Explaining Accountability for Public Policies: an FsQCA Analysis of Health Policy in Spain

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Abstract: The aim of this paper is to investigate which conditions can -or can not- lead to the accountability of a public policy. I focus on possible explanations about the differences in the level of accountability in health policy implementation across Spain’s 17 Autonomous Communities. The research questions are the following: Why is a public policy more accountable in some autonomous governments than in others? Under which conditions are regional health policies more accountable? I empirically analyze the following five causal conditions that can be relevant to the formal accountability of this policy: i) private management, ii) political salience of health policies, iii) ideological position of political parties in government (Left/Right), iv) governments led by non-statewide parties, and v) majority composition of government. Methodologically, I use Fuzzy-Set Qualitative Comparative Analysis (fsQCA), a technique that allows identifying necessary and/or sufficient (combinations of) conditions that can lead to the outcome in question.

Keywords: Accountability, health policy in Spain, fsQCA, causal conditions.

Introduction

The aim of this paper is to investigate which conditions can -or can not- lead to the accountability of a public policy. I focus on possible explanations about the differences in the level of accountability in health policy implementation across Spain’s 17 Autonomous Communities. The research questions are the following: Why is a public policy more accountable in some autonomous governments than in others? Under which conditions are regional health policies more accountable? In order to answer these questions, I first compare the different levels of accountability in the implementation phase of health policy in the Autonomous Communities of Spain. Second, I empirically analyze the following five causal conditions that can be relevant to the formal accountability of this policy: i) private management, ii) political salience of health policies, iii) ideological position of political
parties in government (Left/Right), iv) governments led by non-statewide parties, and v) majority composition of government.

Methodologically, I use Fuzzy-Set Qualitative Comparative Analysis (fsQCA), a technique that allows identifying necessary and/or sufficient (combinations of) conditions that can lead to the outcome in question -accountability for health policy in the 17 ACs of Spain-. The analysis through fsQCA allows analyzing if a condition or combination of conditions must be present for accountability to occur (analysis of necessity), or if a given condition or combination of conditions can produce this result (analysis of sufficiency). From this technique I have identified, for example, that three conditions are, individually, quasi-necessary for the accountability of health policy in the ACs of Spain: the absence of private management in the implementation of this policy, the absence of governments led by non-statewide parties, and the presence of salience of health policy. I have also identified two paths which are sufficient to produce accountability of this policy, where I uncovered two recurring patterns: on the one hand, these roads again indicate the presence of the salience, the absence of private management of the policy, and the absence of governments led by non-statewide parties; on the other hand, these paths highlight two conjunctions of conditions, while the right-wing governments require a minority government to be accountable for health policy, the left-wing governments require a majority government.

Why is this research important? Firstly, although accountability is "an ever expanding concept" (Mulgan, 2000), there are few empirical studies on the variables that affect accountability for public policies. The main existing empirical studies focus on the variables that influence environmental policy transparency (Grimmelikhuijsen and Welch, 2012), the accountability of independent regulatory agencies (Koop, 2011, 2012) and multilevel accountability in the European Union (Papadopoulos, 2010; Brandsma, 2010; Bovens, 2007). However, the present study is an attempt to explain an issue that has not yet been analyzed by this literature: the conditions under which governments have formal accountability for public policies. To analyze the level of accountability for health policies, I adopt some explanatory factors that have been studied in the case of environmental policy transparency (Grimmelikhuijsen and Welch, 2012) and accountability of independent regulatory agencies (Koop, 2011, 2012), such as political salience. In turn, I also examine other variables that have not been taken into account by the literature on accountability: private management, ideological position of the government, governments led by non-statewide parties and majority governments.

The structure of the paper proceeds as follows. In the next section, I present the theoretical discussion of five conditions that can lead -or not- to formal accountability for public policies, in order to formulate appropriate hypotheses that relate to how these conditions are linked. In the second part, I present the outcome which will be explained in this research -the level of accountability for health policies in the autonomous communities (ACs) of Spain. In the third part, I operationalize each one of the conditions that might be linked to the presence of accountability for the policies. In the fourth part, I discuss briefly some of the characteristics and the advantages of the fsQCA. Finally, from the application of this qualitative technique, I present the results obtained, in particular, those derived from the analysis of necessity and sufficiency of (combinations of) conditions presented here, which can lead to the accountability of health policy in the ACs.
1. Causal conditions

1.1. Private management of public policy

From the analysis of the literature that analyzes the difference between public and private management, one can draw conflicting arguments. One of the main arguments in favor of public management, for instance, highlights that there are more formal controls for accountability of public managers than of private ones. Rainey and Han Chun point out the following arguments in favor of institutional constraints facing public managers: a) “Public managers operate under more constraints on domains of operations and on managerial procedures (...), and under more formal administrative controls”; b) “Public managers face stronger expectations for fairness, responsiveness, honesty, openness, and public accountability than do private sector managers” (Rainey and Han Chun, 2005, 92-93). As a result of the decline and the weakening of the control mechanisms involved in private management, one would expect that if the implementation of a policy provides for a wide private intervention, this produces a weakening of accountability mechanisms. These arguments lead me to propose the following hypothesis:

H1. A lesser degree of private management contributes to accountability for a given public policy.

On the other hand, some analyses also indicate that public intervention may have “[g]reater diversity and intensity of external informal political influences on decisions” (Rainey and Han Chun, 2005, 92), where these interest groups may distort the substantive direction of governmental policy (Trebilcock and Iacobucci, 2003, 1449). If the intervention of external influences can even distort the objectives of public policy, it is also likely to deflect accountability of the policy process.

