



Explaining Change in Citizens' Preferences About Intergovernmental Responsibilities During the COVID-19 Crisis: The Case of Spain

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Abstract

The COVID-19 pandemic brought about some extraordinary shifts in citizens' preferences about intergovernmental responsibilities in several federal states and has therefore provided an especially interesting context to contribute to the ongoing debate about the scope, direction, and determinants of attitudinal change in citizens' preferences in situations of protracted crisis. Although there is evidence of the role of partisanship and some other factors during normal times, the importance that partisanship may have with respect to other factors in accounting for changes in citizens' preferences during these crises still needs to be established. Does partisanship account for attitudinal changes during a crisis, or do citizens have other predispositions, such as individual core beliefs about federalism, perceptions of government performance, or trust in government, which could account for the scope and direction of these changes? The article relies on an original national survey of 7,175 respondents collected during the transition from the first to the second wave of the pandemic in Spain and examines the shift in citizens' preferences in three policy domains: healthcare, nursing homes, lockdown declaration and management. It finds that partisanship and attribution of responsibility are relevant to explaining shifts in preferences for intergovernmental responsibilities, whereas, contrary to expectations, individual beliefs about autonomism are not significant. The authors' findings contribute to the broader literature on the configuration of public preferences for multilevel governments and to understanding blame management and accountability during crisis situations in federal democracies.

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1. Introduction

The flourishing observational and experimental survey research undertaken during the pandemic indicates some extraordinary shifts in preferences among citizens concerning intergovernmental responsibilities in federal states at different phases of the pandemic. For example, a large amount of criticism of the federal system in Germany at the start of the pandemic led to an increase in citizens' support for strengthened powers for the federal government, which dropped sharply after a few weeks, to rise again during the second wave of the pandemic (Eckhard and Lenz 2020; Juhl et al. 2022). In the US, an apparent shift in preferences for federal responsibility due to the pandemic reveals a complete reversal in the traditional preferences for federal responsibility among Republicans and Democrats (Dinan and Heckelman 2020; Jacobs 2021; Schildkraut, Berry, and Glaser 2020). In Spain, the beginning of the pandemic apparently produced increased support for the central government (CG), which was preferred to the regional government by 73 percent of citizens, but this figure declined to 56 percent by May 2020 (Barbet Porta 2022; CIS 2020a, 2020b, 2020c; White et al. 2021). In September 2020, the same national survey—with a slightly altered wording for the relevant question—found that collaboration between central and regional governments was preferred by 72 percent of respondents, leaving the central government acting alone with only 16 percent of support and the regional governments acting alone with only 5 percent.

Changes in preferences for policy functions in a multilevel context during a prolonged crisis have been insufficiently studied. This is a very relevant issue for the better understanding of accountability in democratic and federal systems and the extent to which crises complicate this further. Crises tend to reinforce multilevel system features, such as collaboration or conflict between federal and subnational governments, intergovernmental blame games or buck-passing, competition, outright bickering or open confrontation, and even defiance. In this context, citizens can take refuge in heuristics or partisan cues to interpret what is happening and structure their beliefs on who should do what in the territorial system. However, other studies lead us to believe that during a crisis, other factors might gain greater weight in opinion formation due to the exceptional nature of the situation, manifested in the issue's high salience, high individual anxiety, and highly available policy information, which allows partisan cues to be ignored. With increased media attention, debates in the public sphere focus on what should be done and on who should lead responses to the crisis but also on more specific key issues, such as who should be managing different crisis-related policies (e.g. lockdowns, curfews, and re-openings), who should protect older adults in nursing homes, and who should be guaranteeing healthcare for all citizens (Blackburn et al. 2023; Congleton 2021; Del Pino et al. 2021; Vicentini and Galanti 2021). Finally, other individual factors, such as deep-rooted beliefs in government, trust in a specific level of government, or contextual factors, such as polarization, the timing of the measures, or trust in national leaders, have been found to explain the attitudes of the general public towards policy responsibilities and government performance (Altiparmakis et al. 2021).

This pandemic has thus provided an especially interesting context to contribute to the ongoing debate about the scope, direction, and determinants of attitudinal change in citizens towards government responsibilities in decentralized systems. This research seeks to establish the importance of partisanship with respect to other factors in accounting for this change of preference during the crisis. Does partisanship explain the changes in citizens' preferences, or do citizens have other predispositions, such as individual core beliefs about federalism or trust in government, which might have been activated during the pandemic in response to elite discourses or expert or media

information? Does the evaluation of government policies and growing satisfaction or dissatisfaction affect citizens' preferences, or is this evaluation wholly determined by partisan cues and motivated reasoning?

Spain is a decentralized country which offers us a persuasive case for investigating which level of government citizens believe should manage the crisis and to what extent these preferences have changed during the pandemic. The Spanish model of federalism, known as *Estado Autonómico*, has several unique features (Colino 2020; Del Pino and Colino 2024). The Constitution outlines only broad principles such as autonomy and unity, leaving the specific power distribution vague but safeguarded by the Constitutional Court. It has evolved into a highly decentralized system concerning public spending and policies, although the central government maintains significant control through shared powers and revenues. The system exhibits both centrifugal forces, encouraging regional differentiation and centripetal forces, thus promoting uniformity. Its political dynamics are influenced by strong nationalist movements in specific regions, which have led to recognized asymmetries and impacted the system's evolution. However, the system has transitioned from an asymmetrical to a symmetrical cooperative model without formal constitutional amendments through political agreements, judicial interpretations, and updates to regional statutes.

Concurrently, Spain has constructed a modern welfare state, with regional and local governments now managing over half of the public expenditures and employing 75 percent of public employees. Since 2002, healthcare governance in Spain has been decentralized, giving power to the 17 regional governments, which now handle 92.5 percent of the country's healthcare expenditure. The central government maintains regulatory oversight, setting the fundamental entitlements, organization, and financing of the National Health System (NHS), while the autonomous communities manage the system's operation. Coordination between these levels is facilitated by an intergovernmental body, the Inter-Territorial Council of the NHS, comprising central and regional health ministers (Mattei and Del Pino 2021). Spain was one of the countries most severely affected by the COVID-19 health crisis, which claimed many victims. It witnessed different political constellations and degrees of intergovernmental agreements and conflict in response to the crisis during the pandemic's various phases (Hernández-Moreno and Harguindeguy, 2024; Hernández-Moreno, Pereira-Puga, and Cruz-Martínez 2023; Navarro and Velasco 2022; Pereira-Puga, Hernández-Moreno, and Cruz-Martínez 2023). As a relevant contextual element, Spaniards have experienced increasing polarization of political attitudes in general, which also influenced their attitude towards crisis management in several phases of the health crisis.

Several hypotheses are tested, which aim to establish the scope and determinants of the changes in citizen's preferences. An original national representative web-based survey of 7,175 respondents was used. The dependent variable is the change in preferences for the level of government which should be responsible for managing the COVID-19 pandemic in three policy domains: healthcare, nursing homes, lockdown declaration and management. It is found that during the transition from the first to the second wave of the pandemic, only a small share of the population changed their minds about government responsibilities (i.e., most people did not change their opinion on preferred governmental responsibility during the initial period of very serious public health emergency). Partisanship and trust in institutions matter, but other individual factors also become more critical, displacing the importance of partisanship, depending on the policy initiative.

This study contributes to the broader literature on how the public assigns preference for policy responsibility to various government levels (Del Pino and van Ryzin 2013; Schneider, Jacoby, and Lewis 2011). It is also valuable for studying democratic accountability and understanding how citizens in federal democracies can hold their governments accountable. It helps us understand under what conditions citizens will simply seek refuge in heuristics or partisan cues to make sense of what is happening in the multilevel political context, during a crisis where politicians and governments will typically frame issues of policy as questions of federal governance and will play blame games to avoid accountability for bad policy results.

The article is organized as follows: in the next section, the existing literature on changing preferences about government responsibility in normal and crisis times and the explanatory factors which have been identified are reviewed. Then, some theoretical expectations for the Spanish case are presented, followed by a description of the data collected and the empirical strategy applied. After introducing the statistical analysis, the results and the implications of this research are discussed, suggesting some future research avenues.

2. Explaining Public Preferences Regarding Intergovernmental Responsibility in Normal Times and Crises

The literature provides three contrasting, inconclusive sets of expectations about the factors behind citizens' preferences about government responsibility and how they change in normal times and during crises (Schneider and Jacoby 2011, 2013; León, Jurado, and Garmendia-Madariaga 2018). The first view contends that preferences are often driven by partisanship and motivated reasoning (Kunda 1990). Party positions move opinions, leading citizens to become more supportive of their own party's policy position (Slothuus and Bisgaard 2020; Viskupic and Wiltse 2023). Partisanship could act as a "judgmental shortcut, efficient ways to organize and simplify political choices" (Sniderman, Brody, and Tetlock 1991, 19). Regarding government-level preferences in the US, for example, Democrats become more supportive of decentralization when the Republicans control the federal government (Wolak 2016), which means that support for decentralization tends to decrease when an individual's party is in office at the central level and increases when the other party governs. When attributing blame and responsibility across territorial levels of government, citizens will assign more blame to the state or regional government when it is controlled by the opposing party and will unevenly punish regional officeholders for unpopular federal or central presidents and hold their own party and opposing parties to different standards of performance (Brown 2010). Individuals will ignore damaging information when it challenges an individual's partisan priors (Druckman, Peterson, and Slothuus 2013). Motivated reasoning based on partisan identities and government preferences influences individuals' assessment of information about governmental performance and evidence of strength (James and Van Ryzin 2017; Torcal and Mota 2013).

According to these studies, few people can be motivated to incorporate knowledge of policies or federal division of power into their judgements. Instead, they rely on easy and ready heuristics to inform their evaluations. Partisan identification also becomes stronger and less ambivalent under polarized conditions, leading to stronger party cue effects and increased motivated reasoning. Polarized environments fundamentally change how citizens make decisions by intensifying the impact of party endorsements on opinions and

decreasing the impact of substantive information on opinions (Druckman and Lupia 2016; Druckman, Peterson, and Slothuus 2013).

Much of the research that appeared during the pandemic supports the idea that the effect of partisanship can be even more pronounced in times of crisis in federal countries (Glaser, Berry, and Schildkraut 2023; Goidel et al. 2024; Jacobs 2021; Lobera, Santana, and Gross 2024; Snow and Evans 2024; VanDusky-Allen et al. 2022). Rodriguez et al. (2020) found consistent evidence of partisan divergence in pandemic response policy preferences across the first six months of the crisis: Republicans supported national control measures, whereas Democrats supported welfare policies, and these interparty differences grew over time. Milosh, Van Dijke, and Wright (2020) found only limited evidence that exposure or experience moderates these partisan differences. León and Garmendia-Madariaga (2020) observe a centralizing trend in opinion in Spain, with partisanship exerting an apparent moderating effect.

A second view has been developing in recent years, with many studies increasingly showing citizens as capable of reasoning without bias (Arceneaux and Vander Wielen 2017) and presenting a more complex picture of the public and its ability to process information both heuristically and systematically (Ciuk and Yost 2016). Given certain conditions, motivated partisan reasoning can be limited (Groenendyk 2013). Elite partisan influence and, therefore, support for governments or leaders and levels of government might be limited by individual factors and the perception of efficacy (Arceneaux and Vander Wielen 2017; Mullinix 2016), by emotions, such as anxiety and risk perception (Albertson and Kushner Gadarian 2015), competition for policy information and arguments (Bullock 2011), polarization (Druckman, Peterson, and Slothuus 2013), as well as issue salience (Ciuk and Yost 2016). Party cues do not inhibit thinking about policy, and people's attitudes seem to be affected at least as much by information, reference groups, and cues from other party elites (Bullock 2011; Grofman and Norrander 1990). In this line, some research has also studied how people evaluate government and allocate blame in normal times or crisis and whether a preference shift towards more centralization or decentralization occurs (Arceneaux 2008; Arceneaux and Stein 2006). Due to the high degree of risk perception, this research finds less partisan bias and more accuracy-based reasoning during a crisis than in normal times. Many citizens, emotionally moved by the health crisis, engage in accuracy-based reasoning to inform and update their opinions, suppressing some of their predispositions and attributing blame that may contradict their usual partisan biases (Atkeson and Maestas 2012).

