National identity predicts public health support during a global pandemic

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National identity predicts public health support during a global pandemic

Changing collective behaviour and supporting non-pharmaceutical interventions is an important component in mitigating virus transmission during a pandemic. In a large international collaboration (Study 1, $N=49,968$ across 67 countries), we investigated self-reported factors associated with public health behaviours (e.g., spatial distancing and stricter hygiene) and endorsed public policy interventions (e.g., closing bars and restaurants) during the early stage of the COVID-19 pandemic (April-May 2020). Respondents who reported identifying more strongly with their nation consistently reported greater engagement in public health behaviours and support for public health policies. Results were similar for representative and non-representative national samples. Study 2 ($N=42$ countries) conceptually replicated the central finding using aggregate indices of national identity (obtained using the World Values Survey) and a measure of actual behaviour change during the pandemic (obtained from Google mobility reports). Higher levels of national identification prior to the pandemic predicted lower mobility during the early stage of the pandemic ($r=-0.40$). We discuss the potential implications of links between national identity, leadership, and public health for managing COVID-19 and future pandemics.
As of October 2021, more than 235 million people worldwide have been infected by the new coronavirus and nearly 5 million have died, making the COVID-19 pandemic one of the greatest health crises of the past century. Until a vaccine or effective medical treatment is widely administered, the public response to the pandemic is largely limited to non-pharmaceutical interventions, including policy-making and collective behaviour change. To reduce virus transmission, it is crucial that people engage in public health behaviour (e.g., maintain spatial distance and improve physical hygiene) and support COVID-19 protective policies (e.g., limiting travel and closing bars and restaurants). And even after effective vaccines are administered, it is critical to convince people to take them. This is why the Director of the World Health Organization declared: “That’s why behavioural science is so important – it helps us to understand how people make decisions, so we can support them to make the best decisions for their health”.

In the current investigation, we respond to this call for behavioural science on the pandemic. Specifically, we present the results from two large-scale global studies across 67 (Study 1) and 42 (Study 2) countries, testing key predictors of public health support during COVID-19. Focusing on the potential role of national identity, we examine the role of key social motives in collective behaviour during the pandemic. This research may help scholars, health organizations, and political leaders identify important factors and design more effective behavioural interventions to increase compliance with actions such as maintaining spatial distance and restricting travel during a pandemic.

During a global pandemic, leaders and public health officials need to inform and mobilize the public to avoid behaviours no longer considered socially responsible. However, recent evidence suggests this type of leadership requires cultivating a shared sense of solidarity to increase compliance with recommended health behaviours. Solidarity with other members of one’s group is a component of ingroup identification, that is, the personal significance that being part of a group (e.g., nation) holds for an individual. Identifying with a group is associated with mutual cooperation and adherence to its norms, motivation to help other members of their group, and a willingness to engage in collectively-oriented actions aimed at improving the group’s welfare. Here we test the role of identification with one’s national group in promoting public health in the COVID-19 pandemic (see ref. 19).

National identity plays an important role in motivating civic involvement and costly behaviours that benefit other members of their national community. Accordingly, a strong sense of shared national identity might help collective efforts to combat the pandemic within a country (e.g., ref. 22). Moreover, border closures, travel bans, and national task forces have likely made national identities even more salient during the pandemic. The existence and activation of strong collective identities can allow political leaders to mobilize large populations to adhere to emergency public health measures. For instance, political leaders and public health officials often foster a sense that “we are in this together” and that we can manage the crisis through collective action. This might be particularly important for counteracting polarization within countries, which can reduce health behaviour and increase the risk for infections and mortality.

The goal of the current paper is to examine whether national identification (NI) is associated with global adherence to the public health measures during a pandemic. Specifically, we examined the associations between the strength of identification with one’s nation and whether people adopted public health behaviours (e.g., limiting travel, spatial distancing, hand washing) and endorsed public policy interventions (e.g., closing bars and restaurants). Extensive evidence suggests these actions could substantially reduce the number of COVID-19 infections.

Our primary hypothesis is that stronger NI will be associated with greater support for and compliance with public health measures.

