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Article



Culture, Institution, and COVID-19 First-Response Policy: A Qualitative Comparative Analysis of Thirty-One Countries

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ABSTRACT *Different from existing studies focusing on formal institutional factors, this study applies a configurational approach to exploring how cultural, institutional, and crisis-specific factors interplay to shape policymaking under extremely uncertain and risky circumstances. A fuzzy-set qualitative comparative analysis of the COVID-19 first-response policies adopted by 31 countries reveals three pathways consistently leading to a more stringent first response, whereas the other two pathways consistently contributed to a less stringent one. The study advances comparative policy analysis by illuminating multiple configurations of cultural, institutional, and pandemic-specific factors that have shaped policymaking during the COVID-19 pandemic.*

Keywords: national cultural orientation; institutional context; COVID-19 first response; qualitative comparative analysis; policy analysis

Introduction

COVID-19 has ravaged the whole world, with over 84 million confirmed cases and a death toll of around 1.8 million as of January 6, 2021, taking an unprecedented human, economic, and

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psychological toll. National governments around the world are scrambling to find solutions to contain and mitigate the spread of a virus that took everyone by surprise. Some countries have instituted draconian policy measures to lock down the whole country, whereas others have adopted relatively mild policies in response to the pandemic. Why is there substantial country-to-country variation in the policy responses to the same COVID-19 crisis?

Existing studies tend to focus on formal institutional context, economies, and political styles under non-crisis circumstances (Capoccia 2016; Wang et al. 2016). The role of informal institutions, such as culture, on high-risk and uncertain policymaking remains understudied (Geva-May et al. 2018; Yan et al. 2020). Culture is generally defined as the shared meaning and values – the collective mental programming of the human mind – that distinguish one group of people from another (Hofstede 1993; Schein 1996). Policy analysis, as a human decision-making process that mediates generic design principles and local contexts, is culturally biased (Hoppe 2002). Factoring cultural values into analysis is particularly relevant to comparative policy studies.

Also, the effect of culture on an individual country's policymaking cannot be studied in isolation but is contingent on many other factors, such as formal institutional context. A country's formal institutional context cannot be divorced from its informal shared cultural beliefs and values. "Institutions are shaped by culture and shape culture in return, while policies and contextual systems adapt to culture and culture to contextual systems" (Geva-May 2002, p. 255). To uncover how a policymaking system functions, comparative policy analysts should reorient themselves by studying the interplay of formal and informal institutions taken together as a whole (Schneider and Wagemann 2012).

Explicit in mainstream policy studies is an aspiration to identify an optimal solution. Given their cultural and institutional differences, countries will have multiple pathways to adopting the same public policy. This suggests different combinations of cultural, institutional, and other factors that act to jointly shape policymaking (Dunlop and Radaelli 2020). Multiple pathways need to be examined in order to fully explain policy adoption (Ciccica and Javornik 2019).

Implicit in many policy studies is symmetric thinking: if one factor were to be positively associated with the adoption of a policy, the absence of this factor would lead to the non-adoption of that policy. Such symmetric analysis has been challenged by *asymmetric causation* (Goertz and Mahoney 2012). The set of factors that leads some countries to adopt a more stringent pandemic response may differ from those leading other countries to implement a less stringent one.

The ongoing coronavirus (COVID-19) pandemic serves as an appropriate setting for the closing of these research gaps through studies that adopt a configurational lens. We contribute to comparative public policy scholarship by exploring how national cultural orientation that interplays with the formal institutional context, in combination with pandemic risk and uncertainty, have jointly shaped different national governments' COVID-19 first-response policies.

This study begins by outlining a configurational theoretical framework in which we articulate why and how multiple conditions jointly contribute to country-to-country first-response policy variation. We describe data from 31 cases, clarify the relationship between the stringency of the measures adopted in different countries and the five explanatory conditions, and then apply a fuzzy-set qualitative comparative analysis (fsQCA) as a configurational method of analysis. After presenting the results, we discuss

configurations/pathways of conditions consistent with more and less stringent COVID-19 first responses. The article concludes with the contributions of our study and policy lessons.

