Journal of Futures Studies
2021,Vol. 25(3) 39–48
DOI: 10.6531/JFS.202103_25(3).0004

Article

Being Interconnected at the Time of COVID-19 Pandemic: A Call to Regain the Sense of Community

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Abstract

This article focuses on the relationship between the COVID-19 pandemic and world's interconnectedness, in the belief that the present situation, although temporary, could shed light on some key structural issues of our contemporary societies. Here the network image is used, metaphorically, for both describing the dynamics of the contagion and highlighting the risks and opportunities of being highly interconnected. It is then discussed how the magnitude of the crisis requires to understand its deeper reasons, as what is really at stake is the type of world we want to live in. In this respect, the Causal Layered Analysis (CLA) is used for showing how the analysis and representation of the pandemic vary according to different schemes and worldviews. It is suggested that living more safely in a highly interconnected context requires a heightened sense of belonging, i.e. regaining the sense of community, as encapsulated for example in the African proverb "I am because we are". Getting this sense of community would provide an alternative way forward with multiple cascading effects, and yet it is not something that can be easily achieved, unless a turn in worldview is involved.

Keywords

Coronavirus Pandemic, Interconnectedness, Network, Systemic Effects, Worldview, Sense of Community

Introduction

We are facing a worldwide crisis prompted by the outbreak of SARS-CoV-2, the new 2019 coronavirus.[1] We still do not know the real extent of the crisis, which will depend on both the outbreak's disruptiveness and on how large the socioeconomic consequences will turn out to be. For months, this situation caused a stop in the frenetic rhythm of modern life. We felt as suspended in time, forced to live a present moment that was unpleasant and brought us a sense of dismay.

At the time of writing,[2] many things remain unknown about this virus. Not only vaccine or effective antiviral drug are still unavailable, but it is also difficult to elaborate sound predictive models for representing the contagion curve. Epidemiologists tell us that there are too many unclear factors, such as the case fatality rate, whether or not the infectiousness begins before onset of symptoms, the number of asymptomatic people, and the duration of the infectious period (Anderson, Heesterbeek, Klinkenberg, & Hollingsworth, 2020).

The reasons of such a crisis would require an in-depth analysis and an appropriate amount of time for digesting it, taking into account all the factors and dimensions involved.[3] As for the climate emergency, what seems at stake is something fundamental. Perhaps, these circumstances are showing us some cracks in the hypercomplex modern societies, making it clear that we need to critically revise our deep schemes and long-standing assumptions (Vinke, Gabrysch, Paoletti, Rockström, & Schellnhuber, 2020).

Perhaps, the crisis will result to be a great opportunity for learning something that is inaccessible in ordinary routine, leading to some cultural or paradigm shift. Here I will provide some preliminary considerations about how the pandemic is showing lights and shadows of living in a "small world". In fact, the dynamics of the coronavirus contagion might be seen as one living manifestation of the planet's interconnectedness and its implications. So, if it

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Received: 6 April 2020 and Accepted: 30 July 2020

is true that we are facing a temporary situation, it is also true that this same situation could shed light on key structural issues, providing insights for the future.

I will use the Causal Layered Analysis (CLA) for highlighting how the representation of the pandemic varies according to different conceptual frameworks and worldviews. My point is that living more safely in a highly interconnected environment calls for an improved sense of belonging, i.e. regaining the sense of community, as abridged for example in the African proverb "I am because we are". An alternative way forward would be gained, and yet such a sense of community is not easily attainable, unless a change at the worldview level is also involved.

Interconnectedness

Intuitively, we understand there is a strict linkage between being strongly interconnected and the coronavirus pandemic. Such an interconnectedness regards individuals, communities and institutions, and takes different forms: physical interconnectedness, e.g. due to increased mobility; interconnectedness via media and the internet; the interconnected global economy, etc. These different forms are also interrelated and mutually influencing.

The interconnectedness is such that wherever boundaries are created, these result to be permeable one way or another. Not only national borders are permeable. As the case of the coronavirus is revealing, health, environment, economy, and social life are all interlinked (e.g. Wallace et al., 2015). We cannot limit ourselves to understand and implement what is needed from the medical or security point of view, e.g. mitigation measures or proclaiming a state of emergency, without considering possible socioeconomic consequences.

