as possible to other member states and their citizens’ (*border solidarity*). We acknowledge that the last statement can be interpreted in several ways, ranging from allowing for the unhindered flow of goods and services within the EU’s internal market to free movement of people with respect to work or holidays. To our knowledge, previous research has not formulated survey questions that tap border solidarity upon which we could have relied. While a broad question has the advantage of capturing several aspects, it simultaneously presents a limitation with respect to the precise meaning of this operationalisation. Additionally, and with respect to all three statements, we were unable to distinguish between the Netherlands and other EU member states by, for example, having two questions concerning medical solidarity (the Netherlands should assist other member states vs. member states should assist each other), which would have allowed us to isolate attitudes towards transnational solidarity from solidarity provided by the Netherlands (see also Kuhn and Kamm 2019).

In addition to effects of media exposure, the literature reports other potentially relevant determinants of solidarity. The inclusion of these alternative determinants is not only necessary to correctly specify our model, i.e. to estimate the ‘true’ effect of media exposure, but is also of interest as such. As documented in our pre-registration, we thus formulated two more hypotheses, which stipulated that higher trust in the EU (H2) as well as electoral support for progressive parties (H3) – operationalised as left–right voting – are positively related to attitudes towards European solidarity. The latter expectation is in line with the literature (e.g. Kleider and Stoeckel 2019). Trust is typically influenced by identity-related factors as well as evaluations of the EU’s performance (Harteveld *et al.* 2013; see also Hooghe and Marks 2005). Both could relate to European solidarity: those citizens who have a non-exclusive national identity may be more inclined to support solidarity among member states, while those who evaluate the EU’s performance positively may be more supportive of a pan-European approach.

[Online Appendix B](#) presents main and control variables in more detail. Multicollinearity is not present; the variance inflation factor (VIF) reaches values of 2.6, i.e. below the critical threshold of 5. In our statistical models, we use standardised versions of all explanatory variables except for



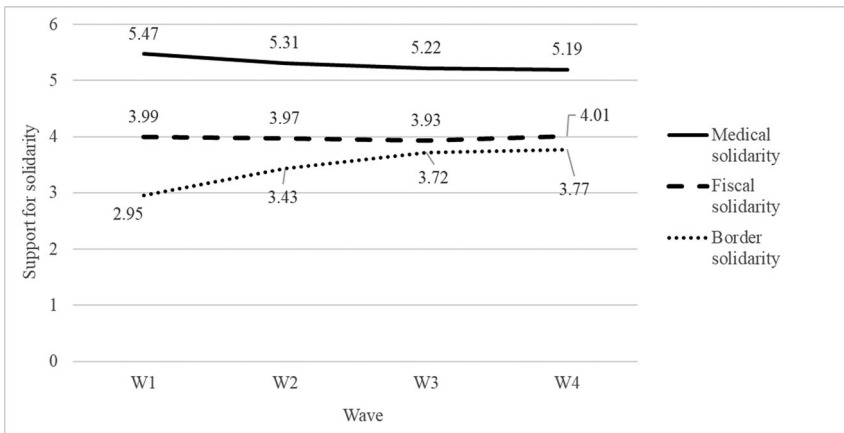
**Figure 1.** Information context of European solidarity at different waves.

gender and age. We rely on generalised least squares (GLS) regression models fitted to panel data, once using a within-subject design (fixed-effect) and once using a between-subject design.<sup>5</sup> This approach enables us to examine the expected associations between as well as within respondents. For instance, differences between respondents' media use may explain differences in their solidarity preferences. At the same time, over-time changes in media use within the same respondent may equally be related to solidarity. We calculate these models separately for the three different types of solidarity. As robustness checks we also calculate the joint effects in one model (random effects) and estimate an alternative pooled ordinary least squares setup with wave dummies and clustered standard errors per respondent. We furthermore estimate media effects at the outlet level by looking at the main outlets of our five categories of media use (see [Online Appendix D](#)).

