

Political epistemology of pandemic management

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Abstract: Today, claims about the contiguity of health management and societal organization bring biopolitical concerns to the forefront. This essay offers historical-political insights on the COVID-19 pandemic, which are particularly urgent, as both the temporal and the cultural-political dimensions have been insufficiently considered in current debates. After introducing our specific political-epistemological approach, we delve into the entanglements of medical expertise, economic interests, surveillance politics, and diplomatic relations in the past in order to shed light on the present. Additionally, we address the limitations of Italian theory's *biopolitica*, namely its idle radicalization of critical views on medical politics inspired by French *épistémologie historique*. We conclude with a call to scientists' responsibility in consideration of the societal embedment of their activity. Yet, the task of an emancipated science is not only in their hands but depends on our collective capacity to organically connect their work to the renewal of the body politics at large.

Keywords: pandemics, biopolitics, political epistemology, history of epidemics

1. Introduction

History-writing is a political act, as we look at the past not only to understand our present but also to change the future¹. In times of global pandemics, medical history takes on an unprecedented relevance, while Foucauldian claims about the contiguity of health management and modern societal organization bring biopolitical concerns to the forefront (Fig.

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¹ Cf. A. Gramsci, *Quaderni del carcere*, Einaudi, Turin 2007, Notebook 10 §2, pp. 1241-1242.

1)². In this essay, we offer historical-political insights on the COVID-19 pandemics, which we see as particularly urgent. Even if there is a lot of historical discussion on biopolitics, a more nuanced political epistemology approach remains to be written³. We first introduce our group's political-epistemological approach; we then discuss the entanglements of medical expertise exerted through quarantine, economic interests and surveillance politics in the past in order to shed light on the present conjuncture; third, we address the limitations of Italian theory's *biopolitica*, namely its idle radicalization of critical views on medical politics inspired by French *épistémologie historique*⁴. We conclude with a reappraisal of the view (which is less and less reflected upon) that science is not neutral and scientists and scientific institutions carry a responsibility for the societal consequences of their activity⁵. However, the task of imagining and realizing

² See also P.D. Omodeo, *Review-Interview with Roger Cooter. The Critical Intellectual in the Age of Neoliberal Hegemony*, "Journal for the Interdisciplinary History of Ideas", IV, 7, 2015, pp. 1-5, p. 20; G. Isabelle, *COVID-19 et capitalisme: le triomphe de la biopolitique?*, "Contretemps. Revue de Critique Communiste", 2 November 2020, retrieved from: <https://www.contretemps.eu/coronavirus-capitalisme-biopolitique-foucault-agamben-esposito-marxisme/>; D. Lorenzini, *Biopolitics in the Time of Coronavirus*, "Critical Inquiry", 2021, 47, S2; L. van den Berge, *Biopolitics and the Coronavirus*, "Netherlands Journal of Legal Philosophy", 2020, 1, pp. 3-6.

³ Cf. P.D. Omodeo, *Political Epistemology: The Problem of Ideology in Science Studies*, Springer, Dordrecht 2019.

⁴ Epistemology and history of science have interpenetrated each other in the French cultural context. Debates about the process of canonizing *épistémologie historique* as a research tradition are still open today. Traditionally, this term refers at least to the triad composed of Gaston Bachelard, Georges Canguilhem and Michel Foucault (see D. Lecourt, *Pour une critique de l'épistémologie: Bachelard, Canguilhem, Foucault*, Maspero, Paris 1972; J-F. Braunstein, *Bachelard, Canguilhem, Foucault. Le «style français» en épistémologie*, in P. Wagner, *Les philosophes et la science*, Gallimard, Paris 2002). The concept of biopolitics covers an essential role for several authors of French *épistémologie historique*. Biopolitics is crystallized in Foucault's work (starting from *The Will to Knowledge*), but it is also found in Georges Canguilhem's reflections (especially *Writings on Medicine*). If in Foucault and Canguilhem, biology has an individual role and an independent field of research within the biopolitical paradigm, this is not true for Agamben and Esposito's biopolitics. Here, biology is used as a tool to provide an ontological explanation of life. For Canguilhem and Foucault, biology and medicine are practices of social problematization and their philosophy is linked to the concept of "life." On the contrary, Agamben and Esposito's biopolitics loses contact with the living pushing it into a metaphysical domain, no longer vital.

⁵ On the non-neutrality of science, see J-M. Lévy-Leblond, A. Jaubert, (*Auto*)*Critique de La Science*, Éditions du Seuil, Paris 1973; G. Ciccotti et al., *L'ape e l'architetto. Paradigmi scientifici e materialismo storico*, FrancoAngeli, Milano 2011; H. Rose, S. Rose, *The Radicalisation of Science: Ideology of / in the Natural Sciences* Macmillan, London 1976; S. Harding, *The Science Question in Feminism*, Cornell University Press, Ithaca-London 1986; B. Barnes, *Scientific Knowledge and Sociological Theory*, Routledge & Kegan Paul, London 1974; D. Bloor, *Knowledge and Social Imagery*, University of Chicago Press, Chicago 1976; B. Barnes, D. Bloor, J. Henry, *Scientific Knowledge. A Sociological Analysis*, Athlone, London 1996; cf. G. Ienna, *Fisici italiani negli anni '70. Fra scienza e ideologia*, "Physis" (forthcoming).

a science for an emancipated society is not only in their hands but depends on our collective capacity to organically connect our work to the renewal of the body politic at large.

2. *Methodological overture: political epistemology*

We would like to preliminarily stress the political dimension of science and of all reflection and discourses on it, especially the academically established meta-sciences (the history and philosophy of science, the sociology of science, and the anthropology of science). The ‘political’ concerns the three main questions of historical epistemology, of the roots of science, its validity and functions (i.e., the implicit and explicit goals and the connected praxis).

Science is the social activity par excellence⁶. As the pioneer of historical epistemology, Ludwig Fleck stressed in *Genesis and Development of a Scientific Fact* (1935), knowledge is inherently collective⁷. He stressed the shared character of scientific and medical knowledge, which is always determined by historically transmitted styles of thought (*Denkstile*)⁸. They reflect the societal conditions out of which the sciences and their facts emerge. Prescriptive elements, ethical and even mythical ones, are part of the development of science in all of its stages, including the present, and they guide future research as an ineliminable ideological factor. Fleck regarded the case of syphilis as paradigmatic. Throughout the centuries, Europeans looked at this venereal disease with great concern, owing to its sexual connotation and the perception as a divine scourge for sexual sins. Thus, its importance was social in the first place. Fleck compares syphilis with other contagious diseases that received lesser attention from public health administrators, scientists and the population in general. For instance, tuberculosis received a different ethical connotation, as a sort of ‘Romantic disease’ and as such was a lesser motivation for state-funded medical research although it caused more casualties than syphilis. “No head of public health search would be able to arouse enthusiasm in the

⁶ L. Fleck, *Genesis and Development of a Scientific Fact*, University of Chicago Press, Chicago 1979, p. 42.

⁷ The interpretation of Fleck as a historical epistemologist is well established. See, among others, H-J. Rheinberger, *Historische Epistemologie zur Einführung*, Hamburg 2007, and F.O. Engler, J. Renn, *Gespaltene Vernunft: Vom Ende eines Dialogs zwischen Wissenschaft und Philosophie*, Berlin 2018, esp. Chap. 8 and 9.