In situations like these, we are forced to deal with the issue of uncertainty, which may be caused by the novelty of the phenomenon, or its dimension and complexity. We are face to face with the limit of our understanding; we engage in trial-and-error, attempting to learn from experience, knowing that what might be a stake is the very life of a society and its members; we entrust the specialized proficiency of science, at the same time recognizing that we need other types of expertise and perspectives to properly deal with the issue (e.g. Moore & MacKenzie, 2020).

Thinking in Network Terms

There is one image we can employ to reflect on interconnectedness, namely the network (Fig. 1). From a mathematical standpoint, its structure could be represented in term of a web of nodes and links connecting the nodes to one another, something that corresponds to a graph. Following network theory (e.g. Barabási, 2003), it is believed that, independently from differences about the nature and interactions of the nodes, a few basic laws rule the behaviour of most networks.

Fig. 1: Representation of a network (Titz et al., 2008)

At any rate, here I do not want to discuss this aspect, which would require more technical details. I will instead focus on the metaphorical meaning of the network. Each individual (or community or country) could be seen as a node among other nodes, forming network structures at different levels. One may also portray the whole world society as a big network (e.g. Castells, 2010), where "[s]ince everything is linked up and networked with everything else, a break down anywhere has a knock on effect, unsettling other parts of the network, even bringing down the whole network" (Sardar, 2010, p. 438).

Now, what makes especially treacherous COVID-19 is the combination of high infectivity with relatively low mortality. Despite that the virus initially infected a local group of people (presumably in the Wuhan region of China), it then spread node by node to much more remote people and across multiple networks, sickening millions of people worldwide. In contrast to what occurred with SARS – which is caused by SARS-CoV but has more serious symptomatology and higher mortality rate, so that its spread is more difficult – a good deal of COVID-19 infected people does not show symptoms or shows mild symptoms. As such, they are unware of the disease and do not go to healthcare facilities. Rather, they move around freely and transmit it, thus contributing to increase the spread of COVID-19 (e.g. Kronbichler et al., 2020).

This is why, at present, the best way to contain the pandemic is still defusing physical connections (i.e. breaking links between nodes). Quarantine, social distancing and isolating infected people are considered essential means to limit the problem (Imperial College London, 2020). However, even becoming partially disconnected is not easy in our societies, as it contrasts with enduring habits. Then, social and individual behaviour become key factors in handling the situation, especially in democratic countries where, despite restrictions on behavior, something is left voluntary. And since, at certain times in many regions of the world, the coronavirus spread has grown exponentially,[4] the timing of action and individual choices is crucial: breaking even one transmission, as earlier as possible, could have cascading effects in dropping the number of total transmissions (e.g. Rhett, 2020). [5]

Strengthening the Sense of Belonging

Extreme situations like the present pandemic show the importance of reinforcing our sense of belonging to a bigger picture. However, the way each node, i.e. an individual, is disposed to behave depends on their deep beliefs, feelings and habits. Civic sense might be portrayed as the ability of each node to think and behave not abstracting from the context. It is about embracing a principle of responsibility (Jonas, 1984), i.e. to self-regulate action in view of the fact that each node is able to act causally and produce systemic effects.

This is an age in which we (especially new generations) build our identities through different types of networks. The ambition of many is to gain "power" through the network, or to become an influential node, something that could also occur by means of social media. The figure of the influencer in social media and the social perception of popularity depend on the number of followers, i.e. the nodes that take part in one's own personal network.

Actually, what characterizes the atmosphere of our real-life networks is an excessive individualism, i.e. a "me first" attitude that is reinforced by many sociocultural inputs. According to some scholars, this depends, at a deeper level, on the fact that contemporary societies are designed around exacerbated ideals of individual autonomy and self-ownership. Rights tend to be conceived only in individual term, e.g. each person has the full and sole right of control and use their own life (e.g. Cohen, 1995). Over time, it has been internalized a model raising selfishness to a basic rule of life.

