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Collaborative comparisons: A pragmatist approach towards designing large-scale, comparative qualitative research

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ABSTRACT

This article draws lessons for organizing and designing large-scale qualitative comparative research in turbulent, rapidly evolving, real-world settings. The challenge to the researcher is that such studies need to meet conflicting requirements of rigor, relevance, and responsiveness. Recognizing that in such settings scientific research cannot be insulated from its environment, the article discusses a pragmatist approach to comparative research design. Using the case of the SolPan project (Solidarity in Times of a Pandemic), a large-scale and longitudinal qualitative comparative study of people's experiences during the Covid pandemic, the article presents basic principles of pragmatist research design, such as problem-orientation, design-in-action, and the use of a plurality of evidence. It then argues that interpretation is at the heart of all comparison, and that large-scale qualitative comparative research combines the detailed contextual richness of interpretive explanation, the systematicity, robustness and transparency of large-N comparative analysis, and the flexibility of emergent design. We describe the design and methodology of SolPan and illustrate this with an empirical example. First, we argue that research design and project organization are continuous and reframe comparative research design as generative organization. Second, we describe the use of computer-assisted qualitative data analysis software to assist in analysing large amounts of interview data. In the final section we describe some of the limitations of this large-scale qualitative comparative research.

1. Introduction: large-scale qualitative research in uncertain times

This article describes a multi-country, large N, comparative qualitative research (LSQCR) study of the everyday experiences of residents in nine European countries during the Covid-19 pandemic.[1] The study was set up in March 2020 when most countries in Europe were introducing lockdown-type measures to prevent and limit the spread of the SARS-COV-2 virus. We employed a cross-national comparative longitudinal design that provides insights on pandemic response by conducting qualitative interviews in (initially) nine European countries: Austria, Belgium, France, Germany, Ireland, Italy, the Netherlands, Switzerland (German speaking regions), and the United Kingdom. The aim was to gain insights into (1) new practices in which people engage (e.g. novel uses of technology to communicate, work, or to protect others and themselves), (2) the motivations, perceptions and values that underpin people's actions, and (3) how people's actions contribute to or detract from notions of solidarity, given the widespread references to the need for solidarity in government messages.

In this paper, we do not report the substantive findings of the study but draw lessons for organizing and designing large-scale qualitative research in turbulent, rapidly evolving real-world settings (Ansell & Trondal, 2018).[2] The starting point for this article is four issues that usually remain in the background of social science research on politically or socially salient problems. Rather than being irrelevant background noise to the 'real' business of running a large research project, these

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[1] In May 2021, Portugal joined the consortium as a tenth European member. In this paper we report on the nine-country phase of the project.

[2] For publications reporting the substantive findings of SolPan, see among others Fiske et al. (2022) Paul et al. (2021) or Marelli, Kieslich, and Geiger (2022).

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issues represent the inevitable political, economic and social environment in which research and its outcomes function. Scientific research cannot be insulated from this environment. The dynamic interactional field of actors and objects that constitutes the scientist's environment has an agency of its own in how it understands, absorbs and 'talks back' to the project's objectives and results.[3]

The issues that shaped our own study are as follows. First, the circumstances shaping the lives of research participants always also affect the lives of those who study (with) them. This is particularly salient in a crisis. The significance of this for research design is twofold. It shapes the research question, in the way, as pragmatists tend to say, a 'situation' shapes the awareness of a problem (We will return to this in Section 3.). But also, we can choose to ignore the dynamic impact of the environment on the research project and consider it unproblematic background, only at our own peril. The standard practice of controlling for unforeseen and unforeseeable factors and developments will impair our ability to interpret our findings. One well-known manifestation of this is the external validity problem in randomized controlled trials. That is, while the study might provide strong warrant for its results (internal validity) the results don't travel well to other contexts (Cartwright & Hardie, 2012, 45-49). Instead, we formulated a research question and chose a research design that acknowledged the fundamental continuity between the research and its context (As we explain in section 4.).

Second, and related, the setting of the study, a situation of acute crisis, pushed normally dormant epistemological issues to the surface of designing and doing a large qualitative research project. The researchers were acutely aware that they had to navigate key epistemological tensions between rigor, relevance and timeliness. Third, the study raised trenchant questions about the capacity of institutionalized academic settings to react speedily to urgent societal needs for reliable and relevant social science research. Fourth, the organization of a large multi-country qualitative study requires careful thinking about ownership and agency of research tools and data, issues that question the established academic hierarchy.

These four - tightly related - issues influenced and characterized our research design from the start. To use an analogy, the organization of the SolPan project bore similarities to the landmark *Centre Pompidou* in Paris, the first building to have all its innards, such as water, air-conditioning and electricity ducts, as well as elevators and escalators placed on the outside of the building. This article is a reflection on how we addressed these four issues as they evinced on the interface of research design, epistemology, and project organization, on the one hand and the wider political, administrative and academic context in which the project evolved on the other. We also attempt to draw lessons from the way we addressed these issues. In brief, we dealt with them by:

- Making sure that the project's design was flexible and allowed for rapid adjustment to the uncertainty that resulted from the unfolding pandemic and the reaction of the government and the public to the pandemic. Concretely, we reframed research design as *generative organization.*
- Grounding our research in pragmatist philosophy. *Pragmatism* puts the traditional relationship between knowledge and action, and science and policy on its head, privileging action, based on the best available evidence on the issue at hand, knowing full well that this is fallible and provisional, involving stakeholders in setting problem questions, and providing and testing evidence in real world settings (Cook & Wagenaar, 2012; Wagenaar, 2022).
- By keeping our eye on the practical starting point of the project. The sense of volatility and uncertainty that had enveloped societies worldwide confronted us with an urgent need for timely, useful interventions. Thus, we always aimed at bringing out the *practical lessons* that our data and our conceptualizations of them contained, to be able to communicate the meaning that contested issues such as mask wearing or attitudes towards vaccination had for policy makers and the public (Greenhalgh & Engebretsen, 2022).
- Organizing the project as *research commons* in which all participants owned all elements of the project (Bollier & Helfrich, 2019).[4]

The paper is structured as follows: To give the reader an idea of the substance of our work, we begin with an example of how we used the large data set to answer a concrete question (Section 3). We then continue to explain the philosophical and theoretical underpinnings of the project. Foregrounding the originating situation of the project, and how it shaped its design and methodology, provides an opportunity to describe our pragmatist approach to research design (Section 4). Pragmatist research design does not necessarily predispose to qualitative research, but we argue that it is particularly suitable for the kind of flexible, rapid-response research into urgent and confusing situations that the project team faced. Drawing on pragmatist reasoning, we argue that interpretation forms the beating heart of all comparison, and that it fuels the recognition and formulation of the problems that become the topic of our research (Section 5). In section 6 we describe how these principles translate into the design and methods of a large-scale, cross-country qualitative research project. In the final section we draw conclusions about the promises and limitations of large-scale qualitative research in practical settings.

This article contributes to the literature on qualitative international comparative research in two ways. First, it makes an epistemological argument by arguing for pragmatist and interpretive research design as an effective strategy for bridging discordant goals of reliability, relevance and flexibility. Second, it presents large-scale, qualitative computer assisted qualitative data analysis software (CAQDAS)-assisted comparative research, and its interpretive logic, as a workable solution to these fundamental challenges in comparative research. Our article reframes comparative methodology as flexible, adaptive, generative organisation, creating a better fit between on the one hand the dynamic, evolving nature of real-world situations that are simultaneously the subject and the environment of research and on the other the requirements of research design.

2. Example: technology-assisted tracking and contact tracing

SolPan is a rapid response, large-scale, multi-country, qualitative comparative study (LSQCR). Data analysis is organized by computer-assisted qualitative data analysis software (CAQDAS) To ground the theoretical discussion to follow in concrete experience, we illustrate the analytical procedure of SolPan in practice. One of the first topics the team agreed to analyse in a comparative way was participants' views of technology-assisted contact tracing (Lucivero et al., 2021). In March 2020, while many countries in Europe were experiencing lockdown measures to prevent the spread of the Covid-19 virus, technology developers and policy makers began exploring the possibility of deploying digital tools to contain the pandemic. The significance of the research question derives from the widespread perception that, in contrast to more authoritarian regimes in South-East Asia, European countries, relied on containment measures whose effectiveness depended upon social acceptability and the voluntary compliance of the public. In hindsight,

[3] This is a big claim. We would stray too far from the goals of this article if we were to substantiate it fully. Suffice to say that it is a generally accepted insight in science and technology studies (Pickering 1995), actor network theory (Latour 2007) and complexity theory (Gerrits 2012). Agency is a somewhat pluriform concept but we want to express that we can't take our environment for granted as a stable background to our actions, and that instead its human, social and material elements react to our actions in ways that not wholly within our control. This is the famous 'backtalk 'of pragmatist theory (Schön & Rein, 1994).