National identity is distinct from beliefs about national superiority or collective narcissism (e.g., refs. 33–35). NI is a form of social identity that involves the belief that one’s group (i.e., nation) is exceptional but unappreciated by others. NI tends to correlate positively with NN because they both involve a positive evaluation of one’s nation. However, they are linked to very different outcomes. For example, outgroup prejudice is negatively associated with NI but positively with NN.

People high in collective narcissism are especially concerned with how their group reflects on them. For instance, NN is associated with a greater preoccupation with maintaining a positive image of the nation than with the well-being of fellow citizens. Thus, in a crisis, national narcissists may prefer to invest in short-term image enhancement rather than in the sorts of long-term solutions that are necessary to sustain public health during a long pandemic. They may then be less inclined to engage in behaviours to prevent the spread of COVID-19, or even acknowledge the risks associated with the pandemic in their home country. Therefore, in identifying associations with compliance with public health measures, we sought to distinguish NI from NN.

In addition, there is some evidence that right-wing political ideology (PI) is associated both with national identity (e.g., ref. 14) and NN (e.g., ref. 39,45,46). Moreover, supporters of right-wing political parties have tended to downplay risks associated with COVID-19 (e.g., refs. 47–49) and were less likely to comply with preventative measures compared to left-leaning or liberal individuals. Therefore, we examined whether NI and narcissism were distinct from PI in explaining public health support.

Results

The COVID-19 pandemic is a truly global crisis with over 200 countries reporting infections. To understand the variables that account for public health support around the globe, we launched a collaborative, international project in April 2020 collecting large-scale data from as many nations as possible. In Study 1, we collected a large sample consisting of citizens from 67 countries. We analyzed a sample of 49,968 participants (see Fig. 1). See “Methods” for details about the sample (all reported materials and data are available at: https://osf.io/y7ckt/).

We analyzed these data using multi-level models in which persons were treated as nested within countries. We also included a measurement level to control for individual differences in how consistently people responded to items that were meant to measure the same construct. Our analyses estimated relationships at the individual level while controlling for country-level differences. For example, did people who had a stronger NI endorse public health measures such as spatial distancing (e.g., reducing physical contact) more strongly than people with a weaker NI? A set of regression coefficients was estimated for each country, and the means of these coefficients were tested for statistical significance. Moreover, the standard errors of these coefficient incorporated “Bayesian shrinkage” meaning that less reliable observations (countries and individuals) influenced parameter estimates less than more reliable observations.

We also adjusted for the COVID-19 infection and mortality rates within each country to ensure that public health support was not merely a function of local risks. Due to the large sample size in Study 1, we focused our interpretations on the person-level findings that were statistically significant at the p < 0.001 level. (The results with the Human Development Index (HDI) are available in the Supplementary Information).
Participants generally reported following the guidelines for contact and hygiene and they supported policies that were intended to reduce the impact of COVID-19 (i.e., means for all three measures were above 8, on scales ranging from 0 to 10; see Table 1). The public health measures were correlated with one another (estimated correlations > 0.38). Consistent with prior work, NI was positively correlated with both NN \( (r = 0.38) \) and right-wing PI \( (r = 0.18) \).

We examined relationships between our three measures of socio-political beliefs and COVID preventative behaviours and support of public health policies with a series of multi-level regressions. In these analyses, preventative behaviours and policy support were outcomes, and the three measures of social-political beliefs were modelled simultaneously as predictors. This meant that the relationship between an outcome and each predictor statistically adjusted for relationships between that outcome and the other predictors. The results of these analyses are summarized in Table 2.

NI was significantly and positively related to all public health measures. Individuals with stronger NI (relative to other people within their own nation) reported stronger support for increasing spatial distance and improving physical hygiene and endorsed COVID-19 public health policies more strongly than individuals with weaker identification.

We conducted chi-squares tests comparing the size of these coefficients and found that for all three public health measures, the coefficients for NI were stronger than the coefficients for NN and PI \( (p < 0.001) \). Taken together, the three predictors accounted for 8% of the person-level variance of the contact measure, for 8% of the person-level variance of the hygiene...
measure, and 5% of the person-level variance of the policy support measure. The coefficients for individual countries are displayed in Figs. 2 and 3. (To see the coefficients and confidences intervals for each variable in each country see Supplementary Figs. 1, 2, and 3).