1.2. Political salience of public policy

Koop (2011) has analyzed the influence of political salience in formal accountability of independent agencies. This author demonstrates that political salience positively affects the degree of formal accountability: firstly, “independent agencies which operate in more salient issue areas are also subject to more extensive accountability arrangements” (Koop, 2011, 228). This analysis finds that, for electoral reasons or because of a real concern, politicians are more “interested in the activities of agencies which operate in salient policy areas” (Koop, 2011, 211). And, most importantly, political salience impacts on the institutional design of organizations, since it promotes the development of formal rules for accountability of these organizations. In line with Koop’s research, I will analyze the link between political salience of the health policy and its level of accountability. It is expected that if a public policy is salient, there will be more formal mechanisms to monitor its decisions and actions will be developed. The following hypothesis will be tested:

H2. A higher degree of political salience of a given public policy leads to accountability for this public policy.
Although I found no empirical research to obtain results contrary to those found by Koop (2011), in this research I also sought to investigate, in an exploratory manner, whether one would expect the salience of public policy not to affect their level of accountability. For example, if a policy is not considered salient by citizens, governments could be more accountable with regard to this, because there would be no electoral cost to “making visible to everyone” all management results.

1.3. Ideological position of governments (Left/Right)

One of the distinctions used more frequently in the analysis of political parties is the distinction between Left and Right. According to Colomer (2001), this distinction reflects a two-issue dimension, “[o]ne is socio-economic, ranging, on the one hand, from a preference for State intervention to the market, on the other. The second dimension is moral and social, with the two opposites favoring pluralist tolerance or traditional values” (Colomer, 2001, 173). In this research I analyze whether these distinctions between left and right lead to different results regarding accountability of public policies implemented. On the one hand, in their research on environmental transparency in local governments, Grimmelikhuijsen and Welch find that “when left-wing parties are strong in the local council, local governments tend to be more transparent” (2012, 562). The latter can be applied to social policies -especially to the case of health policy-, since, in general, these are more identified with left-wing parties than with right-wing parties. If left-wing parties give greater priority to social policies in their respective government plans, they could also be expected to be more interested in being held accountable for such policies. In turn, one might expect left–wing parties to promote participatory policies, which would lead them to be more accountable to citizens. This analysis suggests the following hypothesis:

\[ H3. \text{Presence of governments led by left-wing political parties facilitates accountability for a given public policy.} \]

However, as I mentioned previously, if right-wing political parties have preferences for liberal market principles (Colomer, 2001), they could also be expected to promote accountability of governments as a mean to open public information they perceive as limited, or to control bureaucracy’s interests and the politicians’ (Stigliz, 2000 ).

1.4. Governments led by non-statewide parties

According to some authors (Pallarés, et al, 1997) the process of transition and democratic consolidation in Spain has been characterized by two processes: democratization and decentralization. “This double process has resulted in configuration of a party system, with its traditional state-centered logic, and, in parallel with this, the configuration of political arenas in the autonomies” (Pallarés et al, 1997, 137). As a result of this process, the party system in Spain is characterized by its being led by two main statewide parties (SWPs) -Spanish Socialist Workers' Party (PSOE) and Popular Party (PP)- and the presence of various non-statewide parties (NSWPs) -as the Basque Nationalist Party (PNV) or the Aragonese Regionalist Party, among others, (Barrio et al, 2010, 7; Pallarès and Keating, 2003). Because of this characteristic of the party system in Spain, in this research I also took into account the distinction between SWPs and NSWPs.
These parties “project their independence from state-wide parties as the best guarantee of their defense of the interests of the autonomous community, articulating their electoral appeals around such ideas” (Pallarés, et al, 1997). In this research I argue, first, that one might expect that regional governments that are led by non-statewide parties have greater accountability on policies over which they have competencies, in order to differentiate them from those carried out by the central government.

**H4. Governments led by non-statewide parties contributes to accountability on public policies they implement.**

On the other hand, in a study of electoral accountability in Spain, Aguilar and Sánchez-Cuenca found that "nationalist voters excuse poor management of the regional government to a greater extent than non-nationalists" (2007, 62) so that even if a government headed by a nationalist party performs poorly, it does not affect public assessment of that government. From these arguments, one might expect that non-statewide party governments, prioritizing regional interests, will focus their government programs on issues that go beyond accountability of health policies, giving priority to issues such as claims of belonging or cultural identity.

**1.5. Majority governments**

According to Muller, majority parliamentary governments -those who have the support of at least 50 percent of the seats plus one- “can not only survive in office but also enact their political program” (Muller, in Caramani, 2008, 204). This support allows them to carry out their government programs with greater ease and to implement their public policies with less checks and balances. In terms of accountability, one might expect that because majority governments are more likely to carry out their programs of government, they can implement long-term policies without finding parliamentary opposition to their approval. So, if a majority government seeks to introduce accountability mechanisms of the policies carried out, it would find the political support necessary for their implementation. Therefore, I expect that:

**H5. Majority governments facilitate accountability in public policies.**

On the other hand, assuming that minority governments can carry out their governing program through parliamentary agreements and/or through coalitions with other political parties (Strom, 1990), where “a cabinet is most likely to use policy concessions as a bargaining chip to build coalitions around specific legislation” (Godbout and Hoyland, 2009, 8), one might expect that these opposition parties and/or parties in coalitions would encourage or force government in power to implement accountability mechanisms, in order to increase the control of the government.

**2. Outcome -dependent variable-: accountability for health policy in the ACs of Spain**

In this research, I analyze the conditions that can lead -or not- to the specific outcome under study: formal accountability of the implementation of health policy in the Autonomous Communities (ACs) of Spain. The analysis of the level of accountability of this policy is based on the theoretical proposal for analyzing and measuring accountability for public
policies that I developed in previous research (Pérez-Durán, 2012). In order to summarize this proposal, I mention how I obtained this level of accountability for the implementation of health policy in the ACs of Spain.