[4] We expand on this point in a different paper submitted to this journal (Zimmermann et al., 2022).

contract tracing contained many of the concerns about privacy, freedom, compulsory versus voluntary measures, and the intrusion of the state in private life that would come to dominate the debate about the role of government in the pandemic in the years to come.

While the ethics of contact tracing elicited widespread theoretical debate (for example, see Lucivero et al., 2021), little empirical evidence of people's views and understandings on this issue was available at the time. Quantitative studies (for example see University of Amsterdam, 2020) provide only limited insights on people's take-up of digital contact-tracing apps because their reasons for using these apps (or not), and the underlying motivations and values for their decision-making, are difficult to capture with multiple choice questionnaires. For these reasons, we favoured a qualitative approach that started by exploring the views, expectations, and normative stances articulated by publics and citizens.

In the first round of interviews, in April 2020 (T1), we invited our respondents to reflect on the (potential or actual) use of tracing technologies, what such a technology could or should accomplish, and on how these could change social relations within society and towards government. While at the time of the interview contact tracing apps were hotly debated in some countries, in others they hardly featured in the media yet. This was also reflected in the interviews. In total, the topic of digital contact tracing arose in 282 out of 349 T1 interviews. Moreover, the wording of questions and answers about tracing and tracking apps was not consistent across all interviews. However, we consider this an advantage in the sense that in this manner the language was more organically situated in national or local contexts rather than being imposed from the outside.

Analysis proceeded in a two-pronged manner. The researchers first prepared an overview of country-specific policies and the trajectory of development of the respective apps. They wrote this based on document-based research into national public discourse and policy on tracing apps. Second, the team analysed the interview transcripts, using Atlas.ti, coded all relevant text passages and related sub-codes including ethical and feasibility concerns towards the app. After this each country team analysed empirical data in the language of origin. They then shared memos in English summarising the most important themes and insights. This facilitated a discussion of emerging patterns and themes among and across country teams and discussed the results of the emerging themes from all country teams in weekly to biweekly meetings. In a next step, each country team filled in and translated the respective quotes for the emerging themes in a joint table. From there, the main authors conceptualised the emerging themes into five categories: concerned aversion, distrust of feasibility, pondered deliberation, resignation, and support. The example demonstrates the dialectic, iterative nature of qualitative analysis in LSQCR; discussing emerging patterns and themes based on reports, but also going back to the data and test to what extent they hold true.

3. Pragmatist research design: designing rapid-response, large-scale comparative qualitative research

Early March 2020, a few weeks into what was rapidly shaping up as a global public health crisis, one of us was asked by an international funding body whether she would be willing to design a research project on solidarity in times of pandemic. The agency wondered if solidarity would increase or decrease in the pandemic and what forms it would take. Using her international connections, she designed a three-country qualitative comparative study of people's experiences with the pandemic and their practices of coping. The solidarity framework of SolPan would inform data analysis (Prainsack & Buyx, 2017).

Contrary to expectations, the application was rejected.[5] Members of the agency's decision-making board did not see the value of qualitative research and were unwilling to fund it.[6] As the project was 'oven ready' (even ethics approval had been secured from the PI's university) the team decided to start the project without funding. An important reason for this decision was a strong feeling shared by all initial members of the project that, as researchers during a crisis, we could not just go on with our usual work but had to contribute to a better understanding of what was going on around us. Especially in the first weeks and months of the COVID-19 pandemic, when almost everyone's routines were disrupted and there was an almost palpable sense of panic in the air, this shaped our study design and our way of working in profound ways. Even if funders did not believe in this project, we were convinced – both in a scientific and in a moral way – of the importance of a qualitative understanding of people's experiences in this crisis.[7] The initial expectation was, to capitalise on the interruption of our own work routines during the first lockdown, to do one wave of interviews, and produce a report within five months.

Before we continue our description of the progress and design changes of our project, let us unpack the setting of the study and how it informed its initial design. First, the pandemic had installed an acute sense of crisis among policy makers. A crisis is defined by threat to life, core values and institutions, uncertainty about the nature and extent of the threat as well as its consequences, and urgency, the threat must be dealt with immediately (Boin et al., 2016). Policy makers were compelled to react to the rapid distribution of a deadly virus throughout the population without much knowledge about the efficacy of and support for their measures. They were desperate for quick knowledge that could guide their measures. Although it was not an 'applied' study commissioned by a government body to inform its decision-making, from the start, the study was nevertheless drawn into a matrix of administrative action and public debate about the politics of crisis management.

Second, comparative social science research is afflicted by the "too many variables-too few cases" problem (Goggin, 1986). The traditional response to the trade-off between cases and variables in (international) comparative research consists of careful research design that controls for unknown variables. Extending principles of causal analysis formulated in the 19th century by John Stuart Mill, this has spawned two major comparative research designs that figure in all textbooks. In the Most Similar Systems Design (MSSD) units of analysis are selected to control for factors that are thought to be similar to bring into relief factors that are different. The Most Different Systems Design (MDSD) samples for difference to distil the factors that are similar across these different units (Landman, 2008: 32). These comparative designs have resulted in countless studies which aim to isolate one or more independent variables that purportedly cause some designated dependent variables. Great care goes into the operationalization and measurement of the variables and the estimation of their statistical association. When done well, such quantitative comparative studies yield enduring insights in for example the characteristics of a regional group of countries and such dependent variables as the emergence of representative democracy, welfare states, or guerrilla warfare (Landman, 2008, 69-75).

However, the crisis situation in which the SolPan study originated required adaptation to a rapidly changing emergency situation. Given the need for timely research that speaks to the situation at hand, the team opted for a large-scale, qualitative comparative study. As is well known, qualitative research represents *idiographic* 'understanding': the explanation of puzzling phenomena by situating them in their specific context (Wagenaar, 2011). This explanatory logic suggests the method of choice in much qualitative research: self-reports, or qualitative interviews/focus groups. Compiling actors' rationales is a strong research strategy to

[5] The Austrian team wrote a grant proposal which was unsuccessful in Austria and shared with all other country teams. Adjusted versions of this proposal led to successful funding applications in some SolPan partner countries.

[6] The same researcher also became a senior researcher on a quantitative panel study of attitudes towards different aspects of the Corona crisis in her country of residence. In her publications and media appearances she fruitfully used results from both projects.

[7] We are grateful to reviewer 1 who pushed us to better articulate why we chose to continue the project after our proposal had been rejected.

reconstruct processes or explain why policies succeed or fail, for example, usually because actors interpret a policy according to a logic that makes sense within their own life context.

By preserving the dynamic jumble of variables in both its research design and its explanatory logic, qualitative research lacks the logical elegance – although not necessarily the rigor - of quantitative design. Because its conclusions have an obvious plausibility in that they convincingly explain, interpretively and narratively, everyday situations, it provides a persuasive answer to the 'too many variables/too few cases' conundrum. However, qualitative research must address a fundamental epistemological challenge: How to arrive at convincing explanations that are plausibly informed by recognizable, concrete settings, yet have a more general reach.

These fundamental challenges are currently taking place against the backdrop of a changing sociology of research. The political economy of the contemporary university increasingly favours large, externally funded, multimillion-dollar consortia of researchers that often span several countries. Such large-scale research consortia produce very large data sets. This is less of a problem with quantitative than with qualitative data. Obviously, the injunction of fine-grained inductive qualitative data analysis with its painstaking and laborious initial coding (Charmaz 2014) is not feasible with a data set that comprises hundreds of interviews. The solution is to use CAQDAS. CAQDAS has introduced new possibilities of analysis and research design, putting the logic of Grounded Theory on a new footing.

By mid-March 2020 a time-limited, three-country, comparative qualitative study into the experiences of people with the pandemic, organized on a voluntary basis, was set to go. But then, alerted by their colleagues, a number of researchers from other countries contacted the PI and asked if they could join the study. Before April 1, the agreed starting date of interviewing, SolPan had grown from a 3- to a 9-country study. The research team had expanded to 38 researchers, from all levels of experience, and including political scientists, philosophers, public health experts, anthropologists, and ethicists, plus a wide range of expertise in qualitative data collection and analysis. The expanded study put different demands on project organization, particularly as the project team quickly expressed the desire to turn the study into a longitudinal study. But before we turn to project design and organization, we need to discuss the philosophical foundations of the project.

The real-world context of the study and its emergent character as a comparative study of and in a crisis cannot be seen apart. While textbook international comparative research is designed *ex ante*, standing apart from the situation at hand, SolPan took a relational approach where context, design and execution were interwoven. This was not a second-best strategy of a project team that was under pressure to start a research study as quickly as possible, but a deliberate forward-looking, *pragmatic* design strategy. As we explain below, we use 'pragmatic' in the dual sense of 'practically oriented' and 'pragmatist'. Initially the organizers were swept up in the arduous, nitty gritty task of organizing a multi-country research project based on voluntary labour in record time. When we had time to reflect on what we had been doing we became aware of the pragmatist nature of the project's organization.

