



The Federation's Pages

WFPHA: World Federation of Public Health Associations
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The role of thought experiments as sources of insights and lessons to tackle pandemics and other existential threats

We have the ability to travel through time and space with the power of our imagination [1]. This is what we do, for instance, if we have had an accident, and travel mentally back to the time before the crash to ask what could have been done differently, so that it would not have happened. This ability is often used by scientists and philosophers to create imaginary scenarios in which they can explore different ways to tackle complex situations, especially when it is crucial to challenge the status quo. These scenarios are known as 'thought experiments.' Albert Einstein used them in some of his most important discoveries. As a teenager, he imagined how it would feel to chase a beam of light, thus gaining insights that later led to the special theory of relativity [2]. Thought experiments have also been used in public health, particularly to confront difficult questions that push the limits of what can be known or done, and as teaching or planning tools, mostly in relation to complex ethical issues or policy decisions [3–6].

The creation of a thought experiment typically involves five steps [7, 8]:

- First, it starts with the hypothesis or a question to be explored.
- Second, a few assumptions about the world or the given situation are made explicit.
- Third, an imaginary scenario designed to test the hypothesis or to answer the question is created.
- Fourth, the scenario is tested mentally, analyzing its consequences, and drawing conclusions about possible outcomes.

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- Fifth, the findings are communicated to others to spark further discussion, experimentation or action.

In February 2022, we began to follow these steps with encouragement from the World Federation of Public Health Associations (WFPHA) to explore the role of thought experiments to improve how humanity deals with pandemics and other existential threats.

The question

Inspired by the freedom afforded by thought experiments to push the boundaries of what is possible, we decided to focus on the following hypothetical question:

If we had the power to go back in time and add just one resource to what was available on 11 March 2020 to respond to the COVID-19 pandemic, so that we could change its course for the better, which would we choose?

The assumptions

- The scenario is entirely fictitious. Therefore, nothing in it should be regarded as a recommendation.
- The main purpose of the scenario is to showcase how thought experiments could stimulate fresh thinking around how to tackle pandemics or any other existential threats, such as those that might emerge as a consequence of climate change, loss of biodiversity, pollution, financial system collapse, energy shortage, nuclear war or the widespread use of other weapons of mass destruction, unaligned artificial intelligence or any other uncontrolled technologies, solar flairs, asteroid impact, other cosmic events, or something still unimaginable.
- The scenario seeks to generate insights about the role of thought experiments to deal with complex issues in public health and different ways humanity could have dealt with the COVID-19 pandemic.

The hypothetical scenario

On 11 March 2023, a team of public health experts found a time machine that could take them back 3 years, to the very moment when COVID-19 was officially declared as the first pandemic caused by a coronavirus. The time machine was also equipped with a feature that allowed the team to change the course of the pandemic by adding just one resource to what had been available to humanity in early 2020, and which could improve the response to the rapid spread of the virus. There was a catch: generic systemic or cultural changes were not allowed.

After reviewing every major report on the response to the pandemic published in the previous three years, the team concluded that, all along, the main missing piece had been a species-wide governance system, leading to a catastrophic failure of coordination, worldwide.



To meet the requirements of the machine, and make the request specific, the team focused on a core resource that could then give birth to a new governance system: the existence of a trustworthy group of people that would represent the interests of humanity as a whole, and that would be responsible for ensuring transparent, equitable and efficient use of the available resources to halt the spread of the virus, and mitigate the consequences of the pandemic at all levels. The team dubbed this group ‘The Planetary Health Protection Council’ or PHPC.