Other scholars (e.g. Di Cesare, 2020) suppose we are experiencing a new form of democracy, which is very different from the participatory model of the Greek *polis*. In this "immune" democracy, most people are not really interested in taking part in public life. Rather, what matters to them is the state being able to protect their own individual affairs and interests, thus remaining "immune" from external disturbances. The pandemic made evident such a situation: people reacted differently, but many became more selfish out of fear or panic, blaming others for being infected or in the condition of contracting the virus. Besides, the fact that people were able to accept the restrictions on individual autonomy seems mostly to depend on the willingness to keep their own "immunity". Perhaps we are losing the sense of (a healthy) community. This is also reflected in the unbalances of social protection mechanisms that, in a situation of emergency, were able to protect privileged people but not adequately took care of the less fortunate (e.g. Ackerly, Friedman, Menon, Zalewski, & Gopinath, 2020).

Individualism, as epitome of a sense of separateness, also influences the institutional level, although in a different

form, i.e. particularism. Here nodes represent countries, international organizations and other types of bodies or even groups of them, which usually act in reason of their particular interests. The underlying logics is, then, the same as before. On the contrary, the coronavirus pandemic is a situation we must think in a different way. It is an opportunity for the world to learn how to work as a united network of yet different local communities.

Multiple Possible Futures

We are still witnessing how the governments and institutions are reacting to the crisis. The type of response will make the difference, one way or another. It might even contribute to worsen the problem, if the searched solutions are not based on principles of equity, negotiation and transparence, or if we will apply to this exceptional situation the same (economic, bureaucratic, etc.) rules and mechanisms are normally applied. Very likely, an inadequate response in such momentous times would have deleterious and lasting consequences.

There will always be someone ready to come forward with other types of solutions, less interested in preserving the mechanism of democracy. Some will attempt to establish novel fixed borders, or to raise physical walls, to protect us from contagion, either viral or social (as due to migration). Besides, what could have happened if the virus were able to cause sterility or were part of some biological weapon?

In March 2020, at the very beginning of the crisis, Inayatullah and Black (2020) outlined four possible alternative trajectories regarding its possible evolution. Two of these scenarios, "Zombie Apocalypse" and "The Great Despair", are overly pessimistic. The first delineates a future in which different factors, including virus mutation, xenophobic trends and social panic, all contribute to generate a situation of general uncertainty and instability. Political and socioeconomic consequences are devastating, with long-term recession. In other words, an apocalyptic future. The second scenario corresponds to what would likely happen if we fail in properly facing the crisis, envisioning a less radical but still profound and lasting decline in the health, economic and social conditions.

The third scenario, i.e. "The Needed Pause", in part corresponds to what is actually happening, with countries engaged in attempting to flatten the curve, and medical research in finding a vaccine or new therapies. In this scenario, they succeed: the vaccine is soon made available, thus disempowering COVID-19 to the lower grade of a winter flu. Meanwhile, our frenetic world takes a refreshing pause, with benefits for the earth and personal health, like reduced greenhouse gas emissions, better social and work conditions, and so on. And yet, this situation lasts for a short period. Immediately after the pause, everything gets back to normal, as it was before the pandemic: "[w]e slowed down in order to speed up again". Such a scenario, therefore, represents a missed opportunity to change the world for the better.

The fourth scenario, i.e. Global Heath Awakening, is nearly utopian, corresponding to a situation in which the pandemic triggers revolutionary transformations, with breakthroughs at multiple levels, not only in the scientific, technological and socioeconomic realms, but also in the inner dimension. In short, a new Eldorado.

We are still in the middle of the crisis, and yet, some months after its occurrence, a first assessment should be made. Globally, we fluctuate between the second and third scenarios. Many countries were able, at least partially, to contain the outbreak, and everywhere medical research on the coronavirus is ongoing. However, big transformations are not foreseen. Our response seems only partially up to challenge and there is the risk of a serious decline at many levels.

Focusing on what happened locally in specific countries, in these first few months of the pandemic, is also very instructive. The degree of their success in handling the situation was proportional to the ability to combine two factors, namely relying on sound (e.g. scientific) knowledge and taking the full responsibility of the needed, at times harsh, political decisions. And yet, all this would be of little help without the equally important ability to create a sense of community, which in turn critically depends on the view, behavior, and credibility of the political leaders.