Pragmatism has been discussed in public administration, planning, policy analysis, and most recently public health (Ansell 2011; Greenhalgh & Engebretsen, 2022; Healey, 2009; West et al., 2019). Not accidentally, these are all disciplines that operate on the interface of research and practice, where the watershed between inquiry on the hand and acting on the situation at hand has been profoundly challenged. Despite pragmatism's long history in philosophy and in the social sciences, it has a harder time to be accepted, both in institutionalized research as in administrative circles. Let us begin with a quick characterisation of pragmatism's main principles as they guided the SolPan team through the design of the project:

- Pragmatism emphasizes that "meaning is discovered through action, not in timeless foundations prior to action" (Ansell 2011, p. 11). In pragmatism the knowledge-action dualism is transcended; action is not the application of knowledge but instead knowledge derives from acting on the situation at hand and reflecting on the 'backtalk' of one's actions (Cook & Wagenaar, 2012).
- In Pragmatist philosophy, experience is central. Experience in the flow of everyday life provides the foundation for the criteria of practical judgement that guides acting and thinking (Healey, 2009). A number of important considerations converge in this statement. Pragmatist epistemology is practical and cooperative; it understands knowledge as the product of joint work in the course of understanding and creating solutions to concrete problems in real-world situations instead of the definitive outcome of theoretical reflection (Hildebrand 2008, p. 51).
- Pragmatists put problem formulation in indeterminate situations and practical judgement in the centre of inquiry. This draws out two more interrelated aspects of knowledge acquisition and problem resolution. First, problem-setting and practical judgement require "the full range of human capacities, material, moral, and aesthetic" (Healey, 2009, 287). Problem setting is the process whereby actors transform an indeterminate situation into *how* it is a problem that suggests a possible solution (Hildebrand 2008, p. 54). Second, this process, requires intense cooperation through deliberation. The matrix organization of the SolPan project, for example (see Section 4), was suggested, and then decided for, in concentrated, focused discussions among all the 38 members of the expanded, 9-country project team of how to manage such a large, dispersed group of researchers. Clearly, everyone in the team had direct experience of being part of such a large group, experience that guided the judgement of each member and the group as whole. Pragmatists tend to process of working together as being guided by a "problem-solving perspective" (Ansell 2011, p. 11) Participants in such a cooperative, deliberative process op inquiry are aware that their conclusions are always provisional.
- Pragmatists reject the epistemological hierarchies that privilege certain discipline-approved methods protocols, banish value exploration from inquiry, and deny authority to the experiential knowledge of stakeholders (Greenhalgh & Engebretsen, 2022). Instead, they emphasize the importance of a systemic and pluralistic approach to evidence. Problem setting and problem solving are part of a unified process of inquiry. Pragmatists prefer to use the term 'inquiry' over 'research' to express the practical, full-spectrum, interactive process of coming to an understanding and arriving at a suitable course of action. Although there is an improvisational element to it and might look messy from the outside, its systemic character means that it is has a holistic quality, moving from parts to wholes and back. The systemic, interactive quality of pragmatist inquiry gives it a critical edge, challenging accepted frames by allowing new ideas, evidence and perspectives into the analytic process (Schön & Rein, 1994). Moreover, the systemic nature of inquiry ensures that it is never merely the search for an instrumental solution to a clearly demarcated problem but a synthetic exploration of larger set of values. Ansell speaks of "the ongoing reconstruction and integration of knowledge" as part of a process of "evolutionary learning" (2011, 13-14).

As we said above, we did not set out to design a large international comparative qualitative research project according to a pragmatist blueprint. When we speak of the project as emergent, we mean that the particular pressures of the starting situation reshuffled the usual configuration of research design. What was 'signal' (traditional precepts of comparative methodology) and 'noise' (a large, dispersed, multidisciplinary research group, an unfolding public health crisis, high uncertainty among policy makers and researchers alike, intense interest from the media) was turned on its head. Our response was a practice-based approach to research design; design-in-practice (Kimbell, 2015). In design-in-practice actors reconfigure objects, ideas, processes and understandings by acting on the situation at hand (ibid). In the case of our project, this meant that in a series of intense interactions through an online platform the team tried to come up with a research design that

promised knowledge that was both reliable and societally relevant, and that remained responsive to a complex, evolving political and public health crisis, that also impacted academic institutions. This, in turn, created unexpected opportunities. For example, while the theorists in the group kept the research focused on different conceptualisations of solidarity, the experienced qualitative analysts made sure that the data collection was focused on people's everyday experiences (and not on their opinions) and the CAQDAS experts ascertained that whatever data we collected could be entered into one of the available analysis programs. This configuration of people and expertise constituted a powerful 'backtalk' machine. Ideas and suggestions were immediately confronted with the diverse experiences of members with one or another aspect of large-scale qualitative research and were vetted, modified or abandoned.

Over the course of a number of meetings a design emerged that had the following characteristics. First, we used the logic of interpretive explanation to enhance the power of international comparison. Second, as we expected to collect around 30 one-to two-hour interviews per country (multiplied by three collection waves), we needed CAQDAS in assisting such large-scale qualitative data analysis. This is an excellent example of the powers of design-in-practice. Initially we had limited awareness that CAQDAS allowed for precisely the kind of flexible pursuit of emerging research questions that was one of the goals of the project. Also, we didn't know at the start of April 2020 that we would add two more rounds of interviewing bringing the total number of interviews to 807. Finally, given that every team member had volunteered to participate, the initiators felt that members should get something in return for their time and effort. They decided that the project would be organized as a research commons in which each member owned every aspect of the project (interviews, coding schemes, results, ideas for publications), and decision-making was horizontal and deliberative.

4. The interpretive logic of cross-country comparison

As we said, a pragmatist approach to research design does not necessarily predisposes one to qualitative research. However, by taking seriously the pragmatist premise that we as researchers are as much part of the situation we study as the people who live in that situation (as we explained in the Introduction), it becomes disingenuous to pretend that we can conduct our research from "a position external to the social realities being studied" (Yanow, 2014). In this section we explain why qualitative research is commensurate with our desire to a useable and flexible international comparative study of people's experiences with the Covid pandemic. We understand qualitative research as a form of interpretive analysis (Wagenaar, 2011, p. 71 ff), in which we think of interpretation in a straightforward hermeneutic way as understanding the meaning of an action or phenomenon by situating it in a specific context.

The attraction of comparative studies is the intrinsic promise that comparison holds, the ability to learn something about a phenomenon by examining contrasting cases or situating the phenomenon in a different social, cultural, or economic context (for example see Sartori, 1991; Nelken, 2010; Ragin, 2014). Having acknowledged this desire for wanting to learn something through a comparative lens, surprisingly few studies are explicit about how comparative insights are actually drawn. The strong nomothetic epistemological presumptions in much comparative social science research prevent us from recognizing that it is in fact not entirely clear what it is that we do when we compare. As the legal scholar David Nelken argues, the comparative literature offers 'little insight … in what is involved in making comparisons' (Nelken, 2010, p. 5), and in the continuation of this sentence he frames this shortcoming as the difficulty of understanding other cultures, languages and ways of life.

Whether explicitly or tacitly, all comparison rests on interpretation. While in quantitative comparison interpretation functions more as a tacit condition of possibility throughout the research process, in qualitative comparative research, interpretation is explicit. The aim of interpretive *explanation* is to establish plausible connections between intention and action, where plausibility is established in relation to a particular cultural context (Bruner, 1986, p. 13; Von Wright, 1971, p. 88)). The explanation that holds for one particular culture is often different for another. Thus, considering the phenomenon at hand within different cultures gives us a broader, more inclusive, and more general, understanding of it.

Comparison broadens the range of meanings that undergird an explanation. It adds another perspective, a new point of view, to our taken-for-granted patterns of meaning. This either helps to deepen our understanding of familiar meanings or, instead, grasp why certain meanings can be so different between contexts, settings, or – as in our case - between countries. Comparison, thus, becomes a vehicle for enhanced reflexivity, of looking beyond our horizon of habits and presumptions in order to understand and explain what we investigate. Equally important, comparison denaturalizes the obvious. It creates surprise against a background of what we recognize and take for granted. In this way, and often implicitly, comparison underlies many research endeavours in different fields. Without (implicit) comparisons across time, space, or groups there wouldn't be a problem to research nor the necessary anchor points that put current observations into perspective.

Reflecting on the methodological complexities and challenges of cross-national comparisons, Sanders (1994) argues that most cross-national comparisons are flawed. This is because researchers assume similarities and differences in cases, prior to investigating if their assumptions withstand the test of empirical observation. For example, cross-national studies conducted at the individual level – that is surveys to examine people's behaviours and attitudes on different issues – take for granted linguistic similarity; that is that people in different countries attach similar meanings to certain concepts used to describe or examine such broad domains as welfare services, education, labour, and economic forces (Sartori 1970; Sanders, 1994, p. 515). At the aggregate level, the pitfalls of conducting rigorous comparisons are no less challenging. Here, Sanders points to the danger of identifying correlations as meaningful when they are, in fact, spurious. The message for comparative researchers is that transferability to concepts and words between cultures and countries cannot be taken for granted and presents a research puzzle in its own right. Sanders concludes that: 'Comparative research is most likely to yield theoretically and substantively rich results when it is accompanied by an informed understanding of the specificities and particularities of the regions or nations that are being compared' (Sanders, 1994, p. 520. See also Yanow, 2014, p. 150). This is done by working collaboratively with researchers from other countries who know 'their' countries best, a message that we can only echo from our own experiences. In addition to helping us to understand the variation of practices, meanings, and technologies that 'make up' a specific concept across different contexts and settings, comparative research helps us to improve our conceptualizations. Differently put, we argue that interpretation is at the heart of *every* form of comparative research.

