


RESEARCH ARTICLE

Social control and solidarity during the COVID-19 pandemic: The direct and indirect effects of causal attribution of insufficient compliance through perceived anomie

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Abstract

The COVID-19 pandemic is a crisis which called for two crucial modes of social regulation: *social control* and *social solidarity*. In the present pre-registered study, we examine how the perceived *non-compliance with health measures* relates to attitudes towards these modes of social regulation, as well as to the role played by the perception of disintegrated and disregulated society (*anomie*). Using data from an online cross-sectional survey conducted in Belgium in April 2020 ($N = 717$), results show that the causal attribution of the crisis to insufficient compliance was differentially associated with support for social control and social solidarity behaviours. Specifically, greater attribution to insufficient compliance was associated with a perceived breakdown in the social fabric (disintegration), which explained stronger support for social control and fewer solidarity-based actions. Perceived dis-regulation, conversely, was associated with less support for

social control and more support for social solidarity. Therefore, the perception of the pandemic and associated perceived anomie tend to polarize citizens' attitudes towards these two modes of social regulation. In this way, prosocial behaviours might be inhibited by communications that attribute the pandemic's causes to incivility. Other implications of our findings for the social psychological literature on communities' reactions to the pandemic are discussed. Please refer to the Supplementary Material section to find this article's [Community and Social Impact Statement](#).

KEYWORDS

anomie, causal attribution, compliance, COVID-19, pandemic, solidarity

1 | INTRODUCTION

In this time of crisis, we face two particularly important choices. The first is between totalitarian surveillance and citizen empowerment. The second is between nationalist isolation and global solidarity ... the choices we make now could change our lives for years to come.

This quote by Yuval Harari (2020) highlights two a priori opposite modes of social regulation in response to the coronavirus pandemic: *social control* and *social solidarity*. During the period of the COVID-19 crisis, both societal trends were – and still currently are – present almost everywhere in the world. Half of the global population was constrained to follow strict rules that deprived them of freedoms, and authorities in several countries used surveillance technology to track coronavirus patients (e.g., Gerke, Shachar, Chai, & Cohen, 2020). Concurrently, solidarity in its various forms was omnipresent at all levels, from the neighbourhood to the European level (e.g., Ntontis & Rocha, 2020; Zagefka, 2021). Across Europe, aside from measures adopted by policymakers restricting civil liberties, such as the lockdown and the closing of borders, many solidarity initiatives emerged during the crisis period. For instance, a Facebook group gathering more than 14,000 people was created to relay all the needs and initiatives operating in Brussels City, ranging from meal and grocery deliveries to hosting people in need of accommodation.

In the present article, we advocate that this crisis can be seen as a momentum leading citizens to find explanations of the pandemic and to adopt functional responses based either on social control or solidarity. In this context, compliance with public health measures has been a prominent topic in the media, in political discourse as well as in scientific research (e.g., Van Bavel et al., 2020). The present article makes a novel contribution by investigating whether and why attributing the crisis to insufficient compliance with health measures shapes citizens' attitudes and behaviours towards these two modes of regulation. More specifically, we contend that perceived anomie (i.e., breakdown of social cohesion and in leadership) plays a central role in explaining these effects.

2 | SOCIAL CONTROL AND SOLIDARITY

These two modes of social regulation are characterized by two distinct perspectives on society. While social solidarity refers to the idea of collective responsibility and the protection of the most vulnerable, social control could be, in

turn, defined as a set of mechanisms ensuring acceptance and compliance with certain norms maintaining social stability and sanctioning transgressions (Likki & Staerkle, 2014). Based on the influential work by Rokeach (1973), a study conducted by Likki and Staerkle (2014) showed that attitudes towards social solidarity and social control represent two dimensions predicted by different social and psychological factors, such as feelings of physical and social (in)security. These two tendencies can thus coexist. Accordingly, endorsing a perspective of social control, such as restricting civil liberties to limit the spread of the virus, does not necessarily imply renouncing solidarity-based actions grounded in the idea of collective responsibility. For example, some individuals can adhere to strict containment and individual tracking policies while organizing distribution of donations to the most vulnerable.

