

LI-Briefing

# Science and Enlightenment in the Corona Crisis

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## Summary

- There is no sound scientific justification for the attempt to stop the spread of the coronavirus through central state planning with a massive encroachment on fundamental human rights.
- Employing utilitarian criteria, it turns out that the economic, health and social damages caused by coercive state measures such as lockdowns and the like are many times greater in terms of years of life lost than the years of life that could be saved by such measures.
- Employing deontological criteria, there is no justification for suspending basic human rights and disrespecting human dignity by central state planning of social and even family life.
- Instead of sound science, we currently experience a resurgence of scientism and its political use, namely the idea that scientific knowledge is unlimited, encompassing also humankind and all aspects of our existence and that this knowledge entitles central state, technocratic planning of society, including the life of families and individuals.
- Enlightenment is called for in the sense of leaving behind the self-imposed immaturity into which our society is driven through an unholy alliance of alleged scientific knowledge and coercive political measures.

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In many states of the world, a state of emergency was explicitly or de facto declared in mid-March 2020, with massive restrictions on freedom of movement in every form and thus on fundamental rights. These restrictions continue in a more or less severe way at present (December 2020); in many places of the world, we currently witness their renewed intensification. Since we have been living in constitutional states, such repression has hitherto only happened in times of war, when the curtailment of fundamental rights is justified according to the constitution by the case of defence. In the present situation, the restriction of fundamental rights is based on alleged scientific findings of a general threat to public health due to the spread of the virus SARS-CoV-2, or coronavirus for short. Thus, Leopoldina, the German National Academy of Sciences, whose parent countries include Switzerland and Austria, writes in a statement dated 8 December 2020 and addressed to the German government:

Despite the prospect of a start of the vaccination campaign soon, it is *absolutely necessary from a scientific point of view* to quickly and drastically reduce the still clearly too high number of new infections through a hard lockdown. (my translation and emphasis)<sup>1</sup>

We know many cases from history, in particular of the last century, in which coercive state measures were legitimized as *absolutely necessary from a scientific point of view* and had devastating consequences for the people affected. Against this background, are there in the present case scientific results that make a harsh curtailment of fundamental rights mandatory this time, in contrast to all the other previous times? Is it possible and permissible to stop the spread of a virus through central state planning with a massive intervention in people's lives – and especially the lives of those people who do not have much time left to live – without causing great harm?

Science serves the purpose of enlightenment. But it can also be the case that enlightenment is called for against knowledge claims in science and their political use. Enlightenment has two poles. On the one hand, there is the liberation of humankind as expressed, for instance, in Immanuel Kant's (1784) definition of enlightenment as "man's emergence from his self-imposed immaturity".<sup>2</sup> On the other hand, there is scientism, that is, the idea that scientific knowledge is unlimited, encompassing also humankind and all aspects of our existence and that society can be centrally planned according to this knowledge.

The tension between these two poles is obvious: the concern of the pole advocated by Kant is that persons use their freedom to make their own, considered decisions. This presupposes that there is no knowledge – neither from natural science nor from philosophy, religion or other sources – that can prescribe or even enforce upon us the right decision in such a way that there is no alternative. Scientism, by

<sup>1</sup> "7. Ad-hoc-Stellungnahme zur Coronavirus-Pandemie", <https://www.leopoldina.org/publikationen/stellungnahmen/> (consulted 8 December 2020).

<sup>2</sup> Kant, "An answer to the question: What is enlightenment?", quoted from Kant, Immanuel: *Perpetual peace and other essays on politics, history, and morals*. Translated by Ted Humphrey. Indianapolis: Hackett 1983, p. 41.

contrast, assumes that scientific knowledge can prescribe the appropriate decisions on the individual as well as on the societal level.

The latter is what we currently experience in the coronavirus crisis: an alliance of science and politics claims to have knowledge about how to plan society in this situation, knowledge that justifies overriding the freedom of individuals – in this case, however, not to achieve an alleged common good, but to avert an alleged upcoming common evil. Before we turn to these knowledge claims, I would like to rehearse briefly the philosophical foundations of modern states.