This brief excursion into the logic of comparison serves to further articulate the methodological contribution of our project. In designing a rapid response study of an urgent, confusing 'situation' (in a pragmatist sense), qualitative comparative research combines the detailed contextual richness of interpretive explanation, the systematicity and robustness of large-N comparative analysis, and the flexibility of emergent design. The SolPan project, as an example of large scale qualitative comparative research, selects people's practices within their cultural contexts across countries as the object of comparative analysis and not a country's outcome on a particular variable of interest such as economic performance or democratic quality. In this way it organizes the research process directly around the core element of the comparative process: the analysis of the meaning of similarities and differences by situating them within their relevant context.

In the remainder of this article, we focus on the methodological and organizational challenges that we have encountered in setting up and carrying out LSQCR. We outline the methodological steps and processes that were put in place to address these challenges and to ensure comparability of the findings.

Total Interviews per round:	80			72			46			49			43			40			31			25			27			35			30			22			21			33			29			24			24			36			22			32			29			32			25		
Category[3]	Numbers AT - T1	% T1	T2	%T2	T3	%T3	Numbers DE - T1	%T1	T2[1]	%T2[1]	T3[1]	%T3[1]	Numbers CH - T1	%T1	T2[1]	%T2[1]	T3[1]	%T3[1]	Numbers UK - T1	%T1	T2	%T2	Numbers FR - T1	%T1	T2	%T2	Numbers IT - T1	%T1	T2	%T2	T3	%T3	T4	%T4	Numbers BE - T1	%T1	T2	%T2	Numbers NL - T1	%T1	T2	%T2	Numbers IE - T1	%T1	T2	%T2
Age																																																																						
18-30	14	17,50	13	18,06	5	10,87	12	24,49	7	16,28	8	20,00	8	25,81	5	20,00	5	18,52	6	17,14	3	10,00	3	13,64	3	14,29	3	9,09	3	10,34	3	12,50	1	4,17	16	44,44	10	45,45	8	25,00	7	24,14	5	15,63	1	4,00
31-45	16	20,00	15	20,83	8	17,39	19	38,78	18	41,86	16	40,00	6	19,35	5	20,00	6	22,22	11	31,43	10	33,33	8	36,36	7	33,33	15	45,45	11	37,93	9	37,50	10	41,67	6	16,67	4	18,18	4	12,50	4	13,79	13	40,63	12	48,00
46-60	24	30,00	22	30,56	21	45,65	5	10,20	5	11,63	4	10,00	7	22,58	7	28,00	7	25,93	11	31,43	10	33,33	6	27,27	6	28,57	8	24,24	8	27,59	6	25,00	6	25,00	9	25,00	6	27,27	5	15,63	4	13,79	8	25,00	6	24,00
61-70	20	25,00	17	23,61	11	23,91	8	16,33	8	18,60	8	20,00	5	16,13	4	16,00	4	14,81	5	14,29	5	16,67	3	13,64	3	14,29	3	9,09	3	10,34	2	8,33	3	12,50	3	8,33	1	4,55	8	25,00	7	24,14	2	6,25	2	8,00
70+	6	7,50	5	6,94	1	2,17	5	10,20	5	11,63	4	10,00	5	16,13	4	16,00	5	18,52	2	5,71	2	6,67	2	9,09	2	9,52	4	12,12	4	13,79	4	16,67	4	16,67	2	5,56	1	4,55	7	21,88	7	24,14	4	12,50	4	16,00
Gender																																																																				
Female	44	55,00	41	56,94	32	69,57	27	55,10	23	53,49	21	52,50	16	51,61	13	52,00	14	51,85	20	57,14	18	60,00	10	45,45	9	42,86	22	66,67	21	72,41	18	75,00	17	70,83	22	61,11	13	59,09	19	59,38	17	58,62	20	62,50	17	68,00
Male	36	45,00	31	43,06	14	30,43	22	44,90	20	46,51	19	47,50	15	48,39	12	48,00	13	48,15	14	40,00	11	36,67	12	54,55	12	57,14	11	33,33	8	27,59	6	25,00	7	29,17	14	38,89	9	40,91	13	40,63	12	41,38	12	37,50	8	32,00
Other	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	1	2,86	1	3,33	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00
Household																																																																			
Single	20	25,00	19	26,39	13	28,26	15	30,61	13	30,23	13	32,50	8	25,81	6	24,00	7	25,93	4	11,43	4	13,33	6	27,27	5	23,81	7	21,21	6	20,69	4	16,67	5	20,83	4	11,11	2	9,09	7	21,88	7	24,14	9	28,13	6	24,00
Couple	35	43,75	31	43,06	16	34,78	16	32,65	15	34,88	14	35,00	10	32,26	9	36,00	9	33,33	13	37,14	13	43,33	6	27,27	6	28,57	8	24,24	8	27,59	5	20,83	7	29,17	15	41,67	10	45,45	16	50,00	15	51,72	11	34,38	11	44,00
Living with child/children under 12	8	10,00	7	9,72	4	8,70	8	16,33	7	16,28	6	15,00	3	9,68	2	8,00	3	11,11	8	22,86	8	26,67	6	27,27	6	28,57	6	18,18	5	17,24	5	20,83	5	20,83	3	8,33	2	9,09	3	9,38	3	10,34	5	15,63	4	16,00
Living with child/children 12+	11	13,75	10	13,89	9	19,57	4	8,16	4	9,30	3	7,50	5	16,13	5	20,00	5	18,52	4	11,43	3	10,00	2	9,09	2	9,52	5	15,15	4	13,79	4	16,67	3	12,50	12	33,33	7	31,82	3	9,38	2	6,90	6	18,75	4	16,00
other	6	7,50	5	6,94	4	8,70	6	12,24	4	9,30	4	10,00	5	16,13	3	12,00	3	11,11	6	17,14	2	6,67	2	9,09	2	9,52	7	21,21	6	20,69	6	25,00	4	16,67	2	5,56	1	4,55	3	9,38	2	6,90	1	3,13	0	0,00
Rural/urban																																																																		
Big town (e.g. capital, +500k)	43	53,75	38	52,78	25	54,35	25	51,02	22	51,16	22	55,00	10	32,26	10	40,00	5	18,52	5	14,29	5	16,67	7	31,82	7	33,33	14	42,42	12	41,38	11	45,83	10	41,67	6	16,67	4	18,18	7	21,88	6	20,69	17	53,13	12	48,00
Medium/small town	19	23,75	17	23,61	10	21,74	12	24,49	11	25,58	8	20,00	6	19,35	9	36,00	9	33,33	18	51,43	15	50,00	9	40,91	9	42,86	11	33,33	9	31,03	7	29,17	10	41,67	15	41,67	7	31,82	15	46,88	13	44,83	10	31,25	9	36,00
Rural (e.g. village)	18	22,50	17	23,61	11	23,91	12	24,49	10	23,26	10	25,00	15	48,39	13	52,00	13	48,15	12	34,29	10	33,33	6	27,27	5	23,81	8	24,24	8	27,59	6	25,00	4	16,67	15	41,67	11	50,00	10	31,25	10	34,48	5	15,63	4	16,00
Employment status																																																															
Employed (long-term contract)	30	37,50	27	37,50	20	43,48	22	44,90	21	48,84	20	50,00	13	41,94	11	44,00	11	40,74	17	48,57	15	50,00	11	50,00	11	52,38	10	30,30	9	31,03	8	33,33	7	29,17	19	52,78	11	50,00	9	28,13	9	31,03	16	50,00	13	52,00
Self-employed	15	18,75	14	19,44	10	21,74	4	8,16	4	9,30	4	10,00	3	9,68	3	12,00	3	11,11	5	14,29	3	10,00	1	4,55	1	4,76	9	27,27	8	27,59	5	20,83	7	29,17	4	11,11	3	13,64	4	12,50	3	10,34	4	12,50	4	16,00
Employed (short-term/precarious	5	6,25	3	4,17	3	6,52	5	10,20	3	6,98	2	5,00	6	19,35	4	16,00	6	22,22	2	5,71	2	6,67	3	13,64	3	14,29	3	9,09	3	10,34	3	12,50	1	4,17	3	8,33	2	9,09	5	15,63	4	13,79	2	6,25	2	8,00
Unemployed	5	6,25	5	6,94	2	4,35	4	8,16	3	6,98	2	5,00	1	3,23	1	4,00	0	0,00	4	11,43	3	10,00	0	0,00	0	0,00	2	6,06	2	6,90	2	8,33	2	8,33	3	8,33	3	13,64	4	12,50	3	10,34	2	6,25	1	4,00
Retired	19	23,75	17	23,61	9	19,57	10	20,41	10	23,26	10	25,00	7	22,58	6	24,00	7	25,93	5	14,29	5	16,67	4	18,18	4	19,05	3	9,09	3	10,34	3	12,50	3	12,50	5	13,89	2	9,09	10	31,25	10	34,48	4	12,50	4	16,00
other	6	7,50	6	8,33	2	4,35	4	8,16	2	4,65	2	5,00	1	3,23	0	0,00	0	0,00	2	5,71	2	6,67	3	13,64	2	9,52	6	18,18	4	13,79	3	12,50	4	16,67	2	5,56	1	4,55	0	0,00	0	0,00	4	12,50	1	4,00
Education level																																																														
Less than 10 years	8	10,00	7	9,72	3	6,52	3	6,12	2	4,65	2	5,00	10	32,26	7	28,00	9	33,33	2	5,71	2	6,67	2	9,09	2	9,52	2	6,06	2	6,90	2	8,33	2	8,33	1	2,78	0	0,00	3	9,38	2	6,90	2	6,25	2	8,00
10-14 years (e.g. highschool diploma)	27	33,75	23	31,94	11	23,91	17	34,69	14	32,56	12	30,00	3	9,68	2	8,00	3	11,11	10	28,57	6	20,00	6	27,27	6	28,57	17	51,52	16	55,17	15	62,50	12	50,00	10	27,78	7	31,82	13	40,63	11	37,93	3	9,38	2	8,00
Higher education	45	56,25	42	58,33	32	69,57	29	59,18	27	62,79	26	65,00	18	58,06	16	64,00	15	55,56	23	65,71	22	73,33	14	63,64	13	61,90	14	42,42	11	37,93	7	29,17	10	41,67	25	69,44	15	68,18	16	50,00	16	55,17	27	84,38	21	84,00
Household income (prior to Corona), net																																																															
Up to 1,400€(1200GBP)/month	9	11,25	9	12,50	6	13,04	7	14,29	2	4,65	4	10,00	6	19,35	5	20,00	5	18,52	5	14,29	2	6,67	3	13,64	3	14,29	5	15,15	4	13,79	2	8,33	3	12,50	3	8,33	2	9,09	7	21,88	5	17,24	3	9,38	1	4,00
1,401(1201)-3,000€(2600GBP)/month	29	36,25	27	37,50	18	39,13	15	30,61	15	34,88	10	25,00	9	29,03	7	28,00	9	33,33	5	14,29	5	16,67	3	13,64	3	14,29	22	66,67	19	65,52	17	70,83	15	62,50	18	50,00	11	50,00	14	43,75	13	44,83	9	28,13	7	28,00
More than 3,000€(2600GBP)/month	42	52,50	36	50,00	22	47,83	27	55,10	26	60,47	26	65,00	16	51,61	13	52,00	13	48,15	25	71,43	23	76,67	16	72,73	15	71,43	6	18,18	6	20,69	5	20,83	6	25,00	15	41,67	9	40,91	11	34,38	11	37,93	20	62,50	17	68,00
Participation Rate to T1 in %	100		90		58		100		####		81,63		100		80,65		87,10		100		85,71		100		95,45		100		87,88		72,73		72,73		100		61,11		100		90,63		100		78,13			
Total Interviews:	*759*																																																															