Finally, a third view has consistently argued that citizens have beliefs or values about the territorial system, the right amount of decentralization, and how the territorial division of powers should work. This expression of a federalist culture or set of beliefs has been called citizens' "intuitive federalism" (Schneider and Jacoby 2013). Wolak (2016) finds that these deeply rooted values or core beliefs can anchor individuals' federalism and policy devolution preferences. These beliefs in federalism can inform reactions to policy debates, and thus make people less likely to rely on policy concerns and more likely to form preferences based on their beliefs about federalism (Jacobs 2017; Kam and Mikos 2007; Rendleman and Rogowski 2024). This attitudinal configuration is not always manifested but can be activated in cases of crisis and amplified by elite and media discussions of system failures (Kam and Mikos 2007; Pears and Sydnor 2022).

In sum, the second and third views generally contend that in extraordinary times, such as natural disasters or pandemics, the role of partisanship in preference formation and blame attribution diminishes, meaning that a non-partisan shift of preferences can be expected,

giving priority to other individual short-term predispositions or perceptions, deep-rooted beliefs, and contextual factors. Information, especially from expert and non-partisan sources, can prompt citizens to overlook their party affiliation and change preferences or to assign blame in a more performance-based manner by freeing individuals from partisan biases on how they find information or by reinforcing their individual beliefs or predispositions.

3. Toward a Theory of Citizen Preference Changes in the COVID-19 Pandemic

This section proposes a set of testable propositions about the conditions under which citizens change their preferences about intergovernmental policy responsibilities during a pandemic like COVID-19. It is reasonable to expect that some citizens would change their preferences over the course of the crisis. It is well known that in the early stages of a crisis, there is a rally-around-the-flag effect. Public opinion and leaders momentarily set aside their ideological differences and political interests and support the government, although in the long run, the rally-around-the-flag effect diminishes (Johansson and Shehata 2021; Kritzinger et al. 2021). The same literature suggests that after an initial alignment with the (central) government, citizens' attitudes can change. As the crisis evolves, citizens will begin to evaluate the results of the various authorities' responses to different policies and hold them accountable.

From the literature on blame management, it is known that governments themselves change strategies during crises and use discursive or presentational strategies, such as scapegoating, spinning, or framing (Blackburn et al. 2023; Porumbescu et al. 2022), to claim credit from or shift blame to other levels of government. Citizens' attitudes react to these strategies, and therefore, their preferences may change over the course of the crisis. One can also expect a certain negativity bias. Regardless of the government's policy responses, any action by the authorities can be viewed critically, since a pandemic will bring with it a high degree of chaos typical of such crises, combined with death and personal suffering (Flinders 2020).

3.1 The Influence of Partisanship on Preferences

In troubled waters, confusion will grow over the responsibilities and the adequacy of solutions. As the media will offer multiple perspectives on a health crisis, one can expect individuals to gravitate toward narratives expressing attitudes congruent with their existing personal predispositions. With increasing awareness of coordination failures, blame games, and the resulting lack of clarity about governmental performance, individuals' sources for opinion formation about responsibility will tend to be based increasingly on partisan cues rather than on performance evaluations, federalist or autonomist beliefs, or feelings of trust in the different levels of government (Biddle, Gray, and McAllister 2024). The likely change in individuals' preferences will then be shaped by the party control of different governments and by their preferred parties' cues through media discourse. The party which controls the government of the region in which an individual lives will determine whether their preferences shift towards greater centralization. It is argued that partisanship could act as a heuristic that simplifies complex decisions during a crisis, leading to a preference for a certain government level. The capabilities of party leaders are essential to shifting public citizens' preferences on questions of central versus regional authority. Jacobs (2021) has shown how shifting rhetoric and strategic framing led citizens to favour different levels of government during

the pandemic. Moreover, in polarized systems, citizens are more sensitive to public officials or partisan cues across party lines (Kincaid and Leckrone 2020).

H1: Partisanship and party positions will determine the shift in citizens' preferences towards centralized or decentralized pandemic management.

H1a: Right-wing voters (PP and Vox⁵) will support further decentralization of responsibility, regardless of their individual preference for autonomism or satisfaction with their government's performance.

H1b: Left-wing voters (PSOE and UP⁶) will support the further centralization of responsibility towards the central government regardless of their regional incumbent or satisfaction with their government.

H1c: When a voter's party is in office at the regional level, there will be an intergovernmental shift in preferences towards decentralization.

3.2 Satisfaction with Performance and Citizens' Government Responsibility Preferences

Citizens are sometimes partially able to set aside their partisan biases. Due to the high issue salience of the COVID-19 pandemic, it is expected that most people will be sophisticated enough to process increasing information (Arceneaux and Vander Wielen 2017). Citizens in Spain were continuously exposed to comparative information on COVID-19 cases by country and region. This informed their views on government effectiveness, making it easier for them to evaluate the performance of different levels of government and ultimately conditioned their preferences. Following Ciuk and Yost (2016), it is expected that during the health crisis, the increased issue salience that the pandemic generated motivated people to go beyond heuristics and engage in the systematic processing of policy-relevant information. That means that we can expect citizens to evaluate and credibly process information in the media, combined with a need to assess threatening events fully and accurately (Albertson and Kushner Gadarian 2015; White et al. 2021).

It is expected that only the people who are satisfied with the government's management performance and consider it effective will maintain their preferences. In contrast, the authors expect that dissatisfaction with the management of the pandemic could lead citizens to change their preferences or produce a certain desire for change (Arceneaux and Vander Wielen 2017; Mullinix 2016).

H2. The more satisfied citizens are with the management of a policy initiative, the less likely they are to want another level of government to perform this task.

3.3 Autonomist Beliefs, the Crisis and Preferences About Government Responsibilities

As recent studies by Wolak (2016) and Rendleman and Rogowski (2024) show, individuals with stronger federalist or autonomist values, as measured by their preference for subnational power over national power, are more likely to support policy devolution across various policy areas. Federalist or autonomist values, such as beliefs about the appropriate balance of power between national and regional governments, play a crucial

⁵ PP stands for *Partido Popular* (Popular Party). It is the main center-right party in Spain and the leader of the opposition to the current government. VOX is a populist radical right party and the third-largest political force, ranking just below PP.

⁶ PSOE stands for *Partido Socialista Obrero Español* (Spanish Socialist Workers' Party). It is the main center-left party in Spain and the leader of the coalition government with *Unidas Podemos* (UP)—a coalition of left-wing parties in its own right.

role in shaping individuals' preferences towards policy devolution. Such beliefs can shape attitudes toward various policy areas, including fiscal management, education, healthcare, and cultural policies. This support for shifting authority from the national level to subnational levels is influenced by an individual's core beliefs about the role of government at different levels. For example, according to the characteristics of different federations, these core beliefs or values could derive from an individual's support for historical states' rights, limited government, subsidiarity, or the identification with a minority nation within a federal multinational state. These deeply rooted orientations are anchored in a substantive desire for smaller, closer government or ethnonational self-government at the subnational level and are not merely a reflection of short-term partisan interests or considerations. They form a principled basis for reasoning about federalism. People's preferences for devolution are thus responsive to the existing balance of power, demonstrating a nuanced understanding of federalism that goes beyond partisan heuristics. Individuals with federalist and autonomist beliefs are more likely to advocate for policy devolution, seeking to shift authority from the national level to subnational levels and guiding people to consider the alignment between the structure of government and their broader values.

As Wolak and Kelleher Palus (2010) have also pointed out, these autonomist beliefs can intensify during periods of crisis, such as the COVID-19 pandemic, when the effectiveness of local responses becomes more visible and relevant to citizens and not just in partisan matters. The COVID-19 crisis and the high media attention may have also triggered federalist and autonomist beliefs, which have been described as citizens' intuitive federalism. Strong autonomist beliefs would push citizens towards greater support for decentralization or the sharing of responsibilities between different levels of government in the management of the pandemic.

However, it is also known that citizens' preferences for one or another government level may not necessarily be uniform across different policies aimed at combating the pandemic (Connolly et al. 2020). Citizens' views about the assignment of policy responsibilities may vary by policy sector and even within a sector (Thompson and Elling 1999). Additionally, citizens frequently exhibit contradictory attitudes, generally favouring federalism and decentralization yet advocating for centralization in numerous policy areas (Jedwab and Kincaid 2018). Citizens also show an inability to assign responsibility correctly (Kennedy, Sayers, and 2022).

Some differences in preferences are then expected among areas, mostly consistent with the constitutional distribution of power. These deep-rooted preferences are expected to be pretty consistent with each other and, therefore, to vary both according to the pandemic policy area and to its different phases, adapting to the circumstances as people perceive them to change. Given the extent of media discussion during a crisis, people are expected to become more sophisticated at pinpointing the responsible levels of government and at assigning to each what they do and what they should do.

H3. The stronger an individual's autonomist beliefs, the greater the shifts in support towards subnational or shared responsibilities, with variations according to the type of pandemic policies

3.4 Attribution of Responsibility and Changes of Preferences

Even if in some disasters or crises there is no culprit, citizens end up blaming the government, which they hold responsible for managing the crisis (Skarzyńska, Urbańska, and Radkiewicz 2021). This is especially true when crises become protracted

(Arceneaux and Stein 2006). A protracted crisis is characterized by a prolonged period of instability involving complex and multifaceted challenges which are difficult to solve, e.g., the COVID-19 crisis (Boin 2024; Boin and 't Hart 2022; Boin, McConnell, and 't Hart 2021; Boin and Rhinard 2023). In fast-burning crises or in their early moments, there is less opportunity to find someone to blame. Citizens and even the opposition need time to understand the magnitude of the crisis and for reasons of loyalty, solidarity, or in order not to hinder efforts to end the crisis, they avoid looking for culprits at first. However, in a protracted crisis, the severity of the situation as well as the political and media dynamics may "significantly alter levels of political support for public officeholders and public policies" (Boin, 't Hart, and McConnell 2009, 83) even if experienced only vicariously through media coverage (Atkeson and Maestas 2012). A decentralized political system provides the opportunity for a change of preferences from one level to another (Heinkelmann-Wild et al. 2020), so the following is expected:

H4. In a protracted crisis, there is a higher probability that an intergovernmental shift of preferences in the opposite direction of the level of government to which responsibility is attributed for the policy area will be observed. Those attributing responsibility to the central government will shift their preferences towards decentralization and vice versa.

From a longitudinal perspective, this hypothesis allows us to understand the evolution of citizens' attitudes during the crisis.

3.5 Control Variables

The authors considered both theoretical frameworks and empirical evidence in the selection of control variables for the multivariate analysis to ensure a comprehensive analysis. Education, social class, and political variables are incorporated as control variables based on both their empirical relevance to the selected dependent variable and foundational theories in political science and sociology.

Theoretically, education is often linked to increased political awareness and cognitive skills, which enable individuals to understand and engage with complex governmental structures. This is aligned with theories suggesting that higher education levels equip individuals with the cognitive tools necessary to evaluate the benefits of centralization in policy implementation, particularly in nuanced or complex policy areas (Dalton 2018). This theoretical perspective supports Konisky's (2011) empirical finding that individuals with higher levels of education tend to prefer centralization for certain policies.

Theoretical perspectives on fiscal federalism suggest that economic resources influence political preferences, including governance structures. Higher-income groups with more at stake in terms of property and taxes can prefer decentralized government systems, which often allow more localized and potentially favourable fiscal policies (Banzhaf and Walsh 2008). This theoretical framework supports the inclusion of social class as a control variable in examining preferences for governmental decentralization. This aligns with Thompson and Elling's (1999) findings that individuals from higher income brackets are more likely to support state and local governance. Similarly, Schneider, Jacoby, and Lewis (2011) contribute to this discussion by indicating that the unemployed and those facing economic vulnerability, prefer the national government's capacity for mobilizing extensive resources during crises.

