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ARTICLE

From Uncertainty to Trust: COVID-19 Pandemic Responses of South Korea and Sweden

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ABSTRACT
Epidemiological situations, such as the pandemic of COVID-19, pose a clear and significant problem for the states in their efforts to construct and to control their population. The widespread introduction of a lockdown as a regulatory method during the current pandemic could be associated with the need to preserve an understandable, quantifiable, and predictable management object. This paper considers, analyses, and compares two deviant cases of COVID-19 pandemic responses: South Korea and Sweden. In South Korea, the pandemic regulations were dominated by large-scale testing and contact tracing, while lockdown policies have played a supplementary role. Sweden's attempt to develop population immunity by introducing less stringent measures that its neighbours has attracted much attention worldwide. The authors conduct desk research and analyse secondary data on pandemic regulations and their effects in these two countries in 2020. Similarities and differences between Swedish and South Korean cases are formulated regarding trust inside and between the states.

KEYWORDS
trust, modern state, COVID-19, pandemic regulations, healthcare in Sweden, healthcare in South Korea, democratization of expertise

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Introduction

Epidemics have always been more social rather than biological processes since the spread of infections is mediated by social interactions. Therefore, the investigation of the ways pandemics unfold requires joints efforts on the part of natural sciences and health sciences, mathematics, economics, and social studies. In research literature, the success in dealing with epidemic crises is often attributed to the actions of central governments and their ability to foresee the future and lead governmental agencies and societies in the right direction.

This paper is based on the idea developed in the scholarly literature: *modern states (regardless of their degree of democracy or authoritarianism, corruption, and other characteristics) need an understandable, quantifiable, and predictable object of regulation—population* (see, e.g., Foucault, 1975/1995; Papakostas, 2012)[1]. Epidemiological situations, such as the pandemic of COVID-19, pose a significant problem to the modern states in their efforts to construct and to control their population. Thus, the widespread introduction of lockdowns as a regulatory method during this pandemic could be associated with the need to preserve an understandable and quantifiable management object.

This paper considers, analyses, and compares two "deviant" cases of lockdown policies: South Korea and Sweden. In South Korea, large-scale testing and contact tracing dominated the pandemic regulations, while lockdown policies have played but a supplementary role. The other case is Sweden, whose social distancing regulations were less stringent that its neighbours' and which for this matter was widely criticized for its efforts to develop population immunity.

Therefore, our main focus in this paper will be on the following questions:

A. How do South Korea and Sweden construct their populations as a quantifiable and predictable object of regulation in the times of COVID-19?
B. How do these states use information technologies in their regulations to control the population?
C. Have South Korea and Sweden managed to establish trust in their relations with their populations and other states regarding their ability to cope with the pandemic?

These questions will be address through secondary data analysis and desk research. In addition, we are going to analyse the data provided by national governments and international organizations in 2020 (and earlier).

[1] Foucault's and Papakostas' works belong to different theoretical traditions and present different empirical foci. Papakostas belongs to organizational materialism and reflects on state as an organization. He is interested in how modern states have developed records of population to provide effective direct tax collection (Papakostas, 2012, p. 15). "These records transform concrete individuals and resources into abstract individuals and resources in the form of more or less sophisticated statistical abstractions of the population and its resources. This is a matter of the state making organizational observations of the same individuals and resources, and based on these observations it is possible to create accurate statistical representations of people and resource" (p. 17). Foucault develops poststructuralist critique of state with a special attention to the ways to control the population, for instance, through imprisonment: "the need to measure, from within, the effects of the punitive power prescribes tactics of intervention over all criminals, actual or potential: the organization of a field of prevention, the calculation of interests, the circulation of representations and signs, the constitution of a horizon of certainty and proof, the adjustment of penalties to ever more subtle variables" (Foucault, 1975/1995, p. 101).

The paper will be structured as follows: The next section describes the theoretical framework of our research. Then, a description of the cases of South Korea and Sweden will be provided. Finally, we are going to compare these cases, discuss the results, and make preliminary conclusions.

Theoretical Framework

The state regulations of social interactions during a pandemic ultimately seek (albeit indirectly) to influence the epidemiological dynamics. In one way or another, any regulation aims to control the incidence rate and the consequences of the pandemic, regardless of the declared goals or specific measures being taken (epidemiology, state security, individual freedoms of citizens, etc.). The regulation policies rely on a particular epistemic foundation and have a "knowledge" background: regulation requires a conceptualization of regulation, which inevitably acts simultaneously as the subject of specific knowledge and regulation or management itself (Foucault, 1975/1995).