Firstly, in this proposal I suggested two dimensions for analyzing accountability for the policies (the informative/justifying dimension, and the evaluative/sanctioning dimension), applied to three basic elements that make up the implementation phase of the policy (those responsible, resources and policy results). Based on this analysis matrix, I also suggested measuring the level of accountability for public policy starting from the degree of formalization of the legal framework that regulates accountability of each of the components mentioned above, specifically, from compliance with four characteristics by it: specific, binding, public, and autonomous character.

Secondly, I developed an empirical application of this proposal for the analysis of accountability of health policy in Spain. Thus, I analyzed the degree to which the three key elements of implementation are accountable, that is, those responsible, resources and policy results. The analysis of the level of accountability of the health policy implementation was carried out based on the degree of legal formalization -the development of legal framework regarding the accountability of this policy. Therefore, I have analyzed the level of formalization of the four characters (specific, binding, autonomous, and public character) for each of the dimensions of accountability (the informative/justifying dimension, and the evaluative/sanctioning dimension) and for each of the implementation elements analyzed (those responsible, resources and policy results).

I have assigned a numerical valuation in order to observe, in a synthetic and quantifiable manner, the levels of accountability for each one of the components of the analysis matrix. To do this, I have assigned to the variables a basic valuation scale with three possible values: v=1, if the variable of accountability has a high formalization; v=0.5, if the variable has a medium level of formalization, and v=0, if the variable has low or no formalization. After doing this assignment of values, I obtained an index -on a scale of 100- of accountability for each of the policy elements analyzed: accountability of those responsible, results, and resources, where each aspect has an equal weight in these indexes, and giving the same weight to each element of the implementation of the policy. Finally, from these score indexes, I determined an overall index of accountability of health policy implementation in each of the ACs.

Table 1. Global Accountability Index in the ACs

<table>
<thead>
<tr>
<th>ACs</th>
<th>Accountability Those responsible</th>
<th>Accountability Results</th>
<th>Accountability Resources</th>
<th>Global Accountability Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Galicia</td>
<td>73%</td>
<td>100%</td>
<td>50%</td>
<td>74%</td>
</tr>
<tr>
<td>2 Navarre</td>
<td>65%</td>
<td>75%</td>
<td>63%</td>
<td>67%</td>
</tr>
<tr>
<td>3 Extremadura</td>
<td>67%</td>
<td>81%</td>
<td>46%</td>
<td>65%</td>
</tr>
<tr>
<td>4 Castile-La Mancha</td>
<td>60%</td>
<td>67%</td>
<td>56%</td>
<td>61%</td>
</tr>
<tr>
<td>5 Andalusi a</td>
<td>60%</td>
<td>65%</td>
<td>50%</td>
<td>58%</td>
</tr>
<tr>
<td>6 Cantabria</td>
<td>58%</td>
<td>73%</td>
<td>44%</td>
<td>58%</td>
</tr>
<tr>
<td>7 Castilla-Leon</td>
<td>33%</td>
<td>81%</td>
<td>27%</td>
<td>47%</td>
</tr>
<tr>
<td>8 Balearic I.</td>
<td>44%</td>
<td>54%</td>
<td>42%</td>
<td>47%</td>
</tr>
</tbody>
</table>
As already mentioned, in this research I analyze the conditions that can lead to the overall accountability of the implementation of the policy -which includes accountability for those responsible, results and resources-.

3. Operationalization

3.1. Private management

Since health policy in Spain is decentralized, the governments of the ACs have the competence to decide on matters relating to the implementation of this policy. The operationalization of this condition is based on the percentage of the health budget allocated by each region to contract their health services with private entities. The reporting period is from 2002 to 2010. For the analysis, I took into account the mean of this period because, as I mentioned, since 2002, all ACs are fully competent to implement this policy, and also because this average reflects the evolution of the private provision of health services over time.

3.2. Political salience

I will operationalize political salience through the citizen’s perception about salient policies. To do this, I adopt the Health Barometer conducted by the Centre for Sociological Research (CIS) from 2004 to 2010. In particular, I focus on the question: Could you tell me which of the following areas I am going to tell you do you consider that is of greater interest to the citizens? (Question number 1 of the survey). This question is about the "area of interest", so this reduces the confusion between the "most important issue" and the "most important problem". Moreover, the possible answers offered for this question refer to specific public policies, such as education, transportation, housing, pensions or health. To operationalize this condition, I take as an indicator the average percentage of the population that perceives the issue of health policy as "the most important issue" during the period 2004-2010, as this reflects in time how the importance of the policy has been perceived.

3.3. Ideological position of regional governments

As already mentioned, in this scenario, I analyze the ideological ascription of the governments of the ACs led by right-wing parties and left-wing parties. To operationalize the ideological position of the regional governments, I have calculated a proportion of the number