Why the COVID-19 First-Response Policy Riddle?

In the absence, up to October 2020, of effective treatments and vaccines, national governments have had to respond to the spread of the virus by instituting a number of public health policy interventions, for example, isolation, quarantine, and social distancing (Wilder-Smith and Freedman 2020). Yet the scope and scale of these policy responses have varied significantly across different countries, and a “natural experiment” has emerged for researchers to investigate this riddle of varying first responses (Zhou 2020).

National governments’ COVID-19 responses comprise either first response or maximum response. Different countries announced their first responses at different times. We define a country’s first response as the first set of epidemic prevention and control measures that it officially announced on a specific date. For example, it was on January 23, 2020 that the French government announced its first official pandemic response. We therefore consider all the measures adopted on that day as France’s first response. Some countries adopted many policy measures in their first responses whereas others implemented only a few. The maximum response refers to the greatest concentrations of response policies a country has reached. The Oxford COVID-19 Government Response Tracker (OxCGRT) provides a systematic approach for tracking governmental COVID-19 responses over time (Hale et al. 2020). We chose the OxCGRT Stringency Index to compare the differences between a selection of countries’ response policies.

The present study focuses on national governments’ COVID-19 first-response policies for two reasons. First, infectious disease management in the early stages is of the utmost importance (Madhav et al. 2018; Khosrawipour et al. 2020). The initial response of each country has a significant impact on that country’s subsequent containment strategies (Lee et al. 2020). The scope, scale, and speed of a country’s first response have consequential impacts on fatality (Princ and Slabe-Erker 2020). Second, each country’s first response as “instinct policymaking” is more likely to be determined by its cultural and institutional legacies, and the pandemic risk, serving as an informative setting for a comparative inquiry (Yan et al. 2020). The fast-paced development of COVID-19 over time will cause affected countries to gravitate towards adopting an identical policy mix, as different countries learn from each other’s experiences. Figure 1 indicates less stringency variations in max responses (a standard deviation of 10.57) than first responses (a standard deviation of 14.46).¹

A Configurational Perspective on COVID-19 First Response

Drawing on theoretical insights into culture (Geva-May 2002; Gelfand et al. 2011), institutional arrangements (Mann 2003; Migdal 2009), and policymaking (Baekkeskov 2016), we theorize that national governments’ COVID-19 first-response policies are jointly shaped by their cultural orientation, institutional context, and pandemic-specific factors. We specify five conditions: (1) loose–tight cultural orientation; (2) political centralization–decentralization; (3) state implementation capacity; (4) risk of healthcare

Figure 1. Stringency variations in maximum responses and first responses

capacity being overwhelmed; and (5) the critical timing of the declaration by the World Health Organization (WHO) of a public health emergency of international concern (PHEIC).

Informal Institution: Loose–Tight Cultural Orientation

Public compliance – the degree to which citizens are willing to comply with restrictive government policies – influences the stringency of different countries’ COVID-19 first-response policies. Attitudes and beliefs constitute a very broad set of influences on public compliance, and culture exerts profound influence on citizens’ attitudes and beliefs. For a policy instrument to generate enduring impact, it must be compatible with a country’s underlying cultural values. Variations in countries’ cultural orientation result in differentiated compliance and variation in people’s willingness to follow public policy (Pillemer et al. 2015). The successful responses to COVID-19 in East Asian countries have been largely attributed to their culture (Reich 2020), which is “tighter” than Western culture.

This study posits a *looseness–tightness continuum* on national cultural orientation. According to Gelfand et al. (2011), tight culture exhibits strong norms and a low tolerance of deviant behavior, whereas loose culture has weak social norms and a high tolerance of deviant behavior. Relevant to public compliance with governmental COVID-19 responses, it reveals the strength of social norms and the degree of sanctioning within societies (Taras et al. 2010). Previous studies have illustrated the ways in which a country’s loose–tight cultural orientation can impact individuals’ adherence to social norms and subsequently influence their perception of responsibility in state–citizen interactions (Gelfand et al. 2011; Trnka and Trundle 2014). Compliance with public

health interventions is likely to be higher when non-compliance is seen as socially unacceptable in a tight cultural environment.