Additionally, we decided *ex-post* to assess the panel survey results against the backdrop of the information context. For this, we identified the number of articles relating to the three different dimensions of European solidarity in nine national newspapers during the month prior to the start date of each survey wave. We divided the total amount of articles in these periods by the number of days. [Online Appendix C](#) contains the three search strings, newspapers and dates of the search periods.

## Findings

[Figure 1](#) shows that issues of European solidarity were discussed in the public realm during the COVID-19 crisis. However, there was generally more information with regard to fiscal solidarity in the early stages of the crisis and this decreased somewhat over time, while information related



**Figure 2.** Support for European solidarity over time.

to medical and border solidarity hardly fluctuated at a lower level over time.

Similarly, [Figure 2](#) shows that aggregate support for the three forms of European solidarity varies over time and across dimensions. While agreement with the statement that EU member states should help each other with economic problems (fiscal solidarity) remains stable between April and July, support for medical solidarity measures decreases. Agreement with the statement that ‘EU member states should assist other member states in need of face masks, medical devices or other medical assistance’ is significantly higher in Wave 1 compared to Wave 2 ( $p < .001$ ) and decreases further in Wave 3 ( $p = .033$ ), but we find no difference between Waves 3 and 4 ( $p = .651$ ). In contrast, respondents in our sample become increasingly more supportive of the reopening of intra-European borders (border solidarity); again, only the difference between Wave 3 and 4 is not significant ( $p = .299$ ). We hence see variation in solidarity support over time and establish that media coverage varies as well. As reported in the pre-registration, we expected differences in support across these different types of solidarity, namely that Dutch citizens support solidarity more in terms of concrete medical assistance than in terms of economic support, but we had no particular expectation regarding border solidarity. In line with our expectations, support for medical solidarity is higher than support for fiscal solidarity. Border solidarity receives comparatively the least support.

[Table 1](#) presents the results of the two different panel regression models – within and between design – per solidarity measure. Starting with media use (H1), there are no systematic, statistically significant effects of news media use on citizens’ preferences for any domain of transnational solidarity. Instead, we only see individual effects for specific types of media usage and solidarity measures. Most concern fiscal solidarity (both



**Table 1.** Panel regression models, explaining support for transnational solidarity.

	(1)		(2)		(3)	
	Fiscal solidarity		Medical solidarity		Border solidarity	
	within	between	within	between	within	between
<i>Media usage</i>						
News show	0.083 <sup>+</sup> (0.043)	-0.094 <sup>+</sup> (0.055)	0.024 (0.048)	-0.078 (0.050)	-0.069 (0.061)	-0.029 (0.060)
Talk show	-0.027 (0.041)	0.113* (0.053)	0.039 (0.045)	0.072 (0.047)	0.009 (0.058)	0.086 (0.057)
Newspaper	0.068 <sup>+</sup> (0.040)	0.050 (0.041)	0.016 (0.044)	0.039 (0.037)	0.018 (0.055)	-0.030 (0.044)
Online	-0.025 (0.041)	-0.013 (0.042)	0.015 (0.045)	0.083* (0.038)	-0.084 (0.057)	0.010 (0.046)
Social media	-0.040 (0.058)	-0.057 (0.042)	-0.004 (0.064)	-0.021 (0.038)	-0.045 (0.081)	0.029 (0.045)
<i>Trust in</i>						
News media	0.009 (0.032)	0.003 (0.064)	-0.003 (0.035)	0.032 (0.058)	0.046 (0.045)	0.158* (0.069)
Social media	-0.013 (0.032)	-0.132** (0.049)	-0.063 <sup>+</sup> (0.035)	-0.114* (0.044)	0.059 (0.045)	-0.049 (0.054)
RIVM	-0.002 (0.043)	0.074 (0.078)	0.051 (0.047)	0.020 (0.071)	-0.067 (0.060)	-0.003 (0.085)
Medical experts	0.013 (0.030)	0.045 (0.059)	0.061 <sup>+</sup> (0.033)	0.288** (0.053)	0.037 (0.041)	-0.207** (0.064)
Dutch government	-0.003 (0.041)	-0.095 (0.076)	0.086 <sup>+</sup> (0.046)	0.057 (0.069)	0.093 (0.058)	-0.141 <sup>+</sup> (0.083)
EU	0.134** (0.038)	0.874** (0.062)	-0.022 (0.042)	0.205** (0.055)	0.048 (0.053)	0.440** (0.067)
Left-right voting		-0.309** (0.043)		-0.262** (0.041)		-0.132** (0.048)
Economic prospects NL	-0.060* (0.024)	-0.070 (0.048)	-0.050 <sup>+</sup> (0.027)	-0.137** (0.043)	0.006 (0.034)	0.015 (0.052)
Female		-0.220** (0.077)		-0.211** (0.069)		-0.445** (0.084)
<i>Age groups (ref. 18–39)</i>						
40–64		0.183 <sup>+</sup> (0.097)		-0.001 (0.087)		0.125 (0.105)
65+		0.267* (0.127)		0.121 (0.115)		0.351* (0.138)
Education		0.096* (0.041)		0.039 (0.037)		0.178** (0.044)
Constant	3.996** (0.015)	3.953** (0.085)	5.311** (0.017)	5.364** (0.076)	3.493** (0.022)	3.537** (0.092)
Observations	3931	3931	3931	3931	3931	3931
R <sup>2</sup>	0.010	0.379	0.008	0.219	0.005	0.137

