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Covid-19: The Principle of Proportionality is not Respected?

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Covid-19: the principle of proportionality is not respected?

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ABSTRACT

To what extent is it permissible to provoke an economic crisis, the extent, and effects of which we know quite a lot about, if in return the "bad" to be limited is not known in its extent? Which restriction of fundamental rights (freedom of assembly, freedom of speech and democracy) may be used to reduce a group's mortality risk? Are measures permissible if a similarly safe state could be achieved for a few (risk group) with less restrictive measures? Do we want to take such risks if we do not know where this path leads and therefore prevent further spread of the virus at all costs? Co-morbidity greatly explains the high lethality of covid-19 among older people. Can a large part of society and the healthy world population be exposed to a risk of (starvation) death and social disruption, so that a small, known risk group can extend its remaining life, already marked by morbid conditions, by a few months? In the following we will go through these questions and will conclude that, even though we do not know much, to the current state of knowledge the strict quarantine measures applied in most countries in the world seem to not meet the principle of proportionality.

1. Introduction: few facts and many questions

1.1 Some figures at a glance

The facts in figures alone are sufficient in themselves to question the strict quarantine measures similarly practiced in most parts of the world. Worldwide more than **150,000** persons die every day for different reasons (WHO, 2018), many of which imply that many of those deaths could relatively easily be avoided. The main cause of deaths are cardiovascular diseases with daily 48,742 people dying, followed by different kind of cancers with 26,181 daily deaths (Roth et

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al., 2017), obesity with almost 13,000 persons dying daily (IHME, 2018). A WHO study shows that the number of deaths caused by harmful use of alcohol (an evitable driver) amounts to 8,200 people daily. Each day Tuberculosis causes 3.567 deaths, AIDS 2,791, diabetes 4,342, hypertension 2,480, digestive diseases almost 7.000, roan injuries about 3,900 and violence about 1,240 deaths (WHO, 2018). So far as of 06/23/20, the highest rate of death per day of coronavirus has been 8,435.

Here some country-specific figures: So far (06/23/20) 192,000 Covid-19 infected persons have been counted in Germany (John Hopkins University, 2020), that sounds a lot at the first glance. However, the number is put into perspective when compared to the 45,000,000 or so people who get ill of conventional cold pathogens in the Germany every year. The number of people *infected* with conventional colds and flu every year is even significantly higher, since not everyone who gets infected also falls ill. However, reliable statistics do not exist. Also, the number of people who *die* from Covid-19 is frightening only at first sight. In Germany, 8,914 people have died of the new coronavirus so far (John Hopkins University, 2020); however, during the last winter 2018/2019, **25.100** people died from the classic flu in Germany (RKI, 2019), or almost three times as much as from the current pandemic. Moreover, these numbers could, in fact, be higher for most people who die of the classic flu are usually old people who, if they die at home and not in a hospital, will not appear in the statistics as influenza deaths but as natural deaths. The US Centers for Disease Control and Prevention (CDC) admits that the figures on *influenza* deaths can only be estimated (CDC, 2020a; 2020b)¹.

1.2 Questionable reliability of tests for Covid-19 diagnose.

Here, another important aspect has to be mentioned. Quite worrying evidence exists about the reliability of tests used to diagnose the disease, as in the case of tests that detect Covid-19

¹ Moreover, in the US, as of 07/02/2020, and according to the estimates of the CDC, the number of covid-19 related deaths had been 128,024, which is only a bit more than a quarter of the common influenza death toll in the same country, during the 2018/2019 season.

antibodies. For example, an article published in June in the British Medicine Journal, which analyzed studies from January 1st to April 30th, 2020 that measured sensitivity and specificity of those tests, determined that for every 1,000 people tested 31 who never had Covid-19 would be incorrectly reported as being immune to the virus, and 34 who actually had Covid-19 would be incorrectly reported as never having been infected (British Medical Journal, 2020). The PCR test that detects the virus itself and not antibodies –and which is supposed to have a higher sensitivity and specificity than tests that search for antibodies– does not necessarily have a higher accuracy to define whether or not a person is infected with Covid-19. This is because the test does NOT detect the virus itself (which was only isolated very recently), but proteins that are common to a family of viruses of the coronavirus type, of which there are many, and which are also **generally present** in the human body. A study conducted at Johns Hopkins University recently corroborated the lacking sensitivity of the test (Medical News Today, 2020).

