

## Conclusion

These concluding remarks will attempt to outline possible future lines of inquiry stemming from the analyses in this volume. As said in the introduction, pandemics and epidemics are complex phenomena. Even though they first and foremost involve medical issues, pandemics and epidemics cannot be viewed only from the perspective of biomedical management of disease (cure, prevention, diagnosis, prognosis, etc.). As they are general health crises, they affect human life on many levels (psychological, ecological, religious, social, economic, political, etc.). Accordingly, to adequately understand these phenomena, a multi-perspective and interdisciplinary approach is required that makes use of the methods and concepts of the most important human and social sciences. The papers collected in this volume show that philosophy, with the variety of its fields, styles, and notions, can also make a decisive contribution to this analysis. As such, this volume signals the need for new comprehensive, multidisciplinary, and cross-cultural studies with a strong philosophical background.

Due to their catastrophic nature and devastating effects, epidemics, pandemics, and other health crises have stimulated — and still stimulate, as the COVID-19 pandemic revealed — philosophical reflections on the relationship between man and God, the interplay between the human world and the natural ecosystem, the mechanisms of individual psychology, the reactions of masses, the nature and processes of political institutions, etc.

According to Mauro Bonazzi, Thucydides' account of the epidemic that ravaged Athens in the fifth century BCE goes far beyond the chronicle of those events. The Greek historian interprets the epidemic from a broader anthropological perspective as a collapse of the fabric of society. Comparing epidemics/pandemics with other emergencies (wars, revolutions, natural disasters, such as earthquakes, floods, fires, etc.) can help establish the specific characters of health crises at a social level and their similarities with and differences from natural calamities.<sup>1</sup> From a strictly philosophical

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<sup>1</sup> Significantly, in the literature on natural catastrophes, epidemics and pandemics are given limited attention, a sign that they are perceived as having specific traits: see, e.g., Michael Matheus, Gabriella Piccinni, Giuliano Pinto, Gian Maria Varanini (eds.), *Le calamità ambientali nel tardo medioevo europeo: realtà, percezioni, reazioni*. Atti del XII convegno del Centro di Studi sulla civiltà del tardo Medioevo. S. Miniato, 31 maggio — 2 giugno 2008 (Firenze: Firenze University Press, 2010); Thomas Labbé, *Les catastrophes naturelles au Moyen Âge: XII<sup>e</sup>-XV<sup>e</sup> siècle* (Paris: CNRS éditions, 2017).

point of view, it would be interesting to analyze how epidemics/pandemics relate to the concept of state of emergency from both a theoretical and a historical perspective: in other words, does the social devastation triggered by epidemics/pandemics fall into the conceptual category of state of emergency? And in theorizing this concept, have philosophers also been influenced by their experience or knowledge of the social impact of epidemics and pandemics? By focusing on fear and dispossession as two widespread psychological effects of the COVID-19 crisis, Michele Nicoletti's paper can be read as an attempt to interpret the recent pandemic outbreak and its social impact through the framework of the state of emergency.

The social impact and political management of epidemics/pandemics have been the focus of philosophical investigations in the past. In one of his courses at the Collège de France (*Les anormaux*), Michel Foucault theorized the existence of two antithetical social dispositives of power and control of individuals devised in the Middle Ages to manage the emergencies posed by epidemics: the 'leprosy model', based on the isolation of lepers from the rest of society and their physical seclusion outside the city, and the 'plague model', based on the inclusion of plague-stricken people through a pervasive system of checks and control of their lives.<sup>2</sup> Foucault's analyses prove insightful and pave the way for further research into the ways in which, over the centuries, epidemics and pandemics and the processes elicited by health crises have impacted political thinking by contributing to the formation of new conceptual models.

The papers in the historical section of the volume, which revolve around the problem of the etiology of epidemics (especially plague pandemics) and the mechanisms of transmission, contribute to problematizing the simplifying commonplace view that the Galenic miasma theory was the only explanation of the pathogenesis of the epidemics advanced in the Antiquity and the Middle Ages up until the bacteriological breakthrough of the nineteenth century. As a matter of fact, the intellectual landscape was much more diverse, with contagionist models being already adopted in ancient and medieval sources. Explanations based on contagion were sometimes variously mixed with miasma theories. Future research should seek to provide a systematic analysis of the actual role played by contagion in ancient and medieval medical, historical, and literary sources.

Marco di Branco highlights the importance of the fideistic understanding of the plague outbreak in medieval Islamic circles. Many studies have already clarified the complexity of leprosy, a disease which was in the past profoundly shaped by religious preconceptions. Further investigation should consider the cultural and religious aspects involved in other epidemic diseases. It will then become clear that cultural contexts had a strong impact on the ancient and medieval scientific explanations of epidemics and contagious diseases, which were strongly conditioned by theological and religious assumptions.

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<sup>2</sup> Michel Foucault, *Les anormaux. Cours au Collège de France 1974–1975* (Paris: Seuil–Gallimard, 1999), lecture 15 January 1975.