## The dilemma of the modern state

There is a dilemma in the Enlightenment justification of state power, as is already clear from Thomas Hobbes's *Leviathan* (1651): on the one hand, state power is necessary to secure the freedom of individuals and their social communities such as families; the alternative would be anarchy and thus no security. On the other hand, state power cannot be considered as being limited by the individuals from whom its legitimacy derives; for that would mean placing the judgement of individuals above that of state power, thus undermining the basis for the state as a guarantor against the arbitrariness of individuals. The dilemma, then, is this one: the more the state seeks to fulfil its task of maintaining order and protecting its citizens, the more it must restrict their freedom (which it seeks to preserve); the more it grants this freedom, the more its protective effect is impaired. Thus, the modern justification of state power to protect citizens contains the seeds for a total, because unrestricted, state.

There are many examples of this fundamental dilemma: in order to effectively protect each individual from violence, the state would have to know everyone's whereabouts at all times; however, this would amount to a total surveillance state. In order to effectively protect everyone's health from infection by bacteria and viruses, the state would have to control and, if appropriate, prevent physical contact between all individuals; but this would again result in a total surveillance and regimentation state. Hence, the challenge is, on the one hand, to grant the state enough power to effectively protect individuals and their communities *without, on the other hand, claiming unlimited protection*. In particular: if one sets protection against infection by a virus as absolute, this is only possible through a state that becomes total. This danger is obvious in the current situation due to the sole focus on the state authorities taking and enforcing measures to protect the population against infection by the coronavirus.

According to John Locke's *Two treatises of government* (1689), the solution to the aforementioned dilemma is a state power that is the rule of law: the law is the same for all and serves to protect the freedom of each individual. The rule of law is created by dividing the state power into legislative, executive and judicial power. However, this solution cannot eliminate the dilemma completely: everyone, including every freedom-loving person, has to acknowledge that in an emergency, the execu-

tive power must ultimately be unlimited in order to be able to protect individuals effectively, *whereby it is in the hands of the state power to determine and thus to decide when an emergency occurs*. The dilemma of the rule of law thus is that it must provide for its own abrogation in the event of an emergency and place the decision as to whether an emergency occurs in the hands of those who have the power to infringe upon fundamental rights in that event.

This creates the possibility of abuse. The question is whether the spread of the coronavirus is such an emergency in which a massive restriction of civil liberties is justified. We have two criteria to answer this question:

- the *utilitarian* criterion: Is the benefit to society as a whole (or the harm averted) of the coercive measures greater than the harm that these measures cause?
- the *deontological* criterion: Is there a limit to state interventions in the given situation that is set by the freedom and dignity of individuals as such – regardless of how useful these interventions might otherwise be?

## The claims of scientific knowledge

Let us now take a look at the scientific knowledge claims, initially as of mid-March 2020, when the (first) lockdown was imposed.<sup>3</sup> Particularly important was the study by Neil Ferguson and others from Imperial College London published on 16 March 2020.<sup>4</sup> This study demonstrably influenced the coronavirus policy of the USA and the UK and probably other countries as well. The aim of the study was to predict the number of deaths and hospitalizations depending on the measures taken by the political authorities. The main results were these: without any government interventions, there will be an enormously high number of deaths by late summer 2020 (2.2 million in the US, 510000 in the UK); only a lockdown strategy can prevent overcrowding in intensive care units.

However, this forecast stood on shaky grounds:

- 1) The prediction that infection numbers will grow exponentially without stop omitted statistical control. Indications of a possible basic immunity in the population, which could reduce the spread of infections, were not investigated.
- 2) Central parameters such as the infection mortality rate, the proportion of asymptomatic infections or the mortality rate of intensive care patients were set (partly without reference to sources) at high values. Doing so ignored the possible range of values of these parameters based on the evidence that was already available in mid-March.

<sup>3</sup> I'm grateful to my collaborator Alin Cucu for a detailed analysis of the studies discussed in this section as well as many other valuable comments. Furthermore, I'd like to express my gratitude to Ulrike Kämmerer, Günter Kampf and Boris Kotchoubey for their help in assessing the scientific results.

<sup>4</sup> Ferguson, Neil M. et al.: "Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand", *Imperial College COVID-19 Response Team, 16 March 2020*, DOI: <https://doi.org/10.25561/77482>.

- 3) The argument of the study was inconsistent: on the one hand, the authors urged a lockdown as the only viable solution; on the other hand, they conjectured that targeted protection of risk groups as well as voluntary behavioural adjustments of the population may be sufficient to bring about the desired result. The authors did not weigh the latter against the harm that harsh measures such as a lockdown would cause.