One clear example is New Zealand, which responded to the crisis early, imposing very strict measures like severe nationwide lockdowns, social distancing, still ongoing closing borders, as well as extensive testing and contact tracing operation. The intent was to totally eradicate the coronavirus rather than contain it. This strategy has been successful, with an almost complete eradication (Cousins, 2020), although with some inevitable economic distress. What was really effective in New Zealand's strategy, and crucial to reach this result, is the way they elicited, also through effective communication, a communitarian spirit in the population. In fact, government's policies, despite their severity, had high levels of compliance.

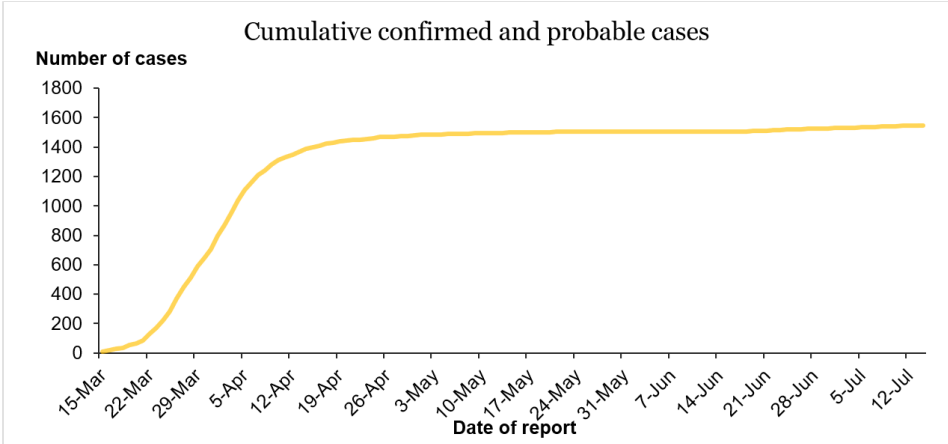

Fig. 2: Epidemic curve in New Zealand, https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-current-situation/covid-19-current-cases (Accessed 15 July 2020).

Of course, the same cannot be said of USA and Brazil, whose political leaders spent much time in denying the seriousness of the situation, e.g. saying that the virus would simply "go away" or depicting COVID-19 as a "little flu". These leaders refused scientific evidence, undermining experts' recommendations, e.g. not wearing themselves a face mask, and hampering the enactment of timely measures. The fact of the matter is that such figures are motivated not only, as many, by their own political interests, but also by individualistic and muscular values. They spread aggressiveness and dividing messages, constantly showing the willingness to dominate the scene and exalting risk-taking behavior (e.g. Dembroff, 2020). At one point they had to face reality and admit that the problem existed, and yet the price paid for all this has been very high: it cannot be a coincidence that USA and Brazil are among the most affected countries worldwide in terms of both contagions and deaths.

A special case is Sweden, which did not impose strict and legally enforced measures, choosing instead a "trust-based" approach that critically depends on citizen responsibility in following government's safety recommendations. No severe lockdown was imposed; several businesses remained open, with the inclusion of restaurants and bars; borders and, at least partially, the schools remained opened too. Several experts criticized this approach, especially for neglecting the role of the asymptomatic in spreading the disease. Actually, Sweden's mortality rate is one of the highest in the globe and much higher than that of the other Nordic countries: coronavirus-related deaths were in mid-July more than 5,500, compared with about 600 in Denmark, 250 in Norway and 330 in Finland. As a result, when many EU countries reopened their borders to EU tourists, Swedes were excluded from border openings of their Nordic neighbors. "Each country has to reach 'herd immunity' (…) in one way or another, and we are going to reach it in a different way", said the epidemiologist who inspired Sweden's approach (e.g. Paterlini, 2020). Yet each country is part of a wider community and although different strategies may have a common goal, this does mean they are equally valid, especially when the lives of thousands of people are at stake.

"I Am Because We Are"

Timely strategies are needed for preventing future emergencies such as those caused by the COVID-19 or SARS outbreaks. And yet, measures focusing on the practical ground are only part of the solution; they are necessary but not sufficient means to tackle the magnitude of the crisis, which would be reductive to consider only as a health crisis. As pointed out by Inayatullah and Black (2020), what is at stake is "what type of world we wish to live in". There is, then, the need of eliciting transformative patterns to move towards possible and better futures. It is for such a reason that the focus should be also on the deeper reasons of the situation.