Citizens in countries with a tight cultural orientation are willing to comply with more stringent pandemic-containing policy measures by sacrificing some individual freedom for collective welfare. In contrast, citizens in countries with a loose cultural orientation may choose to ignore and violate containment measures. Countries with a tight culture are apt to have more stringent public health responses, with governments capitalizing on their citizens' willingness to comply, whereas in countries with a loose culture, governments tend to adopt less stringent policies when public cooperation and voluntary compliance are lacking (Reich 2020). Therefore, taking into account citizens' compliance, national governments within a tighter culture find it easier to adopt more stringent COVID-19 first-response policies.

Formal Institutional Context: Political Centralization and State Implementation Capacity

Institutional context refers to the systems and processes that countries use to structure authority, attention, information flows, and relationships in addressing policy problems (May 2015). Both cultural orientation and institutional context are enduring, socially accepted, and resistant to change (Oliver 1992) and can be complementary and evolve together (Alesina and Giuliano 2015). Nevertheless, institutional factors are concerned with the formal power structure, legal system, and regulations, whereas culture orientation emphasizes the informal norms, beliefs, values, and customs (Prell et al. 2010). This study considers two institutional conditions critical for understanding the response strategy of a country in dealing with threats and emergencies. The first one is *political centralization* – the degree to which political power and authority are centralized in a country (Yan et al. 2020). The second condition concerns *state implementation capacity* – the degree of a country's intervention effectiveness in its attempts to contain COVID-19.

A centralized political system demonstrates tight coupling characteristics between central and local governments, whereas a decentralized system is characterized by loose coupling (Zhou 2020). From a crisis management perspective, a decentralized system is preferred because local governments can develop a sense of locality in emergency planning and can experiment with different solutions (Kusumasari et al. 2010; Rozell and Wilcox 2020). However, as an unprecedented crisis, COVID-19 requires quick and forceful responses under time pressure and high uncertainty. In the United States, researchers have witnessed the friction and confusion between the federal and local governments in their COVID-19 responses (Janssen and van der Voort 2020). Generally, it is much easier for a centralized country than for a decentralized country to implement more stringent policy measures. This is due to its relatively simple policy-making structure, and explicit accountability relationship involving less bargaining and negotiation between different levels of government.

Strong implementation capacity is also crucial when establishing goals, acquiring resources, achieving outcomes, and adapting to change (Wang et al. 2016). During the COVID-19 pandemic, it has been demonstrated that countries with strong state implementation capacity have been far more successful at stemming the spread of the virus and

also look to be better equipped to cope with the social and economic fallout (Mishra 2020). We thus expect that countries with strong implementation capacity will be better able to adopt more stringent first-response policies.

Pandemic-Specific Conditions: Risk of Healthcare Capacity Being Overwhelmed and Uncertainty Associated with the WHO's PHEIC Declaration

COVID-19 responses are also shaped by the levels of pandemic risk and uncertainty perceived by national governments. We consider two related factors: the risk of healthcare systems being overwhelmed and the critical timing of the WHO's PHEIC declaration.

The capacity of a country's healthcare system to deliver care to patients is of critical importance when considering what policy measures to adopt in mitigating the pandemic. Overwhelming of healthcare systems, as a result of skyrocketing numbers of infectious cases, would worsen the situation in any country and adversely affect its ability to effectively contain the virus. All the public health policy measures that have been adopted are designed to flatten the curve of the outbreak, thus avoiding the risk of inundating the healthcare infrastructure with affected patients and preventing more indirect deaths (Capano et al. 2020; Pisano et al. 2020). The higher the risk of healthcare capacity being overwhelmed, the more stringent a first-response policy is to be expected.