In this paper, we use the theory of trust developed by Papakostas (2012) to trace these regulations' relationship with the formation of trust inside and outside the states i.e., public trust in the government and the trust of other states and external organizations in the state's implemented strategy. Social sciences tend to explain trust through particular cultures. Belonging to a specific culture and path-dependency are important explanations in answering the question as to why there is trust or there is no trust between individuals or other units of social analysis. Papakostas (2012), however, suggests that social relations, which lead to mutual trust or distrust, cannot be exhaustively explained in these terms: trust is regarded as an organizational and relational phenomenon. Papakostas' theory is based on organizational materialism. The structural context of trust/distrust is conceptualized as "a social landscape," which includes "what is going on inside, outside, and between organizations" (p. x). He follows Göran Ahrne and Charles Tilly in defining an organization as "all sorts of well-bounded clusters of social relations in which occupants of at least one position have the right to commit collective resources to activities reaching across the boundary" (p. x).

The concept of boundaries becomes critical in considering the mechanisms behind trust maintenance or undermining. Trustor distrust is a relational concept devised by using the following formula: "A trusts or distrusts B in respect to X but in a social context defined by the boundary Y" (Papakostas, 2012, p. ix). An important point here is the third part, which includes boundary work: the division of social space into zones of conditional trust. Physical, social, and organizational barriers are involved in creating boundaries. They divide and "mark up" the social landscape, building certain social relationships within and outside them.

These two different modalities of trust relationships depend on internal control and problematization of the organization's actions from the outside. There is a problem of transparency for those outside the boundaries, while within the organization itself; there is a lack of trust in specific individuals. In the latter case, the

basis is the belief that individuals behave differently depending on whether they are being watched or not (Hanson, 1993, as cited in Papakostas, 2012). Thus, the basis of trust in individuals outside the organization of which they are members is not their personal qualities but the organization that provided the check results.

During the pandemic, the world becomes an ordinary social landscape divided into nation-states with clear boundaries and their particular structures and institutions. Thus, we are interested in the relations of trust or distrust within states and outside of them. Whereas borders usually create trust inside and the problem of trust outside, the global crisis problematizes both relations. The COVID-19 pandemic has set a new unstable context in which trust relations are being reassembled in both ways.

The relationship of trust in the social context Y is determined, according to Papakostas, by specific social mechanisms (Papakostas, 2012, pp. ix–xi). These are manifested in the transformation's reliability of particular individuals and their resources into abstract categories and the quality of their accounting and identification (including the possibility of localization of individuals and their resources as various representations). Thus, the relationship of trust A to B, that is, the trust of external organizations or the state's population, is a question of the ability to trust that the state has created reliable ways of observing this individual and their resources. At the same time, the states in the world differ in their ability to perform this function.

Following the premises outlined by Papakostas, it can be stated that the differences in quarantine regimes in different countries are associated with the following: first, with the specific bureaucratic procedures for accounting and control in each country; second, with the socio-political characteristics of the government's interaction with the population; and, finally, the expectations of the citizens of the country themselves.

Mechanisms of accounting play a crucial role in trust formation. Scholarly interest in accounting stems from management and finance studies; however, it goes beyond, to the issues of governmental control over individuals and construction of "governable persons" (Miller & O'Leary, 1987). In this paper, we define accounting in a broad sense, as an ability of a bureaucratic organization "to be able to transform individuals into abstract administrative cases [...]; it also requires citizens to have a relatively high level of education, accept that they are transformed into abstract individuals and moreover understand the operational logic of a bureaucracy applying general rules to individual cases" (Papakostas, 2012, pp. 73–74). Records of the population are the key source of the information for tax collection and they are also the key source of the government's infrastructural power (Papakostas, 2012, p. 15). Papakostas argues that this ability is necessary for establishing and maintaining trust between and within organizations.

When analysing the results of a certain policy, it is crucial to consider the three factors at work: detection (i.e., testing capacities and their implementation), containment (i.e., how this country manages to inhibit the virus from spreading), and treatment of confirmed patients (e.g., see Kim et al., 2021). This paper focuses on the first two factors, detection and containment, since they are crucial in keeping the

records of the population on both levels: abstract representations of individuals and their localization based on these representations. We analyse both detection and containment with a particular emphasis on information technologies. Trust, as we have already mentioned, is related to the problem of transparency. The use of information technologies helps, at least partly, to solve this problem.

Finally, in this paper, we are interested in the problem of expertise. There are three crucial elements for trust relations to function effectively in a society in times of uncertainty and crisis: relations between policymakers and experts, between policymakers and citizens, and public trust in government (Cairney & Wellstead, 2021).

South Korea's COVID-19 Crisis Management

South Korea exemplifies the case of a country that quickly flattened the epidemic curve with outstandingly minor infection and death rates. Besides, the COVID-19 burden was not heavy on the country's economy compared to other high-income countries since South Korea implemented relatively less strict measures than the latter (Lim et al., 2021). Experts outline three main reasons for such a success: (a) sophisticated large-scale testing with the help of the latest molecular diagnostic kits and innovative testing infrastructures; (b) innovative technologies for contact tracing; and (c) free medical treatment (Kim, 2020; Kim et al., 2021; Lee & Lee, 2020).