[1]Notes: 1 Participant moved from CH to DE after T1; 1 from CH to DE after T2; 1 from DE to CH after T2

[2]Note: CH recruited 3 more participants in T3

[3]Note: Category changes in between interview rounds are not reflected

AT = Austria; DE = Germany; CH = Switzerland; UK + United Kingdom; FR = France; IT = Italy; BE = Belgium; NL = Netherlands; IE = Ireland

Table 1. Number of interviews, and attrition rates per country, per interview round.

5. Organizing for surprise: the design of large-scale multi-country comparative qualitative research as generative organization

In this section we focus on what we consider the central question in designing comparative social science research: How can we construct meaningful, useful and reliable conclusions through the comparison of countries, institutions, or social phenomena?

Building on the promise of an ideographic epistemology for harnessing the variable-case discrepancy while making the processing of large quantities of qualitative data possible, in our own study we settled on multi-country LSQCR. LSQCR addresses the variable-case discrepancy by breaking through the methodological monism of large-N comparative research by introducing systematic ideographic explanation, or interpretation, as the goal of research. The aim of LSQCR is to benefit from the explanatory relevance and methodological versality of qualitative comparative research to support our explanations with the robustness of a large and varied data set, while safeguarding reliability and transparency in processing large amounts of data. Differently put, LSQCR retains qualitative research's core task of conceptual innovation and theory construction based on empirical data (Tavory & Timmermans, 2014; Charmaz 2014), while building upon the rise of large-N qualitative research in the social sciences in the last two decades. When before 2000 an N of 40 was considered large, in the 21st century Ns of more than 200 are no longer exceptional (Deterding & Waters, 2021, p. 218).

The onset of the pandemic presented itself as a confusion of shocking events, powerful images, collective misunderstandings, intuited insights, political opportunism, and shared anxiety. The overriding need was one of an accurate and rich understanding of the unfolding pandemic and its health and social effects to understand social cohesion and social divide better to be able to design effective public health measures. Our goal was to investigate the practices of people during the Covid-19 pandemic, often in response to measures imposed on them by their government or other public authorities, and to discover *patterns* as well as *meaning* in these behaviours: the meaning people attach to information about the pandemic, to their government's responses and measures, to the behaviours of their fellow citizens. Moreover, we were particularly interested in the way that values, in particular the value of solidarity, changed during the pandemic, how this change could be explained and contextualized, and how it affected people's practices. This does not make the project a normative study, but it does put values and their expression at the centre of our research interest, as is the case for people who must make difficult choices as they struggle with the pandemic and for policy makers who have to design just and effective measures (Putnam 2017). All this occurred in a rapidly and unpredictably changing situation, so we wanted to grasp how these different elements of everyday life during a pandemic developed over time. It was clear to us that neither MSSD nor MDSD were suitable for our research and that we needed a longitudinal and above all a flexible research design through *generative organization*. With *generative organization* we mean an evolving research design that can assimilate the changing situation at hand, while balancing rigor, relevance and timeliness.

To achieve this goal we designed and introduced various organizational features to address the methodological challenges of LSQCR, and to guarantee quality of data collection, reliability of coding, and the possibility of cross-country analysis. As we argue above, the project's organizational and research design seeks to balance the robustness of large numbers with the depth and flexibility of qualitative research. It ensures comparability by 1) constructing demographically comparable samples within each country, 2) providing interview training to the pool of researchers to ensure that they used a largely similar method of qualitative interviewing, 3) collaboratively developing and using an agreed upon interview guide that specified the topics that needed to be covered in all interviews, 4) collaboratively developing an initial coding scheme by Grounded Theory, 5) using CAQDAS for coding interviews.

Given the complexity of the project, we settled on a matrix-type organizational structure. Decision-making was horizontal through weekly, bi-weekly, or monthly (depending on the stage of the project) online meetings of all researchers in the project. When decisions needed procedural or more in-depth discussions, they were prepared in dedicated task forces made up of at least one representative of each country; one to develop the interview schedules, and one (the Analysis Group, AG) to provide support for coding and analysing within and across country teams. The country representatives in the task forces communicated and implemented decisions to their country teams and conversely ideas that came from members within country groups were discussed and incorporated in the dedicated task forces. This way, we were able to accommodate country-specific experiences in our coding scheme.

5.1. Sampling

Sampling in large scale qualitative comparative studies is always

nested. The first step is the selection of cases; in our study the case sample consisted of 9 countries. Case sampling can take one of two forms: convenience or theoretical sampling. In practice it is usually a mix of both. When the sample consists of countries, for organizational and practical reasons (such as language constraints) convenience sampling is often the only feasible approach that is open to the research team. In each country, a team of local researchers must be convened that will do the qualitative in-depth interviews in their local language, guarantee accurate transcription and pseudonymization, and the analysis of the interview data. Therefore, the cost and extent of organizing the field work will constrain the choices of the research team.

Having said this, case sampling should be informed by theoretical considerations. The selection of countries should be based on characteristics that have a bearing on the outcomes of the study. As in all comparative studies, the research design should create the conditions for theoretical innovation, as well as for the possibility to generalize and contextualize findings and explanations. A convenience sample might well be sufficient, but in our experience, the introduction of relevant theoretical characteristics in the sample, makes for more powerful comparisons and explanations. In our own case, four considerations informed the country selection: 1. appropriateness to the research question; 2. feasibility; 3. access; 4. introduction of broadly parallel lockdown measures in the countries. At first sight, the pandemic means that we can compare the reactions of people and governments to the same problem, at roughly the same time, with comparable policy measures being introduced across countries. But rather than using this similarity as a 'variable' to select and compare cases (as in a MSSD), we used it to provide the necessary context for our findings in the analysis stage of the project.

