

The Revenge of the Germs

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ABSTRACT

In 1898, H.G. Wells published *The War of the Worlds*, a novel in which he imagined the first victorious invasion, then the final destruction of extraterrestrial forces, militarily and technologically superior, by means of a terrible weapon: unidentified microbes suddenly annihilated the Martians.

Today, we are faced with a dramatic event that is an inverted mirror image of that classic of anticipation, a dramatic event that is no less a part of science, but not a part of fiction. For the first time in the history of humanity, a total crisis has struck the world as a whole.

The radical novelty of this crisis lies in the fact that it brings together these two dimensions and that, in order to understand it, it is necessary to grasp these two key concepts in a panoramic way.

Keywords: Crisis Management, Governance, Germs, COVID, Security

La venganza de los gérmenes

RESUMEN

En 1898, H.G. Wells publicó *La guerra de los mundos*, una novela en la que imaginaba la primera invasión victoriosa, luego la destrucción final de fuerzas extraterrestres, militar y tecnológicamente superiores, por medio de un arma terrible: microbios no identificados de repente aniquilaron a los marcianos.

Hoy nos enfrentamos a un acontecimiento dramático que es un espejo invertido de ese clásico de la anticipación, un acontecimiento dramático que no es menos parte de la ciencia, pero no de la ficción. Por primera vez en la historia de la humanidad, una crisis total ha golpeado al mundo en su conjunto.

La novedad radical de esta crisis radica en que reúne estas dos dimensiones y que, para comprenderla, es necesario captar estos dos conceptos clave de forma panorámica.

Palabras clave: Gestión de crisis, gobernanza, gérmenes, COVID, seguridad

病菌的复仇

摘要

1898年，作家H.G. Wells出版了《世界大战》，他在这部小说中想象了在军事和科技上都更强的外星力量所发起的第一次成功侵略和最终被一种可怕的武器—突然消灭火星人的不明微生物—所摧毁。

当下，我们正面临一次惊人的大事件，它是这部经典小说的颠倒镜像，该事件能通过科学加以解释，而不是小说。一次总体性危机（total crisis）首次在人类历史上冲击着整个世界。

这次危机的根本独特性源于一个事实，即它把两个维度放在一起，并且为了对其加以理解，有必要以整体的方式把握这两个关键概念。

关键词：危机管理，治理，病菌，新型冠状病毒病，安全

In 1898, H.G. Wells published *The War of the Worlds*, a novel in which he imagined the first victorious invasion, then the final destruction of extraterrestrial forces, militarily and technologically superior, by means of a terrible weapon, but familiar to Earthlings: unidentified microbes suddenly annihilated the Martians.

On October 30, 1938, the eve of Halloween in the United States, the radio version of the story by the young Orson Welles, for which he was famous, became a national hoax and a model for the manipulation of people by the mass media.

Today, we are faced with a dramatic event that is an inverted mirror image of that classic of anticipation, a dramatic event that is no less a part of science, but not a part of fiction. For the first time in the history of humanity, a total crisis has struck the world as a whole.

The radical novelty of this crisis lies in the fact that it brings together these two dimensions and that, in order to understand it, it is necessary to grasp these two key concepts in a panoramic way.

At the beginning of the nineteenth century, looking at the Napoleonic adventure and extrapolating from it, Carl Von Clausewitz forged the idea of “Total” war to designate an extreme type of conflict where a belligerent mobilizes all its resources to annihilate an adversary who is himself ready to eradicate it, as the two world wars would become a terrible demonstration of. At the end of the twentieth century, Harvard professor Theodore Levitt popularized the concept of “globalization” to characterize the interactive integration of individuals, corporations, governments, and businesses into a single world economy that gradually shaped a single global village. Both expressions have remained. At the beginning of 2020, they collided and now, under the effect of a hitherto unknown acceleration, take on a completely different meaning.

Total, global: such is the unprecedented crisis that is hitting all the faces of the Earth entirely and simultaneously.

This crisis is neither military nor economic, neither industrial nor financial, neither social nor political. It is all of these things at the same time. It is first and foremost a health and medical crisis.

Above all, it is both individual and collective. We are all experiencing it, everywhere and at the same time, in all its aspects: personal, family, business, national, and international.

This crisis overwhelms our consensual amnesias. The pandemic of 1918, known as the “Spanish flu” or “Annamitis fever”—although it seems to have originated in Kansas—caused more deaths than the Great War, but its memory was drowned in that of the hell in the trenches. The stock market crashes of 1929 or 2008 showed the chaos that the race to financialization could lead to, but once contained, they faded from our memory to take the rank of accidents that had been controlled.