South Korea was one of the first countries to report on the first case of COVID-19 on January 20, 2020; by March 12, South Korea had reached the plateau (Park & Chung, 2021). It was one of the most timely and sophisticated responses to the COVID-19 epidemics in the world. In August, the country experienced a mild second wave with 200s and 300s cases daily, and by October, the numbers had declined to double-digits. However, since November 2020, there has been a noticeable increase in daily new confirmed cases. On December 7, the South Korea's Ministry of Health and Welfare reported that the situation had worsened, and the need for stricter mitigation measures emerged. For example, on December 12, there were 1,030 new registered cases (See Figure 1).

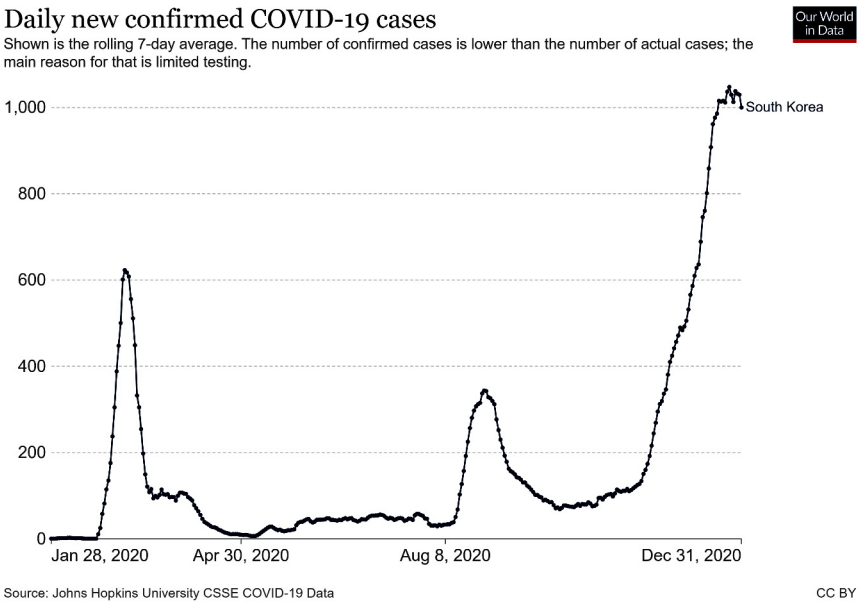
According to South Korea's Ministry of Health and Welfare (MOHW, n.d.), by December 13, 3,374,595 people had been tested with 42,766 (1.27%) positive results, 90,129 (2.67%) being in progress, and 3,241,700 (96.06%) being negative. Korea Disease Control and Prevention Agency state that people who visit temporary screening stations for a COVID-19 test are advised to return home immediately, stay home, and avoid contact with family and friends until finding out the test result. In case of a positive outcome of a rapid antigen test, people are required to give a nasopharyngeal PCR test, after which these individuals must be quarantined until the PCR test result becomes available.

Innovative testing strategies deliver first results in as little as seven minutes. Temporary screening stations or "phone booths" are small spaces where a glass fence separates healthcare professionals and patients. The former uses the telephone to communicate and arm-length rubber gloves to perform testing. These precautions have allowed South Korea to increase the testing capacity tenfold.

Moreover, these stations are disinfected and ventilated after each test. Reducing the space in which the patient is tested has made it possible to speed up the room's disinfection procedure. Currently, a medical professional can take 70–80 tests per day. Active detection of COVID-19 cases thus happens irrespective of clinical symptoms.

Figure 1

Daily New Confirmed COVID-19 Cases in South Korea in 2020



Note. See: https://ourworldindata.org/coronavirus/country/south-korea?country=~KOR

In the Press Release of November 11, 2020, The Korea Disease Control and Prevention Agency (KDCA) reported on the elaborated classification of social distancing levels (KDCA, 2020). They distinguish five levels:

- Level 1 refers to preventive measures when the weekly average of daily local transmission cases is below 100 in the Greater Seoul Area, below 10 in Gangwon and Jeju, and below 30 in other regions.
- Level 1.5 is announced when local circulation begins with 100 or more, 10 or more, and 30 or more cases in the respective areas.
- Level 2 refers to local transmission intensification and the beginning of nationwide community transmission and involves at least one of three criteria met: case numbers 2x or more of the criteria for Level 1.5; transmission continues in two or more regions; more than 300 cases nationwide. For this level, there are supplementary indicators. The first criterion is the weekly average number of patients aged 60 or above. For the second criterion, experts add the hospital bed capacity to treat severe or critical cases, and

this indicator is considered relevant for moving up to Levels 2.5–3. For the last criteria, the epidemiological investigation capacity is calculated. Other vital indicators are the primary reproduction number, cluster infection situation, percentage of cases with the transmission chain under investigation, and percentage of cases confirmed while under home quarantine.