The WHO, as the prominent international organization concerned with the prevention and control of global pandemics, has also affected, through information disclosure, the uncertainty perceived by national governments and their policy responses. On January 30, 2020, the WHO's declaration of COVID-19 as a PHEIC heightened the perceived severity of the virus and highlighted the urgency of taking action to prevent its spread. We expect to demonstrate that there was greater stringency in the first-response policies adopted by national governments following the WHO declaration.

Complementary versus Supplementary Logic

These five contributing factors are key components in the process of adopting national pandemic first-response policies. It is insufficient and oversimplified to attribute complex policy responses to the impact of individual factors and to overlook the interplay of contributing factors. We therefore propose a configurational theorizing perspective by analyzing interactions among five conditions, using fsQCA.

Three aspects of fsQCA enable us to perform a configurational study (Schneider and Wagemann 2012). First, *equifinality* posits that policy problems can be resolved by multiple feasible and equally effective options. There might be multiple pathways for countries to adopt a more or less stringent COVID-19 first response.

Second, *conjunctural causation* specifies how factors may interplay differently to influence the outcome. We focus on two configurational mechanisms: complementary and supplementary. A complementary mechanism indicates that multiple factors work together in a mutually enhancing way (Misangyi and Acharya 2014). When a tight-culture country faces a high risk of its healthcare system being overwhelmed after the WHO's PHEIC declaration, its centralized political system and strong state implementation capacity will further enable it to adopt a more stringent first response. The

complementary mechanism essentially suggests that all positive or negative relationships among variables and their combinations lead to a synergy of positive or negative effects on the outcome. A supplementary mechanism posits that some factors may compensate for the others (Misangyi and Acharya 2014). Although a loose-culture country is expected to be less likely to adopt a more stringent first response, a combined positive effect of a high pandemic risk and the WHO's early warning may compensate for its negative effect, thereafter enabling it to adopt a more stringent response.

Finally, *asymmetric causation*. The dominant correlation-based approaches have channeled research efforts towards symmetric causality. A statistically significant correlation between A and B indicates that the presence of A produces the presence of B. Asymmetric thinking assumes that the reverse is also true: the absence of A indicates the absence of B. Yet, in complex reality, combinations of factors leading to more stringent first responses may differ from those leading to less stringent ones.

Data and Methods

We constructed a dataset of 31 countries because information on one of the key contributing factors – loose-tight cultural orientation – only covers these 31 countries (Gelfand et al. 2011).

Calibrating the Outcome and the Five Explanatory Conditions

We collected data from multiple sources to operationalize the outcome and the five contributing factors. COVID-19 Response Stringency is a composite index that was originally constructed by the OxCGRT team to measure the scale and scope of country-specific COVID-19 response policies on 17 items longitudinally (Hale et al. 2020). We selected eight items regarding public health policy interventions (see online supplement for details) to compute our COVID-19 First Response Stringency Index. This index ranges from 0 to 100. We excluded other items because they were adopted later and were not part of any country's first response. Many items we did not consider also happen to be non-public-health responses (for example, income support). We also dropped the public information campaign because all countries adopted it before their official first response.

A Loose-Tight Cultural Orientation Index was computed on a six-item Likert scale that assessed the degree to which social norms are pervasive, clearly defined, and reliably imposed across countries (Gelfand et al. 2011). We also adopted the Political Centralization Index compiled by the World Bank (continuous 0–1) for measuring the extent of local self-governance and the ability of local government to formulate policies and regulations (Ivanyna and Shah 2014). *State implementation capacity* was measured using the Governance Effectiveness Index, ranging from –2.5 to 2.5, extracted from the Worldwide Governance Indicators (Kaufmann et al. 2011), capturing the quality of policy formulation and implementation and the credibility of a government's commitment to its policies.

Risk of healthcare capacity being overwhelmed was computed as a ratio of confirmed cases per thousand hospital beds in a country on the first-response date. While the

number of initial COVID-19 confirmed cases comes from the OxCGRT dataset, the total number of hospital beds is taken from the World Bank database.² The *WHO declaration of PHEIC* is a crisp-set condition according to which those cases with first-response measures adopted after the WHO declaration of PHEIC on January 30, 2020 were coded as 1 and otherwise as 0.