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>40%</th>
<th>58%</th>
<th>33%</th>
<th>44%</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>La Rioja</td>
<td>58%</td>
<td>48%</td>
<td>17%</td>
<td>41%</td>
</tr>
<tr>
<td>11</td>
<td>Basque Country</td>
<td>46%</td>
<td>50%</td>
<td>13%</td>
<td>36%</td>
</tr>
<tr>
<td>12</td>
<td>Canary I.</td>
<td>35%</td>
<td>40%</td>
<td>27%</td>
<td>34%</td>
</tr>
<tr>
<td>13</td>
<td>Asturias</td>
<td>15%</td>
<td>27%</td>
<td>56%</td>
<td>33%</td>
</tr>
<tr>
<td>14</td>
<td>Catalonia</td>
<td>44%</td>
<td>31%</td>
<td>21%</td>
<td>32%</td>
</tr>
<tr>
<td>15</td>
<td>Aragon</td>
<td>0%</td>
<td>65%</td>
<td>27%</td>
<td>31%</td>
</tr>
<tr>
<td>16</td>
<td>Murcia</td>
<td>8%</td>
<td>69%</td>
<td>0%</td>
<td>26%</td>
</tr>
<tr>
<td>17</td>
<td>Valencia</td>
<td>8%</td>
<td>42%</td>
<td>13%</td>
<td>21%</td>
</tr>
<tr>
<td>18</td>
<td>Madrid</td>
<td>0%</td>
<td>21%</td>
<td>13%</td>
<td>11%</td>
</tr>
</tbody>
</table>
of years that left-wing parties –mainly the PSOE–, right-wing parties –mainly the PP, CiU, CC, PRC, PAR and PNV– have governed, starting from the year in which health policy was transferred to each region.

In this operationalization, I obtained the percentage of the length of time that each party has spent in government, taking into consideration the political party that has led the regional government. So, in the case of coalition governments (as in Catalonia during the period 2003-2010, with the coalition between the PSC, ERC and ICV-EUA, or in Galicia during the periods 1987-1990 and 2005-2009, with the coalition between PSOE-PSdeG) I have assigned the period of government to the party that has led the regional executive power.

3.4. Government led by non-statewide parties

To operationalize the regional parties government condition, I calculated the proportion of time non-state-wide parties governed, especially CiU, CC, PRC, PAR and PNV-, from the date in which health policy was transferred to each region. Furthermore, although two of the political parties analyzed (UPN in Navarre and PSC in Catalonia) stood for elections only at the regional level, I considered them as state-wide parties because of their strong links with the PP and PSOE, respectively; in the case of UPN, because it "maintained an alliance with the PP between 1991 and 2008, based on the principle of territoriality, according to which this party ceased to exist in that community," which "allowed UPN to become, from 1991, the first party at the autonomous level and to govern the community almost continuously since then"; and in the case of PSC, as it could also be considered a "territorial section" of PSOE, having joined the socialist group from 1982 (Barrio et al, 2010, 11).

3.5. Majority government

To operationalize majority government, I focus on the proportion of the number of years that the ruling party has had an absolute majority in the regional parliament, starting from the year in which each region was granted autonomous government.


This qualitative technique allows analyzing a small number of cases and produce consistent results from this N small. Because in this research I focused on 17 ACs of Spain, I found the use of this technique appropriate. However, the decision to use it goes beyond a practical justification.

First, fsQCA allows identifying the conditions and/or combination of conditions that lead toward a specific outcome (Vis, 2012). According to Ragin, “[a]n especially useful feature of QCA is its capacity for analyzing complex causation, defined as a situation in which an outcome may follow from several different combinations of causal conditions, that is, from different causal “recipes” (Ragin, 2008, 23). In an empirical study of welfare state reforms, Barbara Vis (2010) emphasizes that complexity of social phenomena can lead to equifinality “the situation in which there is more than one way in which a specific outcome can come about” (Vis, 2010, 29). In this study, the author finds two distinct routes toward
welfare state reforms: Welfare state reform can, for example, occur when the government is of rightist composition in combination with a poor socio-economic situation or when the government is of leftist composition, the socio-economic situation is poor and the government is weak politically” (Vis, 2010, 29).

Second, the causal effects are not uniform, which implies that the effect of one factor can vary between cases. The analysis through fsQCA takes into account that “[a] given condition may sometimes act in favor of an outcome, when combined with particular conditions, but may act against it when combined with others” (Vis, 2010, 30). This means that fsQCA takes into account that the capacity to influence certain conditions can be affected by the presence or absence of other conditions.

Third, in the fsQCA analyses the outcome that will be analyzed should also be established clearly –dependent variable in the language of quantitative analyses– and the causal conditions that will be tested –independent variables in the language of quantitative analyses –, and for each one of the cases it will be possible to highlight whether they belong to the categories mentioned and to what degree they belong to these. This is possible since fsQCA analysis assumes the diversity from two perspectives, “[d]iversity exists not only in the different configurations of set memberships that social phenomena exhibit but also in the degree to which they belong to such sets and configurations. For example, two countries can both be described as advanced industrial, capitalist democracies, as instances of a specific intersection of sets, and they can also differ in the degree to which they belong to this intersection. The first aspect of diversity is captured by the notion of differences in kind and the many different configurations of membership that arise from multiple distinctions. The second aspect of diversity is captured by the notion of degree of membership and is based on the idea that virtually all categorical distinctions in the social sciences also involve variation by degree” (Ragin, 2000, 149).

Fourth, the FsCQA analysis is based on analyzing whether the presence/absence of a specific condition or combination of conditions is necessary and/or sufficient to produce the outcome in question. If a condition or combination of conditions “is necessary, it must to be present for an outcome to occur,” in its turn, if a condition or combination of conditions “is sufficient, it can produce an outcome by itself” (Vis, 2010, 32). Likewise, a condition or combination of conditions “is both necessary and sufficient if it is the only cause that produces an outcome and it is singular (that is, not a combination of causes)” (Ragin, 2008b, 42).