Beyond socioeconomic factors, political theories emphasizing trust and legitimacy argue that trust in governmental institutions fundamentally shapes citizens' governance

preferences (Wolak and Kelleher Palus 2010). This theoretical basis supports the inclusion of trust as a control variable, reinforced by Blackburn et al.'s (2023) empirical finding that trust in government is a significant predictor of approval of pandemic governance. These theoretical frameworks provided a robust foundation for the selection of the control variables utilized, ensuring that our empirical investigation is grounded in a nuanced understanding of the political and social dynamics influencing preferences for governmental decentralization and centralization.

4. Research Design and Measurement

4.1 Data Collection

To examine these hypotheses, a representative sample of the Spanish population was selected, and an original survey instrument was designed to assess the intergovernmental shift of preferences to manage the pandemic in three policy areas. The sample consisted of 7,175 respondents aged over 18, with a 99 percent confidence level and a 2 percent margin of error.⁷

The data was gathered by Netquest (www.netquest.com) using a web-based survey with a nonprobability sampling approach and op-in panels between August 30 and September 23, 2020 (i.e., coinciding with the protracted period of the second wave of COVID-19 in Spain).⁸ The questionnaire took an average of 11 minutes to complete, which is similar to the median period for Netquest questionnaires in Spain (Revilla 2017).

Netquest sent 39 rounds of invitations to their respondents' panel, making sure to have national-level representative quotas for gender, education, and age. The response rate was 52.6 percent. The resulting sample has a similar demographic composition to the prestigious and extensive representative surveys conducted by the Spanish Centre for Sociological Research (CIS) regarding gender, age, and education quotas. Sample statistics and a translated version of the questionnaire for dependent and explanatory variables appear in Tables A.7 and A.8 of Appendix I.

4.2 Dependent variable

The dependent variables are binary variables measuring whether there was a centralizing or decentralizing intergovernmental shift in preference for the management of the lockdown, nursing homes, and healthcare. They were constructed from the following two survey questions:

1) Imagine that today is March 1 – that is, at the beginning of the coronavirus crisis – and you are given the choice of which level of government should be primarily responsible for managing the following issues. Which level of government would you have chosen on March 1?

2) If now – 5 months after the crisis began, and knowing what you know – you could choose again, which level of government should be primarily responsible for managing the coronavirus crisis?

⁷ Each of the 17 autonomous communities (ACs) has a representative sample for its population with a 95 percent confidence level and a 5 percent margin of error, except for the deliberate oversample of Catalonia and the Basque Country (each case with 700 respondents).

⁸ A pre-test was launched on August 14–16, 2020, with a sample of 363 individuals.

The two questions were displayed in two checkbox grids, and respondents could choose from the central government, the autonomous community (ACs) regional government, or shared responsibility between both levels.

The binary variable is constructed first using a 5-point scale (2 to -2) with the following formula: $D = X_{t1} - X_{t2}$; D is the dependent variable, X_{t1} refers to the preferred government level in March 2020 and X_{t2} is the preferred government level at the time of completing the survey (September 2020). The central government is operationalized with a 1, both government levels with a 2, and regional government with a 3. Once it was determined whether there was a shift of preferences towards centralized (2 or 1), no change (0), or decentralized (-1 or -2), the two binary variables were operationalized. Table 1 shows the operationalization.

Table 1: Operationalization of the dependent variable

Preferred level of government		Additive formula	Operationalisation	Interpretation
March	September			
Regional (3)	Central (1)	3-1	2	Centralized shift two levels up
Regional (3)	Shared (2)	3-2	1	Centralized shift one level up
Shared (2)	Central (1)	2-1		
Central (1)	Central (1)	1-1	0	No intergovernmental change of preference
Shared (2)	Shared (2)	2-2		
Regional (3)	Regional (3)	3-3		
Shared (2)	Regional (3)	2-3	-1	Decentralized shift one level down
Central (1)	Shared (2)	1-2		
Central (1)	Regional (3)	1-3	-2	Decentralized shift two levels down

The change in preferences was thus measured with retrospective survey questions concerning the preferred government level to manage the crisis in early March, before the COVID-19 outbreak. The cross-sectional survey data was transformed into longitudinal data to measure the change in preferences. Although retrospectively measuring changes in preferences or attitudes is contentious due to memory bias and because prior preferences can be confounded with current ones, research validates the use of retrospective questions because of recall accuracy and its limited impact on the validity of research findings (Hipp et al. 2020). When measuring attitude or preference changes, recall data yields similar results to longitudinal data (Jaspers, Lubbers, and De Graaf 2009). Moreover, the use of retrospective questions six months into the pandemic allowed respondents to be informed about their preferences, as the population tends to be more informed during prolonged crises. Using recall data is also a normal practice in areas such as electoral studies.

The pandemic generated a natural experiment of unparalleled proportions (Bjørnskov and Voigt 2022; Rosen 2021). It would, therefore, be relevant to consider its potential impact on the shift in preferences for intergovernmental responsibilities and its determinants. Logit models were conducted with and without controls to test the hypotheses. The first six models examine the reasons behind the shift in preferences towards centralization. If respondents shifted their preference towards centralization (e.g., from regional government in March to central government in September), their shift was coded as 1, while respondents with no change in preference or with a shift towards decentralization were coded 0. The last six models assess the same for respondents which displayed a shift in preferences towards decentralization. Therefore, if respondents shifted their preference towards decentralization (e.g., from central government to shared responsibility), their

shifts were coded as 1, while respondents who did not change or who shifted preferences towards centralization were coded as 0. This construct allows the factors behind the shift in preferences towards centralized and decentralized government to be measured and tested separately for each policy area.

4.3 Explanatory Variables

The first variable (to test H1) is partisanship, and it is operationalized using three dummy variables. The first indicator shows whether the respondent voted for any of the political parties in the central government. The second tests for the same but at the regional level. The third indicator assesses whether the respondent voted for either of the two main opposition parties in the central government (i.e., the right-wing parties of PP and VOX).

The second variable (to test H2) is satisfaction with the performance of the government managing the pandemic for each of the three policy areas. Respondents were asked for their assessment using a 5-point Likert scale: How do you assess the work the government has done concerning each of these three tasks? A 5-point Likert scale from very good (5) to very bad (1) was used.

The third variable (to test H3) is operationalized using a composite indicator between three kinds of structural attitudes towards the state's territorial organization (autonomist beliefs). The questionnaire included three questions for this purpose.

- 1) a 10-point scale question on the degree of preferred centralization or decentralization for Spain, where 0 represents "maximum centralization" and 10 represents "maximum decentralization."
- 2) a 5-point Likert scale on satisfaction with the creation and development of the current model of territorial organization in Spain (distribution of competencies between 17 ACs), where 1 is very low and 5 is very high.
- 3) a 5-point Likert scale Linz-Moreno question, asking respondents to self-identify with an exclusive or dual territorial identity (1=only self-identified as Spanish, 2–4=different degrees of dual identity, 5=only self-identified as being from the AC).

All three indicators were normalized and then assigned the same weight using an arithmetic mean to construct the composite indicator.

The fourth variable (to test H4) assesses the impact of the attribution of responsibility for each of the three tasks on the shift in intergovernmental preferences. Respondents were asked which level of government—central, regional, or both—they thought was mainly responsible for managing each of the three tasks. The responses were then transformed to a Likert scale (–1 to 1) to distinguish in the model respondents who favoured national, shared, or subnational authority. Respondents choosing central government were coded as 1, shared responsibility as 0, and regional responsibility as –1.

4.4 Control variables

Data on various indicators were collected to control for individual political and socioeconomic factors. The political factors are the individuals' ideological identifications (0–10 scale), interest in politics (1–5 Likert scale), and trust in government (1–5 scale).⁹ The socioeconomic factors are net household income (1–5 scale), health-

⁹ Confidence in regional and central government was highly correlated in the pre-test, the same with regional and central parliaments. The authors, therefore, kept the questions at the regional level.

related risks (a dummy variable to measure whether the respondent contacted the health authority with the suspicion of having COVID-19), vulnerable employment status (a dummy variable to measure whether the respondent was unemployed or covered by a temporary lay-off scheme), subjective social class (1–7 scale) and education (1–5 scale). A context-level variable was also included in the model: seven-days accumulated incidence of COVID-19 in the region the day the survey was taken. Incidence data was built using data from the Spanish National Epidemiological Surveillance Network (RENAVE) managed by the National Epidemiology Center. See Table A.7 in the Appendix I for details on the operationalization of the control variables.

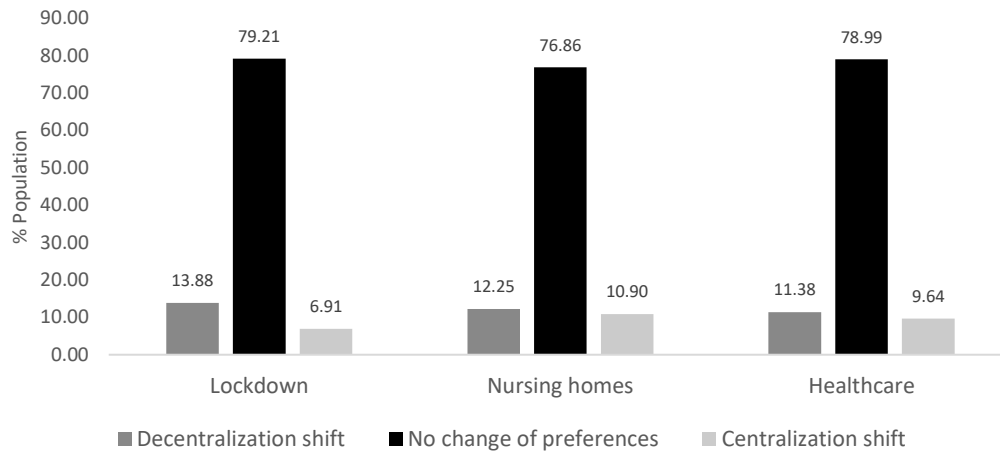
5. Results: Shift in Intergovernmental Preference During the Pandemic and Its Determinants

Citizens preferred the lockdown to be managed by the central government in March and September (52.5 and 47.7 percent of respondents). This choice is consistent with the central government’s power to manage the pandemic during the state of emergency, meaning that it is possible that citizens considered that the central government should manage the pandemic response given the scope of the measures needed. However, preferences were more dispersed as regards nursing homes and healthcare. Less than a third of citizens in both cases preferred the central government to be primarily responsible for these tasks. In these cases, citizens’ preferences are consistent with the existing distribution of powers in Spain, where the regional governments manage these two policy areas (Table 2).

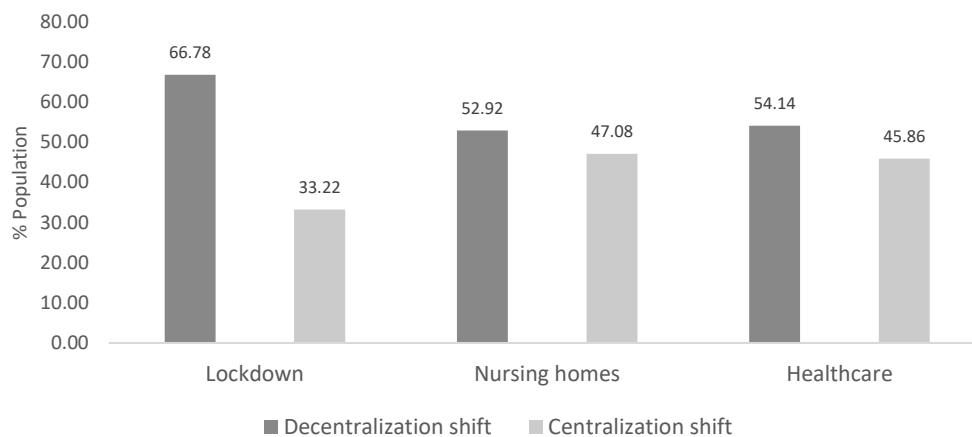
Table 2: Citizens preferred level of government to manage the pandemic

Preferred level	Lockdown		Nursing homes		Healthcare	
	March	September	March	September	March	September
Central government	52.50%	47.72%	31.38%	30.69%	31.03%	29.84%
Shared responsibility	31.95%	32.69%	38.16%	38.57%	41.95%	42.20%
Regional government	15.55%	19.59%	30.46%	30.73%	27.03%	27.96%

Overall, 37 percent of citizens changed their preferences during the crisis for at least one of the three tasks examined here. Figure 1 shows the share of the population with a decentralizing, centralizing, and no shift in intergovernmental preferences. Figure 2 shows the share of the population with a centralizing and decentralizing shift and excluding those with no change. Clearly, the vast majority of the population (almost four out of every five respondents) did not change their preferred level of government between the first and second wave of the pandemic. This near-zero variance might make finding the determinants for the shift in preferences more difficult. Fifty-eight percent of those who changed went towards decentralization, especially in the management of the lockdown.