Attitudes towards these two modes of social regulation are the result of a functional psychological process guiding individuals' perception of reality (Likki & Staerkle, 2014). In line with this socio-functional approach – also adopted in some of the most influential theoretical frameworks in social psychology, for example, Fiske (1992) or Cottrell and Neuberg (2005) – individuals' attitudes and emotions towards people or social objects are closely dependent on their perceived social reality. When facing the COVID-19 crisis, individuals will seek to understand the pandemic, to elaborate explanations for its causes, in order to minimize threats for themselves and their ingroup (Politi et al., 2021). We therefore expect that behaviours and attitudes towards these two modes of social regulation are related to people's perceptions of the causes that led to the crisis and, more specifically, the perception that the crisis is caused by insufficient compliance with health measures.

2.1 | Causal attribution of the crisis to insufficient compliance with health measures

Like other crises, the COVID-19 pandemic has led to contrasting perceptions and explanations, as shown by the variety of responses it has received internationally. Beyond their diversity, all responses originate from one fundamental need: understanding the reasons *why* things happen (Costa-Lopes, Dovidio, Pereira, & Jost, 2013; Lerner & Miller, 1978). This is all the more true when events are negative and unexpected (Bruckmüller, Hegarty, Teigen, Böhm, & Luminet, 2017), as is the case of the pandemic. Indeed, causal explanations help people understand their social environment, and are known to be important predictors of subsequent attitudes and behaviours on a range of issues (Dolan & Hansen, 2018; Gomez & Wilson, 2003).

Among possible explanations, compliance with health measures by citizens has been widely discussed. Since the beginning of the crisis, much research has investigated processes underlying compliance with health measures, such as lockdown, social distancing or wearing a mask (e.g., Plohl & Musil, 2020; Steffens, 2020). So far, little interest has been given to the possible impact of perceived insufficient compliance as a causal attribution for the spread of the crisis.

In the present research, we postulate that embracing this causal attribution for the crisis leads people to disengage from prosocial actions in favour of the common good and to accept political measures restricting civil liberties. Moreover, we suggest that the concept of anomie plays a central role in explaining these effects. Based on Durkheim's definition of anomie (Durkheim, 1997), Teymoori, Bastian, and Jetten (2017) proposed a psychological approach to this concept. These authors defined anomie as a shared perception that the society is collapsing, and highlights two constitutive features: the perception of *disintegration* (i.e., breakdown of social cohesion) and of *disregulation* (i.e., breakdown in leadership). While disintegration is characterized by both distrust and decline in moral standards within the society, disregulation refers to perceived illegitimacy and ineffectiveness of political leaders. Because perceivers seek coherence among their various perceptions (Asch, 1946; Roese & Morris, 1999), we assume that greater causal attribution for the crisis to insufficient compliance should facilitate the broader perception of disintegration.

It is worth noting that the opposite effect can also be argued. People indeed try to find explanations for societal events in order to reduce uncertainty and fear as well as to establish coherence (e.g., Hewstone, 1989). It is therefore also possible that the more people perceived society as disintegrated before the pandemic, the more they will, as a matter of consistency, tend to attribute the coronavirus crisis to lack of individual compliance.¹

2.2 | From anomie to solidarity and social control

Recent research has demonstrated the role of the perception of anomie on attitudes towards the two modes of regulation. Indeed, because perceiving consensus over moral standards facilitates social networking within societies, it also motivates individuals to engage in actions for the common good (Teymoori et al., 2017; Uslaner, 2002). Conversely, the perception of a widespread moral disruption in society is less likely to lead people to engage in solidarity-based actions. Moreover, perceived disintegration should direct them towards other types of actions and policies that are not based on collective responsibility, such as social control policies. Indeed, Sprong et al. (2019) showed through a series of studies conducted in multiple countries that the more people perceive disintegration, the more they are in favour of authoritarian leaders. Based upon past literature, we therefore expect that disintegration will be negatively related to participation in solidarity behaviours and positively related to attitudes towards social control policies in the context of the COVID-19 crisis.

While we have no theoretical reason to predict that attribution of the spread of the virus to insufficient compliance with health measures is related to perceived disintegration, this second dimension of anomie, related to the legitimacy and efficacy of leadership, should also play a role in shaping attitudes towards social control and participation in solidarity-based actions. Previous research has already extensively demonstrated that the level of trust in political authorities is an important predictor of support for policy measures (e.g., Intawan & Nicholson, 2018). For instance, Davis and Silver (2003) showed that, following the 9/11 terrorist attacks, trust in political authorities predicted endorsement of policies that restricted civil liberties. In the context of the coronavirus pandemic, Schmelz (2021) showed that German citizens' compliance with health measures crucially depends on their trust in the government. Pagliaro et al. (2021) also demonstrated in a large survey including 23 countries conducted between April and May 2020 that the willingness to engage in prescribed COVID-19 prevention behaviours depends on individuals' trust in the government. We therefore expect this effect to operate in the context of the coronavirus crisis in Belgium. We also assume that this effect is not restricted to the level of political trust and is more broadly related to the perception of dysregulation (or breakdown in leadership). This perceived dysregulation should therefore be negatively related to attitudes towards social control policies.