These or similar points of criticism also apply to studies carried out later, which examine the connection between measures that continue to be maintained and deaths and hospitalizations, including studies from Switzerland at the two Federal Institutes of Technology.<sup>5</sup>

More knowledge about the actual spread of the coronavirus would therefore be desirable. However, without widespread tests, it is only possible to obtain such knowledge in a retrospective manner, namely through the detection of antibodies, which indicate that the person has undergone an infection. Although these data cannot provide insights into the dynamics of virus spread, they are important for estimating the infection mortality rate; the number of deaths associated with COVID-19 must be put in relation to the total number of infected people in order to obtain an accurate estimation of how dangerous the virus is.

In this regard, the meta-study by John Ioannidis of Stanford University is particularly important.<sup>6</sup> This study analyses all the available studies on antibody detection up to the beginning of September. The result is that the infection mortality rate ranges from 0.00% to 1.63% with a median value of 0.27%, depending on the region. Furthermore, the figures on the age and pre-diseases of deceased persons and severe cases (intensive hospitalizations) give a good impression of how dangerous the virus is. The vast majority of the deceased persons are over 70 years old and have significant previous illnesses. COVID-19 is only dangerous for people of advanced age and in particular with pre-existing conditions. For all other groups of people, the danger lies within the range of generally accepted, everyday risks (such as daily car rides of about 100 km). A danger to the population as a whole due to the spread of the coronavirus cannot be deduced from the data.

Nonetheless, the idea is that lockdowns or similar coercive measures can save years of life in the present acute situation: fewer deaths should then occur in connection with COVID-19 and the hospitals should be relieved. However, in any case, years of life are also lost as a result of the economic, health and social damage caused by such coercive measures. The issue is not the one of offsetting economic damage against years of life gained. The issue only is a comparison between years of life gained and years of life lost.

<sup>5</sup> Lemaître, Joseph C., Fellay, Jacques et al.: "Switzerland COVID-19 scenario report", <https://jcbblemai.github.io/> (24 April 2020, EPF Lausanne); Balabdaoui, Fadoua & Mohr, Dirk: "Age-stratified model of the COVID-19 epidemic to analyze the impact of relaxing lockdown measures: nowcasting and forecasting for Switzerland", *medRxiv preprint*, DOI: <https://doi.org/10.1101/2020.05.08.20095059> (8 May 2020, ETH Zurich).

<sup>6</sup> Ioannidis, John P. A.: "Infection fatality rate of COVID-19 inferred from seroprevalence data", *Bulletin of the World Health Organization*, Article ID: BLT.20.265892, 14 October 2020.

The result is sobering. As one example, consider the study by Bernd Raffelhüschen, economist at the University of Freiburg (Breisgau) from July 2020, which considers the years of life lost through the lockdown of the economy in Germany in spring 2020 (excluding the consideration of further health and social damage).<sup>7</sup> Real economic growth (after deduction of inflation) and gains in life years due to higher life expectancy are very closely correlated because real economic growth is achieved through technical progress, including medical-technical progress. Accordingly, a decline in growth is associated with a loss of life years of the population – that is, life years that will be lost in the future because economic growth and with it medical-technical progress were slowed down. Raffelhüschen calculates that even if the number of years of life potentially saved through the lockdown is set generously high and the most favourable scenario for the further course of the economy is assumed, the number of years of life lost in the future due to the lockdown still exceeds the maximum number of years of life that could possibly have been gained due to the lockdown by a multiple. There are similar results for Switzerland<sup>8</sup> and the United Kingdom<sup>9</sup> as well as many other countries.<sup>10</sup> In sum, the harms of lockdowns and similar coercive measures far outweigh their potential benefits; and while the benefits are only for the at-risk groups, the harms affect all segments of the population.

## Scientism and the political abuse of science

Against this background, let us return to the criteria mentioned above in order to assess whether the massive restriction of civil liberties that has happened and that continues to this day is justified. If one combines the medical findings to date with the economic findings, it becomes obvious that the damage to years of life exceeds the possible benefit in years of life gained many times over, in every scenario, taking into account the uncertainty and accordingly the entire range of possible initial values employed to calculate years of life gained and lost. Under utilitarian criteria, the verdict on the coercive measures thus is devastating, for every point in time considered: all the information required to estimate the dimension in which the damage will range was already available in mid-March, as was information on the fact that the coronavirus is only dangerous for certain age and risk groups. Accordingly, there was no lack of warning voices from science, including medicine, as early as mid-March, for example the voice of John Ioannidis.<sup>11</sup>

<sup>7</sup> Raffelhüschen, Bernd: “Verhältnismässigkeit in der Pandemie: Geht das?”, *WiSt. Wirtschaftswissenschaftliches Studium*, July 2020.