⁸ L. Fleck, *Genesis and Development of a Scientific Fact*, cit., pp. 125-145.

nation's best research workers, because it is a socially unimportant disease"⁹.

Drawing on Fleck's insights that science is a collective, ethically connotated and politically driven activity, we direct our political-epistemological approach to the critical inquiry of the political entanglements of science and medicine, including at the meta-level of disciplinary discourses on science, especially the academically established meta-sciences (the history and philosophy of science, the sociology of science, and the anthropology of science) in a time in which debates about facts and their assessment have become of paramount relevance in public debates and political decision making (from climate change to health management). In our view, the 'political' concerns the three main questions of historical epistemology, of the roots of science (or the 'genesis'), its validity, and its functions (i.e., the implicit and explicit goals and the connected praxis). We should consider these three questions one after the other.

Concerning the roots of science, the question relates to both the cognitive and the historical origin of science. They do not have to be thought separately, as the social processes of abstraction that took place under concrete historical circumstances and in connection with specific needs (geometry from measurement, arithmetic from computation, more abstract mathematical practices from symbolic practices, etc.) have to be constantly interiorized by learning individuals through experiences of cognitive appropriation and reactivation of mental structures¹⁰. The political meaning of a social reconstruction of the history of science was clear to the pioneers of the sociological approach in history of science in the twentieth century, Boris Hessen, Henryk Grossmann, Edgar Zilsel and, of course, Fleck, who reaffirmed the collectivist character of knowledge as an important measure against elitist attitudes that were widely accepted by scientists, as was reflected in the widespread cult of 'pure science', the scientific genius and the merely 'internalist' comprehension of the history of scientific ideas¹¹. Fleck specifically attacked the 'dogmatism' of speculative epistemology (*epistemologia imaginabilis*) that 'analytically' reduces cognition to a relation between knowing subject and the known object without taking into account the necessary mediation of cul-

⁹ Ivi, p. 77.

¹⁰ P. Damerow, *Abstraction and Representation: Essays on the Cultural Evolution of Thinking*, Springer, Dordrecht 1995.

¹¹ B. Hessen, H. Grossmann, *The Social and Economic Roots of the Scientific Revolution* (eds.), G. Freudenthal, P. McLaughlin, Springer, Dordrecht 2009; E. Zilsel, *The Social Origins of Modern Science* (eds.), D.W. Raven, W. Krohn, R.S. Cohen, Kluwer, Dordrecht 2003.

ture¹². Today's studies on 'practical knowledge' are the heirs of those perspectives although the political awareness has often been diluted, perhaps owing to a sense of more widespread tolerance towards bottom-up politics and forms of knowledge¹³.

The second historical-epistemological question concerns validity, the problem of method and, more abstractly, the determination of truth criteria¹⁴. The political implications of such a problem were not always clear to the champions of modern mathematical science, such as Galileo, those who integrated it with a philosophical reflection on method – prototypically, Descartes – and those who investigated the rational constituents of science – most importantly, Immanuel Kant's subjective *a priori* of knowledge. Yet, neither the practice nor the methods nor the structuring factors of scientific knowledge have ever been given in absolute terms but evolve historically and are tightly connected with epistemic and non-epistemic values. At moments, the political emerged in the philosophical conceptions of the 'epistemological century' of the first reception of Descartes, for instance in Hobbes' "political epistemology"¹⁵. The latter materialist thinker expressed not only the knowledge-power entwinement but also sensed the political meaning of the usage of reason and the theory of knowledge in his various polemical fronts – against the pluralist empiricism of the Royal Society just as against the theo-politics of 'conventionalism' à la Bellarmine¹⁶.

The awareness of the historicity of the *a priori* of science and the stronger objectivity that positioned knowledge can achieve have emerged in the wake of the Marxist critique of political economy, neo-Kantian philosophies of science and radical science movements in the twentieth century. The question of the values and interests that are embedded in science and its truth criteria is still of impelling actuality in an age that is marked by the uncritical (re)emergence of neo-positivist attitudes, novel forms of social Darwinism, scientist reductionism (even scientist superstition), and technocracy. The fundamental enlightenment question arises:

¹² L. Fleck, *Genesis and Development of a Scientific Fact*, cit., p. 50.

¹³ P. Smith, *The body of the artisan: Art and experience in the Scientific Revolution*, The University of Chicago Press, Chicago 2004.

¹⁴ D. Bloor, *Knowledge and Social Imagery*; Joseph Rouse, *Knowledge and Power. Toward a Political Philosophy of Science*, Cornell University Press, Ithaca-London 1987.

¹⁵ S. Shapin, S. Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*, Princeton University Press, Princeton 2011 (1985), p. 99.

¹⁶ G. Freudenthal, *Atom and Individual in the Age of Newton. On the Genesis of the Mechanistic World View*, D. Reidel Publishing Company, Dordrecht 1986.

how can we secure a *rational* use of *scientific rationality*? This is the political crux of the *question de la méthode*.

Thirdly, as far as the functions of science are concerned, they relate both to the materiality of science as a force of societal production and reproduction, as well as to its cultural function. Bacon's vision of science as a means to master nature has become an indisputable reality in the industrial age of science as a productive force. In his classic studies on the function of science, Bernal pointed to the two-sidedness of science, as its goals and uses can serve progressive politics of emancipation as well as destruction, the capitalist exploitation of nature and humanity, even fascism¹⁷. The latter connections motivated the Frankfurt denunciation of the Enlightenment dialectics that transformed science and reason from a means of human mastery of nature into a means of control and dominion of humans. "The mastery over the mastery of nature"¹⁸ can be turned into an instrument of despotism instead of freedom. Hence the necessity of a political and not only technical assessment of science, its results and goals arise.

This is particularly pressing in view of the cultural function of science as an instrument of ideology, that is, as a means of construction of consensus over the status quo and justification of the societal reality. Such reactionary and depersonalizing function occurs whenever solutions are advanced, which transform political problems into technical ones¹⁹. Hence, a science-democracy dilemma emerges often in connection with the most urgent problems of the present such as health and the environment: Who is in charge of decisions? The experts or the people? And, connected to this, the problem of scientific education, not to be confused with popularization²⁰. The emergence of such problems is also intrinsically related to the social division of labour and the establishment of a form of bureaucratization characteristic of the modern state and capitalist economy²¹.

Technology has always been at the centre of material and political reflections on science. In fact, technology constitutes a juncture between

¹⁷ J.D. Bernal, *Social Function of Science*, Routledge, London 1946 (1939), pp. 1-11, 155-159, 210-231.

¹⁸ A. Schmidt, *The Concept of Nature in Marx*, Verso, London 1962, pp. 12-13.

¹⁹ J. Habermas, *Toward a Rational Society, Student Protest, Science, and Politics*, Beacon Press, Boston 1989 (1969), pp. 102-103.

²⁰ H. Collins, R. Evans, *The Third Wave of Science Studies: Studies of Expertise and Experience*, "Social Studies of Science", XXXII, 2, 2002, pp. 235-296; A.I. Goldman, *Experts: Which Ones Should You Trust?*, "Philosophy and Phenomenological Research", 63, 1, 2001, pp. 85-110.