Study 1 relied on self-report measures. To test the robustness of our predictions, we sought to conceptually replicate our findings using publicly available indices of national identity as well as actual behaviour change during the pandemic in Study 2. To this end, we relied on two publicly available datasets: the World Values Survey and the COVID-19 Google Community Mobility Reports which indicate how people’s physical movement has changed in response to COVID-19 policies (available at [www.google.com/covid19/mobility](http://www.google.com/covid19/mobility)). We created an index of physical mobility by averaging community movement across all available places (i.e., retail and recreation, groceries and pharmacies, parks, transit stations, workplaces, and residential). See “Methods” for details about the sample and measures.

We examined whether countries with higher average NI prior to the pandemic predicted a stronger change in mobility in response to COVID-19 restrictions during April and May 2020 (This period mirrored when we collected most of the samples in Study 1). We conducted our analysis for the full sample of 42 countries in which aggregate data which was publicly available for each country. Blueish colours indicate negative associations between our predictors and our outcomes while reddish colours indicate positive associations (higher scores reflect stronger relationships between national identification, greater national narcissism and greater conservatism, and limiting physical contact, improving hygiene, and supporting public health policies). All the worldmaps were produced using R packages. The map is from the package ‘rworldmap’ and is licensed-free from South, A. (2011). rworldmap: A New R package for Mapping Global Data. The R Journal, 3, 35-43.

Discussion

Our research suggests that national identities might play an important role in the fight against a global pandemic. Following World War II, early work in social psychology had a tendency to focus on the negative side of nationalism and leadership persuasion, such as destructive obedience to authority and group conformity to incorrect beliefs held by others. In the decades since then, research on social identity has revealed that there is also a pro-social side to group identity. Based on this latter perspective we predicted, and found, that NI was positively associated with support for and engagement with public health behaviours around the globe.

In two global studies combining person-level and country-level analyses, the strength of national identity robustly predicted public health support, operationalized as behavioural health intentions (i.e., physical distance and physical hygiene), support for COVID-19 policy interventions, and reduced physical movement patterns during the pandemic. We found this pattern with self-report measures at the person-level and using measures of actual mobility at the country level. The fact that national identity is associated with large-scale behaviour in real life provides ecologically valid evidence for our main hypothesis. Taken together, these results are consistent with our hypothesis that NI is related to greater behaviour change in compliance with public health policies. We note that the results showing a decline in mobility should be treated with caution, as in the mobility report location accuracy and the categorization of places can vary between countries. In short, people who identified more strongly with their nation reported greater engagement with critical public health measures around the globe.

These results are consistent with the social psychological literature on the benefits of identifying with one’s social groups. They also underscore a potential benefit of NI, which might be salient during a national or global health crisis. Our research provides evidence that this form of identification might help to
understand public health behaviours. However, work in the United States has found that threats to national identity can lead to less support for public health initiatives. As such, mobilizing people around a shared national identity might require considerable nuance. Future work should examine the impact of different types of identity appeals during a pandemic and isolate the causal influence of national identity on real behaviour.

There is reason to believe that other forms of group identification can undercut public health. For instance, partisanship within countries (i.e., when people strongly identify with a specific political party) is associated with risky behaviour. For example, one study that used geo-tracking data from 15 million smartphones in the US found that counties that voted for a Republican (Donald Trump) over a Democrat (Hillary Clinton) exhibited 14% less spatial distancing during the early stages of the pandemic. These partisan gaps in distancing predicted subsequent increases in infections and mortality in counties that voted for Donald Trump. Moreover, partisanship was a stronger predictor of distancing than many other economic or social factors (e.g., county-level income, population density, religion, age, and state policy). This may be due to leadership, social norms, and media consumed by people from different identity groups. As such, stronger group identification is not always associated with engagement in public-health behaviour.

It is tempting to conclude that PI might account for these relationships. However, we found that right-wing PI had a positive, moderate correlation with both NI and NN, but very weak correlations with support with public health measures in our multi-country sample. Specifically, right-wing political beliefs were associated with less support for COVID-19 public health policies, compared to left-wing political beliefs. This relationship between political beliefs and compliance has been observed in several countries (e.g., refs. 48,49,59). Similarly, while NI and NN were associated positively with support for public health measures, right-wing PI was negatively associated with these outcomes. This suggests that a collective identity might be associated with valuing the protection of the entire group during a pandemic, even after adjusting for their ideological differences.