- Level 2.5 represents the intensification of nationwide community transmission with 400–500 new daily cases or a rapid surge in the number of cases.
- Finally, Level 3 corresponds to the nationwide massive community transmission wherein 800–1,000 or more new cases are registered daily.

The KDCA also provides detailed information about COVID-19 related issues on their website in the section of press releases in both Korean and English. In their daily report on the COVID-19 situation in the country, the KDCA presents the number of new and cumulative cases in the whole country and divided by regions, the number of imported cases and the region/country where it has been imported from, and the place of confirmation (either at the point of entry or in a community). Moreover, the reports include information on confirmed cases status (the number of people discharged from isolation, under isolation, severe/critical cases, and deceased). Furthermore, the reader finds the information about the recent major local clusters of outbreaks (their location in the region, the specific place where it happened, e.g., school, construction site, university, the number of recent cases, and total cases). Then the KDCA provides a table with weekly risk assessment indicators with data for four previous weeks. They also provide the calculated values of the risk of possibilities with the chain of transmission under investigation, percentage under management (percent of new cases confirmed while under self-quarantine), the new cluster, reproduction number (Rt), and the number of average critical/severe patients, deaths, and intensive care units available. There is also a table with the ranking of the transmission sources by age group, that is, the most common places where people may catch the infection for different age groups counted since October 1, 2020. Finally, the KDCA reports on test results and confirmed COVID-19 cases. First, the table shows the overall case and test status since January 3, 2020 (cumulative) and daily difference. Then, it describes how many individuals were tested in total and tested positive PCR (including confirmed, under isolation, discharged from isolation, and deceased), the number of tests in progress, and tested negative (PCR).

Further, the KDCA provides graphs showing the dynamics of testing and confirmed cases. Second, the reader finds a table with the regional distribution of cases with the number of new cases (local and imported), the cumulative total number of cases (since January 3), the share of people infected, and the incidence rate per 100,000 population. Furthermore, the reader can find out the socio-demographic characteristics of confirmed cases and groups (gender and age group for confirmed cases, deaths, severe/critical cases). The KDCA also provides diagrams with new cases by the chain of transmission (for the last two weeks) and the dynamics and distribution of imported cases. The report ends with a table of regional distribution and epidemiological links of confirmed cases.

New information and communication technologies such as GIS, mobile applications, and mobile phones are central to the containment and control of the spread of the virus. Leveraging technological advances has enabled South Korea to actively detect recent cases through contact tracing and establish fast and effective communication between the health authorities and the public (OECD, 2021; Kim et al., 2021). For example, in an investigation or confirmation of a new case of infection, citizens receive an SMS alert. In addition, data from cell phones, credit cards, and security cameras are used to track movements and contacts. South Korea also counts mobile traffic and includes it in the metrics. An increase in the traffic volume indirectly points to a decrease in the intensification of personal contacts. Thus, a change in the traffic volume can also be used to assess the consequences and success of the measures introduced (for example, when moving from one stage of restrictions to another).

South Korea's response to COVID-19 and its citizens' compliance with such drastic accounting measures could be explained by the specific cultural context (see, for example, Yan et al., 2020). However, it was the Korean experience of dealing with previous pandemics that prompted the introduction of such measures. Thus, the state and the people had to make conscious efforts to build trust in situations of an epidemic threat. The significant difference between South Korea and other high-income countries is its focus on hospital-based care. Even before the outbreak in 2016, Korea had 12 beds per 1,000 people. In 2020, the number of beds became 12.4 (OECD/WHO, 2020). This is more than double the average number of beds in OECD countries.

Ensuring such a high number of hospital beds became possible primarily because of the policy decision taken after the 2015 MERS-CoV outbreak (Kim et al., 2021). In many ways, following this outbreak, the legislation regarding the prevention of epidemiological threats was changed. As a result, epidemic preparedness has become a vital function of the public health system. Following this premise, the mechanisms of interaction between the ministries and local governments have been reoriented to ensure a fast response in case of an emergency. In addition, in 2015, the government's collection and sharing of personal data became possible and legal with the Infectious Disease Prevention and Control Act, which specifies that the prevention and control of infectious diseases is the only goal of this process.