Why our astonishment at the appearance of the coronavirus? Because we chose oblivion. Because we did not take the time to prepare. However, apart from the Spanish flu of 1918, since the Russian flu of 1889, the Asian flu of 1956, the Hong Kong flu of 1968, or the H1N1 of 2009, we have not lacked alerts or high quality scientific studies to alarm us. Without success.

Even more serious, since Charles Delorme, the French physician of kings who invented the beak mask in 1619 to fight the plague, but who struggled to convince the authorities to adopt it, or the Hungarian doctor Ignace Semmelweis, who explained in 1850 to medical luminaries in Vienna the hygienic imperative of washing hands to counter contagion (but who was the laughing stock of these mandarins), we have regressed rather than evolved. It took Louis Pasteur for things

to finally change. At least, a little. Then we unlearned the basic principles. Very quickly we thought we were invincible and dreamed of immortality. We imagined a “transhuman” whose microchip had just fried for lack of available oxygen.

Fascinated by the conquest of space, we forgot the power, resilience, and resistance of microbes—those microorganisms invisible to the naked eye, vibrios, bacteria, parasites, and viruses that are considered to be the first forms of life that appeared on Earth more than three billion years ago, that survive by invading a host cell that they then cannibalize, that have far preceded the human species and pose a recurrent threat to it in the form of epidemics and pandemics.

The scholarly community has not escaped this syndrome. It has been divided both internationally and nationally, although partial consensus has emerged as the epidemic has developed. Like many of us, scientists have found themselves judging that “incredible” and “unthinkable” rhyme with “impossible.” The West had already made a similar mistake by brushing aside, before the 2001 attacks, the nuisance capacity of al-Qaida and others.

This crisis thus has an anthropological part to it, as it makes us brutally rediscover the vulnerability of our condition. This crisis is also economic, because it consists simultaneously of a crisis of supply and a crisis of demand within a system that is more globalized than ever before, and it clearly poses a risk of a long and dangerous recession on many levels. Finally, this crisis is political, because it affects all institutions and powers, whether local or central, governmental or continental, state or international, indiscriminately.

We must, unfortunately, add to the above in the case of many countries, particularly France:

- a crisis in health organization that reveals a fundamental error of considering public health as a cost and not as an investment;
- an industrial crisis that, although long-standing, is immediately worsening and whose shock wave will be felt for a long time;
- a structural crisis affecting the service sector, which is resisting as best it can as the pandemic “domestic front” that is disrupting every distribution circuit and supply chain, is revealed;
- an administrative crisis that amplifies the endless errors of the state bodies, which produce the best and are capable of the worst (for example, the Regional Health Agency of the Grand Est deems it normal to propose massive job cuts for care workers at the height of the epidemic!);
- a military crisis that, as in 1918, but in limited theatres and often in the context of external operations, exposes the troops involved to an invisible and uncontrollable danger;

- a security crisis that leaves the police and gendarmes destitute, while their missions are redirected essentially toward the supervision of the population.

Unfortunately, this list is not exhaustive.

Unpredictable, incoherent, inexperienced: such were the views of most governments and few will emerge unscathed from their generally chaotic management of the event. Some chose the Azincourt option and remained stunned by an event that surprised and overwhelmed them. Others took the Maginot option and believed either in the practice of limited containment or in the desirability of herd immunity. Finally, a few have chosen the Waterloo option, which inevitably sees the operations carried out against the odds ending badly, without taking into account the extent of the risks incurred by the populations: England, the United States, and Brazil are now paying a high price for this.

General MacArthur said that “the battles lost can be summed up in two words: too late.” In the face of an exceptional crisis, humility should not prevent lucidity. If we had all been affected in the same way, we would have had to believe in fatality. But, before our eyes, one country effectively used preventive and proactive methods (Taiwan), while two others used more or less decisive techniques (South Korea and China)—and this in very different social and political configurations.

Hitting the world as a whole, the crisis has shaken all international bodies, the WHO in the first place and all continental organizations, including the European Union, and has exacerbated all geopolitical tensions, starting with the fundamental opposition between China and the United States. It has thus shown, as never before, how inextricable the links between foreign and domestic policy are now within each state and between all states.

From January 2020, in Wuhan where it all began, a city that is a symbol in the imagination of the Middle Kingdom, the posture of Mayor Zhou Xianwang, candidate for the highest offices within the Communist Party, weighs heavily in the initial concealment of information. In Beijing, the event was used to hasten the purging of the security apparatus by arresting Sun Lijun, the last survivor of the so-called Shanghai team affiliated with former President Jiang Zemin, on corruption charges.