Figure 1: Intergovernmental shift of preferences across the three policy areas

Note: The sample size is 7,022 for the lockdown, 6,957 for nursing homes, and 6,962 for healthcare.

Figure 2: Intergovernmental shift of preferences across the three policy areas (excluding no changes of preferences)

Note: After excluding participants without changes of preferences, the sample size is 1,460 for the lockdown, 1,620 for nursing homes, and 1,463 for healthcare.

Before proceeding to the logit models to test the hypotheses, the most relevant trends will be summarized in the descriptive analysis (see Tables A1 to A5 in Appendix I for details on the descriptive statistics). The relationships between explanatory variables and intergovernmental shifts in preferences seem to vary according to the policy area. Partisanship appears to be relevant for H1a and H1b. Of those with a shift in preferences, right-leaning (PP and VOX) voters shifted towards decentralization and left-leaning (PSOE and UP) voters shifted towards more centralization. This is clear for the management of healthcare and nursing homes but not for the lockdown. Moreover, if the respondents' preferred party was in office at the AC where the respondent lived, the chances for preferring more decentralization increased for all three policy areas. An unprecedented concentration of executive power was immediately reflected in the near-daily media appearances of several government figures, such as the Prime Minister (Pedro

Sánchez), the Minister of Health (Salvador Illa), and the director of the Centre for the Coordination of Health Alerts and Emergencies (Fernando Simón). Following the usual pattern for political crises, this initial reconsolidation encountered little resistance despite not being explicitly provided by the Constitution (Boin and t'Hart 2003). Similar to the Great Recession of 2008, competencies were recentralized. However, parliamentary support for the state of emergency eroded with each of the six votes in the lower chamber.

Particularly, the demands to restore regional autonomy grew increasingly strong among certain ethnonationalist parties. On one side, the Basque Nationalist Party (PNV), Canary Coalition, Bildu, New Canaries, Galician Nationalist Bloc (BNG), Regionalist Party of Cantabria (PRC), and Teruel Existe supported the central government or abstained throughout the six votes, while continuously criticizing the concentrated centralism implied by the state of emergency. On the other side, the Republican Left of Catalonia (ERC) toughened its stance, as did Together for Catalonia (JxCat), Popular Unity Candidacy (CUP), Compromís for the Valencian Country, Navarrese People's Union (UPN), and Asturias Forum. Thus, the sixth vote was held on June 3, 2020, with 177 votes in favour, 155 against, and 18 abstentions: a very close result for the government during the de-escalation phase.

Satisfaction with the government's performance in managing the crisis (H2) seems to be associated with respondents changing their preferences towards decentralization of the management of nursing homes. Interestingly, the share of the population favouring decentralization exceeds those favouring centralization for all degrees of satisfaction. This is particularly marked for lockdown management. The degree of autonomism (H3) does not seem to be a relevant factor in explaining the general population preference changes. There is no clear trend or difference in the autonomism scores between those shifting towards centralization or decentralization. The attribution of responsibility (H4) seems to be a relevant determinant of intergovernmental shift. Those shifting in all three areas who attributed responsibility to the central government mainly shifted towards decentralization, while those attributing responsibility to the regional government shifted towards centralization. Therefore, the shift in intergovernmental preferences seems to also be motivated by blame or retribution.

5.1 Explaining the Changes in Preference: Logit Models

In this section, the logit models are presented (Tables 3 and 4). First, the authors' analysis appears to confirm H1a and H1b regarding partisanship and the incumbency of national governments. Having voted for PSOE-UP—which leads the left-wing governing coalition—for the central government is associated with a centralizing shift in the management of nursing homes and healthcare but not in the management of the lockdown. This holds true after controlling for political, socioeconomic, and contextual factors. The odds of having a centralizing preference shift for the management of nursing homes is 43 percent higher (odds ratio=1.43, 95% CI=1.13 – 1.82, $p=0.003$) and 62 percent higher (odds ratio=1.62, 95% CI=1.26–2.10, $p<0.001$) for the management of healthcare if the subjects had voted for any of the two parties in the central government coalition (PSOE or UP). After including controls in models 5 and 6 (Table 3), the likelihood of a centralizing shift in the management of nursing homes and healthcare increased for PSOE-UP voters. The likelihood of having a centralizing preference shift for the management of nursing homes is 59 percent higher (odds ratio=1.59, 95% CI=1.21–2.11, $p<0.001$) and 64 percent higher for the management of healthcare (odds ratio=1.64, 95% CI=1.22 – 2.21, $p<0.001$) if the subjects had voted for the left-wing central government coalition.

Table 3: Logit models explaining the change in preferences for centralized decision-making in the management of the lockdown, nursing homes and healthcare

	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction with govt. performance	.044 (.061)	.067 (.051)	-.028 (.048)	.078 (.069)	.072 (.058)	.002 (.054)
Partisanship						
Central government	-.066 (.149)	.358** (.122)	.485*** (.131)	.114 (.175)	.466** (.142)	.495** (.153)
Regional government	-.129 (.127)	-.043 (.099)	.003 (.105)	-.065 (.148)	-.069 (.115)	-.039 (.123)
Vote to right-wing opposition parties in the CG (PP+VOX)	-.172 (.190)	-.074 (.166)	.113 (.171)	-.137 (.232)	-.074 (.197)	.044 (.207)
Degree of autonomism	-.033 (.037)	-.034 (.030)	-.042 (.031)	.028 (.044)	-.023 (.035)	-.032 (.037)
Attribution of responsibility	-.561*** (.085)	-.330*** (.070)	-.411*** (.072)	-.523*** (.094)	-.295*** (.077)	-.402*** (.080)
Incidence of COVID-19 (7 days)				-.001 (.001)	.0003 (.001)	.0007 (.0007)
Subjective social class				.020 (.062)	-.018 (.050)	-.003 (.053)
Education				.032 (.068)	.057 (.056)	-.011 (.058)
Ideology				.048 (.034)	.024 (.028)	.016 (.030)
Interest in politics				-.076 (.067)	.097 ^o (.055)	.117* (.059)
Trust in regional government				-.125 ^o (.069)	-.089 (.054)	-.036 (.058)
Contact health authority suspicion COVID-19				-.043 (.197)	-.044 (.153)	.039 (.159)
Vulnerable employment status				.131 (.175)	-.087 (.149)	-.108 (.156)
Income level				-.136 ^o (.076)	.010 (.057)	-.129* (.062)
Constant	-2.147*** (.314)	-2.227*** (.232)	-2.244*** (.250)	-2.154*** (.540)	-2.71*** (.415)	-2.437*** (.441)
N	4290	4197	4227	3562	3481	3507
McFadden PseudoR2	.021	.019	.021	.027	.022	.022
Nagelkerke PseudoR2	.026	.027	.029	.034	.031	.031
Likelihood ratio test	44.39***	58.95***	59.99***	47.39***	56.62***	58.51***

Notes: Model 1 and 4 refers to the management of the lockdown, while model 2 and 5 refers to the nursing homes and model 3 and 6 to healthcare. Standard errors are in parenthesis. (^o)p<0.1 *p<0.05. **p<0.01. ***p<0.001

Table 4: Logit models explaining the change of preferences for centralized decision-making in the management of the lockdown, nursing homes and healthcare

	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction with govt. performance	-.049 (.043)	.092 ° (.049)	.011 (.044)	-.081 ° (.049)	.075 (.056)	-.024 (.051)
Central government	.016 (.113)	-.070 (.122)	-.118 (.044)	-.0002 (.130)	.055 (.142)	-.015 (.142)
Regional government	.036 (.091)	.139 (.098)	.236* (.100)	-.087 (.107)	.026 (.115)	.045 (.117)
Vote to right-wing opposition parties in the CG (PP+VOX)	.371** (.134)	.400** (.139)	.392** (.143)	.142 (.163)	.192 (.171)	.149 (.175)
Degree of autonomism	.067* (.027)	.035 (.029)	.042 (.030)	.052 (.032)	.030 (.035)	.028 (.036)
Attribution of responsibility	.027 (.075)	.305*** (.062)	.182** (.063)	.024 (.082)	.253*** (.070)	.216** (.071)
Incidence of COVID-19 (7 days)				-.0001 (.001)	-.00008 (.0006)	-.001 (.001)
Subjective social class				-.139** (.046)	-.100* (.049)	-.073 (.051)
Education				-.066 (.049)	.003 (.053)	.057 (.055)
Ideology				.025 (.025)	.056* (.027)	.055* (.028)
Interest in politics				-.029 (.050)	-.023 (.054)	-.091 ° (.055)
Trust in regional government				.128* (.050)	.073 (.054)	.164** (.056)
Contact health authority suspicion COVID-19				.079 (.140)	.192 (.147)	.169 (.151)
Vulnerable employment status				.260* (.129)	.257 ° (.138)	.216 (.142)
Income level				.107* (.054)	.012 (.059)	-.003 (.059)
Constant	-2.206*** (.234)	-2.450*** (.225)	-2.464*** (.236)	-1.785*** (.392)	-2.463*** (.407)	-2.51*** (.423)
N	4290	4197	4227	3562	3481	3507
McFadden PseudoR2	.005	.019	.011	.013	.022	.019
Nagelkerke PseudoR2	.007	.026	.015	.019	.030	.027
Likelihood ratio test	16.03*	58.63***	32.29***	37.5**	54.71***	47.68***

Notes: Model 1 and 4 refers to the management of the lockdown, while model 2 and 5 refers to the nursing homes and model 3 and 6 to healthcare. Standard errors are in parenthesis. (°)p<0.1 *p<0.05. **p<0.01. ***p<0.001

On the other hand, having voted for PP or VOX (right-wing opposition parties) is associated with a decentralizing preference shift in all three areas, although these factors seem to lose significance after controls are incorporated into the models. The odds of having a decentralizing preference shift are 45 percent higher for the management of the lockdown (odds ratio=1.45, 95% CI=1.12–1.88, p=0.005), 49 percent higher for the

management of nursing homes (odds ratio=1.49, 95% CI=1.14–1.96, $p=0.004$) and 48 percent higher in the management of healthcare (odds ratio=1.48, 95% CI=1.12–1.96, $p=0.006$) if the subjects had voted for any of the main right-wing parties in the opposition (PP or VOX). Having voted for one of the governing parties at the regional government level increases the probability of having a decentralizing preference shift only for the management of healthcare (27 percent higher; odds ratio=1.27, 95% CI=1.04–1.54, $p=0.018$). Therefore, H1c seems to be only partially confirmed.

H2 is rejected. Satisfaction with government performance to manage the policy areas does not have significant explanatory power for intergovernmental preference change. This variable is only significant at the 0.1 level to explain a decentralization shift for nursing homes and lockdown. For every one-unit increase in government performance satisfaction in the management of nursing homes, the odds of having a decentralizing preference shift was 10 percent higher (odds ratio=1.1, 95% CI=1.0–1.21, $p=0.058$), while it was 8 percent lower (odds ratio=0.92, 95% CI=0.84–1.01, $p=0.094$) for the management of the lockdown.¹⁰

Individual core beliefs, which are here termed autonomism, do not appear to play a clear role in most scenarios. High autonomism increases the likelihood of a decentralizing preference shift only for the management of the lockdown (Model 1, Table 4). However, the inclusion of controls erases its explanatory power. For every one-unit increase in autonomism, the odds of having a decentralizing preference shift for the management of the lockdown was 7 percent higher (odds ratio=1.07, 95% CI=1.01–1.13, $p=0.013$).