Alessandro Palazzo's study on Albert the Great's views on pestilences and contagious diseases and their aftermath stimulates further research on the medical views of other medieval intellectuals who were not masters at the Faculty of Medicine or professional physicians. On the other hand, the extensive literature on plague produced from 1347–1348 onward for at least two centuries deserves careful re-examination today. The first pioneering studies of Karl Sudhoff, who in the first decades of the twentieth century provided editions, transcriptions, and descriptions of manuscripts of many late medieval and early modern plague treatises have been followed in the course of the century to the present by numerous studies dealing with the characters, sources, and contents of this literature. Special attention has been paid, above all, to the earliest treatises written between 1347 and 1351. New research should be conducted on the individual treatises in an attempt to clarify similarities and differences among them, to establish lines of development and discontinuities in this tradition, to study the relationship with coeval literary, historical, and philosophical sources.

Diana Di Segni's study of medieval Hebrew plague treatises and Hebrew translations of Latin plague treatises contributes to a deeper understanding of the more general issue of the circulation of scientific learning among different linguistic, cultural, and religious civilizations in the medieval world. This study opens a largely unexplored field of research where new analyses will both address specific questions (authorship, dating, nature of these texts) and elucidate the conceptual transformations that the scientific theories about plague underwent through the process of transposition from the medieval Latin university milieu into Hebrew-speaking contexts.

Although from different points of view, all the last three papers in the historical section confirm that contagion remains a crucial point in the philosophical-medical debates about epidemics and pandemics throughout the modern era. In addition to addressing medical theories on plague, Concetta Pennuto explores this phenomenon from an ethical-practical perspective, reflecting on patient care and physicians' ethical commitment. Future studies should shed light on the intertwining of theory and practice, examining, on the one hand, the ways in which scientific theories about plague and epidemics in the Middle Ages and modern era influenced concrete forms of treatment of the sick and, on the other, how clinical activity contributed to changing theoretical conceptions and reshaping physicians' deontology and self-perception.

Mariangela Priarolo explains why and how the Galenic miasmatic explanation of the plague was able to survive and even predominate until the nineteenth century, despite the fact that mechanism had become the new dominant scientific paradigm in the seventeenth century. Her hypothesis that the Galenic model was made compatible with mechanism through a reinterpretation of Fracastoro's notion of seeds of contagion needs to be tested against a larger body of texts.

Fabrizio Meroi examines some examples of philosophical reinterpretation of the concept of contagion. His view that this notion can be traced, explicitly or implicitly — behind the concepts of influence, diffusion, propagation, and transmission — in the works of philosophers and intellectuals of the nineteenth and twentieth centuries and that in these contexts contagion is not merely a metaphor, but a real conceptual category tool is inspiring and innovative. Even though several attempts have recently

been made to study the pervasive dissemination of the notion of contagion outside the medical field across other disciplinary areas,<sup>3</sup> no systematic study has been carried out on the philosophical recategorization of contagion by modern philosophers. Meroi's line of research, therefore, deserves further investigation, including a wider range of works and authors from the nineteenth to the present.

The historical analysis contained in the first part of the volume highlighted the set of words, concepts, and theories that, over the centuries, philosophy has elaborated to describe and interpret the phenomenon of epidemics and pandemics. This impressive linguistic, conceptual, and theoretical armamentarium has been able to sediment itself over the centuries and survive the vitality of the scientific theories that were intended to explain these phenomena. The extraordinary development of medical and epidemiological science has falsified a large number of past hypotheses, but the vocabulary of the pandemic has demonstrated, in the crisis produced by the worldwide spread of COVID-19, its incredible resilience.

Not only that. As the analysis of nineteenth- and twentieth-century culture already showed, this vocabulary has remained alive in the medical sciences, but has also found application in the most diverse sectors of social and cultural life. The concepts of 'contagion' and 'immunisation', to take two examples already mentioned, are the clearest demonstration of this. Not only do descriptions of natural and social reality make ample use of it, but also the vocabularies of virtual reality amply attest to it.

In short, the language of the pandemic has gone 'viral' and it would certainly be interesting to understand to what this vitality can be attributed. It certainly depends on at least two factors. Firstly, medicine has progressively become the 'spiritual' centre of reference of the contemporary era, a new religion bringing salvation, whose prescriptions have been able to impose themselves — as the COVID experience has shown — over the prescriptions of traditional religions. Secondly, the pandemic is an incredibly intense and widespread experience of fear, and it is not surprising that its vocabulary remains engraved in human consciousness through the ages and retains a formidable evocative power.

In this sense, the essays in the second part of the volume also open up fascinating avenues of research. The theme of zoonosis — the focus of Carlo Brentari's essay — evokes the very ancient and topical issue of the relationship between human beings and other living beings, particularly those in the animal world. The clash with the pandemic not only evokes the conflict between life and death, but also that between human life and other life forms. The virus is a living being, itself living in other living beings and carried by other living beings. In the age of the anthropocene, of the unchallenged dominance of the human species over other living forms, the dialectic between human and non-human life is reopened. The fear of the 'beasts' that has accompanied human life for millennia and inhabited its imagination, pushing human

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<sup>3</sup> *Tracés. Revue de Sciences humaines*, 21 (2011) (*Contagions*); Thomas Rütten and Martina King (eds.), *Contagionism and Contagious Diseases. Medicine and Literature 1880–1933* (Berlin–Boston: De Gruyter, 2014); Béatrice Delaurenti, Thomas Le Roux, *De la contagion* (Paris: Vendémiaire, 2020) (Engl. transl. *Cultures of Contagion* [Cambridge, Mass.: MIT Press, 2021]).

beings to conceive of themselves as ‘other’ than the animal being, seen in turn as a past and as a limit to be overcome, is once again taking shape.