Meanwhile, the international press is having fun and is mainly interested in the folkloric city market of Wuhan where pangolins and bats are traded.

A cradle on the other side of the world

Wuhan, the capital of Hubei province, has often taken a decisive place at the heart of Chinese history. Cradle of the revolt against the Qing, the uprising in Wuchang (Wuhan district) on October 10, 1911 heralded the fall of the empire

and the end of five thousand years of dynastic power. Since then, the “double ten” (tenth day of the tenth month) has been celebrated as a national holiday, but the central government also views the city with suspicion as “indicative of the signs from heaven to the Emperor.”

On June 11, 1938, the Japanese imperial army attacked the provincial capital to meet strong resistance and suffer its first defeat. The fighting lasted four months. Wuhan will remain like Verdun or the Chinese Stalingrad.

In 1967, China is in the midst of a Cultural Revolution. Once again, Wuhan stands out for the army uprisings and bloody confrontations it experiences. Mao is forced to travel to the area in order to restore order to the disorder he has caused. The Wuhan incident will remain a turning point in the “red” chronicle.

The existence of a P4 laboratory, not far from the market, is revealed to the general public in April 2020. Largely built by France, this institute is dedicated to the study of “class 4 pathogenic” microorganisms, which are highly dangerous and lack a vaccine or treatment. Like its forty or so counterparts around the world, it requires maximum safety conditions. Have they been met? This question will allow for guesses and accusations to be made.

A secret laboratory

Founded in 1956 and qualified as an institute of microbiology between 1962 and 1978, the Wuhan Institute of Virology is a research center administered by the Academy of Sciences. Located in Jiangxia district, it has been home to China’s first P4 laboratory since 2015.

An anti-seismic bunker of 3000 square meters spread over four levels, the enormous Fort Knox-type building stands in the Zhengdian industrial zone, some 30 kilometers south of Wuhan. But this clever undertaking is also the result of a diplomatic agreement.

In 2003, China was confronted with the severe acute respiratory syndrome (SARS) pandemic, an infectious disease caused by a coronavirus, SARS-CoV, and transmitted from animals to humans. President Hu Jintao then asked France, which had lent him P3 mobile laboratories, to help him build an integrated P3 and a P4.

In his book *France-China, les liaisons dangereuses*, Antoine Izambard recalls the background to this negotiation: “The powerful Chinese Academy of Sciences, the equivalent of the CNRS (and in particular the main shareholder of the world leader in computer sales, the Chinese giant Lenovo), announced in

Paris that it wished to acquire a high biological safety laboratory. The request has received a very mixed reception [...] If France is helping China to build a P4 laboratory, how can it be sure that the technology it is going to transfer will not be diverted by Beijing to develop bacteriological weapons?" This fear is "supported by the suspicions of the French intelligence services about the existence of a Chinese offensive biological programme."

The Assembly of 100, the scientific and collegiate body of the Institut Pasteur, signifies its disapproval, which the Prime Minister, Jean-Pierre Raffarin, expressed after discussing the project with Professor Chen Zhu, who was trained in Paris and is close to President Jiang Zemin. The agreement was signed in 2004 by Foreign Minister Michel Barnier. It provided for a bilateral monitoring committee chaired by Professor Alain Mérieux, who would eventually leave it in 2015: in the meantime, China has not invited any of the fifty French scientists supposedly involved in the laboratory's work.

Started in 2011 and inaugurated in 2017, the P4 is not yet certified by the WHO at the beginning of 2020.

Extremely annoyed by the sale of a P4 laboratory to China at France's initiative, the United States has kept a close eye on the project. Following an authorized visit by US diplomats in 2018, an alert note on security failures was sent to Washington. It fueled the feud between the two contemporary giants. There is no shortage of accidents in laboratories. Including on the North American continent.

In the decade following the attacks of September 11, 2001, the anthrax bacillus, responsible for anthrax, entered the terrorist arsenal and was sent for examination in unsecured shipments to more than two hundred research centers around the world, which were responsible for the contamination of at least an equal number of scientists.

In November 2014, an investigation by the British Health and Safety Executive revealed that, over the previous five years, the total number of incidents in the various high-risk laboratories had been close to one hundred.