During the failure of the fight against the MERS-CoV outbreak, the public trust in the state was undermined (Kim et al., 2020; Lim et al., 2021). The pandemic governance, in its turn, increased public support for the government (Kye & Hwang, 2020; Park & Chung, 2021; Rich et al., 2020). Thus, the trust within the state has been reassembled and re-established. As Kye and Hwang (2020) put it, "South Korea may be transforming from a low-trust to a high-trust society". Moreover, the global approval of South Korea's response to COVID-19 (assessed in epidemiological terms) demonstrates an increase in trust in the state from outside its borders. Thus, an organized and urgent response to an epidemic threat resulted from the pre-established and strengthened response mechanisms to epidemiological threats in general.

Sweden's COVID-19 Crisis Management

When the COVID-19 came to Europe, most EU countries opted for a nationwide lockdown in late March, 2020, which lasted until May with varying degrees of preventive measures. However, Sweden chose a less strict approach, relying on providing recommendations for the population rather than imposing mandatory rules of behaviour in new circumstances (Capano et al., 2020; Pierre, 2020). As a result, the government avoided introducing a lockdown and allowed further business operations and gatherings of up to 50 people (OECD/European Union, 2020). Such a course of action gained an entire global spectrum of assessments and attitudes, from heavy criticism to excitement and appraisal. Some experts' estimations of Sweden's COVID-response report that social distancing and isolation of confirmed patients without lockdown has proven effective in reducing the negative direct health impact from the COVID-19. However, such an approach results in a higher death toll (Pierre, 2020). Usually, Swedish statistics are compared with those of the neighbouring Scandinavian countries because of the apparent similarities in their economies, politics, and culture. Other assessments suggest that the time needed for people to adjust to new rules without restrictive measures resulted in higher infection rates (Cho, 2020).

The first case in Sweden was reported on January 31, 2020 (First case, 2020). The country followed the logic of "flattening the curve," but in a particular way, which has riveted the world's attention from the very beginning. The difference in Sweden's approach is avoiding lockdowns, which is a popular measure in most countries, especially in Europe. Instead, the government followed the strategy of mitigation rather than suppression of community transmissions (Sjödin et al., 2020). Although such an approach is often believed to be driven by economic considerations and Sweden's economy indeed has suffered less in comparison to other EU countries, the country's measures, even without lockdowns, resulted in a considerable contraction of the labour market and businesses' closure (Hensvik & Skans, 2020). For example, the largest cinema chain *Filmstaden* announced in March 2020 that it would be shutting down the next day because of the scarcity of visitors (Filmstaden, 2020). Thus, it would be too far-fetched to say that life in Sweden remained "normal" as in "being the same as in the pre-pandemic times."

For European countries, it has been crucial to increase their testing capacities during the pandemic. In a bit more than a month after having reached ten deaths per million population, Sweden and eight other EU countries achieved a doubling of the cumulated number of tests per thousand people (OECD/European Union, 2020). However, there is still a limited number of COVID-19 tests (Viktigt att testkapaciteten, n.d.). In the second half of November 2020, the Public Health Agency of Sweden announced new recommendations on testing procedures imposing limits on who can get tested (Swedish health agency, 2020). The report states that one reason for these limitations is the rapid growth of cases combined with the high incidence of other respiratory diseases during the season.

Moreover, different regions exhibit different testing capacity levels, and in some of them, the demand exceeds the offer. In this case, it is rational to adopt stricter criteria

by which individuals can get tested. These enduring symptoms of COVID-19 (more than 24 hours) are not linked to some other possible reasons (for instance, allergies) or contact cases. In some cases, self-sampling is possible. The antigen test can be done as an addition to the PCR test. The procedure of booking a test depends on the region to which a person belongs. It can be done by logging into *1177 Vårdguide*[2] [Healthcare Guide], or by contacting a health centre. For the former option, if a person does not speak Swedish, they need to use an online translation tool since there is no information in other languages. In some regions, anyone older than eighteen can get tested for COVID-19 antibodies.

In analysing the containment strategies in Sweden, it is essential to consider the role of digital technologies. From the beginning of the pandemic, digital health tools have played a crucial role in limiting the spread of the virus by enabling and encouraging people to get e-services for health (for example, online consultations). In pre-pandemic times, Sweden had already set a goal of making the country a global leader in e-health by 2025. It has achieved considerable success in implementing electronic healthcare services (Glenngård, 2020). For example, more than 90% of prescriptions were electronic, i.e., they were issued through the digital network linking patients with the doctors' prescription systems and the national e-prescription database (Deetjen, 2016). Telemedicine has also been expanding and developing and has achieved its boom since the COVID-19 outbreak. For example, the service *1177 Vårdguide* [Healthcare Guide] mentioned above used to register 200,000 calls per day in the pre-COVID times, and on March 12, 2020, the national e-health hub got 1.6 million patient calls. In Stockholm, digital medical visits increased to 36,000 in April, 2020 compared to 3,000 in January, 2020 (Cederberg, 2020). At the same time, the use of e-health technologies could be regarded as compensation for underdeveloped hospital-based care (Anell, et al., 2012). In contrast with the case of South Korea, Sweden had 2.1 hospital beds per 1,000 inhabitants in 2018, one of the lowest rates (OECD, n.d.).