We then performed calibration, the process of converting all interval conditions into a scale ranging from 0.0 to 1.0 with multiple values in between for an fsQCA analysis (Ragin and Strand 2008). The process of fuzzy-set calibration involves determining which raw condition values constitute full membership (“in”, the 95th percentile) in a respective category (for example, more stringent first-response policy), full non-membership (“out”, the 5th percentile, for example, less stringent first-response policy), and the crossover point (neither “in” nor “out”, the 50th percentile, for example, intermediate stringent). We rely on the direct method of calibration where software computes the values that correspond to the three above-mentioned threshold points, based on the log odds of full membership (Ragin and Strand 2008). Tables A2 and A3 in the online supplement list the three thresholds used to calibrate the outcome and conditions and their calibrated membership scores across the 31 cases.

Analyses

We used fsQCA 3.0 (Ragin et al. 2006) to perform analyses (see online supplement). The truth table is first consolidated based on (a) at least one case required in a given configuration for a solution to be considered and (b) the minimum level of consistency for a given solution at 0.80 (Fiss 2011). Consistency, ranging from 0 to 1, refers to the degree to which cases that share a combination of conditions consistently produce the key outcome. Low consistency indicates that a given configuration is not reliably related to the outcome of interest; high consistency, on the other hand, means that a given configuration of factors almost always leads to the outcome of interest (Misangyi and Acharya 2014).

We follow previous research (for example, Fiss 2011; Misangyi and Acharya 2014) in examining both parsimonious and intermediate solutions, allowing us to determine which conditions are core or peripheral to the configurations. Core conditions are part of both the intermediate and the parsimonious solution, while peripheral conditions are absent from the most reduced, parsimonious solution (Misangyi and Acharya 2014). The results of intermediate solutions are presented.

Finally, we repeated the analyses on the negation of the outcome. We did this so as to yield the configurations of conditions leading to less stringent first-policy responses.

Results

Our analyses yielded five configurations/pathways, three of them contributing to more stringent COVID-19 first-response policies and the other two leading to less stringent ones. These conditions are represented graphically for each configuration in Table 1. We follow the notation applied by Fiss (2011), where “●” represents the presence/positive of a condition (tight culture, political centralization, strong state implementation capacity, high risk of healthcare capacity being overwhelmed, or after the WHO declaration), “⊗”

Table 1. Configurations for more and less stringent COVID-19 first-response policies

| Conditions | More stringent | | | Less stringent | |
|---|------------------|--|---|---------------------------------|---------------------|
| | 1 “Proactive” | 2 “Reactive” | 3 “Cohesive” | 4 “Adaptive” | 5 “Wait-and-See” |
| Tight cultural orientation | | ⊗ | ● | | ● |
| Political centralization | ● | | ⊗ | | |
| State implementation capacity | | | ● | | ⊗ |
| Risk of healthcare capacity being overwhelmed | ⊗ | ● | | ⊗ | |
| WHO declaration of PHEIC | ● | ● | ● | ⊗ | ⊗ |
| Consistency | 0.89 | 0.86 | 0.86 | 0.91 | 0.84 |
| Raw coverage | 0.39 | 0.43 | 0.30 | 0.40 | 0.21 |
| Unique coverage | 0.11 | 0.12 | 0.07 | 0.20 | 0.01 |
| Countries | Ukraine, Israel | Estonia, Spain, Netherlands, Australia, Belgium, Brazil, Hungary | Germany, Portugal, Iceland, South Korea | France, Japan, Singapore, China | India, Italy |
| Overall solution consistency | | 0.86 | | | 0.89 |
| Overall solution coverage | | 0.71 | | | 0.41 |

● Core condition; ● Peripheral condition; ⊗ Absence of core condition; ⊗ Absence of peripheral condition; Blank space indicates a “does not matter” situation.

represents its absence/the opposite (loose culture, political decentralization, weak state implementation capacity, low risk of healthcare capacity being overwhelmed, or before the WHO declaration), and a blank space indicates a “doesn’t matter” situation, meaning that a given condition is not causally related to the outcome. Larger symbols indicate that the condition is core to a given configuration, while smaller symbols indicate a peripheral role.