²¹ M. Weber, *Economy and Society. An Outline of Interpretive Sociology*, University of California Press, Berkeley 1978, pp. 956-1005.

the intellectual realm of the universalizing abstraction of science, on the one hand, and the material realm of practice, production, economy and, of course, politics²². Social historians of science and materialist epistemologists have long pointed to the relevance of technology as the basis for modern science: according to the so-called Hessen-Grossmann thesis, modern mechanics resulted from the codification of machine technology and know-how, which, in turn, was fuelled by the material and economic interests of expanding profit economy²³.

Moreover, technology has been thematized – perhaps more metaphorically – in connection with the study of organizational techniques and governmental problems. As Boltanski and Chiapello have shown, an essential element of the establishment of the most recent phases of the spirit of capitalism is manifested through the emergence of management as a mixed form of technical organization of the social division of labour and moral prescriptions²⁴. The birth of Taylor's scientific management immediately raised educational and moral concerns about the psycho-physical amount of repression that was necessary to create the 'factory gorilla', the worker of the assembly line realized by Ford in the first decades of the twentieth century. Antonio Gramsci's reflections on "Americanism and Fordism" in his *Prison Notebook* n. 22 are exemplary of early cultural-political critiques of scientific management (which are consonant with Marx's position on the workers' alienation in the Paris manuscripts and later discussions on 'reification' from Lukács to the Frankfurt School)²⁵. The post-'68 phase has been characterized by total reabsorption of the social criticisms that emerged during '68 in the mesh of capitalist ideology (for example, replacing the values of stability and security typical of Fordism with those of mobility, autonomy and personal self-realization). The ideological and social function of management is to generate a form of knowledge capable of producing ethical-technical prescriptions in the social organization of labour capable of preserving capitalism through a constant neutralization of forms of criticism²⁶.

²² "Socio-Political Coordinates of Early-Modern Mechanics: A Preliminary Discussion", in R. Feldhay, J. Renn, M. Schemmel, M. Valleriani (eds.), *Emergence and Expansion of Preclassical Mechanics*, Springer, Cham 2018, pp. 55-78.

²³ B. Hessen, H. Grossmann, *The Social and Economic Roots*, cit., pp. 1-40.

²⁴ L. Boltanski, È. Chiapello, *The New Spirit of Capitalism*, Verso, London 2007, p. 58.

²⁵ A. Gramsci, *Quaderni Dal Carcere*, Einaudi, Turin 1975 (1948), pp. 2139-2181; A. Feenberg, *The Philosophy of Praxis: Marx, Lukács, and the Frankfurt School*, Verso, London 2014.

²⁶ L. Boltanski, È. Chiapello, *The New Spirit of Capitalism*, cit., pp. 57-102.

With the spread of forms of technocratic management of politics, it seems to us, therefore, that in contemporary societies the science of business management is also spreading to the organizational structure of the policies of the nation-states. From this viewpoint, in the context of the advanced capitalist society, science and technology assume the role of a concrete productive force²⁷. All this has effects on the forms of governmentality and the processes of subjectification that it implies. Foucault has brought to our attention what he calls the “technologies of the self”, the social techniques of sexual education and repression which are at the basis of the construction of subjectivities, as well as techniques of bodily manipulation and biological regulation of society²⁸. The latter problem, the problem of biopolitics, is closely connected, in Foucault’s view, to the modern forms of societal control²⁹.

3. *A historical-critical perspective: entanglements of medicine, technical expertise and society*

Following Fleck’s suggestion to aim for an analysis of science conceived as a mundane activity shaped by political, cultural and economic factors, in this section we examine the historical development of quarantine. Similar to what happens today with social distancing and quarantine to slow down the COVID-19 pandemic, the history of quarantine shows its administrative use through which multifaceted interests of political powers, nation-states, health institutions and affected people converged in modern forms of social and sanitary control.

The quarantine, maybe one of the oldest administrative measures to counter the plague and other infectious diseases that humans have experienced, was ideated between 1384 and 1465, when the sanitary council of Venice, the most important commercial port that exchanged cargos with the Levant, and the nearby Republic of Ragusa (today Dubrovnik) established the isolation of infected ships for forty days³⁰. In the manage-

²⁷ G. Ciccotti *et al.*, *L'ape e l'architetto*, cit., pp. 92-93.

²⁸ M. Foucault, *La technique de soi*, in Id., *Dits et Écrits 1980-1988*, IV, cit., pp. 783-813; Id., *La technologie politique des individus*, in *Dits et écrits*, IV, cit., pp. 813-828.

²⁹ M. Foucault, *La naissance de la médecine sociale*, in Id., *Dits et écrits 1976-1979*, III, Gallimard, Paris 1994, pp. 207-228; Id., *Society Must Be Defended. Lectures at the Collège de France, 1975-76*, Picador, London 2005; Id., *The Birth of Biopolitics: Lectures at the Collège de France, 1978-79*, Palgrave Macmillan, New York 2008.

³⁰ W. Hardy McNeill, *Plagues and Peoples*, Anchor Books, New York 1976.

ment of epidemics, quarantine was a means to counter outbreaks by isolating individuals and communities. The Lazzaretto of Venice was created about six hundred years ago, in 1423, as an island-hospital for the confinement of all those who contracted the plague. The close-by island of S. Lazzaro was the place in which individuals with leprosy had been long detained in a sort of ghost city of deformed and sick people ruled by clerks. Within a few decades, in 1468, a third island, today known as Lazzaretto Nuovo, was deputed to serve as a place of hope for those who could be transferred to this next station for their convalescence³¹. The new Lazzaretto was deputed to quarantine those 'suspected' to be infected or who had been in contact with sick people, as well. Moreover, it became a place for the quarantine of vessels, goods and people who entered the lagoon from countries affected by contagious ills. A *magistrato alla sanità* (health magistrate) was instituted after the plague of 1485 and its extensive and dramatic spread, which kept track of the movements of people, watched over the poor and prostitutes, as it was assumed that people circulation, misery and sexuality favoured the spreading of disease. Moreover, this institution developed an intelligence network in order to collect information about diseases in other countries. Such information could be used for commercial battles and international politics, too. For instance, when, in the fifteenth century, the Republic of Ragusa quarantined ships from Venice, as the plague was taking over the city, Venice later responded by blocking ships from Ragusa in retaliation. Quarantine was therefore the main means to address epidemics as well as a means of war that went along the making of European states.

The commerce managed by the Dutch with the East and West Indies caused, in 1663, the appearance of the plague in the Netherlands. By 1664 the plague killed over 35,000 people in Amsterdam. England, Sweden and Denmark, which competed with the Netherlands for the access to Levant and Asia markets, imposed an extremely long and sometimes unjustified quarantine on Dutch vessels³². By analysing the plague epidemic that took place in Marseille in 1720, French historian Jean-Pierre Papon highlighted the role of the merchants who decided when to end the administrative measures of lockdown and sanitation³³, to eventually

³¹ N.E. Vanzan Marchini, *Rotte mediterranee e baluardi di salute*, Skira, Geneva-Milan 2004, pp. 17-45.

³² M. Harrison, *Contagion: How Commerce Has Spread Disease*, Yale University Press, New Haven 2005, p. 25.