It is also important to note that the relationship between national identity and public health support was distinct from NN. In past research, NN has predominantly been linked to problematic attitudes towards both out-group and in-group
However, we found that NN was positively associated with self-reported physical hygiene and support for COVID-19 preventative policies (cf. ref. 42). Still, these effects were much smaller than those for national identity and depended on the context. Future work should thus carefully consider cross-national differences in human development as well as social norms associated with national identity.

Our evidence suggests that national identity may have modest predictive value for people’s endorsement of and adherence to public health measures in the context of a pandemic. This information may be leveraged to create a sense of inclusive nation-based in-groups, potentially increasing engagement with recommended policies. Political and public health leaders might develop effective communication strategies to appeal to a sense of NI. Indeed, this might be particularly helpful in highly polarized countries where adherence to public health recommendations has become a partisan issue (see ref. 26). For instance, Canadian leaders across the political spectrum adopted similar messaging about the serious risks of the current pandemic which resulted in a rare moment of cross-partisan consensus among the public (e.g., ref. 61). Such recategorizations to overarching inclusive national groups (e.g., ref. 62) may be effective for preventing unhealthy behaviours. As such, leaders who wish to inspire public health behaviour might benefit from connecting the issue to feelings of national identity. Framing these messages at the level of the nation rather than, for instance, a partisan group, region, or municipality also makes sense when the response requires national coordination 22,63.

However, the effective application of these appeals requires future research as national identity is also implicated in inter-group conflict. This is more likely in the case of NN 36,60, which tends to be associated with lower solidarity with other groups in crisis (e.g., ref. 64). In the absence of collective narcissism, national identity could reflect not only concerns about protecting one’s own country, but also into concern for other nations. Indeed, prior research has found that NI is associated with more positive attitudes towards other nations—especially when adjusting for NN 37,45. Thus, the nature of national identity might be an important determinant of the effectiveness of identity and the potential for international cooperation. In addition, it could turn out that a commitment to cosmopolitanism or other supranational identities and ideologies may play a role that bolsters what we have seen in the case of national identity 63.

Fig. 4 Relation between national identification (y-axis) and community mobility (x-axis) in 42 countries and territories. Google mobility is depicted as a mean change in mobility during April and May 2020 (i.e., blueish colours indicate a greater reduction of mobility during this period while reddish colours indicate a smaller reduction of mobility). Grey shading is the 95% confidence interval.
One major strength of our paper is the scope of nations we included in our samples. The first study included data from 67 nations and the second study included data from 42 countries. The vast majority of published research in psychology and social sciences has been conducted in so-called WEIRD cultures, typically restricted to the narrow western and educational setting of American or European university students, and non-representative participants from industrialized, rich and democratic countries. The COVID-19 pandemic, however, is a truly global issue underscoring the importance of gathering samples outside these WEIRD cultures. Moreover, it was striking to see that the same person-level association between NI and our public health measures was in the same direction in almost every country we studied. Although we managed to collect data from a wide variety of countries and territories, we were unable to obtain samples from every nation (especially in Africa and the middle east). As such, we encourage future research in these countries to see if the same dynamics are at play.

Another element of our paper was an attempt to collect representative or stratified samples in Study 1. While most studies in psychology focus on convenience samples (e.g., undergraduate or MTurk participants), it is important to gather samples that are more diverse with regards to gender, age, and other key risk factors during a pandemic. Collecting representative samples affords the opportunity to help make better generalizations to the wider population within each country as well as the broader sample of countries around the globe. Due to funding constraints, we were not able to obtain representative samples from most nations. As such, we are unable to make strong generalizations about the populations in those countries. But note that we did directly compare the findings in more vs. less representative samples and found no significant difference in the overall relationship between NI and our three public health measures (see Supplementary Information for details).