Attribution of responsibility is very useful in determining the likelihood of an intergovernmental preference shift in either direction. This variable is statistically significant in 10 out of 12 models. The odds of a centralizing preference shift for the management of the lockdown fall 43 percent (odds ratio=0.57, 95% CI=0.48–0.67, $p=0.001$) as the attribution of responsibility moves up one level towards central government (i.e., it drops 43 percent as the attribution of responsibility moves from regional government to shared responsibility or from shared responsibility to central government). The likelihood of a centralized preference shift is 28 percent lower for the management of nursing homes (odds ratio=0.72, 95% CI=0.63 – 0.82, $p=0.001$) and 33 percent lower in the management of healthcare (odds ratio=0.66, 95% CI=0.58–0.76, $p<0.001$). After including controls, the attribution of responsibility continued to be relevant in explaining the increase in the centralizing shift of preferences.¹¹

The attribution of responsibility is also relevant in explaining the likelihood of having a decentralizing preference shift for the management of nursing homes and healthcare but not the lockdown. As the attribution of responsibility moves up one level in the direction of the central government, the likelihood of a decentralizing preference shift for the management of nursing homes is 36 percent higher (odds ratio=1.36, 95% CI=1.2–1.53,

¹⁰ What if H2 and H4 were merged? The expectation would be to find a higher likelihood of no change of preference in individuals satisfied with government performance who attributed responsibility for each of the three tasks and vice versa with dissatisfied individuals. However, in Table A6 in Appendix I, no clear relationship can be observed between satisfaction with the performance of the government to which responsibility is attributed and a preference shift for the management of any of the three areas. The authors confirmed this with OLS models. Satisfaction with government performance to which responsibility is attributed for the management of the pandemic was only relevant in two out of the 18 models, one of which offered an incoherent result and the second lost significance after incorporating controls.

¹¹ Here are the odds ratios for models 4-6 in Table 3: Model 4 (odds ratio=0.59, 95% CI=0.49–0.71, $p<0.001$); Model 5 (odds ratio=0.74, 95% CI=0.64–0.87, $p<0.001$); Model 6 (odds ratio=0.67, 95% CI=0.57–0.78, $p<0.001$).

$p < 0.001$) and 20 percent higher for the management of healthcare (odds ratio=1.2, 95% CI=1.06–1.36, $p=0.004$).¹²

Interest in politics and income level appear to be relevant in predicting the probability of having a centralizing preferences shift but only for the management of nursing homes. For every one-unit increase in interest in politics, the odds of having a centralized preference shift for the management of nursing homes was 12 percent higher (odds ratio=1.12, 95% CI=1.00–1.26, $p=0.045$). The odds of having a centralized preference shift for the management of the lockdown is 12 percent lower (odds ratio=0.88, 95% CI=0.78–0.99, $p=0.038$) for every unit increase in income.

In contrast, there are control variables which help explain the likelihood of a decentralizing preference shift in all three policy areas. The odds of having a decentralizing preference shift for the management of the lockdown is 14 percent higher (odds ratio=1.14, 95% CI=1.03–1.25, $p=0.011$) for every one unit increase in trust in regional government, 13 percent lower (odds ratio=0.87, 95% CI=0.8–0.95, $p=0.002$) for every level increase in social class, 30 percent higher (odds ratio=1.3, 95% CI=1.01–1.67, $p=0.047$) if the subject is in a situation of employment vulnerability (unemployed or covered by a temporary layoff scheme in Spain), and 11 percent higher (odds ratio=1.11, 95% CI=1.0–1.24, $p=0.048$) for every unit increase in income.

For every one unit to the right in the ideology spectrum, the odds of having a decentralizing preference shift for the management of nursing homes are 6 percent higher (odds ratio=1.06, 95% CI=1.0–1.12, $p=0.039$), and for every level increase in social class, the odds of a decentralized shift are 10 percent lower (odds ratio=0.9, 95% CI=0.82–1.0, $p=0.042$). The odds of a decentralized preference shift for the management of healthcare is 18 percent higher (odds ratio=1.18, 95% CI=1.06–1.31, $p=0.003$) for every unit increase in trust in the regional government, and 6 percent higher (odds ratio=1.06, 95% CI=1.0–1.12) for every unit to the right in the ideology spectrum.

These models were replicated for a robustness check but with an ordinary least square regression analysis (see Table A.10 in Appendix I). The dependent variable was operationalized with a 5-point scale (–2 to +2). Although the dependent variable in the robustness check is not continuous, previous literature recognizes that if it is 5 points or more (like the ones constructed), statistical treatments such as OLS can be applied. This is a common and accepted practice in the field (Gomila 2021; Kromrey and Rendina-Gobioff 2003). The results were confirmed: attribution of responsibility is the only explanatory variable with a statistically significant relationship with the preference shift for all models. As the attribution of responsibility moves towards central government, the population preferences move towards decentralization and vice versa. The relevance of partisanship was also confirmed for some models, with PSOE-UP voters having a higher probability of a centralizing shift and VOX-PP voters a decentralizing shift.

The McFadden and Nagelkerke PseudoR-squared showed low values for all models, which many might point out as an indicator of having models with low predictive values, low quality, or poor goodness-of-fit. First, low PseudoR-squared in logit models or R-squared in linear models are expected in behavioural political science, and it was particularly expected with the dependent variable due to the near-zero variance. A large part of the population (63 percent) did not change in its preference regarding the level of government to manage the pandemic in any of the areas examined. However, statistically

¹² Here are odds ratios for models with controls: Model 5 (odds ratio=1.29, 95% CI=1.12–1.48, $p < 0.001$) and Model 6 (odds ratio=1.24, 95% CI=1.08–1.43, $p=0.002$).

significant predictors for a near-zero variance-dependent variable were nonetheless found. Even with a small effect size, important conclusions can still be drawn with statistically significant predictors. As Peng, Lee, and Ingersoll (2002, 6) point out: “a researcher can treat these two R² indices as supplementary to other, more useful evaluative indices, such as the overall evaluation of the model, [and] tests of individual regression coefficients.” King (1986) also confirmed that R-squared indices can be highly misleading and that there are better ways to test the predictive power or goodness-of-fit in a model. The significance of the overall model was confirmed using the chi-square test in ANOVA and the likelihood ratio test.

In the results section, the individual regression coefficients that were statistically significant are highlighted. The statistical significance of these terms is further confirmed through additional analyses (not shown here), using odds ratios to assess the relevance and power of the predictors. Moreover, Greenhill, Ward and Sacks (2011, 993) proposed the separation plot as a “more nuances and nonscalar, visual yardstick” for assessing binary model fit. As Table A.11 in Appendix I shows, none of the 12 models are perfect, but they do a reasonably good job of describing the data, given that large parts of the events (i.e., centralizing or decentralizing intergovernmental preference shifts) are on the right-hand side of the graphs.

6. Discussion and Conclusion

Based on a large and original national survey of the Spanish population conducted during the second wave of the COVID-19 crisis, this article has studied the determinants of the shifts in the intergovernmental preferences of Spanish citizens for managing three public policy areas related to the pandemic. The article makes three contributions: it adds to the literature on how and why the general population change their preferences for government-level responsibility, it presents some immediate policy and democracy-related implications for accountability and blame management in the crisis for advanced multilevel democracies, and it contributes to our understanding of the Spanish population’s opinion on federal governance.

According to the hypotheses, a part of the Spanish public shifted its preferences about which level of government should be in charge of crisis management as the crisis progressed and in particular— in line with the literature about rally-around-the-flag— support for central government suffered more than support for sub-national government after the initial phase of the crisis. The article shows that 37 percent of the general population surveyed shifted their government responsibility preferences during the health crisis in at least one policy area. More than half of those who changed their preferences did so towards decentralization for the three selected policy areas. Therefore, it could be argued that the crisis affected citizens’ perceptions of power distribution across three policy areas, although the perceptions of the majority did not change within the short period analyzed.

The authors’ hypotheses suggested three main factors for explaining the changes in attitudes during crises. Even during a crisis, when citizens have more information from the media, are much more sensitive to it, and are probably very interested in the effectiveness of policies, they employ partisan cues to help make sense of policies. However, Spanish citizens do not appear to be sensitive to the perceived effectiveness of these policies during the pandemic. They tend to shift their preferences regarding responsibility towards the government they voted for, even in some cases when they think

the government level responsible for the policy is doing well (e.g., those who attributed nursing home management to the region and considered it was well managed). Of those who did not vote for the PSOE-UP coalition in central government, 9.8 percent shifted their preferences towards centralization; however, 14.2 percent of PSOE-UP voters reported a centralizing shift. It is possible that this effect may be different depending on the different phases of the crisis. Certainly, the partisan effect will be less acute during the initial phase, in which the public ‘rallies around the flag’ and the opposition refrains from attacking the government outright (Flinders 2020). However, this effect can be observed in the second phase, where blame-shifting and blame avoidance reached their peak in Spain.

Interestingly, in Spain, unlike in the US or other federations, right-wing parties at the national level are traditionally associated with centralization, while the opposite is true for parties on the left. The data in this article demonstrates that the right-wing, especially extreme-right voters, shifted their preferences towards decentralization in this crisis, while voters from the left supported the central government when their party controlled this level. Surprisingly for the Spanish context, the vote for VOX (far-right party) was associated with a preference for decentralization.

The authors’ analysis supports the conclusion that even in crises like the one analyzed in this article, a global pandemic not initially attributable to the government of Spain, the government initially responsible for policy management is ultimately penalized by its citizens. Citizens tend to prefer another level of government after months of failing to find a solution to the crisis. Multilevel governments offer this escape route. The results in Table A.5 in the appendix clearly support this conclusion.

Constituents cannot easily change their government outside of electoral periods, but at least they can change their preferences about who should be responsible for certain tasks. However, the authors’ results did not find that satisfaction with task management, nor with the level of government to which responsibility for the task is attributed, is relevant in explaining the intergovernmental preference shifts. Among the citizens surveyed, satisfaction with government action weakly explains a decentralization preference shift for the management of nursing homes and lockdowns. One possible solution for this might be that citizens do not properly differentiate between authorities at the different levels of government when it comes to the responsibility for handling the crisis, as Blackburn et al. (2023) found for Russia.

Additionally, preferences about federal governance or beliefs about how the state territorial arrangements should be structured have shown no significant power in predicting the preference shifts in citizens. This is, to a certain extent, surprising for Spain, where the territorial organization has been one of the big issues in the public debate since the restoration of democracy in the 1970s and one that citizens seem to have elaborate views on, particularly after the secessionist tensions in Catalonia since 2017. Furthermore, this somehow challenges previous literature on general preferences towards decentralization which had found some links between these preferences and identity. It will be necessary to explore the extent to which this may relate to the special context in which this study was conducted or, on the contrary, it may mark a period of transformation in the sophisticated conception that citizens have on the issue of their preferred system of territorial organization in Spain.

This research is relevant for studying other cases. For example, it proposes a way to examine if similar shifts in public preferences regarding government responsibilities occur in other federal countries with increasing polarization between left and right,

increasing geographical concentration of partisan interests, and in different federations with similar degrees of devolution of health responsibilities. It would also be relevant to assess broader applications across different types of crises (e.g., previous health crises such as the Ebola or Zika virus outbreaks, economic downturns, natural disasters, and even future crises). Future research should replicate this analysis using a longitudinal or panel design to track changes in public opinion about government responsibilities across various stages of a crisis and beyond.