Moreover, perceived dysregulation should also play a role in citizens' engagement in solidarity-based actions during the pandemic. The literature has highlighted the influence of authorities' response during unforeseen events or emergency situations in promoting (or discouraging) cooperative behaviours (e.g., Drury et al., 2019). For instance, Ntontis, Drury, Amlôt, Rubin, and Williams (2018) showed that the perceived lack of coordination and preparedness of the authorities leads residents of a flood-affected area to collectively organize, mobilize resources, and provide solidarity behaviours. We therefore expect that, if the authorities are perceived as untrustworthy and ineffective in managing the crisis, citizens will be more likely to take responsibility for crisis responses and thus be more prone to mobilize in solidarity initiatives. Our hypothetical model is summarized in Figure 1.

This study was pre-registered before data analysis. Hypotheses, planned analyses, and datasets are available on the Open Science Framework: https://osf.io/hy2vn/?view_only=a8cdccaac7894f3a8954716855795796.

3 | METHOD

3.1 | Participants and procedure

We conducted a cross-sectional online study in April 2020, relying on a convenience sample from Belgium that was recruited via email and social networks. The questionnaire was also disseminated using a Facebook sponsored ad, in which it was presented as a study 'about the perception of politics and solidarity behaviors during the crisis'. To draw the attention of participants, in the ad, the questionnaire was entitled 'Belgium facing COVID-19' ('La Belgique face au COVID'). A total of 1,136 Belgian residents completed the survey. In order to ensure that the structural equation analyses could properly be carried out, we decided to keep in the sample only those participants who responded to all the items composing our variables ($N = 717$; 455 women, 244 men, 4 'other', 3 'not specified');

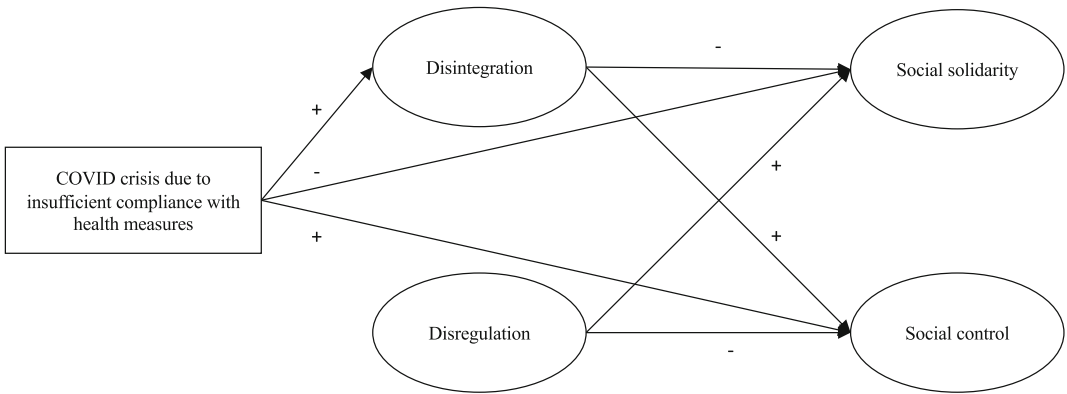


FIGURE 1 Hypothetical model on the link between the perception of the COVID crisis cause, anomie (i.e., disintegration and disregulation) and both social control and solidarity

$M_{age} = 46.26$, $SD_{age} = 14.37$). The level of education of the participants was relatively high: 43.9% had at least a Master's degree, with 76.3% of the total having higher education. To ensure that the results were consistent, we then conducted additional analyses with the whole sample by imputing missing values using the estimation maximization method. It is relevant to note here that the percentage of missing data was 2.08%, which is below the conventional 5% recommended maximum to be confident in avoiding bias (Schafer, 1999).

4 | MEASURES

4.1 | COVID-19 crisis due to insufficient compliance with health measures

This variable was measured with a single item. Participants self-reported the degree to which they considered the ongoing crisis as due to 'The population's lack of respect for lockdown measures and regulations', on a 5-point Likert scale (1 *Totally disagree* to 5 *Totally agree*).