Scholars and experts have come up with various explanations for the Swedish government's decision to take a different path in regulating social interactions during the current pandemic and not introducing lockdown policies. There are generally four kinds of such explanations emphasizing the following arguments.

One of the most widely discussed reasons to introduce an exceptional policy is population immunity achievement. Since the pandemic's beginning, scholarly literature, media, and other public domains of discussion have focused on Sweden as an "experiment" in processing through the pandemic to develop population immunity naturally (see, e.g., Capano et al., 2020). Although the Swedish government insisted that population immunity was not their goal (Irwin, 2020), this explanation line has been very prominent (see, e.g., Orlowski & Goldsmith, 2020).

The second most discussed reason is saving the economy while sacrificing public health. While strict lockdown measures are the most appropriate in epidemiological terms, they have severe economic consequences. As the country

[2] a website https://www.1177.se/ or an app.

that imposed low-stringency measures, Sweden attempts to save itself from the economic fallout (Cross et al., 2020).

The third explanatory framework stresses the role of Sweden's Constitution in setting the state's response rules. While such measures as lockdown are ruled out by Chapter 2, Article 8 guaranteeing freedom of movement, a particular set of policy-making strategies in response to COVID-19 are granted by Chapter 12, Article 2 and Chapter 14, Article 2 establishing unique independence for public agencies and giving remarkable powers to local governments respectively (Jonung, 2020).

Finally, there is another view of the advantages of the Swedish approach and, therefore, the reasons why the government chose this line of action. Flattening the curve without implementing strict measures can be considered more sustainable in the long term from the psychological and social perspectives. For example, keeping schools open can be seen as intended to avoid a negative impact on mental health and childcare problems (Pierre, 2020).

Despite the differences in the explanations, there is one feature that they have in common: they all highlight Sweden's exceptional reliance on the high level of trust between the government and the population (Sjödin et al., 2020). Esaiasson et al. (2021) found that from the very beginning of the epidemiological crisis in Sweden to the acute phase in the spring of 2020, the approach resulted in higher institutional and interpersonal trust levels in Sweden.

Furthermore, the way the Swedish government led the country through the pandemic did not result in a polarization effect. On the contrary, institutional, state, and government support and cooperation were crucial for responding to the epidemiological crisis effectively.

Sweden has been referred to as a country of state individualism, i.e., a combination of individualistic attitudes of Swedish people flourishing within a strong state and governance (Orlowski & Goldsmith, 2020). What is particularly interesting in Sweden's case is the state's reliance on the population and tendency to empower the people to play an essential and active role in the situation of uncertainty. The government opted for balancing between the state's response and individual responsibility. Consider, for example, these lines from the Swedish news website *The Local Sweden*[3] quoting Li Bennich-Björkman, a Swedish political scientist:

> It's important to underline the confidence from the government and authorities towards the citizens. It's important for the trust to go both ways because if the authorities start to be harsher in pushing people to do things, you could see citizens respond by having less trust and confidence in them in the future. It's not just about the model of ministries and government, it's also about safeguarding the confidence we have between individuals and the government. (Edwards, 2020)

However, Sweden's unique low-stringency approach has been heavily criticized outside the country's borders. While initially the global and national public discussion