Standard errors in parentheses; <sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ .

within- and between-subject effects), albeit that most do not reach conventional levels of statistical significance (0.05 level) and partly go in opposite directions, i.e. a negative effect of watching news shows and a positive one for watching talk shows in the between-effects model. Our central hypothesis H1 therefore does not receive sufficient support. Although not part of our initial enquiry, we find that respondents who trust social media more are significantly less supportive of fiscal solidarity and medical solidarity. The latter is present both as a between- and

within-respondent effect. Trust in news media, in contrast, significantly increases the support for border solidarity (between-subject effect).

Trust in different institutions, however, is significantly associated with increased support for solidarity, partly also for within-subject effects. Specifically, and in line with our expectations (H2), increased trust in the EU has relatively consistent, positive effects on different forms of transnational solidarity in all between-subjects models. It also has a positive within-subject effect on fiscal solidarity. Similarly, those who trust medical experts are more supportive of medical solidarity – in both models – but are less in favour of reopening inner-European borders, which would be in line with the stance of many medical experts against travelling. Trust in the National Institute for Public Health and the Environment (RIVM) or the Dutch government has no or only marginally significant effects on preferences for European solidarity.

Finally, respondents who voted for right-wing parties show significantly less support for any of the three solidarity measures compared to supporters of left-leaning parties, which is in line with our expectations (H3). Women are less in favour of all three types of solidarity, while older and more highly educated citizens are more supportive of most types of solidarity. While left-right voting and the controls were only part of the between-subject models, one can generally observe that most effects stem from these models (see also much larger  $R^2$  values). The within-subject effects mostly add only marginally to the between-subject effects, if at all. Our robustness checks in [Table A6](#) (see [online appendices](#)), modelling the joint effects, largely confirm the significant between-subject effects. The displayed random-effects coefficients lie in between the two separate ones from our main models, with partly minor changes in terms of statistical significance. When zooming in on the media outlet level ([Table A7](#)), we find some media effects of newspaper use on fiscal solidarity (between-subject effects). Depending on the type of newspaper, these point in opposite directions (positive for quality outlets *Volkskrant* and *NRC*, and negative for tabloid outlet *De Telegraaf*).

## Discussion and agenda for future research

In this study we analysed Dutch citizens' attitudes towards European solidarity during the COVID-19 crisis. We argued that such attitudes may vary in response to exogenous shocks like a pandemic and that solidarity is at the very core of the EU. We found that European solidarity was malleable but also rather stable over the course of the first months of the pandemic. We found a higher degree of support for solidarity when it comes to medical assistance compared to fiscal or border support. Support for medical solidarity drops over time, fiscal solidarity remains stable, and border

solidarity increases. The information context, which we operationalised as media coverage, generally evolves to focus less on solidarity over time, with the biggest drop in news about fiscal solidarity.