1.3 It is not possible to determine with certainty that someone has died from a specific virus.

In this context, it is important to note what many people do not know: it is not possible to say with certainty that someone has died from a specific virus. **This can only be assumed**. This assumption will be made if the virus was found in a person who died shortly afterwards having made the test. But that does not mean that this virus was actually the cause of the death. It is possible to find an almost **infinite number of potential pathogens in any body** if you search for them, while the infected person would not necessarily feel sick². This is because pathogens are ubiquitous, and our immune system is constantly fighting against one or the other ingested pathogen. That a person has actually died from a certain pathogen can only be said if firstly,

² Viruses are part of a set of life forms that are usually found in a human being (along with bacteria, fungi, protozoa and helminths) (Delwart, 2016).

the pathogen (virus or other kind of pathogen) that is presumed to had caused the death is isolated and identified; and second, if the so-called pathogen (viral or other) load is high enough so as to have been able to cause the death, which is very complex to measure, and this test is usually not conducted if someone dies. If a person has a very large number of a certain pathogen (virus, bacterium, fungus) in his or her blood and then dies, only then can we rightly assume that this person has fallen ill and died from the pathogen. Yet, as has been said, the viral load is normally not tested in dead. Many people who appear in the statistics today as corona deaths are possibly "ordinary" flu patients who are considered corona deaths in the presence of Covid-19. And even if we would find a high Covid-19 virus load in a recently deceased human body, the question remains why the virus was able to spread in this person in such a way that the person died of it. This leads us to the next point.

1.4 Do people die from Covid-19 or from old age and previous illnesses?

Co-morbidity greatly explains the high lethality of covid-19 among older people. As is the case with the classic flu, an otherwise healthy person, who eats a good and healthy diet and has no serious previous illnesses, will most probably not die of Covid-19. According to the German Robert Koch Institute, the median age of the people who died of Covid-19 in Germany was **82** years! **86% were older than 70** (RKI, 2020). Data from other countries show similar results: The majority of deaths are elderly people or those affected simultaneously by other diseases (co-morbidity) (Wang, et al., 2020; Guan, et al., 2020; Posch, et al., 2020). In Hamburg autopsies on the Covid-19 deaths revealed that in these cases the virus was only the last straw that broke the camel's back (Welt, 2020). In fact, in hard-hit rich countries, about 60% of all covid-19 deaths are among people of 80 years old and more. Even in the United States, which is an outlier, data released on June 16th by the Center for Disease Control (CDC) show that the people in their 80s account for less than half of all covid-19 deaths (The Economist, 2020).

1.5 'Flattening' the infection curve only works as long as the measures are maintained.

The idea of flattening the infection curve is also questionable. Of course, **the permanent flattening of the infection curve is not possible at all**. You do not need to be a virologist to understand that once the quarantine is lifted, infection rates would have to rise exponentially again. According to the common belief, only one person with corona infection left over after the quarantine would be enough to start the exponential spread again. After all, it all started with a single person who had entered the respective country.

The idea of flattening the infection curve in order not to overload the health system only works as long as the measures are maintained until the entire population –or significant parts of it– is infected and has produced antibodies. With a daily infection rate of 3,000 people in Germany (and that is the average infection rate in Germany until today), it would take 26,666 days, i.e. 74 years, for 80,000,000 citizens of the Federal Republic of Germany before the quarantine could be lifted. The same rational you can apply similarly in other countries. After five years at the latest, however, we will all have starved to death. Already after half a year many will die of hunger, especially in poorer countries, where many are already destitute before the artificial economic recession started. Many small and medium sized enterprises (SMEs) will go bankrupt, and the markets will subsequently be even more concentrated, thus increasing inequality since market concentration is probably the most important reason for the growing income inequality, along with our financial system (Kennedy, 2006; 2011; Fuders, 2010; 2014; 2016; Fuders & Max-Neef, 2014a; 2014b).