³³ J.-P. Papon, *De la Peste, ou Epoques Mémorables de ce Fléau, et Les Moyens de s'en Préserver*, I, Lavilette et Compagnie, Paris 1800, p. 340.

suggest that since the functioning of health boards is challenged by particular interests, it would be advisable to avoid a committee entirely composed by merchants³⁴.

During the fifteenth and nineteenth centuries, trade began to play such a key role that the most important commercial ports of the Mediterranean Sea, following the Venice model, equipped themselves with health boards and sanitary institutions to quarantine ships, goods and crews in lazarettos. Quarantine was born and extensively used as an administrative measure to save the trade of European powers, and their wealthiest population from the contagion spread across maritime trade routes. The cholera pandemic of 1817 was the first of six cholera outbreaks between 1817 and 1917³⁵. It exploded in British India and spread through Russia, China, and the Middle East, across to West Africa. In India alone, it is estimated that one to two million people died. The disease created and aggravated social issues.

In Russia, the poor protested quarantine restrictions that hindered their ability to work and survive. In 1831, a popular revolt against the quarantine burst out in the Russian Tambov administrative area. The bloody repression caused 2,300 deaths, as troops stationed in the area until 1833 to quash the uprisings³⁶. By 1832, during the second cholera pandemic of the nineteenth century, the disease had travelled across Russia to Western Europe and England, and had reached the Americas causing a significant impact on political systems and economies³⁷.

Gradually, scientific advancements offered a better understanding of cholera. In 1849, physician John Snow hypothesized that the cholera outbreak had microbial origins. He also inferred that microbes spread via the sewage system by leaking into the aqueducts' clean drinking water. In 1854, Italian microscopist Filippo Pacini identified the microscopic *Vibrio* responsible for what was then called Asiatic cholera³⁸. He realized

³⁴ Ivi, II, p. 142.

³⁵ D.P. Fidler, *The globalization of public health: the first 100 years of international health diplomacy*, "Bulletin of the World Health Organization", 79, 2001, pp. 842-849; N. Howard-Jones, *The Scientific Background of the International Sanitary Conferences, 1851-1938*, *History of International Public Health*, 1, 1975; V. Huber, *The unification of the globe by disease? The international sanitary conferences on cholera, 1851-1894*, "The Historical Journal", 49/2, 2006, pp. 453-476.

³⁶ R.E. McGrew, *The First Cholera Epidemic and Social History*, "Bulletin of the History of Medicine", 34/1, 1960, pp. 61-73.

³⁷ F. D'Abramo, S. Neumeyer, *A historical and political epistemology of microbes*, "Centaurus", 62/2, 2020, pp. 321-330.

³⁸ F. Pacini, *Osservazioni microscopiche e deduzioni patologiche sul cholera asiatico*, Tipografia Federico Bencini, Firenze 1854.

that the contagion needed an “organic living substance” in order to be able to cause, reproduce, and spread the disease³⁹. During the second half of nineteenth-century contagion, the idea that a disease spread through contact or proximity among individuals, was countered at least by two subjects: liberal politicians, who despite the dramatic effects of the cholera pandemics wanted to keep international trade going on, as well as by all those who wanted to counter the symbolic, oppressive power of quarantine, often used by officials and governments to segregate the minorities⁴⁰. Before the scientific discoveries of Pacini, Snow, Pasteur and Koch, European medical institutions that countered the theory of contagion and the related practices such as the quarantine, represented a notable number. After the scientific observations that confirmed the presence of living, transmissible entities causing the spread of disease, the anticontagionists suddenly declined, and in a few decades sanitary institutions started to develop their interventions based on new kinds of diagnostics and therapeutics tested the African people of European colonies⁴¹.

Between 1851 and 1938, a series of fourteen conferences known as the International Sanitary Conferences took place across Europe, and the United States. Each country was represented by a diplomat and a physician. The goal was to standardize international quarantine regulations and negotiate preventive measures which eventually affected not only health policies, but reformed national economies and destabilized political systems⁴². Moreover, the misuse of quarantine undertaken during the previous centuries as a means of “foreign policy” and “weapon of war” was recognized, in the nineteenth century, as an issue to solve through so-called health diplomacy⁴³. Therefore, the emergence of international sanitary coordination lies, in part, in the misuse of maritime quarantine with the deliberate and consequent disruption of commerce and the anger of merchants and their political allies. When the problems caused by epidemics, and the improper use of quarantine added to the 1831 Egyptian invasion of the Ottoman province of Syria, which posed a direct threat to

³⁹ Ivi, p. 27.

⁴⁰ E. Heinz Ackerknecht, *Anticontagionism between 1821 and 1867*, “Bulletin of the History of Medicine”, 22/5, 1948, pp. 562-593.

⁴¹ See M. Lock, Vinh-Kim Nguyen, *An Anthropology of Biomedicine*, Hoboken, New Jersey 2018, pp. 79-102, and E. Bonhomme, *When Africa was a German laboratory*, “Al Jazeera”, 6/11/2020, <https://www.aljazeera.com/opinions/2020/10/6/when-africa-was-a-german-laboratory>

⁴² S.J. Watts, *Epidemics and History: Disease, Power, and Imperialism*, Yale University Press, New Haven 1999; M. Harrison, *Contagion: How Commerce Has Spread Disease*, Yale University Press, New Haven 2013.

⁴³ M. Harrison, *Contagion: How Commerce Has Spread Disease*, cit., p. 277.

British and French commerce, the European powers played the new diplomatic card.

Interestingly, the convenors of the first sanitary conferences refuted the theory of contagion and indicated the quarantine as a waste of time⁴⁴. The anticontagionist stance prevented both national and colonial administrators of Great Britain from recognizing vibrio cholera leaking from the sewers in aqueducts and irrigation canals as the main cause of epidemics, to instead attributing the main cause of the cholera epidemics to the unhygienic habits of the Indian people and in so doing avoided tackling the material and logistic aspects of a structural reform of aqueducts and irrigation canals⁴⁵. A similar procrastination of infrastructural reforms needed to halt the cholera outbreak regarded also London, where the fragmentation and antagonism of administrative and economic powers managing the city waters, delayed the implementation of Pacini and Snow's theories⁴⁶.

Thus, nineteenth-century health diplomacy often considered health issues caused by epidemics as a function of the most influential powers' commercial interests. This power relation translated into discrimination concerning alleged European exceptionalism versus the social, political and medical conditions of Asian and Muslim countries⁴⁷. At the 1874 Vienna conference, the travelers departing from India, the epicentre of the cholera epidemic, were obliged to undertake quarantine in Asia. Similarly, Muslim and Arab pilgrims were indicated as more susceptible to contagion than European people, and therefore in need of being quarantined in their home countries, while European powers liberalized the use of quarantine across European states. These sanitary, administrative buffer zones, to prevent an alleged passage of disease from the Orient, have been implemented through an international telegraph-based reporting system of contagion disease⁴⁸, which was considered jointly by the delegates of

⁴⁴ N. Howard-Jones, *The Scientific Background of the International Sanitary Conferences, 1851-1938*, World Health Organization, Geneva 1975.

⁴⁵ S.J. Watts, *Epidemics and History: Disease, Power, and Imperialism*, cit., pp. 167-212.

⁴⁶ C. Hamlin, *Politics and germ theories in Victorian Britain: The Metropolitan Water Commissions of 1867-9 and 1892-3*, in R. MacLeod (ed.), *Government and Expertise: Specialists, Administrators and Professionals, 1860-1919*, Cambridge University Press, Cambridge 2003, pp. 110-127.