The second step is data sampling. This is the sample of observations and/or interviews that accrues while collecting data and that is nested within the case sample. In our case the data sample consists of 759 interview protocols. As we will see below, data sampling is also guided, in our case towards demographic characteristics that we expect to be relevant toward our conceptualizations. We worked hard to keep the attrition rate between interview rounds low. Table 1 shows that the data samples are relatively comparable in terms of diversity and comparability within and across countries.

5.2. Recruitment and data collection

We carried out qualitative interviews (Weiss, 1994) via online platforms or telephone in all nine countries April/May 2020, in a second round of interviews in October 2020 and a third round in four countries in October 2021. (Figure 1 provides information on the attrition rate between interview rounds. Between T1 and T2 attrition was modest.)[8] The lockdown forced us to conduct interviews via an (audio) conferencing platform or telephone. This made it possible to conduct a total of 807 interviews. In both cases we were able to obtain the kind of rich, detailed data needed for qualitative analysis. The study received ethics approval from the University of Vienna, and from all participating country host universities that required separate research ethics approvals..

Prior to recruitment we discussed among the project team what demographic criteria we should cover in each country sample. Being conscious that qualitative research does not seek to achieve statistical representativeness, we nevertheless sought to ensure that demographic characteristics 1) were relevant to problem formulation and possible research outcomes (for example, we expected at the time that low-income groups would face different challenges from higher income groups (Marmot et al., 2012), an assumption borne out by subsequent developments) and 2) representative of the diversity of the population. The demographic variables we sampled for were age groups, gender, household, living area (urban/rural), employment status, education, household net income (Table 1).

For the recruitment of interviewees, we employed a three-step strategy that included initial convenience sampling, followed by snowball sampling techniques and purposive sampling throughout the data collection process to complete hiatus in the projected sample (Bryman, 2016: 418). Each country team placed a call for participants on their university's website; these calls were distributed via email lists, social media, and through personal channels (the latter was used also to recruit people who do not use email and other digital media). The country teams monitored the demographics table to target further recruitment towards groups that were underrepresented in this sample compared with the overall demographic characteristics of the population. The composition of the final sample showed that this strategy was successful as we managed to recruit a sample that is both fairly representative of key demographic characteristics across all nine countries, and broadly comparable. In three rounds of interviewing, almost 40 researchers conducted a total of 807 interviews (Table 1).

The interview guide was developed in a dedicated sub-group and subsequently discussed and amended by all project members. It covered topics such as the way that the pandemic has influenced personal/family life, reactions to government measures (including contact tracing and vaccine development) and measures by employers, reaction to or participation in societal initiatives, role of the corporate world, and role of social media in the pandemic. The interview guide is publicly available through the Solpan website (Consortium 2021a) Interviews were semi-structured and open-ended. Interviewers used the interview guide but followed the interviewee in her narrative, probing to help her develop the topic and to elicit detailed, concrete descriptions of what she has witnessed and experienced (Weiss, 1994, p. 66). This means that not all topics appeared in the same order and, depending on the interviewee's specific life circumstances, some topics were discussed in greater depth than others. This way of intense interviewing is semi-structured yet emergent, and guarantees rich, detailed data for subsequent analysis (Charmaz 2014, p. 85).

5.3. Data analysis: integrating hands-on and CAQDAS analysis

The large number of interviews, as well as the large number of researchers dispersed across nine countries, made the use of CAQDAS a mandatory feature in data analysis. CAQDAS has changed the face of comparative qualitative research. It helps researchers to manage a large set of data, and more easily and quickly identify text passages that address similar topics and research questions (Yin, 2016). It made it possible for us to accommodate the different country perspectives and at the same time facilitate cross thematic and cross-country comparison. Through testing for shared interrater understanding and double coding we made the coding process more reliable and transparent. Facilitating secondary data analysis gave the research design the kind of flexibility that makes it possible to accommodate new research questions during the study.

The first task of the data analysis team was to develop a Master Coding Scheme to be used by all country teams to analyse the interviews in a unified way. As none of us had much experience with LSQCR, we initially followed the procedure for inductive coding in conventional Grounded Theory. This involves the coding of short segments ("each word, line or segment of data." Charmaz, 2014, p. 113). A group of representatives of the nine countries, who were part of the Analysis

[8] Round 3 occurred one year after round 2. As the project was almost wholly based on voluntary labur, by then, some countries could no longer participate. PhD students had to finish their thesis, senior researchers had to give their attention to other, funded, projects. As a result, only 4 of the 9 countries participated in T3. Having said this, most of the researchers who could not participate in T3 are still part of the project consortium and participate in collaborative data analysis, writing, etc. In the spirit of research in and on crisis, we felt it was right to accommodate our colleagues' commitments outside of this project and not exclude anyone who did not have the time or other capacities to participate 'fully'.

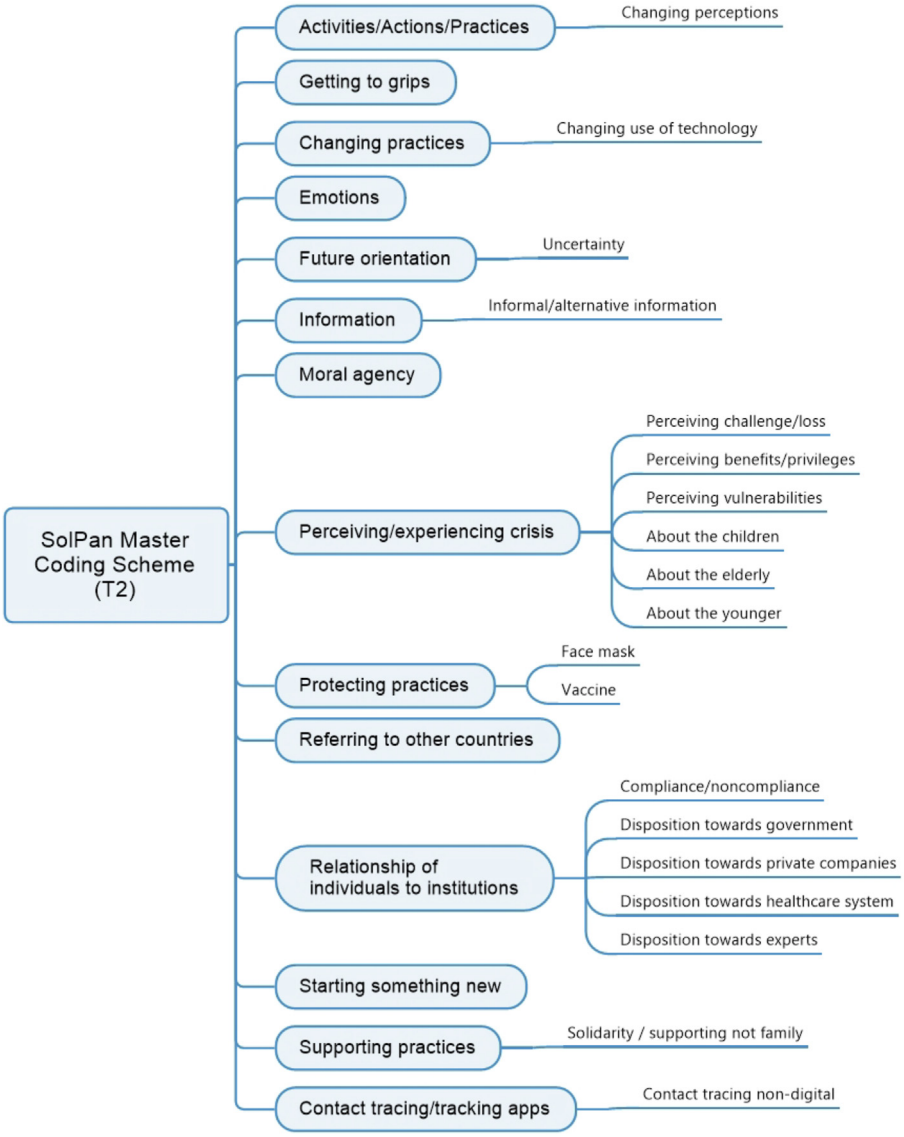

Fig. 1. Simplified Coding Scheme for 'tagging' interview content.

Group, each coded the same two interviews in this way. They then integrated the results in a series of meetings of the Analysis Group and subsequently tested the codes on one interview from their own country. Through iterative refinement in group discussions, we were able to extract the full spectrum of meanings that emerged within their respective national contexts and enhance the validity of the codes.

