Conceptual Issues in COVID-19 Pandemic: An Example of Global Catastrophic Risk

A Response to: The Traditional Definition of Pandemics, Its Moral Conflations, and Its Practical Implications: A Defense of Conceptual Clarity in Global Health Laws and Policies by T. De Campos, *Cambridge Quarterly of Healthcare Ethics (CQ 29(2))*

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Thana C. De Campos in a recent issue of *Cambridge Quarterly of Healthcare Ethics* (*CQH*) discusses a challenge of currently applied conceptual framework in regard to pandemic which is focused only on spreadability, but does not take into account, at least not in a sufficient way, another crucial factor, severity. Consequently, such situation leads to a conflation problem when it does not make efficient distinction between emergencies and nonemergencies.[1] Current COVID-19 pandemic is not only a highly infectious disease which has spread rapidly in almost all the world, but also high in severity. COVID-19 meets criteria of the worst 5 category in CDC Pandemic Severity Index chart where 5 category means 2.0 percent or higher a case fatality ratio. The case fatality ratio for COVID-19 is about 4.5 percent.[2] Conceptual issues have real consequences here. As De Campos writes, "a pandemic is a global health emergency that not only spreads rapidly, but also is severe, and that justifies priority resource allocation over and above nonemergencies that are not as urgent".[3] In my commentary, I use the recent discussion in *CQH* also including commentary by Eduardo A. Undurraga[4] as a starting point to elaborate more conceptual issues in the current COVID-19 pandemic and to discuss some challenges relevant to healthcare ethics.

The criteria of transmissibility and severity which are rightly recommended by De Campos in regard to the definition of pandemic, overlap with Nick Bostrom's criterion of existential risk which should be global and severe to get a status of existential kind of risk.[5] We may observe and experience today COVID-19 pandemic, which is an interesting and challenging case study not only from point of view of medical sciences, but also ethics and philosophy. But, first of all, it is worth keeping in mind that the current pandemic is a global catastrophic risk. The current pandemic crisis reminds us how our species is closely connected, and that closeness has also very negative effects. The fact that our species is so closely interdependent makes us less resistant to catastrophic and existential risks.[6] There are good reasons to go beyond the mentioned criteria of transmissibility and severity and to discuss current COVID-19 pandemic in terms of global catastrophic risk, in contrast to existential risk. Global catastrophic risk is a kind of risk which may cause global harm for the entire human

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population. But, in contrast to existential risk, global catastrophic risk does not lead to an extinction of the entire human population; neither it does cause a civilization collapse. Natural pandemics like COVID-19 may kill about 1 percent of global population but rather does not have a potential to kill all of humanity—at least due to the fact that there are some isolated populations.[7] However, although a pandemic does not have a potential to become an existential threat, it may cause social and civilizational collapse.[8]

What may be especially interesting today, an evaluation and assessment of pandemic as a kind of global catastrophic risk seems to be underestimated in the study of risks. For instance, *Futures* 2018 issue focused on catastrophic and existential risks discusses, among others, such risks as environmental collapses, supervolcano eruptions or geoengineering catastrophes. That issue does not discuss pandemic as a separate case study. Pandemic such as current COVID-19 meets the criteria of global catastrophic risk: it causes global harm for the entire human population, but it neither leads to extinction of human population nor civilizational collapse. However, the scenario where such a pandemic transforms into existential risk may be reasonable under some conditions. Long-term isolation, breaks in supply chain, closed factories and global financial bankruptcy may cause harmful irreparable consequences which may lead to a fall of our civilization based on capitalism and technology. In the consequence of such or other catastrophes, humans may be forced to start to live like hunter–gatherers in the Pleistocene. Such a scenario is reasonable in a situation of an unstable climate where long-term agriculture becomes impossible.[9] But, there are good reasons to assume that such a scenario may be unavoidable due to civilizational collapse caused by different factors including pandemic. Theoretically, long-lasting breaks in supply chains and closed food factories caused by obligatory anti-pandemic preventive isolation may cause a global collapse in food production and delivery and, consequently, produce a selective pressure for alternative means of food provision. Obviously, a hunter–gatherer model will not be available for probably the largest part of human population, because this is not a model which may work under current conditions of overpopulation and environmental destruction.