FsQCA allows analyzing necessity and sufficiency of the (combination of) conditions trough the subset principle, which implies that “[t]o demonstrate necessity the researcher must show that the outcome is a subset of the cause”, while “[t]o support an argument of sufficiency, the researcher must demonstrate that the cause is a subset of the outcome” (Ragin, 2008b, 73). That is, a condition is necessary when all the cases in which the outcome is present are contained in – are a subset of – the cases in which the necessary condition is present. This could also be illustrated in a XY plot, where if “the outcome (Y) is a subset of the causal condition (X); thus, all Yi values are less than or equal to their corresponding Xi values” (Ragin, 2008, 53).
In its turn, a condition is **sufficient** when all the cases in which that condition is present are contained in – are a subset of – the cases in which the outcome is present (Goertz and Mahoney, 2006, 235). In a XY plot, if a “causal condition (X) is a subset of the outcome (Y); thus, all Xi values are less or equal to their corresponding Yi values, where i indicates reference to individual X or Y values or specific observations of X or Y” (Ragin, 2008, 47).

Necessary and sufficient conditions in terms of subset

![Diagram](image)

Source: Taken from Bol, 2009 and Ragin, 2008.

In the following sections I present the analysis and results I obtained from applying the fsQCA technique.

**5. Analysis and results**

In this section I present the analysis and results obtained in three steps: in the first one I analyze to what degree (membership degree) the ACs fulfill the outcome and causal conditions highlighted. In the second step, I present the analysis of necessity of these conditions. Finally, in the third step I analyze the sufficiency of the combinations of conditions that produce accountability of the policy.

**5.1. Degrees of membership among autonomous communities to each one of the categories -outcome and causal conditions?**
In this analysis I use the fsQCA 2.0 software. First, fsQCA allows identifying not only whether each one of the cases belongs – or not – to the categories highlighted, but it also allows identifying to what degree they belong to these; thus, the name “fuzzy set” refers to the gradient in the membership scores, in the interval between 0 and 1 (Ragin, 2008). In this step, I calibrated the operationalization of the outcome (accountability of policy implementation) and the five causal conditions mentioned above to obtain the degree of membership of each one of the observations. Fuzzy sets membership scores indicate to what degree autonomous communities’ correspond to each one of the categories. That is, it allows understanding whether a specific AC has accountability in the health policy implementation and to what degree it does; or else, whether a specific AC has been led by left-wing parties and to what degree it does.

In order to calibrate the data it is necessary to establish the qualitative anchors (breakpoints) of each one of the conditions already operationalized in the prior sections. According to Ragin (2008) this is the qualitative part that allows the researcher, according to a reference theoretic framework, to point out when a category is considered “fully in”, “fully out” and the “crossover point” (neither in nor out”). Facing the absence of a clear theoretic guideline to establish these qualitative anchors, for this research I have obtained the breakpoints of the categories by using two types of criteria. On the one hand, for four categories (private provision, political salience, majority government, and accountability of policy implementation) I obtained these breakpoints by assigning a standardized score: when each one of the conditions and the outcome has a higher or equal value to the standard deviation above its mean, I have considered it to be “fully in”; when it has a lower or equal value to the standard deviation below its mean, I have considered it to be “fully out”; finally, I have considered the means of the values for each one of the categories to be “the crossover point”. On the other hand, in the case of the two remaining conditions (governments led by right/left wing parties, and governments led by non-statewide parties), I didn’t take into account the same criterion that I used for the four conditions mentioned, since these breakpoints would vary in function of the proportion of years that the political parties have governed within the period considered, so that I have considered the degree of belonging as “fully in” when a specific political party has governed for the whole period analyzed (100 percent); as the “crossover point” when it has governed for half of the period (50 percent); and as “fully out” when the party has not governed.

Table 2. Qualitative anchors for the causal conditions and outcome

<table>
<thead>
<tr>
<th>Causal conditions and outcome</th>
<th>Fully “in” the set (membership score= 1)</th>
<th>Cross-over point, “neither in nor out” (membership score= 0,5)</th>
<th>Fully “out” the set (membership score= 0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private provision</td>
<td>13</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Policy salience</td>
<td>37</td>
<td>31</td>
<td>26</td>
</tr>
<tr>
<td>Majority government</td>
<td>60</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>Governments led by right-wing parties</td>
<td>100</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Governments led by non-statewide parties</td>
<td>100</td>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>
Causal conditions and outcome | Fully “in” the set (membership score= 1) | Cross-over point, “neither in nor out” (membership score= 0,5) | Fully “out” the set (membership score= 0)
---|---|---|---
Higher level of accountability of policy implementation | 61 | 44 | 26

Note: the values of these conditions are explained in the operationalization.

After applying the breakpoints I have obtained the following degrees of membership, in a 0-1 scale, through which it is possible to identify whether each AC belongs to the categories mentioned and to what degree they belong to these.

Table 3. Membership for the causal conditions and outcome

<table>
<thead>
<tr>
<th>Cases</th>
<th>Outcome</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AccTot</td>
<td>Sal</td>
</tr>
<tr>
<td>1 Andalusia</td>
<td>0,92</td>
<td>0,23</td>
</tr>
<tr>
<td>2 Aragon</td>
<td>0,1</td>
<td>0,82</td>
</tr>
<tr>
<td>3 Asturias</td>
<td>0,14</td>
<td>0</td>
</tr>
<tr>
<td>4 Balearic I.</td>
<td>0,63</td>
<td>0,05</td>
</tr>
<tr>
<td>5 Basque C.</td>
<td>0,21</td>
<td>0,5</td>
</tr>
<tr>
<td>6 Canaries.</td>
<td>0,16</td>
<td>0,73</td>
</tr>
<tr>
<td>7 Cantabria</td>
<td>0,92</td>
<td>0,62</td>
</tr>
<tr>
<td>8 Castile-La Mancha</td>
<td>0,95</td>
<td>0,88</td>
</tr>
<tr>
<td>9 Castile-Leon</td>
<td>0,63</td>
<td>0,92</td>
</tr>
<tr>
<td>10 Catalonia</td>
<td>0,12</td>
<td>0</td>
</tr>
<tr>
<td>11 Extremadura</td>
<td>0,98</td>
<td>0,99</td>
</tr>
<tr>
<td>12 Galicia</td>
<td>1</td>
<td>0,95</td>
</tr>
<tr>
<td>13 Madrid</td>
<td>0</td>
<td>0,05</td>
</tr>
<tr>
<td>14 Murcia</td>
<td>0,05</td>
<td>0,62</td>
</tr>
<tr>
<td>15 Navarre</td>
<td>0,98</td>
<td>0,98</td>
</tr>
<tr>
<td>16 Rioja</td>
<td>0,38</td>
<td>0,73</td>
</tr>
<tr>
<td>17 Valencia</td>
<td>0,02</td>
<td>0,23</td>
</tr>
</tbody>
</table>