⁴⁷ V. Huber, *The Unification of the Globe by Disease? The International Sanitary Conferences on Cholera, 1851-1894*, "The Historical Journal", 49/2, 2006, pp. 453-476.

⁴⁸ The reporting system of contagious diseases ideated within the nineteenth-century international sanitary conferences was the forerunner of the global epidemiological surveillance system used by the World Health Organization. Cf. F. D'Abramo, *The past and present of pandem-*

the 1893 Dresden conference, and applied in Europe after the 1894 Paris conference⁴⁹.

Several international health organizations were established before the First World War but only after the end of the war, in 1922, the League of Nations was formed as the world's first intergovernmental organization with its own Health Committee and Health Section⁵⁰. In 1948, the WHO was established as one of the earliest specialized agencies of the United Nations. The WHO presents itself as technical and apolitical: an organization that welcomes membership universally. Accordingly, staff members are considered, "international civil servants", with no national responsibilities, and no national attachments, and a special focus of the organization is on epidemic diseases⁵¹.

During the Cold War, the WHO suffered from tensions between the United States and the socialist countries. For instance, during the first years of the WHO, countries of Eastern Europe such as Poland, Yugoslavia and Czechoslovakia were blocked by the Americans from developing their own production of penicillin. When in 1949 Josef Plojhar, Czechoslovak health minister and Roman Catholic priest asked at the World Health Assembly why the Americans did not deliver the remaining machines bought by the Czechoslovak government to start their penicillin production, and referring explicitly to the contract signed by both the parties, the American delegate answered: "Contract, no contract, you turned socialist, you get nothing!"⁵². As shown by historian Dora Vargha, the American delegate Leonard Andrew Scheele referred to the diplomatic clash and dismissed the protests by stating that the equipment in question was not necessary for the production of penicillin. After about two years from the inception of the WHO in 1948, one by one, Albania, Bulgaria, Romania, Hungary, Czechoslovakia, and Poland left the international agency. And mainly because of the lack of access to scientific discoveries.

ic management: health diplomacy, international epidemiological surveillance, and COVID-19, "History and Philosophy of the Life Sciences", 2021, <https://doi.org/10.1007/s40656-021-00416-4>.

⁴⁹ Howard-Harrison, *The Scientific Background of the International Sanitary Conferences*, cit.

⁵⁰ I. Borowy, *Coming to Terms with World Health: The League of Nations Health Organization 1921-1946*, Peter Lang, Bern 2009.

⁵¹ J. Farley, *Brock Chisbols, the World Health Organization, and the Cold War*, UBC Press, Vancouver 2009.

⁵² D. Vargha, *Technical Assistance and Socialist International Health: Hungary, the WHO and the Korean War*, "History and Technology", (2020-forthcoming).

Given that the WHO is the result of strong diplomatic negotiations, it is far from being just an apolitical and technical organization. Within the WHO the most influential member states push for their own interests and mobilize their diplomatic channels within the organization to achieve their goals⁵³. The discourses and practices of lockdown and quarantine undertaken during the COVID-19 pandemic follow the trajectories of social actors and political powers that have been trying to cope with the spread of epidemics for centuries⁵⁴. These epistemologies, especially those of the modern liberal phase, contain conflicting and contradictory elements that need to be analysed at the historical, social, political and economic levels so as to pave the way for emancipatory conceptions and uses of biomedical sciences.

4. *Politics of life, the dead-end of 'biopolitica'*

The politics of life has gathered momentum in recent years, after Michel Foucault proposed looking at the quarantine methods developed in modernity as a path towards modern forms of government. The sciences, in particular biomedicine play a central role⁵⁵. Foucault uses the plague pandemic to demonstrate how modern forms of government have developed. In early modernity, sick people simply had to be separated from the healthy, and the plague was faced through the activation of a complex control system on sick individuals (like the Venetian one). If the leper was simply excluded and recognized as sick from the neighbourhood without any real public interference, the plague that spread rapidly had to be controlled in a centralized manner. Hence, the development of the ideal of an omniscient power, symbolized by the Panopticon. It was a circular prison, developed in more recent times, in which a single guard was able to watch over all the prisoners who, conversely, could not see him. This acted as a surveillance model that shows well what Foucault understands as the transition from disciplinary power to biopolitical power.

⁵³ M. Cueto, T.M. Brown, E. Fee, *The World Health Organization. A History*, Cambridge University Press, Cambridge 2019.

⁵⁴ An epistemological and political analysis of the biology-society interplay of the current pandemic, is offered by S. de Chadarevian, R. Raffaetà, *COVID-19: Rethinking the nature of viruses*, "History and Philosophy of Life Science", 43/2, 2021, <https://link.springer.com/article/10.1007/s40656-020-00361-8>

⁵⁵ M. Foucault, *La naissance de la médecine sociale*, cit., Eng. tr., *Birth of Social Medicine*, in J. Faubion (ed.), *Power: Essential Works of Foucault*, III, New Press, New York 1984, pp. 134-156.

The Panopticon symbolizes the potential of the power to perpetually control without this being manifest. In the modern age, to keep the plague under control, power constitutes an organization of social surveillance, implemented through spatial partitioning, family control, inspections and registration systems. This is a “branching out of power” that sections every moment of life to be controlled⁵⁶. While leprosy could be managed by a bi-dimensional regime (healthy vs. sick and exiled, inside vs. outside the community), the plague required a multiplicity of application points of power and therefore a new organization that was developed on countless fronts. The crucial part of the new biopolitical power is positivity: power no longer denies through rules and prohibitions, but it seeks to invest the entire vital area by potentiating and managing it⁵⁷. Firstly, power does not consider the single individual but the collectivity (a new concept of population emerges) and, secondly, the individual is no longer considered juridically but biologically: life must be organized and guaranteed through a process of medicalisation that involves as many aspects of the subject’s life as possible. Thus, power creates as it were “a regime of truth”: it sets up a system of meaning in which identities (e.g., race, sex, illness) take on a new value and guarantee a political, economic and moral connection. Eventually, power is structured through application to the subject: power works only if it leverages a subject that amplifies it and makes it emerge from its practices⁵⁸. The new concepts that were extraneous just before are thus assimilated, produced and reproduced ‘from below’ and become part of life permeating a certain social order making the subject dependent on this new sense⁵⁹.

Moving now to the theoretical dimension of these notions – not pandemics per se but the reflection on the ‘management of life’ itself – we turn to the problematic notion of biopolitics, which has returned to the fore in recent times due to...the current pandemic. Biopolitics is a slippery and contested term, first coined by Foucault in lectures at the Collège de France in the 1970s⁶⁰ and given new ‘life’ in a more irrational-

⁵⁶ Today this control is moved to a digital domain, through Apps, data tracking, positioning, drones, satellite images.

⁵⁷ M. Foucault, *La volonté de savoir*, Gallimard, Paris 1976, pp. 120-125.

⁵⁸ M. Foucault, *Naissance de la biopolitique*, Gallimard, Paris 2004, pp. 40-47.

⁵⁹ An example is the practice of social distancing today.