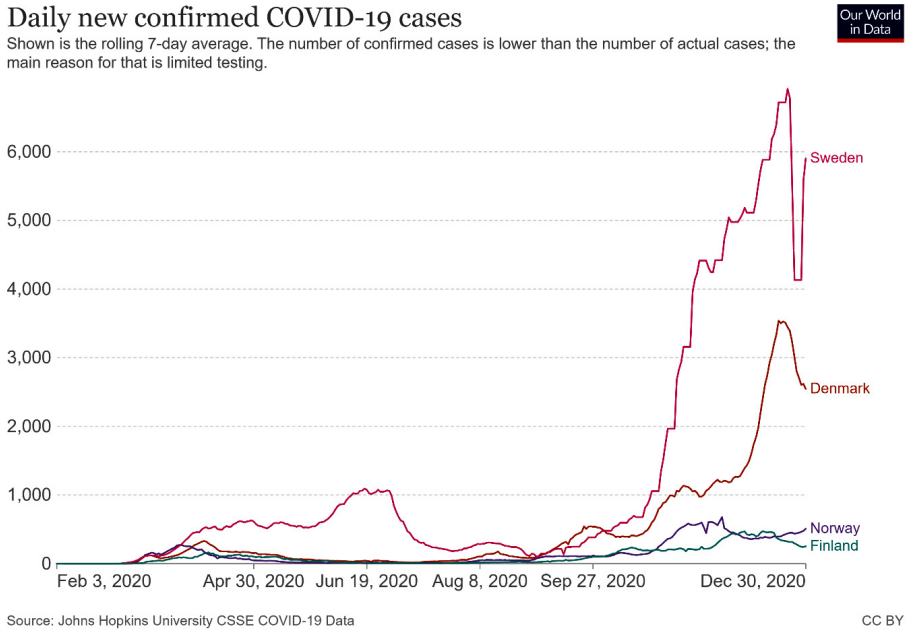
[3] https://www.thelocal.se/

domains (such as scholarly literature, media, other governments, and others) responded to the Swedish government's decision with interest, this interest later faded and turned to disapproval. For example, Simons (2020) demonstrates how the attitudes to the Swedish model changed from seeing it as an exemplary model to heavy criticism within just a few months since the start of the pandemic.

The criticism of the Swedish government's decisions "from the outside" often concerns numerous deaths. However, the number of fatalities is not so much associated with how the country conducts testing and containment but with its treatment capacities. It is hardly possible to talk about any unique "Swedish model" here. For example, the number and dynamics of infections per million people make Sweden comparable to Denmark (see Figure 2). At the same time, the differences in governmental reports published in different countries make cross-country comparisons problematic and it is very difficult to make any conclusions as to how successfully this or that country has tackled the crisis. For example, the Swedish authorities continuously check the list of people who test positive for the virus, and each time it is found that one of them died within 30 days of the test, this is recorded as a death from COVID-19, even if the cause was cancer or a heart attack. Thus, Sweden reports on the number of people who die "with" COVID-19, not "from" COVID-19. In contrast, in the neighbouring country Norway, a doctor must come to a straightforward conclusion that it was the coronavirus that killed a person.

Figure 2

Daily New Confirmed COVID-19 Cases in Scandinavian Countries in 2020



Note. See: https://ourworldindata.org/coronavirus/country/sweden?country=DNK~FIN~NOR~SWE

Comparing Two Cases: COVID-19, Reassembly of Trust, and Democratization of Expertise

Sweden and South Korea have approached the uncertainty caused by the current pandemics differently. While Korea aims at minimizing the uncertainty to the maximum extent possible, Sweden opted for reliance on its population's conscious and responsible decision-making. South Korea has followed the path of virus suppression with testing and containment mechanisms established and institutionalized in advance. Other countries, for example, European countries, lacking such tools, are forced to follow the path of adaptation and recovery (OECD/European Union, 2020). In the absence of mechanisms for keeping comprehensive records of individuals concerning their movements and infection, most EU countries introduced lockdowns. Thus, Korea's ways of keeping records and lockdown can be seen as extreme measures of population control during the pandemic, whereas Sweden is a case of a less invasive policy.

South Korea is an extreme case illustrating the state's capacity to gain knowledge about the population and to control it. In addition to mass testing, the state uses the latest technological tools (information technologies) to track contacts and movements. From the description of the data that the KDCA presents in its daily reports, it can be seen that the record-keeping techniques are extraordinarily detailed. Since the disease was contained, no lockdown was necessary. Sweden avoided the latter as well, yet without using such accounting techniques. Although Sweden has a well-established and reliable system of public and citizen records (Papakostas, 2012), this was not enough to reproduce a similar effect of trust in the situation of a pandemic. The Swedish state won the trust of its citizens but failed to build trust with its neighbours.

In times of COVID-19, the reassembly of trust occurs mainly through supervision. We primarily associated this tendency with the trust of other states, that is, external organizations, as it is directly related to the problem of transparency. In the case of COVID-19, it is testing and non-pharmaceutical interventions, i.e., containment measures, such as the techniques of keeping records about individuals. It should be noted that keeping records is crucial in order to move between abstract representations of individuals and the specific local details about them. The former come as general statistics, including the presence or absence of infection and other relevant demographic, social, and economic parameters crucial for further consideration and response. The opposite is also important: it is necessary to identify a particular individual and trace their contacts.

Besides, different strategies of detection and containment imply various expertise deployment. In the cases where a state opts for less stringent accounting techniques, it essentially democratizes expertise and decision-making.

One could suggest that extreme measures operate in traditional decision-making frameworks, whereas Sweden is an example of the realization of the principles of "post-normal science". Funtowicz and Ravetz (1993) developed this concept to grasp the challenges of policy issues concerning risk management. Post-normal science is opposed to traditional problem-solving strategies like core and applied science and professional consultancy since it implies the inversion of domination of hard facts over

soft values. That happens because "facts are uncertain, values in dispute, stakes high, and decisions urgent" (p. 744). This version of science suggested by Funtowicz and Ravetz involves democratization of science and, eventually, expertise and decision making by extending the community, which assures the quality of scientific inputs to the policy. Thus, the "extended peer community" would involve all the people related to the issue in various ways. Martin et al. (2020) demonstrate how the current policies encouraging or compelling the use of face-coverings in non-clinical settings ran counter this suggestion by incorporating claims which are based on very little evidence and, at the same time, do not include all the relevant communities into the discussion (for example, deaf people).