Note: In bold are indicated the cases that have membership to a specific condition (> 0,5).

**Abbreviations**

Private provision = \textit{Priv}
Political salience = \textit{Sal}
Governments led by right-wing parties = \textit{Right}
Governments led by left-wing parties = \textit{Left}
Governments led by non-statewide parties \( NSWP \)

Majority government \( Major \)

Higher level of accountability of policy implementation. \( AccTot \)

5.2. Which conditions or combination of conditions are necessary to produce accountability for health policy?

The second step I took was to analyze if each one of the conditions – individually – is necessary for the accountability of the health policy in the ACs. Stemming from this analysis it is possible to understand, for example, whether the presence/absence of majority governments is a necessary condition for the health policy accountability in the ACs, or else whether the presence of the policy salience is a condition without which this accountability could not happen. FsQCA allows analyzing the necessity for the presence or absence of these conditions, so that with five causal conditions, there are ten test to conduct -five for the presence of these conditions and five for their absence.

As I mentioned, a condition is necessary when the outcome is a subset of the causal condition. In order to analyze whether a condition or combination of conditions is necessary, it is important to identify the degree of consistency and of coverage of each one of these. On the one hand, consistency “assesses the degree to which instances of the outcome agree in displaying the causal condition thought to be necessary” (Ragin, 2008, 44-45).

High level of consistency -high but less than perfect degree of consistency

\[ \text{Necessary condition} \]

\[ \text{Outcome} \]

\[ \text{Degree of consistency} \]

Source: Taken from Fiss, 2007 and Ragin, 2008.

In its turn, in the analysis of necessity, “coverage assesses the relevance of the necessary condition -the degree to which instances of the condition are paired with the instances of the outcome” (Ragin, 2008, 44-45). According to some authors (Goertz, 2003), if the coverage measures the importance of necessary condition, it could be interpreted as trivial or nontrivial, and, although there is no a minimum threshold of this, one could say that “[c]onceptually, very low coverage corresponds to an empirically irrelevant or even meaningless necessary condition” (Ragin, 2008, 61).
In this section, I present the results I obtained from the analysis of necessity and which have a degree of consistency that approaches 0.85 – which is the minimum threshold suggested by Ragin (2008, 46). The results that I obtained with greatest consistency are shown in Table 4, where some of the conditions are not included because their degrees of consistency were not close to the threshold established here.

### Table 4. Quasi necessary conditions for accountability in health policy

<table>
<thead>
<tr>
<th>Condition</th>
<th>Abbreviation</th>
<th>Presence or absence</th>
<th>Consistency</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-statewide parties</td>
<td>NSWP</td>
<td>Absence</td>
<td>0.86</td>
<td>0.57</td>
</tr>
<tr>
<td>Private management</td>
<td>Priv</td>
<td>Absence</td>
<td>0.82</td>
<td>0.63</td>
</tr>
<tr>
<td>Political salience</td>
<td>Sal</td>
<td>Presence</td>
<td>0.76</td>
<td>0.67</td>
</tr>
</tbody>
</table>

**Absence of governments led by non-statewide parties (NSWP).** For the analysis of necessity I identified that the absence of governments led by NSWP is a necessary condition for the accountability of the implementation of this policy (consistency 0.87, coverage 0.58). In fact, in the empirical analysis I found that ACs that have a high presence of governments led by this type of parties – which in the case of Spain are mainly nationalist right-winged parties such as CiU in Catalonia, PNV in Basque Country or CC in the Canaries – have scarce mechanisms for the accountability of their health policies. This result contrasts the hypothesis previously mentioned (H4), according to which it was expected that autonomous governments led by NSWP would have greater accountability of the policies on which it has competency, with the objective of differentiating them from those that the central government carries out. This result points to the contrary; that this condition should be absent for accountability of this policy to occur, so that the idea that this type of government is judged less by the results of its management and more by the measures it takes in other issues such as vindication of belonging or cultural identity can be reinforced (Aguilar and Sanchez-Cuenca, 2005).

**Absence of private provision:** In the analysis of necessity for conditions I also identified that the absence of a private management of the health policy is a condition that is quasi necessary for accountability of the implementation of this policy (consistency 0.82, coverage 0.63). These results reinforce the hypothesis presented previously (H1), according to which a greater private management in the implementation of a public policy entails less control by managers.
and, therefore, a lower accountability by these. In fact, in the communities where there is
greater private management in the implementation of the health policy, such as Catalonia,
Canaries or Murcia, there is a low level of policy accountability.

**Presence of political salience:** Although this condition does not reach the minimum threshold
of consistency, its approximate value (consistency 0.76, coverage 0.67) can serve to indicate
that this condition is important for the accountability of the policy. This finding agrees with
the research carried out by Koop (2011), who shows that the accountability of regulating
agencies is greater when the issues they deal with are perceived as salient. An example of this
is the fact that five out of the six ACs have a higher level of accountability of the health
policy; they have, also, a high perception among citizens about the importance of this policy
(this is the case of Cantabria, Castile-La Mancha, Extremadura, Galicia and Navarra).