Here a helpful heuristic tool is the Causal Layered Analysis (CLA) method, which consists of multiple layers of analysis at different levels of depth, as shown in fig. 2. Especially important for our discussion are the last two layers, i.e. worldview and metaphor, which correspond to the deeper (both conscious and subconscious) roots of a society.

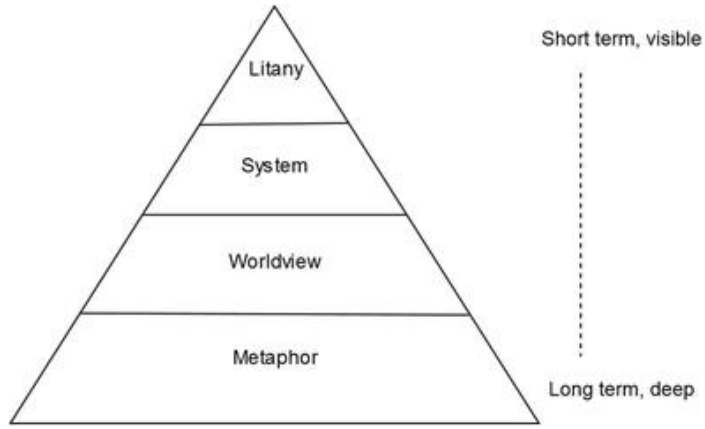

Fig. 3: The Causal Layered Analysis pyramid (Inayatullah, 2004, appendix, 543).

The issue of "being a community" is placed precisely at these deeper levels. As already mentioned, one of the major challenges of our highly interconnected societies is precisely shifting from a risky coupling of interconnectedness and excessive individualism or particularism – nodes (i.e. individuals or countries) mostly behave as myopic and self-centered social atoms – to a virtuous combination of interconnectedness and sense of belonging – nodes are fully aware of being interconnected and inclined to behave for the wider community good.

This shift involves getting a heightened sense of interdependence and reciprocity, i.e. the success and wellbeing of each node depends, in the long-term, also on the success and wellbeing of the whole network and vice versa. Several cultures around the world express similar ideas through their own worldview and experience, and might give us insights. These ideas are encapsulated, for example, in the African proverb "I am because we are and therefore we are because I am" (e.g. Eze, 2017), a proverb we should make ours. By imbuing principles like this at the deeper levels of awareness, a disposition towards collective responsibility would "spontaneously" arise.

A change at these levels could cause multiple cascading effects, affecting also the levels of litany and system. For example, the same action, e.g. following restrictive measures, could be undertaken owing exclusively to selfish convenience or also to a genuine communitarian attitude. On the other hand, the sense of community might even be widened, taking in consideration how nature and man's relationship with it are portrayed. Considering the pandemic and looking at specific observable events, it is known that some human activities, e.g. massive deforestation in tropical areas for establishing monocultures and intensive livestock, augment the probability of spillover from wild animals to human beings (e.g. Allen et al., 2017).

Yet, here what matters most are the grounding assumptions underlying man's approach to nature, especially the dualistic worldview originating in Descartes' dichotomy between psychic reality (*res cogitans*) and physical reality (*res extensa*). Together with atomism, such a dualistic view projects on reality an overall sense of separateness, as reflected in the human-nature divide, which instigates nature's objectification and massive exploitation. In contrast, alternative cultural views, like indigenous cosmologies, recognize an overall togetherness, also understanding man and nature as closely interlinked (e.g. Mazzocchi, 2020). Therefore, a broader sense of community is envisioned, as epitomized by the Lakota phrase "all are related" (*Mitákuye Oyás'iŋ*).