After accepting this request, the time machine transported the team to the headquarters of the United Nations in New York City. They arrived in the afternoon of 11 March 2020, just at the time when the President of the Security Council had started to make the following presidential statement:

“At the 8743rd meeting of the Security Council, held on 11 March 2020, in connection with the Council’s consideration of the item entitled ‘Planetary Health Protection Council’, the Security Council expressed its concern about the increasing threat posed by the COVID-19 pandemic. The Security Council has decided to activate the Planetary Health Protection Council, or PHPC. This is an interconnected group of people that began to be assembled in 2010, according to directives from the General Assembly of the United Nations, following the H1N1 influenza pandemic. The PHPC includes representatives from all national governments, the private and academic sector, and civil society, with the following composition:

- The government sector is represented by the heads of all states that are members of the UN [9], with authority to represent the whole of government and not just health. With a rotating chair, this group will be responsible for providing high-level political leadership for rapid and coordinated action, driven by a whole-of-government and a whole-of-society approach [10]. It will be advised by the UN specialized agencies with a role in One Health, as well as other global agencies and institutions affiliated with the UN, such as the World Health Organization, the World Bank, the International Monetary Fund, the International Telecommunications Union, and the International Labour Organization.
- The corporate sector is represented by the World Economic Forum (WEF) [11], which includes the 1,000 leading companies on the planet. This group will facilitate the deployment of privately-owned technical and financial resources within and across national boundaries.
- The academic sector is represented by experts selected by the Executive Committee of the International Association of Universities [12]. This group will be responsible for the development, assessment, and implementation of a wide range of knowledge and methodologies to tackle the pandemic, as well as the strengthening of evidence-informed decision-making by the other groups.
- Civil society is represented by leaders of community groups, non-governmental organizations, labor unions, indigenous groups, charitable organizations, faith-based organizations, professional associations, founda-



tions and other special interest groups. They have been selected from the 24,000 entities already registered in the Integrated Civil Society Organizations (ICSO) System [13]. This group of leaders will be responsible for involving the voices and needs of disadvantaged populations.

Given that the success of the PHPC will depend on whether its processes, decisions and actions are perceived as trustworthy by the general public, its structure and functions has been complemented with two independent and yet closely related structures:

- A digital platform to facilitate transparent and equitable participation by representative samples of the world's population in key decisions (such as lockdowns, vaccine certification).
- A system of in-person and virtual tools designed to encourage and facilitate community engagement in controversial issues and adversarial situations from remote villages to the entire globe.

The WFPHA has brought these two structures into existence and will ensure that they become powerful tools to nurture high levels of public trust in the pandemic control process.”

Mental testing

Considering all the elements of the PHPC, we mentally enacted the scenario individually and as a group, to explore its consequences and generate insights that would not be observable directly. As a result of our mental simulations, we feel that the following questions warrant further discussion:

- How could people with very disparate views be engaged in the decision-making process?
- What mechanisms are required to encourage open discussions about power and competing interests, and minimize or prevent their risks?
- Are there effective mechanisms to prevent the private sector from overpowering other stakeholders in the pursuit of their interests?
- How could marginalized or voiceless groups be meaningfully involved in the decision-making process, while avoiding tokenism?
- How could contagious and harmful conspiratorial thinking, misinformation, unnecessary antagonism, and mistrust be avoided or minimized?

Communication and further discussion

Our intention is to share this document as widely as possible, hoping to entice others to keep refining the thought experiment with us and, with each iteration, gain a deeper understanding of how to harness the collective power of human imagination to tackle pandemics and other existential threats.



Closing remarks

The jury is still out, as it is unclear whether we humans have what it takes to control a pandemic. The fact that we can imagine a world in which we are able to join forces to overcome the next one—as well as other major threats to our survival—should motivate us to keep trying our best and prove those who believe we are doomed wrong.

On behalf of the Public Health Leadership Coalition of the World Federation of Public Health Associations (Other members of the Coalition include Melissa Sweet, Natasha Azzopardi Muscat, Georges Benjamin, Bettina Borisch, Sharon Friel, Rüdiger Krech, Martin McKee, Michael Moore, Iveta Nagyova, K. Srinath Reddy, Stefano Scarpetta, Jeff Smith, Sheila Tlou, Colin Tukuitonga, and Walter Ricciardi).

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Data availability This is not applicable here, as the exercise was completely imaginary.

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