4.2 | Disintegration

This variable was measured with the 10-item French version of Ionescu, Tavani, and Collange's scale (Ionescu, Tavani, & Collange, 2019), which is an adapted translation from Teymoori et al. (2016): 'People think that there are no clear moral standards to follow', 'Everyone thinks of himself/herself and does not help others in need', 'People do not know who they can trust and rely on', 'People don't trust one another', 'Most people don't care about others', 'Communal life is threatened', 'People think that the end justifies the means', 'The rules that held society in harmony are fading and becoming inefficient', 'The notion of "morals" (of good and evil) is no longer a fundamental principle in Belgium' and 'People believe they can act as they please with no regard for society's customs and values' ($\alpha = .90$) (1 *Totally disagree* to 5 *Totally agree*).

4.3 | Disregulation

According to the anomie approach we have adopted in this article, disregulation comprises the perception that political authorities are both illegitimate and ineffective (Teymoori et al., 2017). First of all, we relied on a measure of

political trust to empirically measure the perceived illegitimacy of political authorities. This nexus between political legitimacy and trust is notably supported by Risse and Stollenwerk (2018). Four items measuring political trust were used: 'Please evaluate your personal trust in the following institutions: The Belgian parliament', '(...) Politicians', '(...) Political parties' and 'The Belgian government'. All items were anchored on a 5-point Likert scale ranging from 1 *Not at all* to 5 *Absolutely trust*. Secondly, to operationalize the perceived effectiveness of political authorities, we asked participants to report their satisfaction with the management of the coronavirus pandemic by political authorities on seven items with a 5-point Likert scale (1 *Totally disagree* to 5 *Totally agree*), regarding decision-making (e.g., 'The Belgian authorities made good decisions', 'The Belgian authorities showed competence', 'The Belgian authorities acted responsibly'). These 10 items were constructed by the authors for the purpose of this study. Based on Teymoori et al. (2017), we therefore measured disregulation by combining both the perception of political (in)effectiveness during the crisis (seven items) and the (lack of) trust in politics (four items). We performed an exploratory factor analysis with these 11 items using the unweighted least squares procedure with an Oblimin rotation. This analysis indicated one factor explaining 62.9% of variance. The 11-item scale had also good reliability ($\alpha = .95$).

4.4 | Attitudes towards social control

Participants were asked to rate their agreement, ranging from 1 *Not at all* to 5 *Absolutely*, on seven statements measuring the use of authoritarian measures during the pandemic, such as 'The enforced, complete isolation (quarantine) of infected people or people at risk', 'The use of facial recognition to ensure lockdown compliance', 'GPS geolocation of all citizens in real time estimates' ($\alpha = .86$).

4.5 | Solidarity behaviours

Solidarity behaviours were measured with five items on a 6-point Likert scale ranging from 1 *Never* to 6 *More than four times: During the lockdown, how many times did you engage in the following behaviours*: 'Offer material help to people other than your loved ones (ex: Bring food to a neighbor, ...)', 'Applaud at 8 PM to thank and support the health workforce fighting against the coronavirus', 'Show moral support to people other than your loved ones (ex: talk to isolated people, ...)', 'Sign a petition supporting assistance to certain individuals of the society', 'Share on social media appeals supporting assistance to certain individuals of the society'. A reliability analysis indicated a higher alpha after deletion of the item 'Applaud at 8 PM (...)' ($\alpha = .59$ to $\alpha = .65$), resulting in a final scale of four items.

4.6 | Demographic questions

Demographic questions regarding age, gender, nationality, country of residence and level of education were also collected.

5 | RESULTS

The analysis consisted of two steps. We first examined the correlations between our variables of interest, and we then tested our model using Structural Equation Modelling.

As anticipated, results (see Table 1) indicated a positive correlation between attribution of COVID-19's spread to insufficient compliance with health measures and social control, $r = .44$, $p < .001$. Still in accordance with our

TABLE 1 Bivariate correlations between variables of interest

	1	2	3	4	5
1. Social solidarity	1				
2. Social control	-.08*	1			
3. COVID due to insufficient compliance	-.02	.44**	1		
4. Disintegration	.04	.17**	.22**	1	
5. Disregulation	.30**	-.28**	-.04	.26**	1
M (SD)	3.28 (1.43)	2.44 (0.94)	3.61 (1.17)	4.26 (1.37)	2.26 (0.87)
Scale range	1-6	1-5	1-5	1-5	1-5

Note: $N = 717$.