This research was correlational and conducted during the early phase of the pandemic. Although a causal relation between NI and public health behaviour makes sense from a theoretical perspective, we cannot rule out the possibility that public health behaviour causes NI, or that both are caused by a third variable (e.g., ref. 23). Moreover, we have no evidence whether this pattern would apply during later stages of the current or future pandemics. Indeed, national identity may increase during times of crisis as people recognize their duty as citizens to help respond to this issue. We encourage future work to experimentally manipulate the salience of NI or frame health messages in a way that highlights the link between identification and the public health measures. Another limitation is the exclusive focus on national groups rather than, for instance, identification with a city, region, religion, or ethnic group—or, for that matter, all of humanity. Some research suggests that local leaders may be ineffective if their advice contradicts a national leader (see ref. 26). In the current pandemic, nations have been among the most important actors for implementing policy or promoting national health guidelines, but sub-national units and international organizations such as the World Health Organization also play an important role.

The COVID-19 pandemic spreading across the world is one of the most devastating global health crises of the past century. Until a verifiably safe and effective vaccine or therapeutic treatment is universally administered, efforts to inspire collective action for greater compliance with public health measures remain a central challenge when mitigating the transmission of the SARS-CoV-2 virus (e.g., spatial distancing, physical hygiene, and support for health policies). Moreover, understanding social identity and collective behaviour likely plays a key role in vaccination efforts. Our large-scale studies suggest that identification with one's nation is positively associated with support for and engagement in critical behavioural public health measures. Understanding the role of social identity appears to be an important issue when addressing public health crises.

Methods
In Study 1, we launched a call using social media to collect data all over the world on psychological factors that might be related to COVID-19 pandemic response, with public health support as the primary outcome in April 2020. Each team was asked to collect data from at least 500 participants, representative with respect to gender and age, in their own country or territory. We created a survey in English (see below) that we sent to each team. The survey was approved by the ethics board at the University of Kent (each research team was allowed to include additional items after the main survey under their own institutional protocol). We have complied with all relevant ethical regulations and all participants were asked to give informed consent. Where necessary, each team translated the survey into the local language, using the standard forward-backward translation method, and then collected the data. The datasets were then collated and analyzed using multi-level models. We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study (see Supplementary Information).

All materials and data are available at: https://osf.io/jzckt/. Raw data obtained from all collaborators were cleaned to exclude any duplicate answers as well as those younger than 18 years or older than 100 years. We then excluded data from two participants from Puerto Rico and 313 participants recruited from the UAE where it was difficult to establish participant nationality. This resulted in a sample of 51,089 participants. For the current analysis, we also excluded participants who had missing data on all six key variables of interest. We left with a sample of 49,968 for analyses (Mean age = 43; Gender = 52% females). Figure 1 shows the geographical distribution of countries included in the project (For a full list and sample characteristics from each country, please see Supplementary Information). The sample includes countries from all continents except Antarctica. Due to our open call for collaborators, some continents are overrepresented (e.g., Europe, Americas) while others are underrepresented (e.g., Africa, Middle East).

We encouraged teams to collect nationally representative samples. Of the 67 countries in which data were collected, representative samples were collected in 28, convenience samples were collected in 36, and both types of sampling were used in three countries. To determine if the relationships that were the focus of our paper varied as a function of the type of sample, we conducted analyses that compared coefficients for countries that had the three types of samples. These analyses found only one difference as a function of type of sample. Type of sample moderated the relationship between national identity and support (see Supplementary Information). The overall mean slope was 0.12, and the estimated slope for countries that collected representative samples was 0.16, whereas it was 0.08 for countries that collected convenience samples. Importantly, both were statistically significant from 0 (p = 0.001).

Questionnaires were administered online. Each participant completed a series of psychological measures and several public health questions (see Supplementary Information). Participants completed the scales in random order.