5.3. Which causal combination of conditions are sufficient for the outcome?

In the third step I identify the sufficiency of the different combination of causal conditions
that can lead to the outcome - accountability for the health policies -. FsQCA allows analyzing
the sufficiency of these conditions through its main tool, to identify those causal relationships:
the truth table algorithm, “that includes all logically possible combinations of causal
conditions” (Koole and Vis, 2012, 14).

Once all the combinations of conditions possible are found, fsQCA identifies those that are
sufficient to produce the outcome. For this, it produces three types of solutions: “complex
solution”, “parsimonious solution” and “intermediate solution”. These solutions differ
primarily in whether the combinations identified include – or not – the counterfactuals –
understood as those combinations of conditions that are logically possible but do not happen
empirically, that is, combinations that do not occur in the cases analyzed. The “complex
solution” only generates solutions from the combinations that happen empirically in the cases
analyzed, assuming as false all the counterfactuals. The “parsimonious solution” generates
more simplified solutions, so that it can use any counterfactual that helps to generate them.
Finally, the “intermediate solution” can take into account certain counterfactuals that are
possible in theory and that are determined by the researcher (Ragin, 2008).

For this research I begin by presenting the results from the complex solution. Some authors
emphasize that “this is the most conservative approach”, “[s]ince the complex solution
means that no statements are being made about the situations that did not occur
empirically” (Vis, 2012, 174).

In this analysis – as in the one of necessity of the conditions – the degree of consistency and
coverage of the sufficiency of the combinations of conditions that are produced should also be
taken into account. Consistency refers to the degree which a causal condition (X) is a subset
of the outcome (Y), which “indicates how closely a perfect subset relation is approximated” (Ragin, 2008, 44).
High level of sufficiency - high but less than perfect degree of consistency

Source: Taken from Fiss, 2007 and Ragin, 2008.

In its turn, coverage refers to the degree at which the cases correspond to the (combination of) conditions (Vis, 2011). Unlike the analysis of necessity, the sufficiency analysis results show three types of coverage: Solution coverage, “measures the proportion of memberships in the outcome that is explained by the complete solution”. Raw coverage, “measures the proportion of memberships in the outcome explained by each term of the solution”. Unique coverage, “measures the proportion of memberships in the outcome explained solely by each individual solution term (memberships that are not covered by other solution terms) (Ragin, 2008b, 86).

5.3.1. Recipes from the complex solution: sufficient conditions for the outcome

Next, I present the routes or “recipes” – in Ragin’s terms – that are sufficient to produce accountability in the implementation of the health policy in Spain’s ACs. The combinations of conditions are expressed by using the following Boolean logic:

logical AND (*) refers to the intersection of sets
logical OR (+) refers to the union of sets
logical No (−) refers to the absence of a condition.

I use the following abbreviations: private provision (priv), political salience (sal), government led by right-wing parties (right), government led by non-statewide parties (nswp), majority government (major).

<table>
<thead>
<tr>
<th>Solution</th>
<th>Cases</th>
<th>Raw coverage</th>
<th>Unique coverage</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>~priv<em>sal</em>major<em>~right</em>~nswp</td>
<td>Castile- Mancha, Extremadura.</td>
<td>0,31</td>
<td>0,19</td>
<td>0,80</td>
</tr>
<tr>
<td>~priv<em>sal</em>~major<em>right</em>~nswp</td>
<td>Navarre, Galicia, Cantabria</td>
<td>0,39</td>
<td>0,27</td>
<td>0,83</td>
</tr>
</tbody>
</table>

Solution coverage: 0,58
Solution consistency: 0,82
As Table 5 shows, from the “complex solution”, I have obtained two paths for accountability of the health policy in Spain’s ACs: 1) absence of private provision AND policy salience AND absence of right-wing government (which implies government led by left-wing parties), AND majority government AND absence of NSWP; OR, 2) absence of private provision AND policy salience AND left-wing government AND absence of majority governments AND absence of NSWP.

The presence of the policy salience in these two paths that lead to accountability of the health policy reaffirms the analysis that I carried out previously regarding the necessity for this condition, where I identified that this could be considered as quasi necessary for the accountability of the policy. This finding also coincides with the empirical cases analyzed, since five out of the six ACs that have a higher level of accountability of the health policy (Cantabria, Castile-La Mancha, Extremadura, Galicia and Navarra) also have a high perception by citizens of the relevance of this policy.

In its turn, the absence of private management in these two paths confirms the analysis of necessity that I carried out previously, where I identified that this is a condition that is quasi necessary for accountability of the policy. In fact, the six ACs that have a higher level of accountability implement their health policies through a mostly public management.

In their turn, these two paths points to the absence of governments led by non-statewide parties. The absence of this last condition also reinforces the analysis of necessity that I carried out previously, according to which accountability occurs when there are no governments led by this type of political party, which, in the case of Spain are centered mainly in nationalist right-wing parties, such as CiU in Catalonia, CC in Canaries or PNV in Basque Country.