Our economic development may be set back by a hundred years. Incidentally, one could also ask here why the same drastic measures are not taken in the case of a classic wave of influenza, which is similar dangerous for the risk group (the elderly and otherwise weakened people)? And why can the governments in China and European countries now lift the quarantine although **several thousand** people in these countries still remain infected, while when starting the curfew, only a few hundred were infected. To come back to the example of Germany where they are now relaxing the restrictions, the number of people still infected (infected convalesced) is a factor of 100 higher than at the time when the quarantine measures were adopted.

1.6 And what about so-called heard immunity?

In order to strengthen isolation some people have started to raise the issue that the so-called 'herd immunity' may not occur in the case of coronavirus. Herd immunity occurs when a large portion of a community (the herd) becomes immune to a disease, making the spread of the disease from person to person unlikely. As a result, the whole community becomes protected, not just those who have already developed antibodies. Often, a percentage of the population must be capable of getting a disease in order for it to spread (threshold proportion). If the proportion of the population that is immune to the disease is greater than this threshold, the spread of the disease will decline. This is known as the herd immunity threshold. In their original announcements after declaring the virus a pandemic, the WHO estimated in about 60-80 % of the population become infected to achieve herd immunity (WHO, 2020; Grech, 2020). These days, however, voices are proclaiming that herd immunity could not exist for coronavirus, justifying the maintenance of the quarantine measures (Britton, et al., 2020; D'Souza & Dowdy, 2020).

This is highly questionable because the projections of the evolution of the coronavirus are based in the SIR (susceptible-infected-recovered) model developed in 1927 (Kermack & McKendrick, 1927) a standard model used by epidemiologists for predicting the evolvement of infectious diseases. The SIR model is a model of a set of differential equations explaining the evolution of susceptible, infected and recovered people during a pandemic. A fundamental assumption of this model is the existence of herd immunity, otherwise the patterns of the variables cannot converge, rendering the model useless. This model has been applied for almost 100 years now, and to the best of our knowledge there is not a single paper questioning or adapting the model to include the case of the absence of herd immunity.

Moreover, the evolution of a pandemic will depend not only on the contagion control measures imposed by governments, but also, and crucially, on the social actual behavior adopted by the population in response to those measures. People's actual behaviors will be largely determined, in turn, by the **living conditions** that result from the economic restrictions provoked by the measures imposed, specially, but not only, for the most social and economically vulnerable segments of the population. Two political responsibilities arise from the latter. Firstly, the obligation for health policy decision takers to properly monitor and assess the objective social and economic consequences of the regulatory measures imposed on the population, as well as the people's own perceptions of those consequences. Secondly, to incorporate in their policy decision models the necessary economic and people's wellbeing determining variables to allow them to avoid undesired results from their policy prescriptions, which can end up being enormously costly. In addition to this, the incredible fast changes of the last decades, regarding the means currently structuring and articulating the active social networking as well as regarding the ways that economic and social responses adopt and the velocity with which they unfold, have implied that the current policy decision making scenarios are dramatically different than those faced by health policy maker in former times. In fact, this is the first time in human history that a quarantine is deemed to be necessary to be applied not to the sick, but to the healthy part of the population. This leads us to the next point.

1.7 Why is the quarantine not limited to the risk group?

Why is quarantine not simply limited to the persons belonging to the risk group? As already mentioned, the majority of deaths are elderly people (which is why, as explained above, these could be interpreted as natural deaths due to old age or deaths due to the respective previous illness rather than Covid-19 associated deaths). That is to say, even if we deemed Covid-19 to

be so dangerous that it is justified for the first time in history not only to put the sick under quarantine, but there is also absolutely no reason why we should put under quarantine those who have no or very little probability to die. If the quarantine were limited to the people belonging to this risk group, most economic activities could continue normally. There would be much smaller economic losses than those resulting from total lockdown of our economies. In many cases, completely new markets could even develop, namely service providers who bring food and other home services to people in quarantine.