Initial coding resulted in a Master Coding Scheme (MCS) of 93 codes, each with a detailed description and one or more text examples from the interviews by way of illustration (Consortium 2021b). The advantage of creating a detailed MCS was that it helped the Analysis team to get a thorough understanding of what the data were about, select and sort the data and begin an analytic accounting of them (Charmaz, 2014, p. 111). The disadvantage was that the process of coding the full set of interviews ('tagging', see below) became extremely laborious. However, as we only later became fully aware, the purpose of the initial coding in LSQCR is to be able to sort the interview material into categories or codes for further analysis. It is not necessary in the initial phase of the study to engage in the kind of detailed initial coding of a small-scale qualitative study. In LSQCR, coding becomes a two-step process consisting of first sorting with broad codes followed by detailed coding and perusal of the original interview driven by pointed research questions (see also Deterding & Waters, 2021, p. 715). For the T2 interviews we used a less detailed coding scheme (24 codes), mostly consisting of the main codes with minimal subcodes, which considerably sped up the sorting/tagging process and through its simplification enhanced consistency of coding (Fig. 1). However, far from regarding the initial detailed coding exercise as lost time, we recommend it for all LSQCR. In hindsight, the detailed coding not only made us familiar with the data, it also enhanced the validity and reliability of the broad tagging schemes that we developed for the sorting of T2 and T3 interviews. However, instead of coding all interviews with the detailed initial codes, we suggest restricting this exercise to a small subsample of interviews from each country.

Although the software helps to organize the data, it does not relieve researchers of doing the actual analysis to infer explanations. In other words, the actual analysis of data takes place *after* the queries. Thus, after the development of a broad tagging scheme and guided by their own research questions, groups of researchers within the team will start to interrogate the data through pointed queries (Deterding & Waters, 2021, p. 715). They will use one or more codes to get access to those parts of the interview that speak to their research question. These selected interview segments are then subjected to the usual process of detailed coding and memo writing, as in the contact tracing example in section 2.

To enable comparability, all country specific projects had to be set up and compiled in the same way. Compiling means importing and grouping

the interview transcripts in CAQDAS according to the demographic groups. Therefore, each country team created its own country specific project in its CAQDAS.

As a next step each country team applied the MCS to their interviews (a process we called 'tagging') (Friese, 2016). Each country had a data analysis leader responsible for introducing the MCS to the coders and making sure the application of the MCS was consistent with other countries. The challenge of the Analysis Group was to strike a balance between a rigorous MCS on the one side and context-specific applicability in country teams on the other. For this we developed the following procedure: If researchers within country teams saw the need for any changes to the MCS, they first discussed it within their country teams for interrater reliability. If then the country team agreed it would be necessary to adapt or expand the MCS, the representative of the country within the AG would bring it up. To ensure reliability in the analysis of the data, each coded interview was checked by another member within the country team.

The organizational and procedural features described above made it possible for us to do both within- and cross-country analysis. Coding is an iterative process of disassembling and reassembling data and building relations between quotes. *Within* the set of country interviews the analysis followed the narrative structure of the interviews to obtain a thorough understanding of the material and the investigated research topics. CAQDAS also allowed for *cross-sectional analysis*, using the query tool, and combining selected codes across the whole dataset. This feature enabled *cross-country*, comparative data analysis because the query-tool enabled us to reassemble the quotes of different countries along a selected combination of codes but also in relation to a selection of demographic features (Atlas.ti 'scope') such as age, gender, or income.

To use CAQDAS to run a query is a systematic or reproducible tool for the management of large quantities of qualitative data. If different people choose the same codes for their query and apply the same scope for their analysis, the sorted data are the same, independent of the individual who did the query. Running a query in this way provides a reliable, systematic, and transparent basis for data management as a preparation for the actual analysis. As pointed out above the actual analysis and inference is still the job of the researchers.

The above procedure allows the project team to quickly adapt to the constantly changing situation that the pandemic posed. For example, while early in the pandemic mask wearing was a topic of serious concern, later vaccination became a key topic for policy makers and the public. The design of the study made it possible to accommodate these shifting concerns. Up to July 2022 consortium researchers published 20 articles.

6. Limitations of the LSQCR approach

Like every research design, LSQCR represents a set of trade-offs. Its limitations are twofold. There is a trade-off between the quantity and variety of data points and the robustness this adds to the conclusions on the one hand and the power of interpretive analysis that is patiently constructed by immersion in local sites on the other. SolPan dealt with this trade-off in two ways. First, by adjoining every systematic query of the interview data with the collection of additional country-specific data on the issue at hand. We followed the pragmatist principle here of using a wide range of evidence, to develop our interpretive analysis. Second, we employed abductive reasoning. For abductive qualitative research it is crucial to have an iterative cycle of immersion in the data, engagement with relevant theories, interpretation, and formulation of tentative theoretical explanations (Tavory & Timmermans, 2014, 48). Rigor is achieved by the continuous confrontation of the interpretation with the object of the interpretation. This is done by critically examining and testing each thematic category developed during the analysis by zooming in on those instances where the research object resists our interpretations. In practice this implies reviewing the original data in the light of concrete experience and apposite theories (Tavory & Timmermans, 2014, 25, 48). In large-scale comparative designs, this step is becoming more challenging for practical reasons: the number of researchers involved is large, and due to language constraints, each researcher involved can only access and analyse parts of the original data. On the other hand, the involvement of a varied group of researchers increases the chance to draw in theories that are relevant for interpreting the data. In our own project, we have sought to balance these constraints and affordances through regular meetings and reporting and comparing of relevant findings in English language.[9]

The LSQCR approach in combination with the rapidly changing phenomenon under investigation (the COVID-19 pandemic) posed additional methodological challenges to our project. To collect data that is comparable both longitudinally and between countries, we decided on distinct time frames for data collection in April 2020, October 2020 and October 2021. However, this meant that theoretical sampling in its traditional sense (Charmaz, 2014, p. 192) was not possible, as it is practically not feasible to structure the sampling process based on theoretical considerations that originate in the data itself while retaining full comparability across countries. Instead, we aimed to control for a variety of perspectives by controlling key participants' demographics as described above. For the same reasons, and because we were covering an array of perspectives and topics, we could address theoretical saturation of findings only retrospectively during data analysis but had no possibility to recruit additional participants at that point. This, however, is an issue commonly cited in qualitative research, and other qualitative research scholars have thus already been calling for a more pragmatic approach of theoretical saturation that implements this assessment into the analytical and interpretative process of data analysis (Low, 2019).

7. Conclusion

Instead of revisiting the well-known debates on the challenges of comparative research (for example see Della Porta, 2008; Marmor et al., 2009; Engeli and Allison eds., 2014), this article sought to do two things: 1) to foreground the unique logic of comparison in a qualitative context, and 2) to present a philosophically coherent, useable design for large-scale, rapid response cross-country comparative qualitative research. The continuously evolving world that the SolPan project addresses is common to many qualitative research projects. Given our comparative, interpretive aims, the larger context of an evolving pandemic, and the concerns of policy makers who were eager to learn from research for guidance in grappling with the pandemic, we used pragmatist principles of design-in-practice. We organized the project in an evolving and generative way, with an emphasis on ensuring, as much as possible, the comparability, reliability and plausibility of both analysis and findings. Generative organization has two meanings here. First, it connotes openness to the unpredictable development of the pandemic and the effects of the measures that different countries implemented to fight it. Second, it indicates an organizational set-up that combined a diverse consortium of nine country teams that nevertheless allows the pursuit of interesting questions that cannot always be formulated in advance and might come up during the research.

The project comprised teams of researchers covering nine European countries, who – across three time points in April/May 2020 and in October/November 2020 and October 2021 carried out 807 interviews. We described how the consortium, using CAQDAS, carried out the analysis of data, our approach to comparisons within a project that allows longitudinal, thematic, as well as comparisons across countries. Large-scale comparative qualitative research includes a large N but does not

[9] However, we decided against the routine translation of all transcripts into English language, not only for lack of resources, but also because each translation provides an additional layer of interpretation, and because analysis is best conducted by a researcher who is well embedded in the respective language culture and aware of the cultural, social, and political context in which the interview took place.

predetermine the variables that it examines beforehand. Instead, the categories of comparison emerge from the inductive analysis of the data. This approach enables researchers to judge, based on early analyses of the data, what the most relevant and interesting spatial, temporal and other comparators are that are pursued in the study. Methods development is an ongoing process in LSQCR, and it provides a degree of flexibility in adjusting to new developments. For this to be successful, a regular and transparent exchange about the different languages in terms of terminology, disciplines and research practices must take place, something that the SolPan consortium has done in weekly consortium meetings, as well as in cross-country subgroups.

The opportunities that arise from LSQCR research are numerous, arising from the breadth and depth of the data. First, country teams can use country data to report on the issue under investigation on a case-by-case basis, in our case society's reactions to the measures aimed at containing the pandemic. Second, these data can be used to compare findings with those of other countries in order to put them into perspective. Another layer of comparability is added by the longitudinal design of the study, which means that findings are comparable not just across space (that is different geographical regions, socio-demographics), but also across time (that is different phases of the pandemic). The breadth and depth of data points provide the opportunity to uncover the value of LSQCR through the logic of interpretation outlined above. This logic allows researchers to refine and rethink concepts frequently used in comparative studies to make them more grounded in empirical findings.