* $p < .05$, ** $p < .01$.

TABLE 2 Summary of model fit indices

Model	Overall χ^2	df	RMSEA	CI for RMSEA	CFI	AIC	SRMR
1. H0	1,513.19	534	.051	.048-.054	.93	69,580.8	.078
2. H1	1,328.11	528	.046	.043-.050	.94	66,777.8	.073

Note: $N = 717$.

Abbreviations: CFI, comparative fit index; RMSEA, root mean square error of approximation; SRMR, standardized root mean squared residual.

expectations, disregulation was positively correlated to social solidarity, $r = .30$, $p < .001$, and negatively to social control, $r = -.28$, $p < .001$. While disintegration showed a positive correlation with social control ($r = .17$, $p < .001$), but no significant correlation with social solidarity, $r = .04$, $p = .34$. Moreover, attribution of COVID-19's spread to insufficient compliance was related to disintegration, $r = .22$, $p < .001$. Finally, a weak negative correlation was found between social solidarity and social control, $r = -.08$, $p = .03$.

We conducted a Structural Equation Model with no parcels, using JASP (jasp-stats.org) and the 'lavaan' package (Rosseel, 2012), to test our hypothesized model, which fit the data reasonably well (see Table 2). Age and socio-economic status were included as control variables. As depicted in Figure 2, perceived insufficient compliance with health measures was significantly related to the perception of disintegration ($b = .12$, 95% CI [.07, .17], $SE = .02$, $p < .001$) and had a direct significant effect on attitudes towards social control ($b = .39$, 95% CI [.33, .46], $SE = .03$, $p < .001$). The perception of disintegration was positively related to support for social control ($b = .26$, 95% CI [.13, .39], $SE = .06$, $p < .001$) and negatively to engagement in social solidarity ($b = -.08$, 95% CI [-.15, -.01], $SE = .04$, $p < .05$). Finally, the perception of disregulation, in contrast, was negatively related to support for social control ($b = -.36$, 95% CI [-.44, -.28], $SE = .04$, $p < .001$) and positively to social solidarity ($b = .18$, 95% CI [.10, .25], $SE = .04$, $p < .001$).

Fit Indices of our hypothetical model were then compared with those of an alternative model (H0). This model predicted that anomie precedes the perception of insufficient compliance with health measures as explanation of the crisis. As shown in Table 2, this model had good fit indices. However, the comparison between the two models, especially on the AIC score, shows that the hypothetical model had better fit indices.² Using bootstrapping mediation analysis with the 'lavaan' package (5,000 resamples), we tested the indirect effect of perceived insufficient compliance on both solidarity and social control through disintegration. The indirect effect was significant on social control $b = 0.03$ (0.01), 95% CI [0.01, 0.05], but was only marginally significant on solidarity $b = -0.001$ (0.01), 95% CI [-0.02, 0.001].

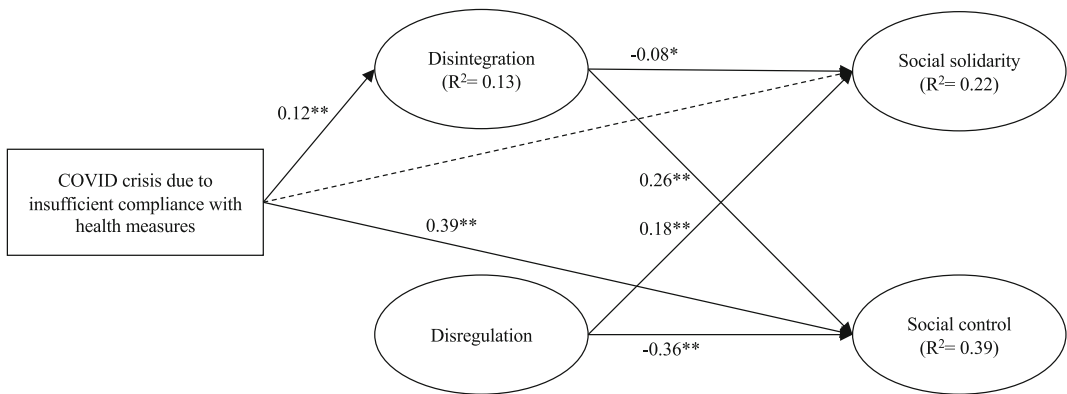


FIGURE 2 Structural equation model on the link between the perception of the COVID crisis cause, anomie (i.e., disintegration and disregulation) and both social control and solidarity. * $p < .05$, ** $p < .01$

6 | DISCUSSION

This study provides novel insights regarding individuals' attitudes towards measures restricting civil liberties and their participation in solidarity-based actions during the COVID-19 crisis. These measures and behaviours that are present, to varying degrees, almost everywhere in the world, were investigated in the Belgian context.