2. The principle of proportionality is not respected.

2.1 There is a milder remedy than the total standstill of the economy.

If, as stated above, it was possible to achieve the same effect, namely the protection of the most vulnerable people, by a milder means than the total standstill of the economy, why not do it? To answer this question, it is important to apply the normative criterion of proportionality in order to discern the correct balance between the objective pursued and the means and methods used to attain it as well as their consequences. Proportionality is a core principle in public law, which provides a logical method to assist in determining the legality of an action. In the constitutional realm, if it is possible to achieve a legitimate objective with a smaller restriction of freedoms, then the principle of proportionality, which is one of the fundamental principles of a constitutional state, even **obliges the legislator to do so**³. In the case of the covid-19 pandemic at hand, the proportionality principle constitutes not only a compelling normative criterion to guide the required public policies, but it also provides a useful practical tool to minimize, although not to eliminate, both of the arising conflicting consequences from the

³ Any measure that interferes with fundamental rights must be appropriate, necessary and proportionate. A measure which does not meet these requirements is unlawful. The necessity must always be denied if there is a milder means of achieving the legitimate objective. On the principle of proportionality, see for example Emmerich-Fritsche 2000; Schachtschneider, 2007, p. 342 ff; Cottier, et al., 2012.

necessary public actions, the health costs and the economic and social costs involved in these actions pursuing the desired objective of controlling and stopping the epidemic.

2.2 There could be more deaths from hunger than from the virus

However, even if there were no milder means of achieving the same legitimate objective (the protection of the elderly and those who affected by previous illnesses or immunosuppressive conditions), the drastic quarantine measures currently enforced almost everywhere in the world can hardly be considered adequate. With the economy running almost to zero, we run the risk of creating an unprecedented wave of bankruptcies, especially, but possibly not only in small and medium-sized enterprises, and, because most people work in small and medium-sized enterprises, of creating an unprecedented economic crisis and unemployment, which could be much worse than the crisis of the 1930s. It was not until the end of the World War II, after Germany had already been completely bombed out, that the economy came to an almost complete standstill for the last time. However, it took six years before this happened. Today we create the same effect by law from one day to the next; and not only in Germany, but worldwide. It is not unlikely that massive credit defaults will be followed by a financial crisis that would come soon anyway (Fuders, 2010; 2017; Fuders & Max-Neef, 2014a; 2014b; Fuders, et al., 2013) and that this could now be triggered (De Grauwe, 2020).

This financial crisis alone would severely impact the economy. Now both crises would come together. The World Trade Organization expects world trade to collapse by 32% (WTO, 2020). The globally networked and integrated value chains could collapse quite rapidly. If companies went bankrupt, this collapse of value chains and thus the collapse of the global economy could persist for many years, even if the quarantine was abrogated after a few months. If the quarantine is maintained for a few more months, we will see famines, especially in developing and emerging countries where the government does not have the means to finance short-time work over a longer period of time. In many countries, the retail trade alone plus the tourism

sector account for 20% of GDP. Then there are suppliers and all those companies that have suffered heavy losses because many have less income at the moment and also spend less. In most countries this is not cushioned by government subsidies, because they simply do not have the financial means to provide them. In Germany, even the automobile industry is at a standstill, and when that happens, it means that the economy is very much suffering from corona. If this standstill lasted a year, GDP in Germany, for example, (and similarly in many other countries) would fall by up to 50%. But just three months would already lead to a GDP slump of 3/12 of 50, i.e. 12.5%. The problems already affecting the world aviation industry, the tourism industry as well as the global oil industry are signs of how troublesome the future can be for many other areas of the economic activity worldwide.

If people worldwide would earn 12.5% less on average, then the poorest, who are already barely making ends meet, will starve to death. The poorest, that is almost 30% of the population in developing and emerging countries and 10% of the world's population, in other words about **700 million people** (Roser & Ortiz-Ospina, 2013). Even of the Spanish flu, which was the deadliest pandemic ever recorded, only 20-50 million died (WHO, 2017). In this context, it should also be borne in mind that poor people and generally those belonging to the lower wage groups are relatively more affected than the average. In Chile (an OECD country), beggars and ambulant street vendors are already starving to death, as there is no one on the streets today who could give alms as usual. People are living similar or even worse situations in many other countries poorer than Chile. This cannot persist for a much longer period without a significant increase in the possibilities of future social unrests, political conflicts, and riots, assaults and lootings by desperate mobs trying to survive.