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Ethics statement: collaborative comparisons

The study that we draw upon received ethics clearance from the University of Vienna, Austria, on March 27, 2020 (approval number 544). Other research ethics details are given in the manuscript.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

Ansell, C. A. (2011). *Pragmatist Democracy. Evolutionary Learning as Public Philosophy*. Oxford: Oxford University Press.
Ansell, C. A., & Trondal. (2018). Governing Turbulence: An Organizational- Institutional Agenda. *Perspectives on Public Management and Governance, 1*(1), 43–57.
Boin, A., Stern, E., & Sundelius, B. (2016). *The Politics of Crisis Management: Public Leadership under Pressure*. Cambridge: Cambridge University Press.
Bollier, D., & Helfrich, S. (2019). *Free, fair and Alive. The insurgent Power of the Commons*. Gabriola Island, BC: New Society Publishers.
Bruner, J. (1986). *Actual minds. Possible worlds*. Cambridge, MA: Harvard University Press.
Cartwright, N., & Hardie, J. (2012). *Evidence-based policy. A practical guide to doing it better*. Oxford: Oxford University Press.
Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.
Consortium, S. P. (2021a). Interview guide 'solidarity in times of a pandemic. Available at SSRN: https://ssrn.com/abstract=3824361.
Consortium, S.olP.an (2021b). Codebook 'solidarity in times of a pandemic. Available at SSRN: https://ssrn.com/abstract=3776127.
Cook, S. D. N., & Wagenaar, H. (2012). Navigating the eternally unfolding present; toward an epistemology of practice. *The American Review of Public Administration, 42*(1), 3–38.
Della Porta, D. (2008). Comparative analysis: Case-oriented versus variable-oriented research. In D. Della Porta, & M. Keating (Eds.), *Approaches and methodologies in the social sciences: A pluralist perspective*. Cambridge: Cambridge University Press.
Deterding, N. M., & Waters, M. C. (2021). Flexible coding of in-depth interviews: A twenty-first-century approach. *Sociological Methods & Research, 50*(2), 708–739.
Engeli, I., & Allison, C. R. (2014). *Comparative policy studies – conceptual and methodological challenges*. London: Palgrave Macmillan.
Fiske, A., Galasso, I., Eichinger, J., McLennan, S., Radhuber, I., Zimmermann, B., & Prainsack, B. (2022). The second pandemic: Examining structural inequality through reverberations of COVID-19 in Europe. Max Planck 2022 *Social Science & Medicine, 292*, Article 114634. https://doi.org/10.1016/j.socscimed.2021.114634. ISSN 0277-9536.
Friese, S. (2016). CAQDAS and grounded theory analysis, MMG working paper 16-07 at max planck institute for the study of religious and ethnic diversity, göttingen. ISSN: 2192-2357 https://pure.mpg.de/rest/items/item_2367612_3/component/file_2367624/content.
Gerrits, L. (2012). *Punching clouds. An introduction to the complexity of public decision-making*. Litchfield Park, AZ: Emergent.
Goggin, M. L. (1986). The "too few cases/too many variables" problem in implementation research. *The Western Political Quarterly, 39*(2), 328–347.
Greenhalgh, T., & Engebretsen, E. (2022). The science-policy relationship in times of crisis: An urgent call for a pragmatist turn. *Social Science & Medicine, 306*, Article 11514.
Healey, P. (2009). The Pragmatic Tradition in Planning Thought. *Journal of Planning Education and Research, 28*(3), 277–292. https://doi.org/10.1177/0739456X08325175
Hildebrand, D. (2008). *Dewey. A beginner's guide*. Oxford: Oneworld.
Kimbell, L. (2015). Rethinking design thinking: Part II. *Design and Culture, 4*(2), 129–148. https://doi.org/10.2752/175470812X13281948975413
Landman, T. (2008). *Issues and methods in comparative politics* (3rd ed.). Milton Park, Abingdon: Routledge.
Latour, B. (2007). *Reassembling the social: An introduction to actor-network-theory*. Oxford: Oxford University Press.
Low, J. (2019). A pragmatic definition of the concept of theoretical saturation. *Sociological Focus, 52*(2), 131–139. https://doi.org/10.1080/00380237.2018.1544514, 2019 Jan 27.
Lucivero, F., Marelli, L., Hangel, N., Zimmermann, B., Prainsack, B., Galasso, I., Horn, R., Kieslich, K., Lanzing, M., Lievevrouw, E., Ongolly, F., Samuel, G., Sharon, T., Siffels, L., Stendahl, E., & Van Hoyweghen, I. (2021). Normative positions towards COVID-19 contact-tracing apps: Findings from a large-scale qualitative study in nine European Countries. *Critical Public Health, 32*(1). https://doi.org/10.1080/09581596.2021.1925634
Marelli, L., Kieslich, K., & Geiger, S. (2022). COVID-19 and techno-solutionism: Responsibilization without contextualization? *Critical Public Health, 32/1*, 1–4.
Marmor, T. R., Freeman, R., & Okma, K. G. H. (2009). *Comparative studies of modern medical care*. New Haven and London: Yale University Press.
Marmot, M., Allen, J., Bell, R., Bloomer, E., & Goldblatt, P. (2012). WHO European review of social determinants of health and the health divide. *The Lancet, 380*(9846), 1011–1029.
Nelken, D. (2010). *Comparative criminal justice. Making sense of difference*. Thousand Oaks, CA: Sage.
Paul, K. T., Zimmermann, B. M., Corsico, P., Fiske, A., Geiger, S., Johnson, S., Kuiper, J. M. L., Lievevrouw, E., Marelli, L., Prainsack, B., Spahl, W., & Van Hoyweghen, I. (2021). Anticipating hopes, fears and expectations towards COVID-19 vaccines: A qualitative interview study in seven European countries. *Social Science and Medicine - Qualitative Research in Health, 2*, Article 100035, 2022 Dec.
Pickering, A. (1995). *The mangle of practice. Time, agency and science*. Chicago, IL: The University of Chicago Press.
Prainsack, A., & Buyx, A. (2017). *Solidarity in Biomedicine and Beyond*. Cambridge: Cambridge University Press.
Putnam, A. (2017). Creating facts and values. In H. Putnam, & A. Putnam (Eds.), *Pragmatism as a way of life. The lasting legacy of William James and John Dewey* (pp. 385–404). Cambridge, MA: Harvard University Press.
Ragin, C. (2014). *The comparative method: Moving beyond qualitative and quantitative strategies*. Berkeley, CA: University of California Press.
Sanders, D. (1994). Methodological considerations in comparative cross-national research. *International Social Science Journal, 46*, 43–49.
Sartori, G. (1970). Concept misformation in comparative politics. *American Political Science Review, 64*, 1033–1053.
Sartori, G. (1991). Comparing and miscomparing. *Journal of Theoretical Politics, 3*, 243–257.
Schön, D. A., & Rein, M. (1994). *Frame reflection. Toward the resolution of intractable policy controversies*. New York, NY: Basic Books.
Tavory, I., & Timmermans, S. (2014). *Abductive analysis. Theorizing qualitative research*. Chicago, IL: The University of Chicago Press.
Von Wright, G. H. (1971). *Explanation and understanding*. Ithaca, NY: Cornell University Press.
Wagenaar, H. (2011). *Meaning in action: Interpretation and dialogue in policy analysis*. Milton Park, Abingdon: Routledge.
Wagenaar, H. (2022). Deliberative policy analysis. In S. A. Ercan, H. Asenbaum, N. Curato, & R. F. Mendonça (Eds.), *Research methods in deliberative democracy* (pp. 423–437). Oxford: Oxford University Press.

Weiss, R. S. (1994). *Learning from strangers. The art and method of qualitative interview studies*. New York, NY: The Free Press.

West, S., van Kerkhoff, L., & Wagenaar, H. (2019). Beyond 'linking knowledge and action': Towards a practice-based approach to transdisciplinary sustainability interventions. *Policy Studies, 40*(5), 534–556.

Yanow, D. (2014). Interpretive analysis and comparative research. In I. Engeli, & C. Rothmayr (Eds.), *Comparative policy studies: Conceptual and methodological challenges* (pp. 131–159). Palgrave Macmillan.

Yin, K. R. (2016). *Qualitative research from start to finish* (2nd ed.). Guilford Press.

Zimmermann, B. M., Wagenaar, H., Kieslich, K., Prainsack, B., Meyers, G., Buyx, A., El-Sayed, S., Fiske, A., Galasso, I., Geiger, G., Hangel, N., Horn, R., Johnson, S., Kuiper, J. M. L., Lucivero, F., McLennan, S., Paul, K. T., Pot, M., RadhuberI, … Weiss, E. (2022). Democratic research: Setting up a research commons for a qualitative, comparative, longitudinal interview study during the COVID-19 pandemic, 2022 *Social Science and Medicine - Qualitative Research in Health, 2*, Article 100158. https://doi.org/10.1016/j.ssmqr.2022.100158. ISSN 2667-3215.