Results show, first of all, that perceived insufficient compliance as a cause of the virus spread had a direct effect on attitudes towards social control and an indirect effect on engagement in solidarity-based actions. This is in line with a socio-functional approach of attitudes towards these two modes of regulation which assumes that individuals' attitudes towards people or social objects are closely dependent on their perceived social reality (Fiske, 1992; Likki & Staerklé, 2014). Moreover, our results allow us to deepen our understanding of this functional process in the crisis context. We showed that the more individuals endorsed this causal attribution of this crisis, the more they perceived a disintegration in society which finally led them to turn to control policies and less to solidarity initiatives. These results extend the flourishing literature on psychosocial processes underlying engagement in solidarity-based actions and attitudes towards social control (e.g., Reicher & Stott, 2020; Zagefka, 2021). Future research should, however, seek to uncover the causal chain between causal attribution for a crisis, disintegration and adherence to these two modes of social regulation. Indeed, although we have argued that causal attribution of the crisis is an antecedent of perceived anomie, we cannot exclude the reverse causal link. Those who already consider society as disintegrated could interpret and attribute the causes of the pandemic to insufficient compliance. We did test this reverse causal link as an alternative model and found that our hypothesized causal chain resulted in a significantly better model fit. Nevertheless, to investigate this issue more confidently, research using longitudinal or experimental approaches are needed.

Secondly, this research highlights the central role played by the perception of anomie. In line with Sprong et al. (2019), who demonstrated that anomie is a good predictor of authoritarian attitudes, our results show that perceptions of both disregulation and disintegration (the two dimensions of anomie) are related to attitudes towards social control, such as political measures restricting individual freedoms to prevent the spread of the coronavirus. The more participants perceived a breakdown in the social fabric and evaluated political authorities as ineffective and untrustworthy, the more they reported positive attitudes towards social control measures.

In addition, results showed that perceived breakdown in social fabric leads individuals to turn away from prosocial behaviours and commitment to solidarity initiatives. This is in line with previous studies on anomie which show that perceived disintegration undermines willingness to participate in prosocial actions for a common good (Teymoori et al., 2017). These results also extend existing research showing that generalized trust is an important

predictor of prosocial and cooperative behaviours (e.g., Irwin, 2009). However, the link between disintegration and engagement in solidarity actions should be treated with caution. Our result showed that this relation was indeed weak and marginally significant in our indirect effect analyses. This can be explained by the fact that we measured reported actual behaviours during a period of confinement during which the possibility of movement was limited, and fear of social contact was high (Pancani, Marinucci, Aureli, & Riva, 2021).

Regarding the role of this second dimension of anomie (i.e., disregulation), we found evidence that the perception of illegitimacy and ineffectiveness of political leaders is positively related to the engagement in solidarity-based actions and negatively to social control. While previous research has already highlighted the effect of distrust in political leaders and attitudes towards measures restricting civil liberties (e.g., Davis & Silver, 2003), we found evidence that perceived disregulation is related not only to attitudes towards social control, but also to participation in actions of solidarity. One possible explanation is that, when policies do not respond effectively to a threatening situation, citizens seek alternative responses based on self-organization and solidarity actions. A similar emergence of self-organized solidarity movements occurred during the migrant reception crisis in 2015, when political leaders were perceived by many citizens as unable to respond to the humanitarian crisis that arose when large numbers of migrants were arriving across Europe (Rea, Martiniello, Mazzola, & Meuleman, 2019).

Overall, these results suggest that a perceived anomie tends to polarize citizens' attitudes towards two modes of social regulation. Asking for more solidarity and collective responsibility during the health crisis appears to be incompatible with a perspective based on social control and delegation of responsibility to political authorities. In contrast to this polarization, Likki and Staerklé (2014) argued for the existence of a profile of individuals that adhere to both modes of regulation, considering the two dimensions as interdependent rather than mutually exclusive. According to these authors, this profile is characterized by feelings of high physical and social insecurity as well as material and cultural disadvantage. Furthermore, their study showed an overall positive correlation between solidarity and social control, contrary to our results. It is important to note here that our sample was composed of relatively highly educated individuals who, according to these authors, are often supportive of social solidarity while making few demands for social control. Future research needs to address this ongoing debate, and consider social contexts and events, in particular, that would make attitudes towards these two modes compatible - or incompatible.