Among the restrictions of this study, one could highlight the usual limitations in natural experiments regarding external validity. Future research should be done to confirm the validity of these results in other waves of the pandemic, other external shocks, or at post-pandemic times. A second limitation concerns the non-probability sample design inherent in opt-in panel surveys. Quotas were used to smooth this limitation, although it should be recalled that the lack of representativeness is not a problem because it is not the intention to explain the distribution of preferences. Thirdly, although the methodology used retrospective survey questions to assess changes in preferences, we acknowledge the inherent limitations associated with recall bias and the potential conflation of past and present attitudes. Nonetheless, supported by the literature mentioned in the methodology section, it has been argued that the use of recall data provides valuable insights, particularly in dynamically evolving situations like the COVID-19 pandemic.

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Appendix I

Supplementary Material

Table A.1: Partisanship at the central government and the intergovernmental shift of preferences

Lockdown Management			
	Decentralization shift	No change	Centralization shift
PP (right-wing, national party)	16.47%	78.10%	5.43%
PSOE (left-wing, national party)	13.27%	79.57%	7.15%
Unidas Podemos (left-wing, national party)	12.32%	80.47%	7.21%
VOX (right-wing, national party)	16.77%	76.89%	6.34%
Ciudadanos (right-wing, national party)	13.71%	79.91%	6.38%
Esquerra Republicana de Catalunya (left-wing, regional party)	15.20%	80.12%	4.68%
Junts (right-wing, regional party)	17.86%	78.57%	3.57%
EH Bildu (left-wing, regional party)	13.04%	80.87%	6.09%
PACMA (animalist party, national party)	8.20%	77.05%	14.75%
Más País (left-wing, national party)	4.88%	85.37%	9.76%
EAJ-PNV (right-wing, regional party)	15.89%	76.64%	7.48%
CUP (left-wing, regional party)	2.94%	97.06%	0.00%
MésCompromís (left-wing, regional party)	9.68%	80.65%	9.68%
CCa-NC (right-wing regional party)	0.00%	83.33%	16.67%
Na+ (UPN) (right-wing, regional party)	36.36%	59.09%	4.55%
BNG (left-wing, regional party)	15.22%	71.74%	13.04%
PRC (left-wing, regional party)	7.50%	90.00%	2.50%
Teruel Existe (regionalist party)	28.57%	64.29%	7.14%
Nursing Homes Management			
	Decentralization shift	No change	Centralization shift
PP (right-wing, national party)	17.31%	74.13%	8.57%
PSOE (left-wing, national party)	10.95%	74.52%	14.53%
Unidas Podemos (left-wing, national party)	9.02%	76.39%	14.59%
VOX (right-wing, national party)	16.18%	75.93%	7.88%
Ciudadanos (right-wing, national party)	10.64%	78.25%	11.11%
Esquerra Republicana de Catalunya (left-wing, regional party)	12.21%	80.81%	6.98%
Junts (right-wing, regional party)	16.36%	80.00%	3.64%
EH Bildu (left-wing, regional party)	5.22%	85.22%	9.57%
PACMA (animalist party, national party)	13.45%	73.11%	13.45%
Más País (left-wing, national party)	10.00%	80.00%	10.00%
EAJ-PNV (right-wing, regional party)	12.96%	78.70%	8.33%
CUP (left-wing, regional party)	11.76%	85.29%	2.94%
MésCompromís (left-wing, regional party)	9.68%	74.19%	16.13%
CCa-NC (right-wing regional party)	0.00%	100.00%	0.00%
Na+ (UPN) (right-wing, regional party)	17.39%	65.22%	17.39%
BNG (left-wing, regional party)	13.33%	82.22%	4.44%
PRC (left-wing, regional party)	9.76%	80.49%	9.76%
Teruel Existe (regionalist party)	35.71%	50.00%	14.29%
Healthcare Management			

	Decentralization shift	No change	Centralization shift
PP (right-wing, national party)	14.98%	76.13%	8.89%
PSOE (left-wing, national party)	11.22%	76.82%	11.96%
Unidas Podemos (left-wing, national party)	7.68%	79.51%	12.81%
VOX (right-wing, national party)	14.46%	77.69%	7.85%
Ciudadanos (right-wing, national party)	11.16%	79.81%	9.03%
Esquerra Republicana de Catalunya (left-wing, regional party)	12.28%	83.04%	4.68%
Junts (right-wing, regional party)	14.55%	83.64%	1.82%
EH Bildu (left-wing, regional party)	3.54%	90.27%	6.19%
PACMA (animalist party, national party)	9.02%	79.51%	11.48%
Más País (left-wing, national party)	10.00%	75.00%	15.00%
EAJ-PNV (right-wing, regional party)	12.84%	78.90%	8.26%
CUP (left-wing, regional party)	5.88%	88.24%	5.88%
MésCompromís (left-wing, regional party)	3.23%	87.10%	9.68%
CCa-NC (right-wing regional party)	0.00%	100.00%	0.00%
Na+ (UPN) (right-wing, regional party)	26.09%	65.22%	8.70%
BNG (left-wing, regional party)	15.22%	73.91%	10.87%
PRC (left-wing, regional party)	9.76%	85.37%	4.88%
Teruel Existe (regionalist party)	28.57%	57.14%	14.29%

Table A.2: Partisanship at the regional government and the intergovernmental shift of preferences

Lockdown Management	Decentralization shift	No change	Centralization shift
Did not voted for the political party ruling their regional government	13.67%	79.13%	7.20%
Voted for the political party ruling their regional government	14.39%	79.39%	6.22%
Nursing Homes Management			
Did not voted for the political party ruling their regional government	11.97%	77.52%	10.51%
Voted for the political party ruling their regional government	12.90%	75.31%	11.79%
Healthcare Management			
Did not voted for the political party ruling their regional government	11.09%	79.65%	9.26%
Voted for the political party ruling their regional government	12.05%	77.44%	10.52%

Table A.3: Satisfaction with government performance and the intergovernmental shift of preferences

Lockdown Management	Decentralization shift	No change	Centralization shift
Very Bad	13.71%	81.09%	5.20%
Rather Bad	14.73%	78.48%	6.79%
Regular	15.58%	76.73%	7.69%
Rather Good	12.97%	80.14%	6.89%
Very Good	11.70%	81.30%	7.00%

Nursing Homes Management			
	Decentralization shift	No change	Centralization shift
Very Bad	12.07%	77.38%	10.56%
Rather Bad	12.24%	77.08%	10.68%
Regular	12.10%	76.54%	11.36%
Rather Good	13.35%	73.59%	13.06%
Very Good	15.74%	71.30%	12.96%
Healthcare Management			
	Decentralization shift	No change	Centralization shift
Very Bad	11.85%	79.55%	8.59%
Rather Bad	11.13%	79.46%	9.42%
Regular	11.47%	78.00%	10.53%
Rather Good	10.98%	79.99%	9.04%
Very Good	11.90%	77.97%	10.13%

Table A.4: Autonomic culture and the intergovernmental shift of preferences

Lockdown Management			
	Decentralization shift	No change	Centralization shift
1.0-1.9	8.85%	86.73%	4.42%
2.0-2.9	9.89%	86.08%	4.03%
3.0-3.9	12.96%	81.86%	5.18%
4.0-4.9	13.94%	78.75%	7.32%
5.0-5.9	14.85%	78.26%	6.89%
6.0-6.9	13.10%	78.89%	8.01%
7.0-7.9	15.12%	76.40%	8.48%
8.0-8.9	13.71%	80.26%	6.03%
9.0-9.9	10.53%	87.37%	2.11%
10	13.46%	82.69%	3.85%
Nursing Homes Management			
	Decentralization shift	No change	Centralization shift
1.0-1.9	8.04%	87.50%	4.46%
2.0-2.9	11.85%	80.74%	7.41%
3.0-3.9	11.65%	78.02%	10.33%
4.0-4.9	13.38%	74.88%	11.74%
5.0-5.9	12.84%	77.04%	10.12%
6.0-6.9	13.04%	73.71%	13.25%
7.0-7.9	12.38%	75.13%	12.49%
8.0-8.9	10.87%	79.74%	9.39%
9.0-9.9	8.38%	86.39%	5.24%
10	4.81%	91.35%	3.85%
Healthcare Management			
	Decentralization shift	No change	Centralization shift
1.0-1.9	8.93%	86.61%	4.46%
2.0-2.9	11.03%	79.04%	9.93%
3.0-3.9	11.01%	77.97%	11.01%
4.0-4.9	11.48%	77.99%	10.54%
5.0-5.9	10.88%	80.41%	8.72%
6.0-6.9	12.69%	77.01%	10.30%
7.0-7.9	12.53%	75.67%	11.81%
8.0-8.9	10.81%	80.95%	8.24%
9.0-9.9	6.84%	88.42%	4.74%
10	4.81%	90.38%	4.81%

Table A.5: Attribution of responsibility and the intergovernmental shift of preferences

Lockdown Management			
	Decentralization shift	No change	Centralization shift
Regional government (-1)	14.20%	69.43%	16.37%
Shared responsibility (0)	12.97%	78.05%	8.99%
Central government (1)	14.14%	80.58%	5.28%
Nursing Homes Management			
	Decentralization shift	No change	Centralization shift
Regional government (-1)	10.04%	75.86%	14.10%
Shared responsibility (0)	12.40%	78.32%	9.28%
Central government (1)	16.17%	76.70%	7.13%
Healthcare Management			
	Decentralization shift	No change	Centralization shift
Regional government (-1)	9.83%	77.35%	12.82%
Shared responsibility (0)	11.60%	80.26%	8.13%
Central government (1)	13.67%	79.70%	6.63%

Table A.6: Satisfaction with government performance considered as the responsible for managing the lockdown, nursing homes and healthcare during the pandemic

Lockdown management				
Attributed responsibility	Satisfaction with government performance	Decentralization shift	No change	Centralization shift
Central Government	Total	17.54	82.46	0
	Very Bad	16.52	83.48	0
	Rather Bad	20.10	79.90	0
	Regular	24.57	75.43	0
	Rather Good	16.00	84.00	0
	Very Good	13.32	86.68	0
Shared responsibility	Total	13.05	75.81	11.15
	Very Bad	16.93	72.83	10.24
	Rather Bad	15.28	75.75	8.97
	Regular	13.36	78.60	8.04
	Rather Good	12.62	75.45	11.93
	Very Good	11.11	70.90	17.99
Regional Government	Total	0	75.02	24.98
	Very Bad	0	88.00	12.00
	Rather Bad	0	80.00	20.00
	Regular	0	75.95	24.05
	Rather Good	0	73.33	26.67
	Very Good	0	67.19	32.81
Total general		13.62	79.32	7.06
Nursing homes management				
Attributed responsibility	Satisfaction with government performance	Decentralization shift	No change	Centralization shift
Central Government	Total	22.60	77.40	0
	Very Bad	19.15	80.85	0
	Rather Bad	23.01	76.99	0
	Regular	29.81	70.19	0

	Rather Good	39.39	60.61	0
	Very Good	25.64	74.36	0
Shared responsibility	Total	13.49	77.75	8.76
	Very Bad	13.49	74.85	11.66
	Rather Bad	14.06	78.86	7.08
	Regular	12.18	80.91	6.91
	Rather Good	14.07	79.26	6.67
	Very Good	15.91	75.00	9.09
Regional Government	Total	0	75.12	24.88
	Very Bad	0	75.62	24.38
	Rather Bad	0	74.82	25.18
	Regular	0	75.79	24.21
	Rather Good	0	74.26	25.74
	Very Good	0	60.00	40.00
Total general		12.25	76.84	10.91
Healthcare management				
Attributed responsibility	Satisfaction with government performance	Decentralization shift	No change	Centralization shift
Central Government	Total	22.07	77.93	0
	Very Bad	18.33	81.67	0
	Rather Bad	19.19	80.81	0
	Regular	24.43	75.57	0
	Rather Good	26.55	73.45	0
	Very Good	23.44	76.56	0
Shared responsibility	Total	10.82	81.32	7.86
	Very Bad	10.67	78.22	11.11
	Rather Bad	11.45	80.00	8.55
	Regular	11.01	81.44	7.55
	Rather Good	10.22	85.30	4.48
	Very Good	9.71	80.57	9.71
Regional Government	Total	0	76.49	23.51
	Very Bad	0	77.34	22.66
	Rather Bad	0	76.70	23.30
	Regular	0	75.23	24.77
	Rather Good	0	78.28	21.72
	Very Good	0	75.00	25.00
Total general		11.40	78.96	9.64

Table A.7: Statements from the questionnaire used to operationalize the dependent and explanatory variables¹³ & the operationalization of control variables

Dependent variable: change of preferences in the level of governments in three policy areas. We used the following two statements from our questionnaire

- 1) Imagine that it is March 1, that is, at the beginning of this crisis, and that you are given a choice about which level of government should be primarily responsible for managing the following issues. Which level of government would you have chosen on March 1 to manage (1) the lockdown during the State of Alarm; (2) the contagion of COVID-19 in nursing homes; and (3) the provision of healthcare to anyone in need?
- 2) If, after five months, since the crisis began and knowing what you know now, you could choose, tell me which level of government you would prefer to be primarily responsible for managing each of these three issues? [Respondents could choose among the CG, the regional government, or shared responsibility between both government levels.]