For the current paper, we focused on three potential predictors of public health support. Our primary predictor was a two-item NI measure (which included one item: “A national group I identify with (as a country)” and an additional item: “I strongly agree that my (national group) deserves special treatment.”). Our secondary predictor was a three-item NN scale, which included the following sample item: “My (national group) deserves special treatment.” The nationalities were provided by the survey researchers. These measures used an 11-point slider scale with three labels: 0 = “strongly disagree,” 5 = “neither agree nor disagree,” 10 = “strongly agree.” As a third predictor, we included a one-item measure of PI: “Overall, how would you best describe yourself in terms of PI?”. This measure used a scale from 0 = extremely liberal/left-leaning to 10 = extremely conservative/right-leaning. This measure of ideology has been found to account for a substantial proportion of the variance in presidential voting intentions in American National Election studies between 1972 and 2004. We included the terms left-leaning and right-leaning to make the item generalizable to numerous political systems. As the primary outcome variable, we included three measures of public health support: a spatial distancing scale, consisting of five items, as, for example, “During the days of the coronavirus (COVID-19) pandemic, I have been staying at home as much as practically possible.” (Prior to conducting our analyses, we learned that the five-item scale had low reliability (α = 0.002). However, after dropping one bad item the scale had acceptable reliability (α = 0.72). As such, all analyses reported in the paper used this four-item version of the scale.) A physical hygiene scale, consisting of five items, as, for example, “During the days of the coronavirus (COVID-19) pandemic, I have been washing my hands longer than usual.” A policy support scale, consisting of five items, as, for example, “During the days of the coronavirus (COVID-19) pandemic, I have been in favour of closing all schools and universities.” We used an 11-point “slider scale with three labels: 0 = “strongly disagree,” 5 = “neither agree nor disagree,” 100 = “strongly agree,” which was re-coded to a scale from 0 to 10.
To see if these relationships varied as a function of socio-economic factors and the state of the pandemic in each country, we examined several country-level factors. In most developed countries (the most recent available) HDI (ranging from 0 to 1), which represents a combined index of life expectancy at birth, level of education (mean years of schooling for adults over 25 and expected years of schooling for children), and national wealth (gross national income per capita)\(^{46}\).

To ensure our results were not confounded with the pandemic rate across countries, we examined the total mean COVID-19 infection and mortality cases (as well as the infection and mortality rate per capita) in each country at the start of data collection for this project. Our main findings did not vary as a function of total infections and deaths as well as infections and deaths per capita at the start of data collection; for this reason, we excluded this variable (April 17, 2020). These variables had very little impact on the results and are not discussed further. All measures will be made publicly available upon publication at the Open Science Framework website.

We conceptualized the data as a multi-level data structure in which persons were nested within countries, and we analyzed the data with a series of multi-level models (MLM) using the programme HLM\(^{72,73}\) (see ref. \(^{31}\) for a description of using MLM to analyze data from multinational studies). The analyses examined within-country (person-level) relationships between behavioural health-protective responses to COVID-19 (i.e., spatial distancing, physical hygiene, and policy support) and individual differences in collective concerns (i.e., NI, NN, and PI). We also examined the moderating effects of country-level differences on these person-level relationships. For instance, we examined if person-level relationships between collective concerns and health-protective measures varied as a function of between-country differences in overall human development as measured by the HDI or national rates of COVID-19 infections and mortality.

Before examining relations between COVID-19 protection and socio-political attitudes, we examined the reliability of our measures (with the exception of PI, which was measured with only one item). These analyses consisted of models in which the i items in a scale were nested within j persons, which were nested within k countries. Such analyses provide the multi-level equivalent of a Cronbach’s alpha\(^{74}\). The model is below.

\[
\begin{align*}
\pi_{ijk} &= \beta_{0jk} + u_{0jk} + e_{0jk} \\
\beta_{0jk} &= \beta_{00k} + u_{00k} \\
\beta_{00k} &= \beta_{000} + \epsilon_{000}
\end{align*}
\]

Next, we modelled country-level factors, such as the HDI to examine whether for relationships among the predictors, all predictors were entered at the person level of the model. Predictors were entered group-mean centred and were modelled as fixed effects. As was done using a three-level model in which the first level was a measurement level, outcomes were modelled as latent means.

Entering predictors group-mean centred meant that estimates of coefficients controlled for country-level differences in means\(^{31}\). Entering predictors as random means did not mean that the model included the first country variance (for the person-level only); there were country-level differences on these person-level variance effects. Indeed, we examined if person-level relationships between collective concerns and health-protective measures varied as a function of between-country differences in overall human development as measured by the HDI or national rates of COVID-19 infections and mortality.