In February 2019, Lynn Klotz of the Center for Arms Control and Non-Proliferation published a report to this effect. Between 2009 and 2015, she counted 749 such incidents, of which 594 were due to human error, mostly in the United States, but also in the Netherlands. The National Institutes of Health (NIH or the coordination of the American Institutes of Health), for its part, acknowledges 128 incidents over the period from 2004 to 2017, while its counterpart, the Centers for Disease Control and Prevention (CDC), attests to four major accidents involving the Ebola or Marburg viruses in various P4s.

In June 2019, the main military laboratory of this kind in the United States, USAMRIID in Fort Detrick, was shut down urgently for “security breaches.”

Could Wuhan’s P3 or P4 have leaked the coronavirus? Worse yet: could it have been the result of intentional manufacture with lethal intent?

Quickly, the conspiratorial hypotheses come to confront the scientific theses. With very few exceptions, the “signature” of human intervention is not identified in any of the virus’s sequences. But Dr. Jean Claude Perez, a former collaborator of Professor Montagnier’s, suggests a different voice regarding a potential sequence anomaly in RaTGT3 (the original strain).

While the possibility of an accidental escape of the coronavirus remains widely considered, no one can commit beyond this conjuncture at the time of writing.

While the two great powers vying for world leadership have a new opportunity to confront each other, observers are pointing out that China’s ecological novelty and America’s organic disorder are now, for the first time, taking their place as a matter of course in the eyes of world opinion.

This is not, however, a cause for celebration in France, which is also being hit hard by the revealing dimension of the crisis. The national triptych “Negation, Minoration, Ejection” (in everyday French: “ce n’est pas vrai,” then “ce n’est pas grave,” and finally “ce n’est pas de ma faute”) will serve as an excuse. There is no point in going back here on the “masquerade” of the tricks and turns of a Health Minister who, dreaming of becoming another Simone Veil, took the risk of being caricatured as a new Doctor Garretta! In France’s chaotic management of the epidemic, total containment, which is nonetheless one of the conceivable and effective weapons, ultimately appeared to be the fruit of unpreparedness, denial, and scarcity, even though the previous pandemic had been perfectly anticipated.

Between 2007 and 2012, following the outbreak of the H1N1 virus, the state had indeed built a remarkable system against pandemics—a system that, fortunately, was not needed at that time. With the same determination, the state then deconstructed its tool in the belief that what had not happened would never happen. It was as if, every year, people asked for their fire insurance or health insurance premiums to be reimbursed because they did not have to use it.

Very often, what seems new appears mostly as what we had lost sight of. Administrative amnesias also have a lasting impact on crisis management. As Michel Rocard was fond of reminding us: “When it comes to major bureaucratic disasters, we have to rely much more on bullshit than on conspiracy. The former is within everyone’s reach, and therefore widespread, while the latter requires a great deal of intelligence and organization, and proves to be much rarer than one might think.”

In matters of police, defense, justice, and health, the political choices of recent years have been dictated above all by accountants. Obviously, public money must be well managed—indeed, the French demand it. But is it so badly managed in Germany, which seems to have far more equipped emergency beds than in France, both in absolute number and in proportion? Or is it so badly managed in Taiwan, an isolated and “encircled” country, but with a recognized dynamism, which has perfectly mastered the pandemic?

Contrary to what is too often thought, rigor is not austerity, and investment is often a useful expense, much more than a risky cost. The creation of speculative bubbles is generally more the result of an accounting entry, fair value, than a phenomenon of pure capitalism.

The management of chaos is a difficult art, and one cannot systematically make current leaders bear the consequences of old decisions, going back a decade, sometimes two, but also of a structuring culture that would like, against any political decision, that an invisible hand, sitting at the Treasury, remain the only regalian tool that must always rule everything. If rigor is a value that a taxpayer cannot ignore, it alone cannot prevent the beautiful risk of investment, nor can it reverse priorities by forgetting the value of the human being.

It is all well and good to salute and consecrate the “heroes” of everyday life, but we cannot ignore the degraded conditions in which their heroism had to express itself, nor the fact that this outburst is due above all to the incredible agility of the national D system. In any event, it should never be forgotten that it was the very people that the administration wanted to sacrifice who saved the hospital system through their dedication, will, creativity, risk-taking, and dedication. Like the policemen (too many, too well paid, not working enough), the cashiers (to be eliminated to make way for machines), the bakers and pharmacists (remnants of the ancient world good for museums), not to mention the teachers (necessarily shirkers), in short, all contact professions that have also become contact professions, allowing the country to hold on despite everything.

In addition, it is hard scientists, social scientists, and also elected representatives, especially parliamentarians, who have patiently prevented, informed, and sometimes prepared the French people by fighting against the inertia and sufficiency of a restive administration.