We include measures of consistency and coverage for each configuration and for the solution as a whole. Coverage assesses the degree to which instances of the outcome of interest are accounted for by a given path and by the solution as a whole. Somewhat

analogous to the way explained variance is partitioned in multiple regression, coverage can be further divided into “raw” and “unique” portions. Unique coverage explains memberships in the outcome not covered by other configurations (Ragin et al. 2006). No minimum level of coverage is required in QCA analyses.

Discussion

We discuss our findings by characterizing the five pathways as “Proactive”, “Reactive”, “Cohesive”, “Adaptive”, and “Wait-and-See”, respectively.

Pathway 1: “Proactive”

The first pathway to a more stringent first-response policy involves a supplementary configuration where the two core conditions of political centralization and taking action after the WHO declaration of PHEIC work together to compensate for the negative impact of the core condition of a low risk of healthcare capacity being overwhelmed. The two countries that took this pathway are Ukraine and Israel, adopting a “proactive” first response. Even though the risk of their healthcare capacity being overwhelmed was low, they were attentive to the WHO warning and took action. Their highly centralized political systems further enabled them to adopt more stringent first-response policies.

As a politically centralized country, Israel implemented a mix of stringent measures even though the risk of endangering healthcare capacity was low at the initial stage, such as banning entry into the country and a 14-day quarantine regulation after the WHO’s declaration (Maor et al. 2020). The Israeli government was more proactive than the governments of many other countries.

Pathway 2: “Reactive”

As many as seven countries – Estonia, Spain, Netherlands, Australia, Belgium, Brazil, and Hungary – are included in the second configuration. This pathway also demonstrates a supplementary logic where a joint positive effect of a high risk of healthcare capacity being overwhelmed and early actions after the WHO pandemic declaration offsets a negative effect of a loose culture. Heeding the WHO announcement, they acted in a “reactive” way to implement a more stringent first-response policy mix. This reaction primarily resulted from a greater concern about the possibility of public noncompliance due to a loose culture and a high risk of overstretching healthcare capacity.

Australia, for example, was worried about its citizens’ noncompliance with quarantine orders because of a loose culture (Murphy et al. 2020). Facing the risk of healthcare capacity being overwhelmed after the WHO issued its COVID-19 warning, the Australian government adopted strict first-response measures to restrict international travel on February 1, 2020.

Pathway 3: “Cohesive”

Germany, Portugal, Iceland, and South Korea are the four countries that took the third pathway to introducing more stringent first-response policies. This pathway involves a

combination of four core conditions, representing a supplementary logic in that tight cultural orientation, strong state implementation capacity, and responding after the WHO warning jointly overcame the negative effect of political decentralization. Each of these countries paid serious attention to the WHO warning, even though they did not have highly centralized risk management procedures and structures. They appeared to be confident in their citizens' willingness to comply with more stringent coronavirus guidelines due to the "cohesiveness" of their societies as well as their strong implementation capacities.

Although a decentralized country, Germany has a strong state implementation capacity (Bouckaert et al. 2020). On March 11, 2020, German Chancellor Angela Merkel announced that drastic steps were required to slow the spread of the pandemic. The country's relatively tight culture also means its citizens are able to follow tough rules (Bacouel-Jentjens and Brandl 2015). Germany, one of the most successful countries in combating COVID-19, acted more forcefully than many countries in adopting tough measures after the WHO declared PHEIC, including deploying massive resources into test and trace programs.

Pathway 4: "Adaptive"

The "adaptive" pathway to the adoption of less stringent first-response policies has involved a complementary logic: a low risk of healthcare capacity being overwhelmed as a peripheral condition and the absence of the WHO declaration functioned as core conditions reinforcing each other in a negative manner. The countries that took this pathway included France, Japan, Singapore, and China. Their mild first response took place prior to the WHO declaration. In addition, their capacity to deliver healthcare was not threatened in the early stages of the pandemic. Overall, their response to the evolving pandemic was "adaptive".