¹³ The original questionnaire was distributed in Spanish. Statements are translated for logical reasons.

Explanatory variables:

- A. Satisfaction with the management of the pandemic in each of the three policy areas.
1) How do you assess the work carried out concerning each of these three tasks (managing the lockdown, nursing homes and healthcare). We use a 5-point Likert Scale in the questionnaire (from very good to very bad).
- B. Partisanship
1) Which party or coalition did you vote for in the last general election in October 2019?
2) And in the last autonomic elections, which party or coalition did you vote for?
- C. Degree of autonomism
1) A country can be organized territorially in several ways.
Using a scale from 0 to 10, where 0 represents “Maximum centralization” and 10 represents “Maximum decentralization”, in which position would you like Spain to be?
2) Do you think that, in general, the creation and development of the Autonomous Communities has been positive or negative for Spain?
3) Which of the following phrases do you most identify with?
01. I feel exclusively Spanish
02. I feel more Spanish than [name of the Autonomous Community in question].
03. I feel as Spanish as [name of the Autonomous Community in question]
04. I feel more [name of the Autonomous Community in question] than Spanish.
05. I feel exclusively [name of the Autonomous Community in question].
- D. Attribution of responsibility.
1) Who do you think has been primarily responsible for managing (1) the lockdown (2) the contagion of COVID-19 in nursing homes; and (3) the provision of healthcare [Respondents could choose among the CG, the regional government, or shared responsibility between both levels of government].

We then transform the responses to a likert scale (-1 to 1) to distinguish who favours national, shared or subnational authority in the model. If respondents chose the central government, we coded it as “1”, shared responsibility was coded as “0”, and regional responsibility was coded as “-1”.

Control variables

1. Political ideology is on an 11-point scale, with zero being most left-wing and ten being most right-wing.¹⁴
2. Interest in politics and trust in regional governments are coded using a 5-point Likert scale (5 =very high interest/trust. 1 =very low interest/trust).
3. Household income is in a 5-point scale according to the following range of values: Less than 1000 €; From 1.000 to 1800 €; From 1,801 to 2,700 €; From 2.701 to 3.900 €; More than 3.900 €.
4. Contact with the health system on suspicion of having coronavirus is coded as a binary variable (1= yes. 0=no)
5. Vulnerable employment status is a binary variable coded as 1 for those unemployed or benefiting from the cash transfer due to temporary suspension of work (ERTE)¹⁵, and 0 for those with regular employment, students, domestic worker, and other situation.
6. The subjective social class is coded using a 7-point scale (7 =high-class. 1 =low-class).
7. Education is coded on a 5-point scale, with each category referring to the attainment of different levels of education (i.e., less than five years of school enrollment. primary education, secondary education, and tertiary education).
8. Incidence of COVID-19 is the cumulative rate of COVID-19 cases in 7 days (the day of the survey and the six previous days). This data was multiplied by 100 and divided by the population on January 1, 2020 in each Autonomous Community (INE data).

¹⁴ We choose an 11-point scale rather than the typical 10-point scale, so that five truly represent the middle value.

¹⁵ During the pandemic, the CG created a temporary employment scheme called ERTE. The government assumes part of the workers' salary whose companies temporarily suspend activity due to the coronavirus.

Other treatments

1. Do not know and no answer where coded as blank spaces to avoid altering the results.
2. We tailored question-wording related to the respondent's region (ACs) of residence to avoid generic statements about the region and rather mention the specific name.

Table A.8: Unweighted summary statistics

	N	Median	Median error	Variance	Minimum	Maximum	Q1	Q3
Centralization shift - Lockdown	7022	0	4.526E-5	0.064	0	1	0	0
Centralization shift – Nursing homes	6957	0	5.614E-5	0.097	0	1	0	0
Centralization shift - Healthcare	6962	0	5.313E-5	0.087	0	1	0	0
Decentralization shift - Lockdown	7022	0	6.172E-5	0.120	0	1	0	0
Decentralization shift – Nursing homes	6957	0	5.906E-5	0.107	0	1	0	0
Decentralization shift - Healthcare	6962	0	5.716E-5	0.101	0	1	0	0
Satisfaction with govt. performance managing lockdown	7121	3	2.060E-4	1.370	1	5	3	4
Satisfaction with govt. performance managing nursing homes	7111	2	1.712E-4	0.944	1	5	1	3
Satisfaction with govt. performance managing healthcare	7109	3	1.998E-4	1.284	1	5	2	3
Central government (Vote to PSOE or UP; coalition in the central government)	4615	0	1.358E-4	0.250	0	1	0	1
Regional government (Vote to the political party in the regional government)	7175	0	7.978E-5	0.209	0	1	0	1
Vote to right-wing opposition parties in the CG (PP+VOX)	4615	0	1.151E-4	0.180	0	1	0	0
Degree of autonomism	6531	6	3.412E-4	3.162	1.33	10	4.667	7
Attribution of responsibility for managing lockdown	7080	1	1.091E-4	0.380	-1	1	0	1
Attribution of responsibility for managing nursing homes	6947	0	1.478E-4	0.671	-1	1	-1	1
Attribution of responsibility for managing healthcare	6994	0	1.402E-4	0.612	-1	1	-1	1
Incidence of COVID-19 (7 days)	7175	101.234	0.014	6094.319	14.113	440.465	78.081	179.554
Subjective social class	7175	4	2.243E-4	1.649	1	7	3	5
Education	7175	4	1.992E-4	1.300	1	5	3	5
Ideology	7041	5	4.582E-4	6.626	0	10	2	5
Interest in politics	7148	3	1.999E-4	1.299	1	5	2	4
Trust in regional government	7130	3	1.961E-4	1.245	1	5	2	4
Contact health authority suspicion COVID-19	7131	0	5.831E-5	0.110	0	1	0	0
Vulnerable employment status	6959	0	6.933E-5	0.148	0	1	0	0
Income level	5611	2	2.365E-4	1.121	1	5	2	3

Table A.9: Characteristics of the Netquest panel, survey sample design, sample structure and validation methods

Netquest panel at the time of survey

- 157,535 panelists in Spain
- Average response rate: 50-55%
- Profile of Spain's internet usage rate: 82%
- Age range: 16-24 = 11%; 25-34 = 25%; 35-44 = 28%; 45-54 = 22%; +55 = 14%
- Gender: Female 64%; Male 36%
- Socioeconomic status: High 33%; Middle-high 18%; Middle-Middle 26%; Middle-low 9%; Low 14%

Survey sample design

- Scope: National (Spain)
- Universe: People over 18 years of age
- Size: 7175 interviews
- Average survey duration: 11 minutes
- Fieldwork: Conducted through online surveys using Netquest's online panel.
- Field work period: August 30 to September 23, 2020
- INITIAL SAMPLE DESIGN BY QUOTAS
 - Gender : Male 49%; Female 51%
 - Age: 18-24 12%; 25-34 15%; 35-44 22%; 45-54 20%; 55-65 18%; 65+ 13%
 - Education
 - No education (Unfinished primary studies) 5%
 - First Grade (School certificate, 1st stage EGB, more or less 10 years) 8%
 - Second Grade. 1st Cycle (School graduate, or EGB 2nd stage, 1st and 2nd ESO-1st cycle- up to 14 years) 16%
 - 2nd Cycle (FP Iº and IIº, Bachiller superior, BUP, 3º and 4º of ESO (2nd cycle) COU, PREU, 1º and 2º Bachillerato, up to 18 years old) 33%.
 - 1st Cycle (Equivalent to Technical Engineer, 3 years, University Schools, Technical Engineers, Technical Architects, Experts, Teachers, ATS, University Graduates, 3 years of career, Social Graduates, Social Assistants, etc.) Bachelor's Degree, Degree. 2nd Cycle (University students, Higher graduates, Faculties, Higher technical schools, etc.) Master's Degree. Doctorate 38%

Sample structure, participation rate and method of calculation

The participation rate is the calculation between the total number of participants and the total number of Invitationi.

	Date	Invitations	Participations	Response rate
Invitation #1	14/08/2020 17:27	799	535	67
Invitation #2	25/08/2020 11:24	331	203	61
Invitation #3	25/08/2020 12:42	176	83	47
Invitation #4	31/08/2020 13:59	245	87	36
Invitation #5	31/08/2020 16:48	371	303	82
Invitation #6	01/09/2020 14:05	393	172	44
Invitation #7	02/09/2020 11:34	356	150	42
Invitation #8	02/09/2020 11:53	752	453	60
Invitation #9	03/09/2020 13:39	325	141	43
Invitation #10	03/09/2020 19:03	594	289	49
Invitation #11	04/09/2020 11:30	760	500	66
Invitation #12	04/09/2020 18:12	727	495	68

Invitation #13	04/09/2020 18:18	489	218	45
Invitation #14	05/09/2020 11:36	410	203	50
Invitation #15	07/09/2020 13:01	1024	694	68
Invitation #16	08/09/2020 14:27	690	431	62
Invitation #17	08/09/2020 18:24	145	62	43
Invitation #18	09/09/2020 9:24	1521	866	57
Invitation #19	09/09/2020 17:09	345	145	42
Invitation #20	09/09/2020 18:30	781	455	58
Invitation #21	10/09/2020 13:07	1311	913	70
Invitation #22	17/09/2020 11:40	675	182	27
Invitation #23	17/09/2020 17:55	265	103	39
Invitation #24	18/09/2020 10:15	250	123	49
Invitation #25	18/09/2020 10:25	110	29	26
Invitation #26	18/09/2020 15:20	254	186	73
Invitation #27	18/09/2020 15:30	178	108	61
Invitation #28	19/09/2020 17:27	75	36	48
Invitation #29	19/09/2020 17:39	86	56	65
Invitation #30	21/09/2020 14:05	238	167	70
Invitation #31	21/09/2020 14:05	287	182	63
Invitation #32	21/09/2020 16:46	551	189	34
Invitation #33	21/09/2020 17:53	96	44	46
Invitation #34	22/09/2020 10:15	171	51	30
Invitation #35	22/09/2020 10:20	116	59	51
Invitation #36	22/09/2020 10:35	171	72	42
Invitation #37	22/09/2020 16:55	53	24	45
Invitation #38	23/09/2020 9:30	2	0	0
Invitation #39	23/09/2020 12:45	481	273	57

Validation methods

1. Netquest includes trick questions such as "How much is one plus two" or "What year are we in?" so that if respondents fail, they are screen out of the survey.
2. Netques have a control of speeders according to the average duration of the survey, if the person takes less than 20% of the duration to answer, they are also screen out.
3. At the beginning of the survey Netquest ask for gender and age, and we apply a control that if this does not match our database it is filtered out.
4. Netquest apply recaptcha.
5. Netquest has a control called relevant ID, which identifies each panelist as to avoid the same person can not do the same survey twice.
6. The authors requested an additional validation method as to filter out straightliners.