The state has often shown that it knows how to be a true strategist, but also that it regularly needs to be confirmed in its choices by confrontation with reality. Everyone can see that we are going through this ordeal painfully. Today we are paying dearly for our lack of prevention tools. As always, we are paying dearly for our lack of prevention tools. As in criminal or terrorist matters, the lesson is a cruel one. Let us make sure it will not have been in vain. Let us take advantage of this opportunity to prepare for the aftermath by giving a clear, coherent, simple, and direct public speech.

Now is the time to face the crisis. After the obligation of confinement, what is at stake is the pedagogy of deconfinement. The most studied and most accepted models throughout the world outline the contours of this process.

The following sketch emerges:

- The peak of the pandemic is followed by a plateau period that is essentially the result of the effects of successful containment. The flow of hospitalized patients is reduced, but the stock remains at a high level. When the decrease in the number of severe cases reaches a significant level, it is necessary to set up a tool for chronological (return to the point where it all began), geographical (on the basis of coherent territories of a manageable size), virological, and even, if possible, serological (but only with tests that make it possible to identify those who are relatively immune, those who are asymptomatic, those who have recovered, and those who are still vulnerable) deconfinement.
- Once these tests have been carried out on the largest possible part of the population concerned in a delimited territory, a progressive deconfinement is possible on the condition that masks and protective gestures (known as barriers) are consistently worn over the long term, that reception in public and commercial spaces is reorganized, and that the occupancy rate in public transport and collective and convivial places is reduced.
- All this will take place while awaiting the hypothetical arrival of a treatment and a vaccine and therefore getting used to a pandemic that lasts and survives for a long time.

These measures will also have a positive impact on seasonal influenza, which could finally be considered to be a serious and dangerous disease that must be fought against, causing thousands of deaths every year in general indifference.

Hence the urgent need to rediscover what the ethics of responsibility means. The virus does not spread by itself: it is individuals who spread it. It is therefore up to us to make a conscious choice. Either encourage the epidemic, washing our hands of it in the manner of Pontius Pilate and thus leaving the other to die, or fight the epidemic by washing our hands in order to protect the other. In other words, in practice, organize resistance, systematize precautions, and move to targeted confinement and generalized testing in order to ensure together the protection of all by all.

Breaking the chains of transmission is the only real way out of the health crisis. Aftershocks, which are very likely to occur as long as a large part of the population remains vulnerable, will undoubtedly require localized reconfinements of lesser intensity. The pandemic wave will thus be replaced by a multiplication of clusters, or targeted and sporadic “outbreaks,” which will be easier to control if several conditions are met. It is here, as long as they are available and accessible,

that proper virological tests (i.e., PCR) will find their place, in particular to identify asymptomatic carriers.

Above all, however, a successful exit from the crisis will require citizens to comply with barrier measures, to accept tracing and, if necessary, the isolation of contact cases, and the prudent conduct of each individual guaranteeing the informed preservation of all. This is what used to be known as civic-mindedness. In other words, nothing decisive will happen without a broad collective commitment to promote and establish the new culture of living together without contaminating others.

A new way of living together will have to be organized outside the stable, the constant, the consistent, the orderly, the determinable.

A new way of living together will have to be established on the basis of the observation, without discussion, that the initial delay in the face of the health crisis, in addition to its human, economic, and social cost, will not have been made up in the time announced by the political authorities. And this same power will have lost a large part of its authority as crisis manager, even though it had managed to preserve it during the wave of terrorist attacks.

A new living together will be heckled, will take on the face of dynamic chaos, and will force citizens and their organizations to move away from orderly and counted certainties to reinvent themselves.

A renewed living together will exist, like after all wars, as this conflict has been dubbed, even though it has no visible enemy.

Unfortunately, bad governance, lack of courage or credibility, may create side effects creating waves after waves, or sometimes peaks after peaks, until somebody finally create confidence with the people and enhance a real strategy using the Taiwan democratic model.

The total and global crisis that we are experiencing can become the lever for the indispensable redefinition of liberalism in each of its terms. It has everything to be the major element of a better balance between shareholders and employees, sustainable capitalists and financial speculators, investors and profiteers. It is capable of bringing about long-term rebalancing in favor of increased protection of the planet, active relocation of strategic industries, and reinforced regulation of the financial markets.

The sudden shift from skepticism to panic that many leaders around the world have experienced and shown is now in danger of taking everything in its path, whereas the main thing now is the battle that must be won. We must take advantage of this tragic moment to restore meaning to the most important investment: the investment we must make for life.