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averaging community movement across all available places (i.e., retail and recreation, groceries and pharmacies, parks, transit stations, workplaces, and residential). We analyzed 42 countries in which aggregate data was publicly available for both for NI and mobility scores. The study was approved by the ethics board at the University of Kent. All materials and data are available at: https://osf.io/yc7kt/

NI was computed based on indices from the first release of data from Wave 7 of the World Value Survey. The surveys were conducted between early 2017 to mid-2020. All countries employed random probability representative samples of the adult population (We computed country averages using default weights applied in the World Values Survey dataset. However, our results are very similar whether are not these weights are applied). Our analysis focused on two indices. First, we used the national pride question: “How proud are you to be [country’s nationality]? 1 = Very proud, 2 = Quite proud, 3 = Not very proud, 4 = Not at all proud, and 5 = I am not [country’s nationality].” (In some countries, this source item actually refers to priding of “being a citizen of [the country].”) A response choice was available for respondents who were not citizens of the country where they were interviewed in Wave 7 of the World Value Survey. While some countries differ in terms of their ethnic or civic-based notions of citizenship, we used NI to denote overall identification with a specific national polity. We excluded the latter category and re-coded the remaining responses on a scale from 0 = Not at all proud to 5 = Very proud.

The second item captured closeness to one’s country. “People have different views about themselves and how they relate to the world. Using this card, would you tell me how close do you feel to [country]?” 1 = Very close, 2 = Close, 3 = Not very close, 4 = Not at all close, and 5 = Very at all proud. (Note that participants can refuse to respond or indicate “I don’t know” to both items. These responses were coded as missing.) The two items were positively correlated at country-level (r = 0.31, p < 0.049), so we averaged them to create a composite index of NI (M = 2.38, SD = 0.24).

Community mobility was computed based on Google Community Mobility Reports, which indicate how people's aggregate physical movement has changed over time. The reports show movement trends over time across different categories of places, retail and recreation, groceries and pharmacies, parks, transit stations, workplaces, and residential. Percentage change for each day is computed relative to a baseline, which is a median value, for the corresponding day of the week, during the 5-week period from Jan 3 to Feb 6, 2020. To create our overall index of reductions in community mobility, we computed average indices for each of the places over April and May 2020 (to roughly match the time frame of Study 1). We then created a composite index of mobility by averaging mobility across all places, with residential mobility reverse-coded (α = 0.91, M = −34.87, SD = 15.15). This translates to a 35% reduction in movement from the start of the calendar year to the spring in these 42 nations.

**Reporting summary.** Further information on research design is available in the Nature Research Reporting Summary linked to this article.

**Data availability**

The data generated during and/or analyzed during the current study are available on the Open Science Framework repository, https://osf.io/yc7kt/. The publicly available datasets that support the results of this study, The World Values Survey and the COVID-19 Google Community Mobility Reports, are available from https://www.worldvaluessurvey.org/wvs.jsp, and www.google.com/covid19/mobility/, respectively.

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Author contributions
Jay J. Van Bavel launched the project, oversaw the design of the study, data collection, curation and analysis, and wrote the manuscript. Aleksandra Cichocka and Paulo S. Boggio oversaw the design of the study, data collection, curation, and analysis, conducted data analysis, and wrote the manuscript. Aleksandra Cichocka coordinated ethics approval. Valerio Capraro and Hallgerður Sjástad designed the study, oversaw data collection, and contributed to writing the manuscript. John B. Nezlek, Flavio Azevedo, Tomasilav Pavlović, Brian Weinberg, Filippo Chierichetti, and John Paul Minda assisted with data analysis and data curation efforts. Flavio Azevedo, Tomasilav Pavlović, Gabriel G. Rêgo, and Waldir M. Sampaio prepared the dataset and its metadata. Flavio Azevedo, Tomasilav Pavlović, Gabriel G. Rêgo and Aleksandra Cichocka organised project documentation. Flavio Azevedo designed, populated, and maintained the ICSPM project’s website. Bjarki Gronfeldt, Ann Meuro, Christian Brock, and Sara Salmela contributed to various phases of the organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript. Waqas Ejaz, Annalisa Myer, and Valerie Atkinson were responsible for creating the authors organisation, including writing the manuscript.