⁶⁰ There is a difference, as we briefly discuss, between ‘biopower’ and ‘biopolitics’; the terms first appear in Foucault’s *Histoire de la sexualité*, I (*La volonté de savoir*), Gallimard, Paris 1976. The topic of power in Foucault was the object of a scholarly and theoretical industry all by itself. In the context of reflecting on biopolitics in 2020/2021, suffice it to say that Foucault

ist (and public) usage by Italian philosopher Giorgio Agamben and other thinkers in his circle in recent years⁶¹. The peculiarity of Foucault's vision lies in its consideration of the basic biological characteristics of life as a site of resistance. There is no simple reduction to a totally biological 'naked life' incapable of subjectification, in which the only possible resistance is negation and estrangement. On the contrary, biopower applies to a subject and it is only in and through that subject that it works, hence a total nullification of subjectivity is never possible. There is always a point of resistance, the living being, that can positively oppose biopower. This concept of resistance is the point where the different interpretations given by 'Italian biopolitics' and by Foucault diverge⁶².

Part of the difficulty with the term 'biopolitics' is that it is both descriptive and prescriptive, or empirical and normative: that is, it describes a state of affairs – in fact, different possible states of affairs – in which governments 'rule over life'. The existence of public health bureaucracies, but also the management of various medical conditions, and the emergence of biotech, as a research and investment area but also, again, a top-down, government-mandated area, are all cases of 'biopolitics' in the simpler, descriptive sense. Less immediately relevant in the current situation, but also crucial in the contemporary biopolitical arena, is the idea of 'biocapital'⁶³. For instance, someone with a rare genetic disorder can be useful to drug companies; the human body can now be viewed in profit-making terms⁶⁴.

The more prescriptive or normative sense of biopolitics comes in when a thinker denounces the State for 'disciplinary power over the body', something that has come into sad and vivid focus with the current pandemic, but which is by no means new. This can range from the 'management' of refugees to the confinement of populations viewed as literally contagious.

Foucault and Agamben have two different approaches to biopower. For Foucault, it is a way that a particular sovereign power develops in

doesn't either hypostatize the concept of power or create a negative theology of it (as Agamben does). See Foucault's lecture, *Les mailles du pouvoir*, in *Dits et écrits*, IV, cit., pp. 182-201; and the works on this topic by Maurizio Lazzarato.

⁶¹ See R. Esposito, *Immunitas. The Protection and Negation of Life*, Polity, Cambridge 2011.

⁶² D. Gentili, *Italian Theory. Dall'operaismo alla biopolitica*, Il Mulino, Bologna 2012.

⁶³ See K. Sunder Rajan, *Biocapital. The Constitution of Postgenomic Life*, Duke University Press, Durham 2006, which presents an ethnographic and economic analysis of genomics (in the U.S. and India).

⁶⁴ See R. Skloot, *The Immortal Life of Henrietta Lacks*, Random House, New York 2010.

modernity⁶⁵, while for Agamben it is a constant in the civilized world (from the ancient Greeks onwards)⁶⁶: “Western politics is a biopolitics from the very beginning”⁶⁷. The concept of life must not be read, according to Italian biopolitics, in the light of history-finding in the subject a point of discontinuity where we can find resistance and production like in Foucault - but on the contrary, life must be conceived as ‘naked’ and resistance gives way to negation. According to Agamben and Esposito, life can resist power only if it is de-historicized and de-subjectivized⁶⁸ and they conceive the *dispositif* and the struggle in transcendental terms that cannot be found in Foucault.

In this shift towards prescriptive biopolitics, all of society becomes defined in terms of inner and outer:

The decisive fact is that, together with the process by which the exception everywhere becomes the rule, the realm of bare life – which is originally situated at the margins of the political order – gradually begins to coincide with the political realm, and exclusion and inclusion, outside and inside, bios and zoe, de jure and *de facto*, enter into a zone of irreducible indistinction.⁶⁹

Throughout his work and public editorials at least since the 1990s, Agamben has used the *Lager* concept in a generalized, ahistorical way, in his Auschwitz book, with the ‘ontology’ provided in *Homo sacer*⁷⁰. Back in 2002, he wrote a widely translated editorial in newspapers arguing that the projected Constitution for the EU was like Auschwitz (total control over life); fast forward to early March 2020 and he says the same thing about confinement in a time of COVID-19⁷¹.

⁶⁵ P. Rabinow, N. Rose, *Biopower Today*, “BioSocieties”, 1, 2006, pp. 195-217.

⁶⁶ G. Agamben, *Homo Sacer: Sovereign Power and Bare Life*, Stanford University Press, Stanford 1998, pp. 2-4; see also K. Genel, *The Question of Biopower: Foucault and Agamben*, “Rethinking Marxism”, 18, 2006, pp. 44-48.

⁶⁷ G. Agamben, *Homo Sacer: Sovereign Power and Bare Life*, cit., p. 181.

⁶⁸ D. Gentili, *Italian Theory. Dall'operaismo alla biopolitica*, cit., pp. 10-15.

⁶⁹ G. Agamben, *Homo Sacer: Sovereign Power and Bare Life*, cit., p. 9 (translation modified by the authors).

⁷⁰ See N. Rose, *The Politics of Life Itself*, “Theory Culture & Society”, 18/1, 2001, p. 3; and Id., *The Politics of Life Itself. Biomedicine, Power and Subjectivity in the Twenty-First Century*, Princeton University Press, Princeton 2007. For an excellent critique of the category of ‘camp’ in Agamben, see B. Aspe, M. Combes, *Retour sur le camp comme paradigme biopolitique*, “Multitudes”, 1/1, 2000, pp. 29-44. <https://doi.org/10.3917/mult.001.0029>.

⁷¹ We note that aside from historical or theoretical disagreements with Agamben, one can also say, as Negri did and as Foucault probably would have if he had been alive, that the ‘bare life’ rhetoric deprives agents of agency. Luca Paltrinieri uses the example of refugees in refugee centres. See L. Paltrinieri, *Between (Bio)Ethics and (Bio)Politics: What Life?*, Beistegui & Gra-

It is clear that ever since *Homo sapiens* first appeared, there have been apparatuses; but we could say that today there is not even a single instant in which the life of individuals is not modeled, contaminated, or controlled by some apparatus⁷².

One can comment, to borrow a phrase from Catherine Mills, that the supposed politics of life in Agamben is in fact a politics of death – not *biopolitics*, but *thanatopolitics*⁷³.

Foucault's reflections on biopower and biopolitics are also closely connected to reflections on the emergence of modern liberalism. In that context, he makes a point which is a good antidote against the Agambenian focus on a kind of Kafkaesque or fascistic State figure: that bio- forms of power are not just about the 'sovereign' or the head of state; the boss of a big biotech firm also has biopower, as we are experiencing right now again of course (vaccines), and countries like the U.S. are perpetually trapped in discussions of health insurance and the price of remedies⁷⁴.

Similarly, Nikolas Rose pointed out, contra Agamben, but back in 2007, that our form of control now is not social or collective but individual (sculpting ourselves into the desired individual – "from normalization to customization")⁷⁵. In a much more subtle way than Agamben, closer to Foucault's historically and socially precise analyses, Rose speaks of the "democratization of biopolitics"⁷⁶. Rather than the dark figure of eugenics, Rose emphasizes the ways in which "genetics was to transform itself into a liberal discipline"⁷⁷ – although of course in 2020 the interplay between genetic therapies and State interventions returns in a time of pandemic. Indeed, recent events move our individual biotechnological self-transformation a bit into the background (unless we imagine a cyborg im-

ciouse (eds.), *The Care of Life: Transdisciplinary Perspectives in Bioethics and Biopolitics*, Rowman & Littlefield International, Lanham 2014.