This paper therefore suggests that prosocial behaviours based on the assumption of collective responsibility in the context of the pandemic can be inhibited by communications that attribute the pandemic's causes to incivility or that portray a disorganized society where moral standards are no longer respected. On the contrary, promoting adherence to health measures within communities requires communication centered on the diversity and complexity of the causes that led to the health crisis, but also on existing solidarity initiatives, and not on epiphenomena depicting people not complying with health measures, which convey the idea of a breakdown of the social fabric.

CONFLICT OF INTERESTS

The authors have no competing interests to declare.

DATA AVAILABILITY STATEMENT

The data set supporting the findings and the analytic codes are publicly available at this link in the OSF repository: https://osf.io/hy2vn/?view_only=a8cdccaac7894f3a8954716855795796.

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ENDNOTES

¹ This alternative hypothesis will be taken into account in our analyses although the current study is based on correlational data and therefore cannot provide causal evidence regarding the relationship between the variables.

² The same analyses were also conducted with the sample including participants who did not respond to all the items composing our variables (i.e., $N = 1,136$), by imputing missing values using the estimation maximization method. Interpretation of results was identical, except that the link between disintegration and solidarity is no longer significant (see data with imputed missing values and syntax on the OSF link).

REFERENCES

- Asch, S. E. (1946). Forming impressions of personality. *The Journal of Abnormal and Social Psychology*, 41, 258–290.
- Bruckmüller, S., Hegarty, P., Teigen, K. H., Böhm, G., & Luminet, O. (2017). When do past events require explanation? Insights from social psychology. *Memory Studies*, 10(3), 261–273.
- Costa-Lopes, R., Dovidio, J. F., Pereira, C. R., & Jost, J. T. (2013). Social psychological perspectives on the legitimation of social inequality: Past, present and future. *European Journal of Social Psychology*, 43(4), 229–237.
- Cottrell, C., & Neuberg, S. (2005). Different emotional reactions to different groups: A sociofunctional threat-based approach to “prejudice”. *Journal of Personality and Social Psychology*, 88, 770–789.
- Davis, D. W., & Silver, B. D. (2003). Personal security vs. civil liberties after 9/11: Some sobering evidence from sober second thoughts. *Political Science*, 48, 824–1032.
- Dolan, K., & Hansen, M. (2018). Blaming women or blaming the system? Public perceptions of women's underrepresentation in elected office. *Political Research Quarterly*, 71(3), 668–680.
- Drury, J., Carter, H., Cocking, C., Ntontis, E., Tekin Guven, S., & Amlôt, R. (2019). Facilitating collective psychosocial resilience in the public in emergencies: Twelve recommendations based on the social identity approach. *Frontiers in Public Health*, 7, 141.
- Durkheim, E. (1997). In W. D. Halls (Ed.), *The division of labor in society*. New York, NY: Simon & Schuster.1893/
- Fiske, S. T. (1992). Thinking is for doing: Portraits of social cognition from daguerreotype to laserphoto. *Journal of Personality and Social Psychology*, 63, 877–889.
- Gerke, S., Shachar, C., Chai, P. R., & Cohen, I. G. (2020). Regulatory, safety, and privacy concerns of home monitoring technologies during COVID-19. *Nature Medicine*, 26, 1176–1182.
- Gomez, B. T., & Wilson, J. M. (2003). Causal attribution and economic voting in American congressional elections. *Political Research Quarterly*, 56(3), 271–282.
- Harari, Y. N. (2020, March). The world after coronavirus. Financial Times. Retrieved from <https://www.ft.com/content/19d90308-6858-11ea-a3c9-1fe6fedcca75?segmentid=acee4131-99c2-09d3-a635-873e61754ec6>
- Hewstone, M. (1989). *Causal attribution: From cognitive processes to collective beliefs*. Oxford, England: Basil Blackwell.
- Intawan, C., & Nicholson, S. P. (2018). My trust in government is implicit: Automatic trust in government and system support. *The Journal of Politics*, 80(2), 601–614.
- Ionescu, O., Tavani, J. L., & Collange, J. (2019). Political extremism and perceived anomie: New evidence of political extremes' similarities. Manuscript submitted for publication.
- Irwin, K. (2009). Prosocial behavior across cultures: The effects of institutional versus generalized trust. In S. R. Thye, & E. Lawler (Eds.), *Altruism and pro-social behavior in groups* (pp. 165–198). Bingley, England: Emerald Group Publishing Limited.
- Lerner, M. J., & Miller, D. T. (1978). Just world research and the attribution process: Looking back and ahead. *Psychological Bulletin*, 85(5), 1,030–1,1051.
- Likki, T., & Staerklé, C. (2014). A typology of ideological attitudes towards social solidarity and social control. *Journal of Community & Applied Social Psychology*, 24, 406–421.
- Ntontis, E., Drury, J., Amlôt, R., Rubin, G. J., & Williams, R. (2018). Emergent social identities in a flood: Implications for community psychosocial resilience. *Journal of Community & Applied Social Psychology*, 28(1), 3–14.
- Ntontis, E., & Rocha, C. (2020). Solidarity. In J. Jetten, S. D. Reicher, S. A. Haslam, & T. Cruwys (Eds.), *Together apart: The psychology of COVID-19*. London, England: Sage.
- Pagliaro, S., Sacchi, S., Pacilli, M. G., Brambilla, M., Lionetti, F., Bettache, K., ... Zubieta, E. (2021). Trust predicts COVID-19 prescribed and discretionary behavioral intentions in 23 countries. *PLoS One*, 16(3), e0248334.
- Pancani, L., Marinucci, M., Aureli, N., & Riva, P. (2021). Forced social isolation and mental health: A study on 1,006 Italians under COVID-19 lockdown. *Frontiers in Psychology*, 12(663), 799.
- Plohl, N., & Musil, B. (2020). Modeling compliance with COVID-19 prevention guidelines: The critical role of trust in science. *Psychology, Health & Medicine*, 26(1), 1–12.
- Politi, E., Lüders, A., Sankaran, S., Anderson, J., Van Assche, J., Spiritus-Beerden, E., ... Green, E. G. T. (2021). The impact of COVID-19 on majority and ethno-cultural immigrant minority populations: A systematic literature review on threat appraisals from an intergroup perspective. *European Psychologist*, 26(4), 298–309.
- Rea, A., Martiniello, M., Mazzola, A., & Meuleman, B. (2019). The refugee reception crisis: Polarized opinions and mobilizations. Retrieved from <http://www.oapen.org/record/1005529>
- Reicher, S., & Stott, C. (2020). On order and disorder during the COVID-19 pandemic. *British Journal of Social Psychology*, 59(3), 694–702.
- Risse, T., & Stollenwerk, E. (2018). Legitimacy in areas of limited statehood. *Annual Review of Political Science*, 21, 403–418.