In Sweden, one can observe a situation described by Evans and Collins (2008), wherein the state grants the population the right to exercise their expertise within the national borders. "In these situations, access to specialist or technical expertise is not a barrier to good decision making, implying that expertise to be everywhere has been overstated" (p. 618). The fundamental premise here is that individuals are able "to make good decisions based on simple and widely available information" (p. 617). Therefore, when analysing the failures of Sweden's response to COVID-19, the government's failure to provide complete and accurate information about the coronavirus becomes one of the central factors (Habib, 2020). That is, failures are not a matter of the strategy per se but of how the information is conveyed to the population.

While a controversy "travels" beyond the field of science and enters a heterogeneous arena, scientific expertise can lose its authority and give way to other social groups with various and contradictory claims. The uncertainty over COVID-19 reinforces the role of science in decision-making. In the current pandemic situation, science can no longer be sufficient, especially since there is still a lack of evidence. At the same time, the most prominent figures who frame Sweden's response to the pandemic stress that the guidelines need to be evidence-based for the government to discuss stricter measures. The lack of evidence also indicates the absence of a definitive way of straightforward critique. Johan Giesecke, a prominent Swedish epidemiologist who hired Anders Tegnell, the current state epidemiologist of Sweden, emphasizes that the lack of evidence-based arguments underlying the lockdown introduction is a matter of possible criticism (Sayers, 2020). Anders Tegnell supports this line of reasoning in his interview to the *Nature:* "Closedown, lockdown, closing borders—nothing has a historical scientific basis, in my view" (Paterlini, 2020). Kavaliunas et al. (2020), in their turn, argue that the Swedish model is evidence-based, that is, based on the evidence the world community has at their disposal currently.

Conclusion

The accounting of individuals becomes the central mechanism of trust enhancement in the epidemiological and pandemic crises both within and beyond the borders of nation-states. In a situation of uncertainty, it becomes necessary to take measures to establish epidemiological control over the population. States opt for different ways to reduce the level of uncertainty. South Korea, for example, has followed the path of

total control and accounting of individuals, their movements, and contacts. Countries whose technological and other capacities are not enough to introduce a similar control system resort to lockdowns and other high-stringency measures, which also serves to reduce uncertainty. Sweden took the third way, in which the absence of evidence-based hard facts meant a choice in favour of self-regulation and individual responsibility. In contrast, the authorities have sacrificed subtlety to certainty in the first two cases. Swedish authorities gave priority to the values of government-population cooperation.

Technologies engineered and introduced to deal with epidemics represent a distinct "style of knowing" (Kwa, 2011) since they rely on visualization to obtain a concrete picture. However, these technologies can be used in different ways and for different purposes. In South Korea, technology is used (as opposed to the active involvement of individuals) to build mechanisms of testing, observation, and tracing. In Sweden, the technology is applied to enhance the population's active participation in solving a common problem.

Social conceptions of what is desirable and possible in the times of epidemiological crises differ from and sometimes contradict each other, mainly because the world has become an arena of rigorous scrutiny and politicized criticism and decisions. While the Korean government attempted to increase trust and legitimate their power and this aim dictated their ways of dealing with the COVID-19, the government of Sweden based its decisions on the current high level of trust. Both countries had institutionalized particular mechanisms for their strategies: for South Korea, it was testing and digital technology, whereas for Sweden, it was the institutionalization of mutual trust. However, when it came to outside assessments of the state's success and correspondent trust in the government decisions, the outcomes were different. South Korea enjoyed a high level of trust from other states, while Swedish policies were widely criticized internationally.

It is too early to say which strategy was the most appropriate. Each strategy has its advantages and disadvantages. On the one hand, South Korea seems to handle the epidemiological crisis exceptionally well. However, the country faces severe problems in the sphere of public mental health (Lee et al., 2021). Sweden empowers its population and reinforces mutual trust relations but has a high death toll and worse COVID-19 epidemiological indicators than its neighbours have (though, as was discussed above, comparability of indicators from different countries is problematic). At the same time, the world community has lost trust in Sweden's strategy to counter the pandemic. The only criteria we can apply to evaluate the situation are the number of deaths and infections rate, which are reliable criteria in the short-term but not so reliable from a long-term perspective. Social, cultural, psychological, and other repercussions can become visible only after decades.

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