⁷² G. Agamben, *What is an apparatus?*, Stanford University Press, Stanford 2009, p. 15.

⁷³ C. Mills, *Biopolitics*, Routledge, London 2018, p. 44. See also A. Mbembe, *Necropolitics*, "Public Culture", 15/1, 2003, pp. 11-40.

⁷⁴ The management of the COVID-19 emergency in northern Italy, and in particular in Lombardy, demonstrated how private health care had taken the place of public health care and how regional decisions on prevention were assigned to the managers of nursing homes and private hospitals. The result of this was, at the beginning of the 2020s, a complete disintegration of the network of regional healthcare that led to the inability of public healthcare to respond to the demands of citizens, who were instead redirected towards private healthcare.

⁷⁵ N. Rose, *The Politics of Life Itself. Biomedicine, Power and Subjectivity in the Twenty-First Century*, cit., p. 20. Rose also reflects on the idea of 'biological citizenship', *ivi*, p. 223.

⁷⁶ *Ivi*, p. 17.

⁷⁷ *Ivi*, p. 12.

mune to viruses that the super-rich could turn themselves into), and indeed social control, object of Agamben's obsession, into the foreground.

With respect to the background of biopolitical thinking in the tradition of 'historical epistemology', it is worth noting that not just Foucault, but his mentor Georges Canguilhem, had provided instruments for analysing the interplay between the biological and social that are more subtle than Agamben *et al.*'s messianic ones. In a paper on the notion of "regulations" in the organism and in society⁷⁸, Canguilhem tries to demonstrate how the biological characterization of the living being doesn't mean that the living being's subjectivity must be considered from the biological point of view. In that sense, he does not flatten life into a biological form. To be clear, it is not that Agamben or his school reduce human life to a kind of reductionist biology (or socio-biology), something they would view in the utmost hostile terms. Rather, they reduce the human faced with the biopolitical violence of the State to a kind of victimized, humiliated, tortured body, the paradigm of which is, again, the dehumanized individual of the camps. Agamben and thinkers close to him like Roberto Esposito are perfect instances for our time of what Theodor Adorno called, referring to Heidegger, the "jargon of authenticity"⁷⁹ – a kind of disempowering mystical language of unmediated experience that eliminates agency or critique. Once this kind of discourse seizes on the pandemic, it either produces transcendentalized discourses of the State as a kind of biopolitical monster, or symmetrically complementary portrayals of victimhood without agency. That these biopolitical critiques present themselves as *political* is an irony⁸⁰ nicely visually captured in the singular piece of bad taste, the cover of the collective volume *Sopa de Wuhan*, that appeared in Argentina in the early Spring of 2020 (at the

⁷⁸ G. Canguilhem, *Le problème des régulations dans l'organisme et dans la société*, in "Cahiers de l'Alliance Israélite universelle", 92, 1955, reprinted in Canguilhem, *Oeuvres Complètes: Résistance, philosophie biologique et histoire des sciences 1940-1965*, IV, Vrin, Paris 2015, pp. 643-72. Canguilhem wrote several other papers on the topic in later years.

⁷⁹ T. Adorno, *The Jargon of Authenticity*, Routledge, London and New York 1973. Worse, sometimes there is a kind of fascination with violence in these writings (Agamben was a great reader of Benjamin's essay "Critique of Violence", and of course of Carl Schmitt who was in the background for Benjamin): the deliberate lack of argument at times 'naturalizes' violence, as one feels when reading Esposito's *Immunitas* (perhaps not incidentally related to René Girard).

⁸⁰ The contributions of Agamben, Esposito, Žižek, Nancy, although quite different from each other, are all part of what we would define as contemporary biopolitical theory. Political epistemology offers an alternative to Biopolitics to analyze the Covid pandemic situation. In this paper, we do not intend to suggest a new positive Biopolitics, but we try to use the concepts used in Biopolitics differently.

height of the first wave of the pandemic), with the names of Agamben, Žižek and other luminaries on the cover) (Fig. 2)⁸¹.

We conclude this brief analysis of the aporias of biopolitics with Walter Benjamin's words, in his essay *Critique of Violence*, which have ironically been quoted by Agamben and others in his circle:

It might be well worthwhile to track down the origin of the dogma of the sacredness of life. Perhaps, indeed probably, it is relatively recent, the last mistaken attempt of the weakened Western tradition to seek the saint it has lost in cosmological impenetrability.⁸²

Benjamin's words are not unambiguous, and can indeed be taken in a more 'Enlightenment' direction – as stating a kind of blunt reality of secularization, that different myths are gradually emptied out of their meaning, 'life' being perhaps the last one – or a more 'counter-Enlightenment' direction – turning back, as Agamben would, to a kind of *Abgrund* of ineffable experience. On our part, we find support for a de-transcendentalized, historicized, Enlightenment understanding of biopolitics in Benjamin's words.

5. Conclusion: political economy of disease and the science of tomorrow

As far as biopolitics are concerned, we see the political dimension of the politics of life and vice versa the biologization of politics as crucial problems. We need to address both for a correct understanding of the link between today's science, technology and society, a link that is by necessity historical, economic, and political. Pandemic management is an exemplary case to inquiry into political epistemology, which we understand as a sustained reflection on science that brings together the history of science (including the sociology of science), the philosophy of science and political theory. As much as we acknowledge the relevance of biopolitics as a debate that has opened up fundamental questions, we are critical

⁸¹ For a more sympathetic, and interesting discussion of Esposito (and Rose) see R. Cooter and C. Stein, *Cracking Biopower*, "History of the Human Sciences", 23/2, 2010, pp. 109-128. See also C. Wolfe, *Review of Davide Tarizzo, "Life: A Modern Invention"*, in "Notre Dame Philosophical Reviews" (<https://ndpr.nd.edu/news/life-a-modern-invention/>) (accessed on 12 December 2020).

⁸² W. Benjamin, *Critique of Violence*, in *Selected Writings: 1913-1926*, Harvard University Press, Cambridge 1996, p. 251.

of its transformation into a *doctrine*, a set of answers and theories, especially political ones. Such a trend is specifically evidenced by in the so-called ‘Italian theory’ of the main proponent of this label, Roberto Esposito, in whose perspective the political (at times even metaphysical) interests have obliterated the crucial relevance of medical and technological issues although these were at the roots of Foucault’s inquiries⁸³. This loss of contact with the historical and biomedical reality is creating a gulf between biopolitical political theory and the historical-philosophical reflection of medicine. In our view, this constitutes a fundamental mistake as it misleadingly hypostasizes scientific practices and theories and makes any understanding of the connection of science and society impossible. Abstract biopolitics can eventually lead to forms of self-referentiality by philosophers, who consider political uses and abuses of biomedicine to be the main tools for the development of political theory. In this manner, they revive forms of biologist politics. The worst of them are revived forms of social Darwinism that posits survival as a biological-political necessity and an ethical imperative, without reflecting on the question of ‘good life’ and the possible tragic conflict between clashing values and ideals. A further consequence of the biopolitics that dispenses with medical history or an apt historical epistemology is the obliteration of the problem of ideology through the flattening of discourse and reality. This illusion amounts to the equation of medical discourses (or *any* discourses) and the medical practices (*any* practices) but discourse and reality do not coincide, although the lack of apprehension of difference is precisely the goal of the ideology that was once condensed in the Thatcherian phrase “there is no alternative”⁸⁴.