If we agree that it is worth discussing COVID-19 pandemic in terms of global catastrophic risk, another conceptual distinction may be useful here. Alexey Turchin discusses in relation to the prevention of catastrophes a distinction of plan A and plan B.[10] Plan A is used to prevent catastrophes, whereas plan B is applied only after a particular catastrophe has happened, and is aimed at guarantying survival. Turchin also discusses so-called improbable and bad plans. Improbable plans are worthy of consideration, but they are unrealistic. Bad plans are hazardous in the long term for humanity. The general rule states that prevention—plan A—is always better than coping with catastrophic effects—plan B. However, there are good reasons to assume that in the case of a pandemic such as current COVID-19 pandemic, both plans are either improbable or bad.

Although at a conceptual level coping with pandemics in general is more a domain of plan B than plan A, some kind of prevention policy (plan A) may be possible. It may include care for biodiversity, because loss of biodiversity increases a risk of epidemics.[11] The same may be true about human genetic diversity. In this context, it is worth mentioning here the concept of human enhancement. Although I am a supporter of that idea that human enhancement including gene editing may be applied for therapeutical

reasons, in my publications, I limit its application only to the specific, exclusivist environment—a field of future human space missions.[12] Such an environment is exclusivist enough to prevent any large-scale population effects. However, human enhancement as such discussed in a context of terrestrial human population may be a double-edged sword. Although different kinds of human enhancement considered as medical genetic enhancement aimed at therapeutical aims to prevent disease may work as effective countermeasures to particular population diseases, genetic enhancements broadly applied to large-scale population may decrease human genetic diversity and reduce human immunity. The current anti-pandemic policy based on a mass-scale social isolation in public space is, in fact, a combined plan A and plan B approach. This is a good example of plan A toward pandemics, which should consist in maximum reduction of all social contact. In current societies, that includes mostly travelling or greeting rituals.[13] But a total pandemic prevention is not possible, because the unique effective policy is the mentioned modification of cultural susceptibility to pandemic, which is rooted in social relations. This is why an action that is an ideal plan A for prevention of pandemic is improbable and it may be —under current ways of social relations—realized only as plan B, which is always applied too late, when a catastrophe has already happened. It may suggest that plan A as a prevention policy toward pandemic is impossible by definition, in contrast to other global catastrophic risks which may be effectively prevented only because a kind of early warning system is possible and available. In the case of the COVID-19 pandemic, plan A is not only improbable, but also bad. The same may be said about plan B which is probable—and, in fact, currently realized—but also bad. This is a paradoxical conclusion, because we agree that isolation including cancellation of all social contact is the best available countermeasure. Limiting human contacts is a basic risk-reduction strategy in the situation of pandemic.[14] However, because of the mentioned close interdependence of the global human population, total isolation—the unique way to inhibit spreadability of pandemic—may be a bad plan because it may cause civilizational collapse when we agree that the essence of our civilization is capitalism, free market and technology. Here, we find a paradoxical situation in which the most appropriate prevention policy may be a source of global catastrophic risk. It is possible that COVID-19 pandemic is not necessarily a global catastrophic risk as such itself, but only when connected with plan B—almost total global isolation which, as it was mentioned above, is rational from epidemiological point of view. However, when other nonmedical factors are at work, such as financial, economic, and social, currently realized plan B may cause on-target and off-target effects, which—paradoxically—will increase, not decrease the effect of a global catastrophic risk. This is a kind of situation is called "a boring apocalypse."[15] A boring apocalypse means long-lasting combined processes and effects that may lead to a global catastrophe. But, when considered in separation, each of them does not have a catastrophic potential.

Today is too late to apply plan A to the COVID-19 pandemic, and the only possible strategy is coping with the effects of that catastrophe. Prospect for the future in relation to a hypothetical effective prevention policy—effective plan A which is not only probable and realistic, but also good (without bad long-term consequences for economy and social life)—toward the next pandemic will require a radical modification of social structure, social life and social activity. In the case of pandemic,

a hypothetical unique way could be growing but permanent transition from current types of social relations to online activity in all possible fields of life. The current experience of COVID-19 may give some inspiration to global, directed changes. When COVID-19 pandemic is discussed from ethical, philosophical, and the study of risk perspectives, we may find a paradoxical situation. Plan A is impossible to apply in the current way of organization of social life and global social structure. If they are not modified, coping with pandemic will be possible only at the level of plan B—coping with effects, not prevention. But, as it was discussed in this paper, plan B in regard to pandemic today is often bad and may increase catastrophic effects. Experts in epidemiology, the study of global catastrophic risks, and healthcare ethics should discuss the most optimal plan A and plan B policies which will take into account not only direct epidemiological and medical outcomes but also on-target and off-target effects in medicine, economy and social life.

Notes

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