2.3 Deaths due to other diseases triggered by malnutrition.

Hunger and malnutrition and the resulting weakening of the human immune system could then also lead to the spread of other diseases, such as tuberculosis, cholera, typhoid, yellow fever or plague, from which immunocompromised people in particular fall ill and die. For example, it has been argued that the many millions of deaths in the Middle Ages in Europe were not caused by the plague (*Yersinia pestis*) itself, but by malnutrition, which was prevalent in large parts of Europe at the time and can still be seen today in the bones found in cemeteries (DeWitte & Wood, 2008)⁴. Also, the number of people dying of **Covd-19 itself** could increase because of the malnutrition. Would those cases then enter the statistic as Covid-19 deaths or deaths due to malnutrition?

2.4 Deaths due to wars, suicide, domestic violence, lack of hospital beds

Moreover, it cannot be ruled out that the severe economic crisis could cause or encourage tensions between countries, which could then degenerate into military conflicts **with many millions** more dead. It is enough to open a history textbook to remind us that most major wars were accompanied by major economic crises (Creutz, 1993). And even if it does not turn out so badly, the compulsion to practically lock oneself in one's own (or not one's own) four walls has already led to a sharp rise in suicide rates and deaths from domestic violence (Böge, 2020; Stokowski, 2020). Some other social effects are started to be analyzed such as: depression, family intergenerational problems, mental health issues, and so on. However, there are no reliable figures. It is quite possible, however, that worldwide more deaths will occur here alone than from the virus.

In addition, there are also those people who die because they cannot get adequate treatment now, as hospital beds are occupied by corona patients, even though a causal treatment against coronavirus until today does not exist (Berdel, et al., 2004; Kasper, et al., 2015; Bhat, et al., 2016). There is only symptom treatment, and even this is likely to be unhealthy rather than beneficial to recovery, as the body produces symptoms such as fever and rhinitis for good

⁴ It is not unlikely that the then widespread malnutrition had to do with the conversion of the monetary system from the bracteates, which were widespread in large parts of Europe in the heyday of the High Middle Ages, to the monetary system with hoardable coins and notes, which in principle still prevails until today (Azkarraga et al. 2011).

reason. Certainly, **the symptoms are not a failure of nature**, and man does not improve nature. A million-old equilibrium by definition cannot be improved. Imagine an ancient and weak patient, now weakened extra by the corona infection, who is then also (mal)treated with a viral static (chemotherapeutic agent). It is understandable that this patient's immune system then collapses completely, so that his pneumonia becomes so severe that ventilators are needed. Hence, not only are many hospital beds unnecessarily occupied, but one might also argue that many of the "corona deaths" could possibly still be alive if they had stayed at home.

3. Conclusion

Independently of how strong this worldwide shut down of countries' economies will eventually affect livelihoods, it is fairly incomprehensible why the quarantines have not been limited to those at risk instead of paralyzing the entire economies. Laws and the threat of fines would not even be necessary. People belonging to the risk group would stay at home voluntarily. The danger of an economic collapse would be avoided by this milder means. Since the same effect of protecting people belonging to the risk group can be achieved with less drastic and above all dangerous measures, the legislator is even OBLIGED to apply this milder measure. The principle of proportionality, which is one of the fundamental legal principles in a constitutional state (Emmerich-Fritsche, 2000; Schachtschneider, 2007; Cottier, et al., 2012), obliges the legislature to do so.

Let us recapitulate once again:

1. In any case, it is questionable whether the dead die from the virus, or if they should not better be classified as dead from old age or previous illnesses.

2. Even if the dead were classified as "corona deaths", without any quarantine measures whatsoever it is not unlikely that far less people will die of Corona virus than of the measures themselves. For this reason alone, the principle of proportionality is not respected.

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3. If we consider that there is a milder means of achieving the same legitimate objective, namely the protection of people at risk, the principle of proportionality PER DEFINITION is not being respected.

For the authors it seems to be urgent to adopt extended and up to date epidemiological models incorporating **economic and social variables** determining peoples' behavior responses to policy prescriptions imposed by governments to better project pandemic evolutions in the future. The current response of the scientific community producing a large number of papers and manuscripts in the indicating direction within a period of only few months, allows us to be optimistic that this challenge can be met soon. This will hopefully facilitate future compliance with the proportionality criterion which can be easily overlooked and violated if the economic and social drivers of people's behavior continue to be disregarded by the epidemiological models used to design health policies.

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