Emancipation and the question of an emancipated science and technology can only emerge from criticism of scientist ideology and the anti-libertarian (exploitative and political) uses of science and technology as forces of world transformation and cultural hegemony. In order not to make the critique of science into a generalized and idle critique of science *tout court* (a sort of a-critically hypercritical anti-science), it is important to maintain the distinction between alienated science, technology and labour as they appear in specific societal and economic settings and the potential for non-alienated forms of knowledge and labour⁸⁵. In

⁸³ See also the debate that recently appeared in the journal “Studi Culturali”: AA.VV., *Contro la Theory? Dalla provocazione al dibattito*, “Studi Culturali”, XV, 1, 2018, pp. 67-106.

⁸⁴ M. Fisher, *Capitalist Realism: Is There No Alternative?*, Zero Books, Winchester 2009.

⁸⁵ J. Habermas, *Technology and Science as “Ideology”*, in *Toward a Rational Society: Student Protest, Science, and Politics* Beacon Press, Boston 1970, pp. 81-122; H. Marcuse, “Industrial-

connection with this, the question of the scientists and technologists' political responsibility for the function they have in society and the question about the relation and tension between expertise and democracy are of burning actuality⁸⁶.

That science and politics cannot be separated is evidenced by the case of pandemic management in history. We would like to stress that pandemic management has been connected with issues of internal surveillance as well as conflicts among European states as well as between European and extra-European states at least from the late Middle Ages on. Today's implementation of human tracing for sanitary reasons raises fundamental questions related to the future of mass democracies. Concerning the politics of health management, we argue with biopolitical theorists that there is an intimate connection between modern forms of politics and biomedical techniques but, against their flattening of the relation between theory and practice, we look at societal surveillance and geopolitics as *revealing of* not as *coincident with* modern political economy. Quarantine and health systems are the necessary flipside of trade and the enlargement of the economy from the Mediterranean basin to the Atlantic and the entire globe. International conflicts have always materialized through commercial and military battles by means of use and misuse of the quarantine, till nowadays, when the commercial battles among (blocs of) countries are played, for instance, through production, stock exchange listing, and approval of vaccines. The global commercialization of health (or global health), besides leading towards the exacerbation of health care systems versus trade interests, also contributes to avoiding considering any serious analyses on the structural, economic, environmental and sanitary causes of the pandemic. As an effect of these trajectories, focusing mainly on contagion leads to an undue neglect of its economic, sanitary, cultural and geopolitical factors. By contrast, we have argued that it is precisely the consideration of these coordinates that leads to a correct understanding of what a pandemic is and opens up a critical and emancipatory perspective on a science-technology freed from the hegemony of the economic and political dimension of global capitalism.

isierung und Kapitalismus," in O. Stammer (ed.), *Max Weber und die Soziologie heute: Verhandlungen des 15. Deutschen Soziologentages in Heidelberg 1964*, Mohr Siebeck, Tübingen 1965, pp. 161-180.

⁸⁶ G. Ciccotti et al., *L'ape e l'architetto*, cit.; G. Ciccotti, M. Cini, M. De Maria, *The Production of Science in Advanced Capitalist Society*, in H. Rose, S.P. Russell Rose (eds.), *Ideology of / in the Natural Sciences*, I, Macmillan, London, pp. 32-58.

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Authors' contributions

We collectively worked on this essay, which was the fruit of long-lasting conversations, scholarly exchanges as part of a larger network of political epistemologists.

Concerning labor organization, PO: initial conception and coordination; PO and GI: writing of introductory and concluding sections, as well as the methodological overture; FD: writing of the historical-critical section; CW and GG: writing on politics of life.

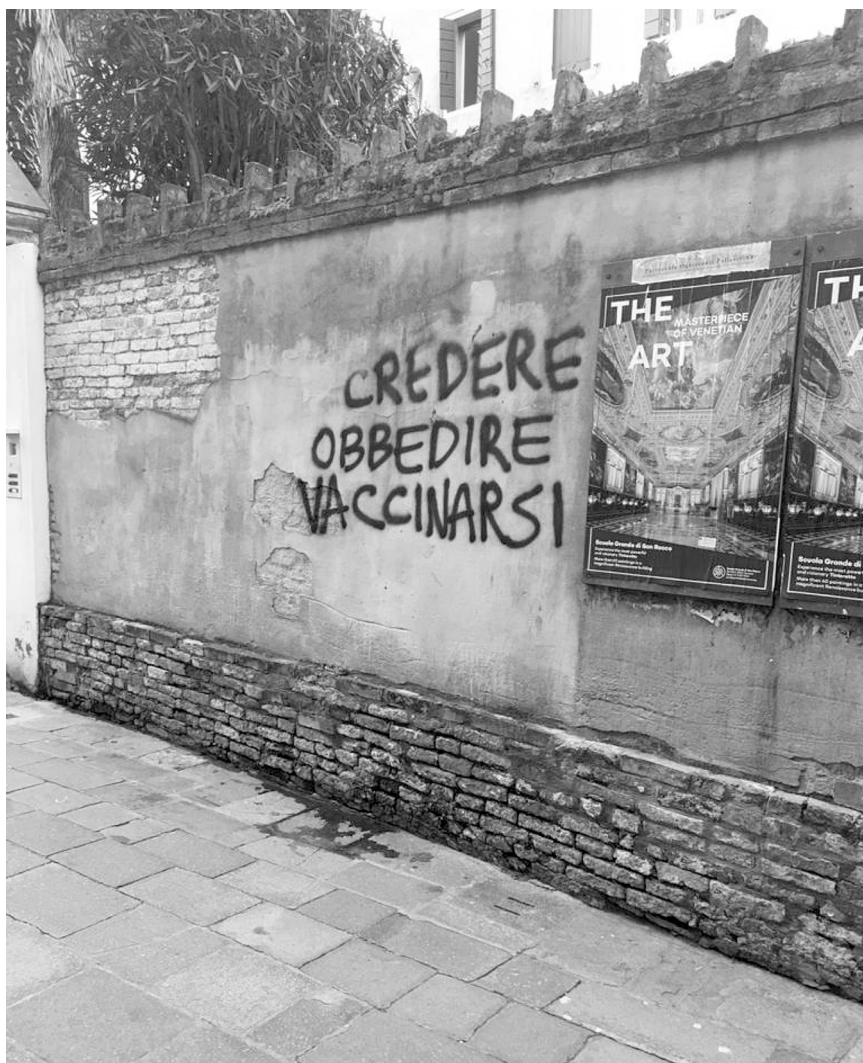


Fig. 1. An anarchic slogan on a wall of Venice (photographed in January 2021): “Believe, obey, get vaccinated.” Through a reference to a well-known Fascist slogan, “Believe, obey, fight,” it makes fun of the “faith-and-obedience” culture that the authorities currently foster to “fight” the virus.



Fig. 2. Sopa de Wuhan, Book Cover.