We focussed in particular on the role of news media use vis-a-vis (changing) support for solidarity and found virtually no media effects on preferences for solidarity. These findings do not lend support to our central hypothesis. The absence of media effects was particularly strong in our main models where we distinguished between types of media by grouping various outlets into categories such as TV shows or newspapers. When zooming in on the outlet level, we detected additional media effects, but overall, they are still very limited. Additional analyses showed that those who trust social media more are less supportive of solidarity. This is an important additional finding that begs further research into the antecedents of this relationship. Our non-finding of media use may relate to only little variation in news use during crises; almost all citizens increased their news use in the initial stage of the crisis (Kleis Nielsen *et al.* 2020). However, the attention paid to different kinds of European solidarity in the media also varies over time. Therefore, the media may not have differential effects in and by itself. Future research should explore if media effects differ based on pre-existing stances on European solidarity. There is some evidence to suggest such a pattern; for example, we find that trust in the EU is positively related to support for all three domains of European solidarity. This corresponds to findings from a pre-crisis survey, which showed that Dutch citizens are rather supportive of a medical solidarity programme that is coordinated at the EU level (de Ruijter *et al.* 2020). Likewise, our finding that left-leaning citizens are more supportive of European solidarity is in line with the literature and thus adds validity to our results.

In addition to our focus on the role of media and information vis-a-vis solidarity, our study contributes to the notion that solidarity itself is multi-dimensional (see also Kuhn and Kamm 2019). This is in line with a more general tendency to focus on the multi-dimensional nature of citizens' EU attitudes (de Vreese *et al.* 2019). We also show that solidarity is not a constant, but subject to change over time, even though the time-frame of our investigation was limited to the first few months of the pandemic. This is important for the long-term implications of the COVID-19 pandemic and for future understanding of citizens' support for solidarity, particularly in light of continued lockdown measures, the implementation of the European vaccination programme, and further consequences for European societies, economies and democracies.

We extended extant research focussing on both context (such as economy and cross-border location) and individual factors (such as identity and values) to look at the previously unexplored role of media. We find

limited evidence for the influence of mediated information, which is different from other studies of media and EU attitudes (e.g. Azrout *et al.* 2012). We believe this relationship is still worthy of further exploration, particularly given the significant effects for certain types of solidarity stemming from specific media outlets. In other countries with less neutral and politically more polarised media systems, such outlet-specific effects may be stronger, as may be the overall media effects. Our survey included detailed media use measures, but the impact on our outcome variables was hardly discernible. This might be due to lack of variation in use and/or lack of content variation. More research is needed to flesh out this relationship, particularly including other country contexts, since solidarity is not a constant; it varies in different dimensions and across time. It is reasonable to assume that changes in the information ecology can affect these variations, albeit most likely not across the board.

## Notes

1. Speech by President von der Leyen, 16 April 2020, [https://ec.europa.eu/commission/presscorner/detail/en/speech\\_20\\_675](https://ec.europa.eu/commission/presscorner/detail/en/speech_20_675).
2. See <https://www.ecfr.eu/solidaritytracker> (last accessed on 9 October 2020).
3. This study was funded by the Amsterdam School of Communication Research, The Digital Communication Methods Lab and the Ministry of the Interior and Kingdom Relations and has been approved by the ASCoR Ethics Review Board prior to data collection.
4. Wave 1 (10th–16th April) took place at the peak of the so-called first wave of the pandemic with many public places and schools closed, and high occupation rates in intensive care units. During Wave 2 (30th April–10th May), public health measures were still strict but were about to be relaxed slightly. Case numbers were declining. During Wave 3 (25th May–3rd June), bars and restaurants reopened (with restrictions), significantly changing public life. Wave 4 (29th June–7th July) marks a period with comparatively few restrictions and comparatively low case numbers.
5. We use the command *xtreg* in Stata with the options *fe* and *be* for the two different model setups. The within-subject design is reduced to variables that may vary over time, thus excluding left-right voting and socio-demographics.

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## Disclosure statement

No potential conflict of interest was reported by the authors.

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