<sup>8</sup> Beck, Konstantin & Widmer, Werner: “Corona in der Schweiz. Plädoyer für eine evidenzbasierte Pandemie-Politik”, ISBN 978-3-033-08275-5, available on <https://www.corona-in-der-schweiz.ch> (consulted 16 December 2020).

<sup>9</sup> Miles, David K., Stedman, Michael & Heald, Adrian H.: “‘Stay at home, protect the National Health Service, safe lives’: a cost benefit analysis of the lockdown in the United Kingdom”, *International Journal of Clinical Practice* 2020, DOI: 10.1111/ijcp.13674, published 10 August 2020.

<sup>10</sup> See the overview of the respective studies provided by the American Institute of Economic Research, “Lockdowns do not control the coronavirus: the evidence”, <https://www.aier.org/article/lockdowns-do-not-control-the-coronavirus-the-evidence> (consulted 20 December 2020).

<sup>11</sup> Ioannidis, John P. A.: “A fiasco in the making? As the coronavirus pandemic takes hold, we are making decisions without reliable data”, *First opinion*, <https://www.statnews.com/2020/03/17/a-fiasco-in-the-making-as-the-coronavirus-pandemic-takes-hold-we-are-making-decisions-without-reliable-data/> (consulted 18 March 2020).

Hence, we do not face a situation of science against “corona deniers”, or even “conspiracy theorists”, or of one science (medicine) against another one (economics). There has always been and continues to be a scientific debate, even within epidemiology, about how dangerous the virus is and what harm the coercive measures are poised to inflict upon the population in general and those people in particular who have not many time left in life. Evidence of this is, for instance, the Great Barrington Declaration from 4 October 2020 written by leading medical experts,<sup>12</sup> insofar as this declaration recommends the targeted protection of risk groups instead of coercive measures such as lockdowns and the like, in view of the serious damage that such coercive measures bring about. Similar, though not identical, proposals were also submitted by leading German physicians and virologists.<sup>13</sup> In short, there is no evidence and no argument why the current spread of the coronavirus should be substantially different from previous similar cases (such as the Hong Kong flu of 1968-1970), which were addressed by medical means alone and by spontaneous, voluntary adjustment of behaviour in the population.

All this again shows that science is always a process of seeking knowledge, in which there is a plurality of voices presented with reason. Consequently, there is no justification at all for scientific policy advice that proclaims central governmental planning of people’s lives with its associated coercion to be “absolutely necessary from a scientific point of view”. Such an assertion is a blatant abuse of science by scientists themselves, as most recently done in the statement of the German National Academy of Sciences cited at the beginning of this article.<sup>14</sup>

Under the deontological criterion, the same conclusion emerges: the spread of the coronavirus is not a defence case; as the figures show, it is no case of any danger to the population as a whole. Consequently, there is no justification for suspending the normal rule of law. That is why the restrictions on fundamental rights that have been imposed set a worrying precedent. They lower the bar for imposing coercive state measures in an utterly irresponsible manner.

The alternative is not either to do nothing or to suspend basic human rights through lockdowns and the like. When a wave of infection rolls in that threatens a certain group of people, they and everyone else spontaneously adjust their behaviour; in such a situation, it is the task of the state to create a legal framework for solidarity with the vulnerable group of people to protect them from infection, insofar as they agree to the protective measures. But from a deontological point of view, out of respect for the freedom and dignity of these very people, one must grant everyone the freedom to assess for themselves what risks they are prepared to take for a life that they consider worth living. No one has the right to use coercion here, to set their personal protection absolute and to disregard the life perspectives of others.

It thus proves fatal once again to dissolve the tension between freedom and scientism inherent in enlightenment in favour of scientism and its political use. The

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<sup>12</sup> <https://gbdeclaration.org/> (consulted 14 October 2020).

<sup>13</sup> For example [https://www.kbv.de/html/1150\\_48918.php](https://www.kbv.de/html/1150_48918.php) (consulted 13 December 2020).

<sup>14</sup> I should disclose that I’m fellow of the Academy and, of course, protested internally against this assessment.

role of science must not be that of state religion in pre-Enlightenment times: there is no knowledge that can be employed to justify a central state planning of society that overrides the freedom of individuals. Enlightenment is also today the exit from the self-imposed immaturity into which our society currently runs in that respect.



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