- Roese, N. J., & Morris, M. W. (1999). Impression valence constrains social explanations: The case of discounting versus conjunction effects. *Journal of Personality and Social Psychology*, 77, 437–448.
- Rokeach, M. (1973). *The nature of human values*. New York, NY: The Free Press.
- Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1–36.
- Schafer, J. L. (1999). Multiple imputation: A primer. *Statistical Methods in Medical Research*, 8, 3–15.
- Schmelz, K. (2021). Enforcement may crowd out voluntary support for COVID-19 policies, especially where trust in government is weak and in a liberal society. *Proceedings of the National Academy of Sciences*, 118(1), e2016385118.
- Sprong, S., Jetten, J., Wang, Z., Peters, K., Mols, F., Verkuyten, M., ... Wohl, M. J. A. (2019). “Our country needs a strong leader right now”: Economic inequality enhances the wish for a strong leader. *Psychological Science*, 30(11), 1625–1637.
- Steffens, N. K. (2020). Compliance and followership. Together Apart: The Psychology of COVID-19, 31.
- Teymoori, A., Bastian, B., & Jetten, J. (2017). Towards a psychological analysis of anomie. *Political Psychology*, 38(6), 1009–1023.
- Teymoori, A., Jetten, J., Bastian, B., Ariyanto, A., Autin, F., Ayub, N., ... Cui, L. (2016). Revisiting the measurement of anomie. *PLoS One*, 11(7), e0158370.
- Uslaner, E. M. (2002). *The moral foundations of trust*. Cambridge, England: Cambridge University Press.
- Van Bavel, J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., ... Weeden, K. A. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, 4, 460–471.
- Zagefka, H. (2021). Prosociality during COVID-19: Globally focussed solidarity brings greater benefits than nationally focussed solidarity. *Journal of Community & Applied Social Psychology*. <https://doi.org/10.1002/casp.2553>

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