Table A.10: OLS models for robustness checks

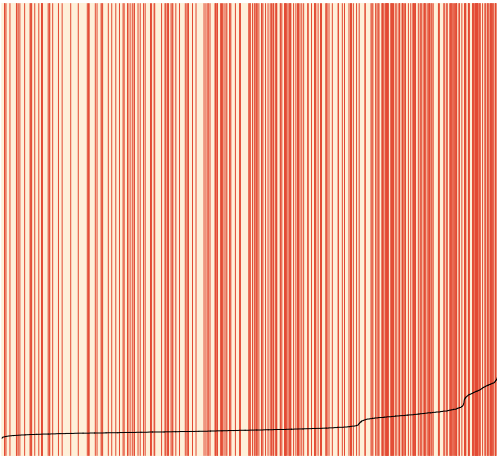
	(1)	(2)	(3)	(4)	(5)	(6)
Satisfaction with govt. performance	0.012 (0.009)	0.017 (0.010)	-0.005 (0.010)	0.002 (0.012)	-0.004 (0.009)	0.003 (0.010)

Central government	-0.010 (0.022)	0.003 (0.026)	0.054* (0.024)	0.047 (0.029)	0.078*** (0.023)	0.067* (0.026)
Regional government	-0.023 (0.018)	0.002 (0.022)	-0.022 (0.020)	-0.007 (0.024)	-0.027 (0.019)	-0.009 (0.022)
Vote to right-wing opposition parties in the CG (PP+VOX)	-0.066* (0.027)	-0.026 (0.033)	-0.077* (0.031)	-0.035 (0.037)	-0.041 (0.029)	-0.020 (0.035)
Degree of autonomism	-0.010 (0.005)	-0.004 (0.006)	-0.011 (0.006)	-0.009 (0.007)	-0.013* (0.006)	-0.010 (0.007)
Attribution of responsibility	-0.063*** (0.015)	-0.055*** (0.016)	-0.090*** (0.013)	-0.080*** (0.015)	-0.082*** (0.012)	-0.085*** (0.014)
Incidence of COVID- 19 (7 days)		-0.00002 (0.0001)		0.00004 (0.0001)		0.0001 (0.0001)
Subjective social class		0.027** (0.009)		0.010 (0.010)		0.006 (0.010)
Education		0.015 (0.010)		0.008 (0.011)		-0.006 (0.011)
Ideology		-0.003 (0.005)		-0.007 (0.006)		-0.004 (0.005)
Interest in politics		-0.002 (0.010)		0.019 (0.011)		0.025* (0.010)
Trust in regional government		-0.030** (0.010)		-0.025* (0.011)		-0.026* (0.011)
Contact health authority suspicion COVID-19		-0.020 (0.029)		-0.031 (0.032)		-0.004 (0.030)
Vulnerable employment status		-0.034 (0.027)		-0.041 (0.030)		-0.052 (0.028)
Income level		-0.025* (0.011)		-0.003 (0.012)		-0.012 (0.011)
Constant	0.0008 (0.046)	-0.068 (0.080)	0.056 (0.046)	-0.003 (0.084)	0.047 (0.044)	0.023 (0.080)
N	4290	3562	4197	3481	4227	3507
R2	0.008	0.013	0.024	0.024	0.020	0.025
F test	5.469***	3.093***	17.042***	5.766***	14.309***	5.907***

Notes: Model 1 and 4 refers to the management of the lockdown, while model 2 and 5 refers to the nursing homes and model 3 and 6 to healthcare. Standard errors are in parenthesis. (°)p<0.1 *p<0.05. **p<0.01. ***p<0.001

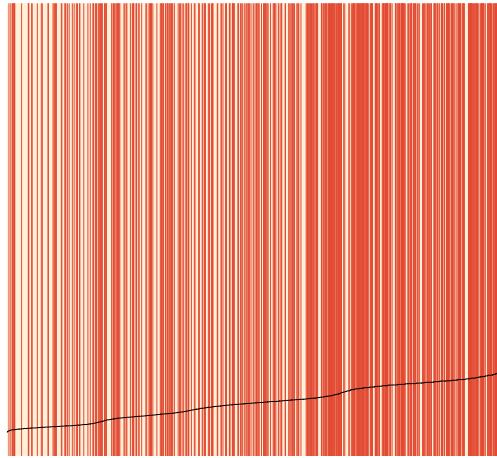
Table A.11: Separation plots of logit models to assess goodness of fit

Model 1 - Centralization



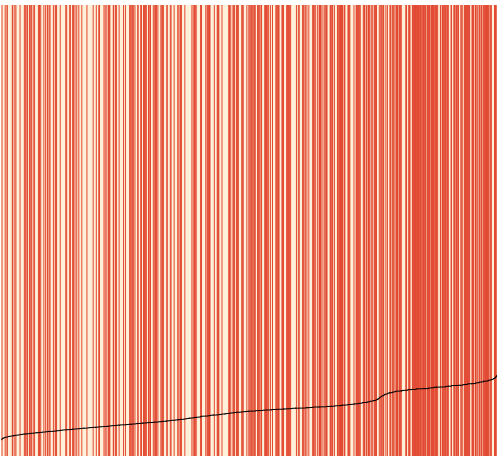
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Model 2 - Centralization



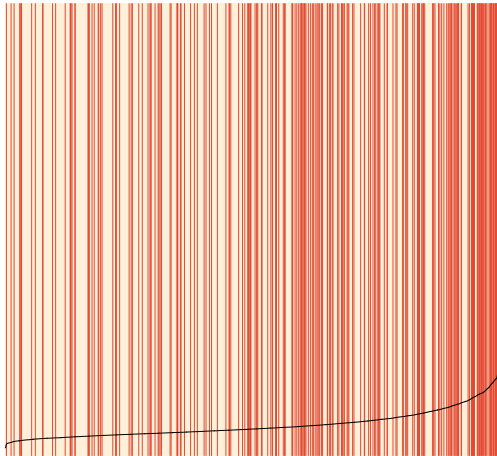
▲

Model 3 - Centralization



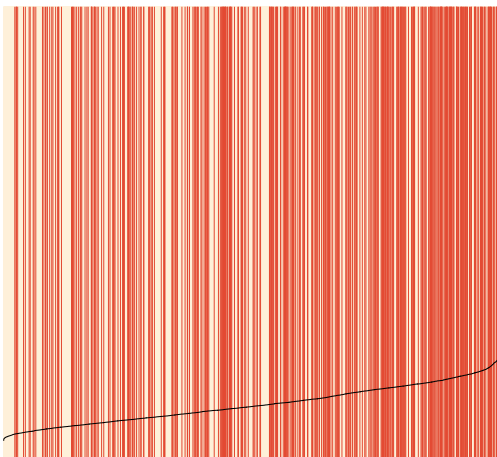
▲

Model 4 - Centralization



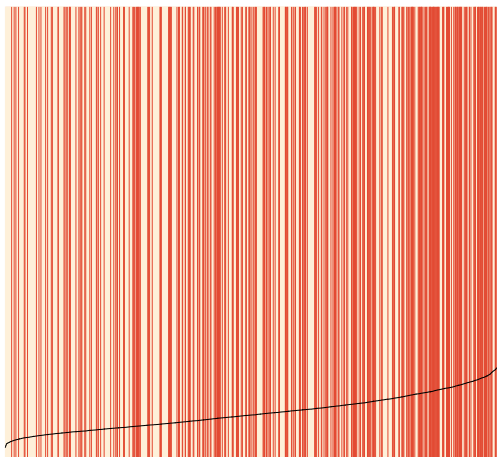
▲

Model 5 - Centralization



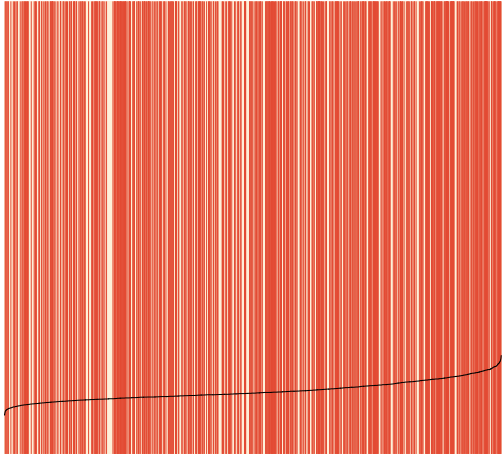
▲

Model 6 - Centralization



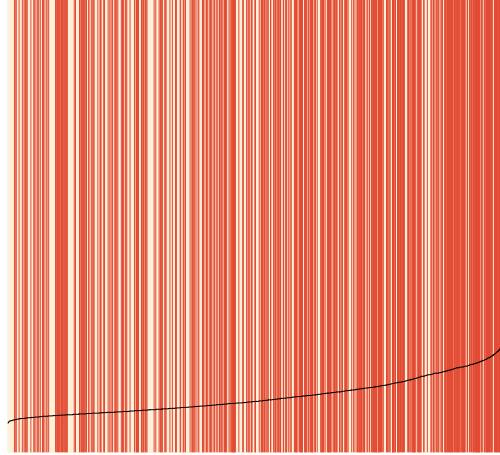
▲

Model 1 - Decentralization



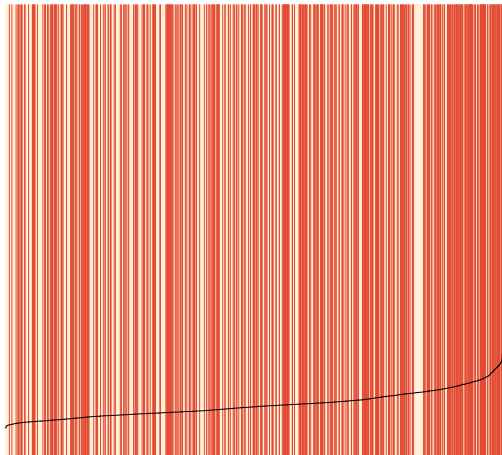
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Model 2 - Decentralization



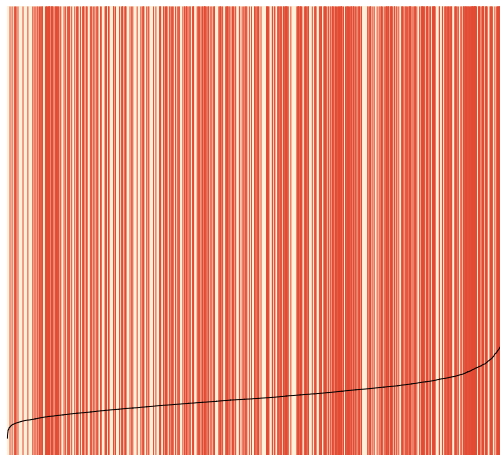
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Model 3 - Decentralization



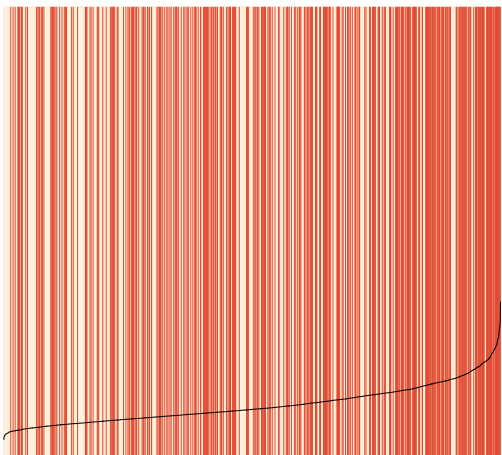
▲

Model 4 - Decentralization



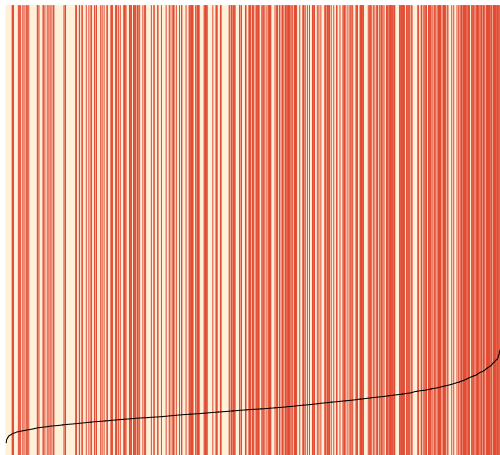
▲

Model 5 - Decentralization



▲

Model 6 - Decentralization



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