Finally, I identified two recurring conjunctions of conditions in these two paths for accountability: in one of the two paths the presence of right-wing governments is shown, with the absence of majority governments; while in the other path the presence of left-wing governments is shown, in conjunction with the presence of majority governments. These conjunctions can also be observed in the empirical cases analyzed, since three out of the six ACs that have a higher level of accountability of the health policy have governments led by left-wing parties and, at the same time, majority governments (this is the case in Andalusia, Castile-La Mancha and Extremadura). In their turn, the other three ACs that have a higher level of accountability for the health policy have right-wing governments and, also, minority governments (this is the case of Galicia, Navarra and Cantabria). These conditions can be interpreted as INUS conditions, that is, as conditions which although on their own are not necessary or sufficient to produce accountability of the policy, they are a necessary component of the conditions indicated in each combination. The absence of the majority in the governments led by right-wing parties suggests that the introduction of mechanisms for accountability in this policy can be explained, in part, by the counterweight that the opposition has had; while the presence of the majority in left-wing governments suggests that this type of government requires a parliamentary majority to carry out long lived public policies, such as accountability of its health policies.
Conclusions

Social phenomena can be characterized by their causal complexity, which implies that the same result can come from different routes/recipes (Ragin, 2000, 2008). In this research I focused on analyzing the conditions and combinations of conditions that lead to accountability of the health policy in the 17 ACs of Spain, finding different combinations of conditions that prove their causal complexity, or else, different paths that can lead to it. I also analyzed the necessity and sufficiency of the (combinations of) conditions presented here, in order to produce accountability of this policy, which allowed me to contrast what conditions must be present/absent for accountability to occur (analysis of necessity) and what (combinations of) conditions can produce it (analysis of sufficiency).

As I already mentioned, in this research I incorporated variables that have already been analyzed in terms of accountability, such as policy salience (Koop, 2011; Grimmelikhuijsen and Welch, 2012), but I also analyzed variables that have not been studied as much in this literature, such as ideological ascription of the political parties in government, government majority, governments led by non-statewide parties, or private management.

As could be observed in the analysis of necessity of the conditions, the absence of governments led by non-statewide parties is a necessary condition for accountability in health policy, which in the case of Spain are limited, mainly, to governments led by nationalist right-wing parties, such as the case of CiU in Catalonia, CC in Canaries and PNV in Basque Country. This result was also reinforced with the analysis of sufficiency, where I identified that this condition is absent in all the paths (combinations of conditions) that can produce accountability of this policy. I emphasize that this finding does not mean that these governments do not have good results in terms of health, for this has not been analyzed in this research. What I have found is something different, and it is that this type of government has not developed mechanisms for accountability of the implementation of their health policies. In a study about the vote determinants in autonomous governments in Spain (Aguilar and Sánchez Cuenca, 2005), it was found that in autonomous communities with a higher degree of nationalism, voters judge more their governments over issues related with their representative capacity (that is, for the representation or defense of what they consider the interests of their community), and not over their management (that is, for the results of the government management), so that this type of government could be lacking the incentives to have accountability mechanisms for the public policies they implement, since focusing on issues such as the vindication of belonging or cultural identity produces a higher citizen valuation.

In the analysis of necessity I also identified that the presence of policy salience – understood as the perception that citizens have of the importance of the health policy – is a quasi necessary condition for accountability of the implementation of this policy. This result was also reaffirmed with the analysis of sufficiency, since this condition appears in the paths that can produce accountability of this policy. In fact, as I mentioned, five out of the six autonomous communities that have a higher level of accountability also have a high perception of the importance of their health policies (this is the case of Cantabria, Castile-La Mancha, Extremadura, Galicia and Navarra).

Another of the findings of this research is that the ACs that have a greater private management for the implementation of the health policy have a lower level of accountability.
In fact, from the analysis of necessity of the conditions, I found that the absence of a greater private management – measured through the public expenditure destined to agreements with organizations from the private sector – is an almost necessary condition for higher accountability. This is also reaffirmed with the analysis of sufficiency, since this condition appears as absent in the paths identified that lead to accountability of this policy. It is important to clarify that in this research I did not discuss whether public or private management are more efficient with regards to the results in health, but rather, I analyzed which is more transparent and subject to greater mechanisms for control and sanction, and I found that this happens when there is less intervention by the private sector. For example, although Catalonia has a high percentage of private management through the health agreements, its level of accountability is below the ACs average. As I have analyzed throughout this study, in the case of the health policy in Spain’s ACs, there are scarce formal mechanisms for accountability in the centers and services that are managed by the private sector. For example, the high positions – such as directives – of this type of centers and services are not subject to the same formal rules of control than the high positions in the public sector; there are also no formal mechanisms developed for these private managers to be accountable regarding the resources – public budget – that they receive and spend, about the justification and the results obtained with this allotment of public resources. This absence of formal mechanisms for accountability of private management of the health policy in Spain’s ACs makes it so that the greater the intervention of this private management, the greater the voids in accountability of this policy there are.

Finally, in the analysis of the combinations of conditions that are sufficient to produce accountability of the health policy in the ACs and which have been mentioned previously, I found two conjunctions of conditions: the presence of right-wing governments in conjunction with the absence of majority governments; and the presence of left-wing governments in conjunction with the presence of majority governments. These conjunctions can be observed in the empirical cases analyzed, since three out of the six ACs that have a higher level of accountability of the health policy (Galicia, Navarra and Cantabria) have had right-wing governments and, at the same time, minority governments; while the other three autonomous communities (Andalusia, Castile-La Mancha and Extremadura) have had left-wing governments and majority governments. As I mentioned, the causal effects are not uniform, so that the influence of a specific condition can vary among cases, and especially, it can vary over the presence/absence of another condition or conditions. This is shown in the case of these two conjunctions of conditions, for while the presence of majority governments favors accountability of left-wing governments, their absence favors that of right-wing governments. This suggests that, in the first case, governments – left-wing – require parliamentary support in order to carry out their long term policies, such as initiating accountability mechanisms for their health policies; while, in the second case, opposition parties are the ones that could be playing a central role to force this type of governments – right-wing – to be accountable regarding the health policies they implement.

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