In table 1, I make use of the CLA for displaying the representation of the pandemic according to (i) the current dominant scheme (framework I), (ii) a short-sighted and (iii) a perceptive version of this same scheme, and (iv) what would be the case if an extensive sense of community were embraced (framework II) (see also Milojević, 2020). Of course, my argument is placed at the conceptual level, and as such it is not exempt from abstraction and schematization. Yet such an argument does not that merely regards good intentions. Rather, it touches the "functional" side, because what will be the present and future outcome of the planet's interconnectedness depends precisely on the way it is realized. We should avoid getting trapped in our own network, i.e. building a highly interconnected but paradoxically fragmented world. Of course, even if we act as suggested by framework II, critical moments would not be avoided all of a sudden. Nonetheless, we would be able to cope with them relying on mechanisms of social robustness and resilience.

Table 1: The CLA for showing different representations of the pandemic (this layered analysis could be compared with the four levels used in Mazzocchi, 2021).

	Framework I	**Short-sighted version of framework I**	**Perceptive version of framework I**	**Framework II**
Litany	Fear, diseases, deaths (abundance of images and numbers); social and economic disruption (e.g. job loss, recession); fighting against the enemy (that is outside); slow down the coronavirus so the system can survive; controversies in communication and information about the virus (blaming China's behavior, expert disagreement); computer screen as means of contact with others	Denying scientific evidence (the virus will simply "go away"); the pandemic is "their" fault; undermining experts' recommendations	We are all involved and must face the pandemic together	We are part of the problem and should heal our relationship with the overall surrounding
System	Wet markets, spillover, global interconnectedness (as causes and means of the virus spread); scientific and technological solutions, government policies: measures for breaking the chain of infection and flattening the curve (quarantine, social distancing, lockdown, working at home); testing and tracing (using apps and technologies); achieving herd immunity; find a vaccine; devising exceptional economic measures; investing on innovation and creating safer health systems	Not taking timely measures or following principles of social safety and equity (until the idea that the virus will eliminate the older or sicker ones); rushing to develop a vaccine driven by profit or (e.g. national) particular interest (e.g. US administration's attempt to get exclusive access to the vaccine)	Science as a means (not as an end); social equity; environmental recovery; international cooperation (e.g. globally connected research to develop a vaccine)	Disruption of ecological and social balance (as a cause); intrinsic environmental unpredictability; multiple expertise and knowledge pluralism (Western science, humanities, indigenous knowledge, etc.); adaptive management (social learning from experience and developing resilience)
Worldview	Western fundamental dualism; overall sense of separateness (man-nature divide and nature's objectification, the virus attacks humans); individualism and restricted sense of community (e.g. wellbeing of myself or my own community, immune democracy); capitalism, market and development; temporary of measures (returning to the usual consumerist way of life)	Emphasis on individualistic and "muscular" values	Emphasis on communitarian (as complementary to individualistic) and ecological values	Interconnectedness and interdependence of everything in the universe; ecological complexity; circles of giving and receiving; widened sense of community; deeper sense of sustainability (i.e. overall enduring wellbeing)
Metaphor	World-machine; separate atoms; progress; nature as commodities	Survival of the fittest (i.e. the most powerful); me-first and mine	Coming together	I am because we are; all are related; mother earth; living well

Notes

1- Coronaviruses are a group of related RNA viruses provoking various types of illnesses in mammals and birds and transmissible between animals and humans.

2- The first version of this article was submitted in April 2020, whereas the revised version was completed in July 2020.

3- Today's epidemiological crisis was not unexpected, at least regarding its origin from an infectious diseases event. In fact, the appearance of a new coronavirus causing a pandemic was quite predictable (e.g. Morens & Fauci, 2020). Severe Acute Respiratory Syndrome (SARS), emerged in 2003, and Middle East Respiratory Syndrome (MERS), emerged in 2012, which also caused worldwide pandemics, were also due to new coronaviruses. All these illnesses share common features, with a high pathogenicity to humans and their agents originating from bats (Fan, Zhao, Shi, & Zhou, 2019).

4- What is typical for exponential patterns is that the growth starts slowly and yet gets increasingly fast over time. In the case of the coronavirus, this depends on the fact that the more people become infected, the more other people they are able to infect.

5- In the summer 2020, the contagion and death rates of the disease have been, in most countries, reducing and its clinical manifestations lowering. However, even though some hypotheses have been made (e.g. based on the notion of homoplasy), the reasons of this change are still unclear. Therefore, even in those countries, some of the already in place measures should be precautionary maintained.

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