Prior to the WHO warning, the low number of confirmed cases made the risk of healthcare capacity in Singapore controllable at the initial stage (Chew et al. 2020). On January 2, Singapore began to adapt its response step by step in order to mitigate the threat of COVID-19 transmission, including alerting all medical practitioners, carrying out temperature screening, contact tracing, and enforcing strict isolation and quarantine regulations.

Pathway 5: "Wait-and-see"

India and Italy were two countries that adopted a different kind of less stringent first-response policy, this was conditioned, in a peripheral way, by tight culture and weak state implementation capacity and, in a core way, by having been implemented prior to the WHO's declaration of a pandemic. This pathway also demonstrates a supplementary logic but in a different way: the absence of the WHO warning, compounded by weak implementation capacity, constrained the positive effect of a tight culture. These two countries appear to have been ambivalent about adopting a more stringent response. On the one hand, a tight culture may facilitate citizens' compliance; but, on the other hand, weak implementation capacity may compromise its enforcement. The absence of the WHO warning further reinforced their "wait-and-see" approach.

Italy, for example, as the first epicenter of COVID-19 in Europe, without the warning from the WHO, responded slowly to the fast-moving crisis in the early stages. Although Italians with a tight culture demonstrated high compliance with strict quarantine guidelines adopted late (Balsamo and Carlucci 2020), the Italian government has been widely criticized for its initial response to the pandemic due to its weak state implementation capacity (Mascio et al. 2020; Pisano et al. 2020). It took the country three weeks to move from a stay-at-home regulation, instituted following the first confirmed case of the virus, to an imposed ban, and it took five weeks to move to a position where they were able to fully implement a lockdown.

Conclusion

This study reveals the combinatorial complexities of COVID-19 first responses across different countries. Four of the five pathways involve combinations of cultural and institutional factors. The results reaffirm the notion that initial policymaking during a crisis in any country is path-dependent on its cultural and institutional context. The results also underscore that the combinations of factors are asymmetric across both “more” and “less” configurations and are not simply each other’s mirror opposites.

Two lessons can be drawn from our study. First, our configurational analyses unveil a more nuanced path dependent on culture and institutions. Countries can take multiple routes to both more and less stringent first-response policies, and a one-size-fits-all COVID-19 first-response policy does not exist. Decision-makers should adopt a holistic approach to formulating response policies to tackle future public health challenges, taking into account different configurations of cultural, institutional, as well as pandemic contingencies. For example, a high pandemic risk and the WHO’s warning can interplay to compensate for a negative effect of a loose culture on the stringency of responses.

Second, despite the controversies surrounding the WHO’s role in the pandemic, this finding highlights the critical role that the WHO’s early warning played in shaping national governments’ first responses to COVID-19. Taking a close look at these five pathways followed by different countries, it is clear that the countries that adopted more stringent first-response policies in relation to the pandemic all did so after the warning from the WHO, whereas those countries that adopted less stringent first-response policies did so prior to the WHO’s warning. The WHO’s warning even prompted countries with either a low pandemic risk or a loose culture to treat COVID-19 seriously, whereas countries with a tight culture took a “wait-and-see” approach without the WHO’s warning. The WHO should not be weakened, but strengthened.

This study serves as a steppingstone to a configurational probe into comparative analysis of COVID-19 response policies. The findings of this exploratory study are only valid for the first responses of 31 countries due to data availability. Future research should include more countries and examine how culture and other factors interact to affect the evolving pandemic responses over time. More in-depth qualitative within-case analyses will also enrich our understanding of complex mechanisms involved in crisis policymaking across different countries.

Notes

1. We ran the QCA analysis with updated data up to October 2020. The results show that the “Max” response (0.58) did not meet the minimum solution consistency threshold of 0.75.
2. World Bank, 2020, Hospital beds (per 1,000 people). In Environment, Social and Governance Data.

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