Fighting Covid-19 as an army would fight its enemy?

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The French President of the Republic announced several times that we were at war with a virus, an unknown and invisible enemy that has caused hundreds of thousands casualties all over the world. Could we get inspiration from military practices to fight the Covid-19 pandemic, and prepare us for future sanitary crises?

The Covid-19 pandemic: a VUCA instance?

The *War College* of the USA army was the first one to develop the principles of volatility, uncertainty, complexity and ambiguity (hence the acronym VUCA) in the 1980s. This approach was formalized in the 1990s and notably used by the US army after the terrorist attacks of September 11 in an international geo-strategic context no longer dominated by the East-West 'cold war' but by a fight against terrorism all over the world. Then the VUCA acronym was largely used in the economic world to describe frequent, intense and long turbulences enterprises and organizations had to sail through in all sectors of activity. After September 11 and the financial and economic crisis of 2008 with their systemic consequences, the Covid-19 pandemic shows us once again how our environment is indeed a VUCA one.

What phenomena linked to Covid-19 testify of a VUCA world?

A volatile sanitary world: Volatility expresses itself through brutal and frequent changes. At the end of January 2020, only a few cases of corona virus had been identified outside China. But less than two months later, thousands and thousands of cases had been identified, and unfortunately the number of deaths surged, particularly in Italy and Spain, and very quickly after in France.

An uncertain sanitary world: Uncertainty is surely present as it is difficult, even impossible to know, understand and therefore control all the parameters of the pandemic. Anticipation is, in these conditions, extremely difficult if not impossible, which prevents any enlightened and quick decision-making in a context where precisely people expect clear and effective decisions by scientists and politicians. As a result, since the beginning of the pandemic, communication and decisions have been improvised and contradictory, leading to a complete loss of trust between people and the political world.

A complex sanitary world: The sanitary environment is complex primarily because it is extremely difficult to identify all the interactions between its elements. A huge mass of data, which are diffuse and may appear disconnected from one another whereas they are interdependent, have to be processed in a short time. To illustrate the situation in a nutshell, how do we connect in some rational way the fact that a bat or a pangolin or some other species are sick in Wuhan and three months later supermarkets are emptied in many places in Europe, curfews are decided in some places, bourses behave like a an uncontrolled puppet on a trampoline and thousands of people pass away. The causes and consequences of such a

crisis are not linear and may seem disconnected one from the others whereas they simply show the complexity of the phenomenon.

An ambiguous sanitary world: Ambiguity operates as it is very difficult to understand clearly the phenomena observed. At the heart of the pandemic, it is tempting to make decisions with precipitation and to want to bring quick solutions to the different problems arising (cf. the debate about the use of chloroquine to treat infected people). However, due to diffuse, short-term and long-term, visible and hidden feedbacks, it is impossible to foresee all the consequences of these choices. Were people locked up early enough? When and where should people wear masks? Should public places be closed? Etc. When the decisions are taken, the consequences cannot be identified neither globally, nor with certainty.

How to face a VUCA world in this type of sanitary crisis?

In a book published by the French army in 2016, the answers proposed are to stimulate 'autonomy, subsidiarity, imagination and creativity at all the levels of the chain of command'.

Stimulating initiative by building a 'Europe of health: A long-term vision of health policies can help to stimulate common and coherent initiatives in order to be in a better position to face volatility. There are already public health policies for the medium and long-term about foreseeable phenomena (e.g. Alzheimer disease or cancer) and environmental and risky events (e.g. heat waves, terrorist attacks, some epidemics). However any national plan is unable to cope satisfactorily with such events, as the present situation clearly shows. It is necessary to conceive and organize reactive health systems with a European dimension, even a worldwide one (see how the WHO largely failed in its mission in the present crisis) to face and control risks in a better way. At present the European Union has got limited powers in terms of health, so, even if billions of euros are poured into health initiatives, there can be doubts about their effectiveness. What we witness with the present pandemic is that States are managing the pandemic in disorder and with little or no coordination. A Europe of health is certainly needed functioning in a constant dialogue between global health and local health in order to organize an international sanitary watch to identify weak signals and be more able to anticipate crises, define, implement and evaluate cooperative, coordinated and synchronized public health policies.

Stimulating imagination and creativity by breaking walls between different categories of knowledge: At present different scientific disciplines largely work disconnected from one another. It has appeared quite clearly with the current pandemic (even within the medical field epidemiologists, infection specialists, biologists, pulmonologists do not seem to listen to each other well). Uncertainty can be better faced if all the stakeholders involved can work together and capitalize on each other's knowledge through national and international bodies, so that more enlightened decisions can be made. The organization of scientific bodies and health authorities in silos has clearly shown that such a structure is unable to combat a virus that jumps from one country to another and from one continent to another, and whose effects are systemic, in a way that looks haphazard and uncontrollable because we do not understand it. Minimally, the different actors should be organized in a way permitting to have a common identification of an epidemic phenomenon and its implications to make more appropriate decisions. The complexity would be better understood if there is a global and shared view of sanitary crises.

Stimulating autonomy and subsidiarity by combating the drifts of the new public management: Subsidiarity and autonomy can provide agility and organizational learning to

adapt constantly to a VUCA world. The goal is to develop learning health organizations and stop the negative drifts of the new public management. We can mention two aspects. The first one is the delegation of responsibilities to the health establishments by the State without giving them the means to endorse these responsibilities. This delegation has been very often decided for purely financial reasons rather than for managerial reasons (see for example the case of the purchase of protective masks in France). The second one is the rigidity implied by a hyper-standardization imposed by overseeing authorities, whose stakes are not shared and often not adapted by the health personnel (this is for example the case in France with a hypercentralized system, but also of the UK with the NHS). Lack of flexibility is of course a brake to organizational learning and reactivity, not to mention proactivity.

To conclude:

The present pandemic highlights more than ever the volatility, uncertainty, complexity and ambiguity of our world. It challenges the simple and linear cause-effect relation, and it renders obsolete the procedures and protocols established to face clearly identified situations. It encourages us to test actions which are at the same time contextualized and pragmatic as there is never, in a definitive way, "good ways of acting". Covid-19, which started with a few unnoticed sick people in the middle of China in December 2019 (and maybe earlier) and is having massive and fast sanitary, social, economic and ecological effects, is perfect example of this VUCA world. It would be illusory to believe that there will not be other similar situations. We must be as ready as possible then to fight with new weapons; which implies to change our relations to the world and to knowledge.