Alongside this, another dialectic is reopened, that between ‘wild’ life and domestication, calling into question the agricultural model that emerged from the Neolithic period and forged the food and daily life of the past millennia. All this forces the human being to rethink not only his relations with other life, but also with his own life: the human being as a ‘species’ and his self-understanding, i.e., the relationship with his biological identity. The pandemic not only reopens the game of relations between living species, but also the game of the environment, since an overly humanised environment can be a relevant element in the spread of contagion. The conceptual constellations of miasma theory and germ theory intertwine again in the present.

This anthropological dimension called into question by COVID not only concerns the human being’s relationship with nature and the animal sphere but also its social dimension, which — in Michele Nicoletti’s reconstruction of it — is radically challenged by the emergence of the pandemic. The fear of contagion is part of a broader universe of fears that seems to characterize the present age and which are traced back to the fear of self-dispossession. COVID threatens not only the position of untouchable superiority that human being seems to have gained over the rest of the natural world, but it also threatens the goal that the development of Western culture seems to have handed over to every human individual, namely the conquest of the self. The great themes of fear, of uncertainty, but also of the dispossession of the self by the other and thus of alienation, of ‘mutual affliction’, return overbearingly to the scene. And the question re-emerges as to what is the proper role of the politician: that of creating ever stronger protective networks by establishing new ‘states’ of existence in order to escape the state of nature, or that of creating more advanced conditions of freedom in which everyone has an equal chance to be herself and to belong to herself and not to others.

The theme of the equality of human beings, called into question by COVID and its management, is also touched upon by Nidesh Lawtoo’s essay, which reinterprets the issue of contagion on the basis of a reinterpretation of mimetic theory in the digital age. If on the one hand the experience of the pandemic unites the entire human species because everyone can be affected by it (‘the eternal ethos of the plague’), on the other hand it is clear that it can trigger new processes of discrimination, particularly through unequal access to health care and vaccines. Moreover, the spread of the virus has brought with it profound transformations in the public arena. If this — with the advent of the masses in the twentieth century — was already marked by the ‘metaphorical’ dynamic of the contagion of crowds and the spread of conspiracy theories, now, because of the ‘real’ contagion, these phenomena are also amplified thanks to the power of the new media. This opens up the question of how to react to false theories and pathological practices. Is it sufficient to reaffirm the role of rationality and scientific knowledge or is a new ‘pathos’ of human coexistence needed?

It is difficult to underestimate the importance of the transformations of human communication in the pandemic and the questions they bring. Starting with

interpersonal communication, COVID was a dramatic experience. The practices of estrangement and forced distancing marked personal existences. The compulsory wearing of masks altered non-verbal communication, which is a fundamental element of human interaction. The explosion of distant communication practices thanks to digital technologies has altered personal communication, but also social communication. Schools, universities, parliaments, and governments have replaced personal transmission of information, content, and in-person discussion, animated by physical immediacy, with communication at a distance. As Ludmila Lacková shows in her essay, all communication has become 'mediated' and she thus asks how this hegemony of mediation will affect the crisis of the subject.

But not only personal and social communication have been affected. Scientific communication too has opened up radical questions about its own nature, its foundations, and its relationship with society. Questioning the 'model' of scientific knowledge, Federico Laudisa wonders whether the COVID experience has challenged traditional descriptive and predictive models, also starting from the characteristic of the present age that is the age of Big Data. Considering the fact that critical events can recur, it is necessary to develop an epistemology in a time of systemic crisis for the public good. The search for this new epistemology should be based on a number of elements: a solid scientific basis that is nonetheless aware of the need to support urgent decisions; awareness of the social importance of science and therefore the appropriateness of scientific communication within the public discourse; the need, in a liberal and democratic society, to guarantee equal access and freedom to the plurality and diversity of voices; and the ability to counter the manipulation of information and the fabrication of lies so as not to weaken the freedom of research.

The reflections in this volume mainly concern the Western world, but this is only one part of the world, as Pejman Abdolmohammadi reminds us in his contribution on the Middle East and North Africa. Here, too, there are similar dynamics to those in Western countries, and the same questions for future research arise. But alongside the similarities, there are also differences that have to do with religious and cultural traditions, economic and social contexts, and different political and institutional dynamics. And above all, given the 'anthropological' depth of the crisis, this dimension should be properly investigated in the different areas of the world in order to get a complete picture of what the pandemic has brought with it.

Here too, philosophy and the history of philosophy could contribute original perspectives to understanding the phenomenon and open up new avenues of research, as we hope this volume can do in the area we examined.

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